To The Secretary Telangana State Electricity Regulatory Commission 5th floor, Singareni Bhavan, Red Hills Hyderabad - 500 004

October 9, 2023

Respected Sir,

Sub : Further Submissions after public hearing held on 1.9.2023 on business plans, resource plans, etc., of TSSPDCL and TSNPDCL for the 5^{th} control period from 2024-25 to 2028-29 and 6^{th} control period from 2029-30 to 2033-34

Further to our written submissions dated 11.7.2023, 18.8.2023 and 30.8.2023 and oral submissions made during the public hearing on 1.9.2023 on the subject issues and in response to the replies given by TS DISCOMs, we are submitting the following points for the consideration of the Hon'ble Commission on the subject issues:

- 1. We thank the Hon'ble Commission for directing the TSDISCOMs, as requested by us, during the public hearing held on 1.9.2023 to provide information relating to analysis of the subject for the 4th control period and purchase of smart meters within a week and deciding to hold further public hearing on the 22.9.2023. We have received the replies of the DISCOMs on 16.9.2023 evening through e mail and we thank the DISCOMs for the information provided. We also thank the Hon'ble Commission for considering our request and postponing the scheduled public hearing to 18.10.2023 and giving sufficient time to enable interested objectors to study the information provided by the DISCOMs, analyse it and make further submissions.
- 2. The DISCOMs have argued that availability of the projected abnormal quantum of surplus power during the 5th control period is subject to 1. Projected sales from I&CAD for the Lift Irrigation Schemes for 5th and 6th Control Period 2. Delay in Commissioning of new Generating Stations and 3. Variation of Actual PLF when compared to Normative. Going by the experience during the 4th control period, it is clear that such variations might not be foreseen in advance and that long-term load forecasts, procurement plans, etc., need to be prepared based on the situation, estimates and schedules prevailing at that point of time. Just as the variations could not be foreseen while preparing the said plans for the 4th control period, likely variations during the 5th control period also cannot be foreseen with any degree of certainty. It is also an established fact that, even in the case of ARR, variations have been taking place every year from what has been projected by the DISCOMs and determined by the Hon'ble Commission. Therefore, it is clear that projections for the 5th control period need to be made considering the experience during the earlier control period, including the factors that led to variations in the projections made earlier for that period, likely variations in such factors during the 5th control period and new factors that can be considered with a sufficient degree of approximation to

reality. Having submitted the subject plans, etc., to the Hon'ble Commission relating to the 5th and 6th control periods, now that the DISCOMs are trying to show that the projected surplus may not become a reality during the 5th control period based on the hypothetical variations which the DISCOMs have articulated in their replies, is untenable. Because of the changed and changing conditions relating to various factors, the DISCOMs have considered them while making projections for the 5th control period. Having done that, and unable to justify availability of the projected abnormal quantum of surplus power, with attendant adverse consequences, during the 5th control period, that the DISCOMs are taking shelter under hypothetical presumptions to show that there would be no surplus power during the same control period shows the kind of dilly-dallying on the part of the DISCOMS, especially in the light of the fact that the projected surplus would be an outcome of hasty decisions taken for procurement of unwarranted power and that those decisions and orders given by the Hon'ble Commission are binding and cannot be taken back. If the three factors, as pointed out above, were realistic at that point of time, the DISCOMs should have taken the same into consideration while making projections for the 5th control period and submitting the same to the Hon'ble Commission. Have the factors considered by the DISCOMs at the time of preparing and submitting the subject plans undergone any perceptible and substantive metamorphosis by the time they have given their latest responses to our submissions?

3. The DISCOMs have given the following data for requirement of power for lift irrigation schemes for the 4th control period for both the DISCOMs in MU:

	2019-20	2020-21	2021-22	2022-23	2023-24
Projected	27263	30249	36076	39111	40834
Actual sales	4463	3453	3670	3132	4148
Variation	22800	26796	32406	35979	36650
Variation percenta	ge 510.86%	776.02%	882.99%	1148.75%	883.55%

The abnormal gaps between projections for requirement of power for LISs and actual requirement show the kind of casual approach with which such projections were made for the 4th control period.

The DISCOMs have stated that "considering the lower actual sales recorded, the Discoms in the current Resource Plan filings have sought for the realistic projections from I&CAD, however, there has been a delay in receipt of the projected sales from I&CAD department. In view of the delay in receipt of the information, the Discoms have projected the sales against the lift irrigation schemes considering a growth rate of 10% based on the historical actual sales" - 4603 MU, 5063 MU, 5570 MU, 6126 MU and 6739 MU for the five years of the 5th control period, respectively. Later, for the 5th control period, the department of irrigation and

command area development has projected requirement of power for LIS uniformly at 10,055 MU per year. Considering the projections of requirement of power for LIS, as belatedly provided by the department of I&CAD, availability of surplus power would come down to 34%, 34%, 28%, 21% and 12% for the five years of the 5th control period, respectively, the DISCOMs have maintained. Compared to the original projections of power for LIS during the 4th control period, even the uniform projections made by the department of I & CAD and considered in their latest information given by the DISCOMs for all the five years of the 5th control period indicate that for the first year of 2024-25, requirement of power would increase by 5871 MU compared to actual sales of 4184 MU for 2023-24, that not even a single unit is required extra for the subsequent four years, and that the original estimates for the 4th and 5th control periods made earlier were absolutely unrealistic, unwarranted and far from practicability. In other words, not even a single LIS is going to be implemented or completed during the last four years of the 5th control period, going by the projections of the department of I & CAD. While a spree of revision of capital costs for lift irrigation schemes upwards has been going on, the vast hiatus between originally estimated requirement of power for LISs and actual and revised estimates for the 4th and 5th control periods, respectively, exposes the wide gap between publicitymongering and promised or expected benefits, on the one hand, and actual deficiency in terms of implementation of LISs in time and benefits therefrom, on the other. Uniform projection of same quantum of power every year during the 5th control period indicates that the department of I & CAD does not have clarity and certainty about implementation of the proposed LISs and requirement of power for them, both time-wise and quantitywise. That the projection of availability of abnormal quantum of surplus power during the 5th control period shows that the DISCOMs have been contracting for procurement of power based on the earlier projections made for the 4th and 5th control periods and that the same cannot be regulated in view of the binding nature of PPAs. In other words, the DISCOMs are not in a position to plan addition of that power depending on requirement or planning such an addition to suit actual requirement periodically. As a result of the same, if the DISCOMs cannot sell such surplus power in the market, they will continue to be constrained to back down the same and pay fixed charges therefor, thereby imposing avoidable burdens on consumers of power. If the revised projection of uniform requirement of power for LISs as is done by the department of I & CAD and considered by the DISCOMs does not fructify during the 5th control period, the problem of surplus power would continue with proportionate intensity. The DISCOMs have avoided to give details of surplus power backed down during the 4th control period and fixed charges paid therefor, despite our seeking the same repeatedly and their admitting "backing down of a power plant due to availability of cheaper power from a different source." They have given the quantum of power purchased in the market of 6755 MU during 2019-20, of 8973 MU during 2020-21, of 6784 MU during 2021-22, of 9404 MU during 2022-23 and of 2210 MU during the first quarter of 2023-24 and power sold by them - 2952 MU during 2022-23 (Rs.1694 crore) and 482 MU during the first quarter of 2023-24(Rs.179crore).

4. The DISCOMs have argued, based on the experience during the 4th control period, that "the variance between the claimed/projected availability and the power scheduled

from those sources can be significantly high" and that "this variance can be attributed to different reasons like coal shortage, reduction in PLF ascribed to performance issues, transmission constraints, backing down of a power plant due to availability of cheaper power from a difference source, delay in COD of a unit/ plant, malfunctioning of the power plant, high quantum of dispatch from the Hydel power plants attributable to higher rainfall, etc." They have further maintained that "All the above cited reasons are beyond the control of TSDISOMs. This leads to deficit in demand and supply leading to requirement of power purchase from markets which are unpredictable in terms of its purchase price and quantum. This leads to imposition of burden of high-cost short term power purchase on the consumers." Earlier, both the TS DISCOMs have made claims for true up of Rs.12753.56 crores - SPDCL for Rs.9060.80 crore and NPDCL for Rs.3692.76 crores - for seven years 2016-17, 2017-18, 2018-19, 2019-20, 2020-21, 2021-22 and provisional true up for 2022-23 for their retail supply business, after adjusting the amounts shown under true-down. The way power purchases from the market have been going on year after year and the kind of true-up claims being made by the DISCOMs every year shows that defective planning has been going on without any corrections to these questionable trends based on experience and that purchase of power in the market every year has become a continuous feature and an irresistible attraction to the powers-that-be. We request the Hon'ble Commission to consider the following points, among others:

- The reasons cited by the DISCOMs, which they have claimed are beyond their control, show that, in the first place, as unpredictable factors have averted the problem of avoidable availability of huge quantum of surplus power to a considerable extent and it is not a result of conscious efforts of the DISCOMs. Secondly, had such factors not come into play, the adverse situation of availability of abnormal quantum of surplus power, with attendant problems and avoidable burdens, would have materialised during the 4th control period. Thirdly, despite considerable reduction in availability of projected surplus power, and backing down of surplus power, that the DISCOMs have been constrained to purchase power in the market shows the avoidable imbalance in power mix not suitable to meet growing and fluctuating demand in technical and practicable terms. Fourthly, they show that planning for unwarranted and avoidable surplus power is imprudent and that the DISCOMs cannot claim that it is not under their control. Fifthly, the DISCOMs have planned for availability of abnormal quantum of surplus power, may be, at the behest of the GoTS, in such a way that they cannot rectify the situation in tune with changing requirement for power periodically, having been bound by the obligations under PPAs in force.
- b) Coming to delay in commissioning of new projects and declaration of commercial operation dates, the DISCOMs have explained that there has been delay in commissioning of various units of YTPS (4000 MW), TSTPP (1260

MW) and SECI (1000 MW), while some of the units were commissioned already and are nearing commissioning. Since some of the units of the projects considered to be commissioned during the 4th control period have already been delayed, it can be expected that they can be completed as per the revised schedules. Even going by that, as per the estimates of the DISCOMs, there will be surplus power available to the tune of 34%, 34%, 28%, 21% and 12% during the five years of the 5th control period, respectively. And this surplus is after taking into account PPAs which expire and likely non-supply of power from projects like CSPDCL (Chattisgarh). Even the revised projection of availability of surplus power is abnormal and cannot be justified.

- c) As far as variations in plant load factors are considered, the DISCOMs have explained that lesser PLF/CUF has been experienced by several plants vis a vis their threshold levels of PLF/CUF incorporated in their respective PPAs. They have considered average PLF of plants as per the averages of the period 2019-20 to 2022-23. The implication is that the factors that were responsible for variations and lesser availability of PLF during the past period would continue during the 5th control period also. Such an approach is unrealistic, as such factors cannot be expected to remain static or continue in future. As far as planning for procurement of power is concerned, threshold levels of PLF/CUF as incorporated in the respective PPAs need to be taken into account and if projections of availability of power are made accordingly, availability of surplus power would increase from the revised estimates made by the DISCOMs. Moreover, variations in PLFs also may tend to be higher, especially in the case of new plants. Therefore, reduction of availability of surplus power based on hypothetical reduction in threshold levels of PLF is to be considered artificial. Moreover, in the case of new plants, even if the PLF was less than normative level in the initial operation of the plants, it would pick up and even exceed normative PLF gradually. Payment of fixed charges higher than the ones approved to some of the CGSs indicate that their declared PLF is higher or that the DISCOMs have backed down their capacities. Not taking backed down capacities into account for working out average PLFs would artificially reduce the latter. As such, average of the said three years, with lower PLF for an year for temporary reasons, leads to artificial reduction in estimate of PLF. Even seen as per the estimates of availability of power in tune with such artificiality, availability of surplus power is shown by the DISCOMs to the tune of 33%, 42%, 34%, 26% and 15%, respectively, for the five years of the 5th control period.
- d) Coal shortage is another reason cited by the DISCOMs for variation in availability of power. If power is generated at a level lesser than normative level of PLF due to shortage for coal, the DISCOMs need not pay fixed charges for lesser generation. However, in the case of some of the thermal power plants, the

DISCOMs have paid higher fixed charges. For example, the DISCOMs have paid Rs.1251 crore additionally towards fixed charges to various central generating stations during 2022-23. The DISCOMs have stated that the higher fixed charges are paid on account of true up of the generating stations. At the same time, GENCO was paid lesser fixed charges for the same year by Rs.796 crore. Variations in payment of fixed charges to the CGS and stations of GENCO show that a hefty sum of Rs.1251 crore was paid to CGS for backing down generation and that they were able to declare availability of PLF at threshold level with adequate availability of coal, etc. TSDISCOMs have paid to NTPC's Simhadri I Rs.311 crore and Simhadri II Rs.118 crore more than what was approved and to Vallur Thermal plant Rs.219 crore and NC Tamil Nadu Power Ltd Rs.171 crore, without getting a single unit of power and without approval of the Hon'ble Commission. The DISCOMs have not explained the reasons for such questionable payments made by them. Since there are limits for backing down capacities of the plants and number of backing down in a year as per standard terms and conditions in PPAs concerned, it is obvious that the DISCOMs cannot back down the entire capacity of any thermal power plant even under the principle of merit order dispatch. Backing down thermal power of CGSs and paying fixed charges therefor and purchasing huge quantum of power from the market confirms the kind of imbalance in power mix. The DISCOMs are avoiding to give actual figures of quantum of thermal power being backed down and fixed charges paid therefor in order to purchase mustrun VRE. The DISCOMs are silent about the kind of problems and loss they have been facing or imposing on the consumers due to adequacy cost, balancing cost and grid integration cost that have been arising for absorbing VRE generation. The stations of TSGENCO could not declare availability of power at normative level of PLFs, obviously, due to shortage for coal and technical reasons, if any. How was it possible that, while CGSs could maintain stock of adequate coal and declare availability of generation capacity as per terms and conditions of PPAs, TSGENCO stations could not maintain accordingly needs to be examined. Is it due to supply of coal to GENCO's stations at a level lesser than allocations made to them or is it due to inability of GENCO to pay for purchase of coal due to non-availability of funds? If lack of funds is the reason, then the question whether TSDISCOMs to whom entire power from stations of TSGENCO is committed have paid or delayed for longer periods the amounts due to GENCO for supply of power would arise. At the same time, huge quantum of power was purchased from the market by the DISCOMs, paying hefty amounts in advance, instead of clearing dues to GENCO. The failure of the powers-that-be has been evident in taking necessary steps to ensure optimum generation of power by the plants of GENCO. All these are ingredients of bad planning.

e) Shortage of coal for thermal power plants cannot be treated as a permanent situation and based on presumed shortage for coal, and availability of power in future cannot and should not be determined in advance. Ministry of Power, GoI, has issued a directive that all thermal power plants should import 4 per cent of coal up to March, 2024 to meet shortage of domestic coal for thermal power plants. It has reduced this percentage from the earlier 10%. On the contrary, statements of Minister for coal and officers of the Ministry maintain that there is sufficient coal stock with thermal power plants and Coal India Ltd. and that coal production is being increased constantly. Such conflicting statements being made by both the Ministries repeatedly show that, while the MoP, GoI, is trying to put the blame on the Ministry of Coal for shortage for domestic coal in the country, the latter is trying to contradict the version of MoP, asserting that sufficient stock of domestic coal is available. There is no convincing answer from the MoP, GoI, as to how can imported coal be transported to thermal power plants from ports, if adequate number of rakes are not available with the Railways for this purpose which is being cited as one of the bottlenecks for adequate domestic coal not being supplied to the power plants. When stocks of coal in coal mines of Adani in Australia are available, there will be shortage for domestic coal in the country and NTPC is being directed by MoP, GoI, to import coal to supply to power plants. On earlier occasions, such imported coal could not be transported from ports concerned for a considerable period of time. The move of the Modi government in issuing directions for transporting coal through rail-sea-rail route, as if the purchasers do not know which means of transportation they should choose to get the coal purchased by them to be delivered at power plants with lowest possible cost and in shortest time possible, is also intended for ensuring business to ports of Adani, etc. There have been serious allegations that artificial scarcity for domestic coal is being created deliberately. E auctions being conducted by coal companies and arbitrary increase in coal prices lend credence to this criticism. Moreover, scarcity for coal and arbitrary hike in its prices would lead to lesser generation of thermal power, higher variable costs and shortage for power, which, in turn, would jack up demand for purchasing power through exchanges and in the market and such purchases are subject to legalised black marketing through the process of selling power to the purchasers who offer the highest price. On the whole, this kind of arrangement is to fill coffers of corporate houses who supply imported coal, traders who sell power through exchanges and in the market, increase revenues of coal companies unduly, and provide business for ports in the hands of corporate houses for handling imported coal, and all the burdens thereof would be imposed on consumers of power ultimately. GoTS and its power utilities should raise their voice against such manipulations and procorporate and anti-consumer initiatives of the GoI.

- f) If transmission constraints were one of the reasons for variation between projected and available quantum of energy during the 4th control period, the DISCOMs should have given the details thereof. Just as DISCOMs are having their plans, TSTRANSCO, too, has its plans for addition of transmission capacity and strengthening of the existing transmission network based on projected and approved requirements. Similar is the case with the central transmission utility, PGCIL. In this connection, it is to be noted that TSTRANCO has avoided to give details of its performance in implementing its resource plan for the 4th control, while submitting its revised resource plan for the 5th and 6th control periods. If power is available and cannot be supplied to consumers in a specific area due to constraints of transmission, power cuts would follow. When and where did such failures take place? What were the remedial steps taken? In any case, presumed variation in projected and actual availability of energy during future control periods, without any substantiation, cannot be a factor to be taken into account for projecting availability of surplus power during future control periods.
- g) High quantum of dispatch from the Hydel power plants attributable to higher rainfall cannot be projected several years in advance, if it cannot be forecasted accordingly. During the first four years of the 4th control period, variations in generation of hydel power from the plants of APGENCO ranged from the lowest 4297 MU (21% PLF) to the highest 5742 MU (28% PLF). Even if there has been some increase in generation of hydel power, its impact on availability of surplus power should be marginal and such variation cannot be the basis for availability of abnormal quantum of power. As the DISCOMs have maintained that "considering that the availability exceeds only when there are good monsoons which is not so frequent," availability of surplus power due to increase in generation of hydel power is occasional and marginal. Higher generation of hydel power is beneficial, with payment of incentive only for generation exceeding the threshold level, even if it leads to backing down of thermal power proportionately and payment of fixed charges therefor.
- h) Malfunctioning of a power plant may lead to lesser generation of power and variation between projected and actual availability of power, but it cannot add to availability of surplus power. To meet deficits, if any, on account of the same, spinning reserve is intended.
- i) Backing down of a power plant due to availability of cheaper power from a different source is mentioned as a reason for variation between projected and actual availability of power. Needless to say, DISCOMs have to follow the principle of merit order dispatch in purchasing power from committed sources, giving priority to hydel power and other must-run units of RE. They are not expected to back down thermal power in order to purchase power from other

sources with which they had no PPAs in force, simply on the ground of it being "cheaper". If DISCOMs are backing down a thermal power plant in order to purchase RE from other units, it shows that they have entered into PPAs for purchase of unwarranted RE and that the power mix is not ideal in practical terms.

- j) Conclusion of the DISCOMs that "the surplus for 5 th and 6th Control Periods will be reduced in case the combined impact of considering LIS projections as received from I&CAD for 5th and 6th Control Period, the delay in commissioning of new generating stations and availability as per historical actual PLFs is considered" does not correspond to ground reality. On such presumptuous factors the DISCOMs have revised artificially availability of projected surplus power during the first three years to 3%, 5% and 0%, respectively, with marginal deficit in the last two vears of the 5th control period. The DISCOMs have maintained that "it is to be noted that for the power system as a whole of the State there has to be a spinning reserve of 500 MW which corresponds to a 3723 MU with 85% availability." Here, too, requirement of 500 MW or 3723 MU with 85% availability does not justify planning for abnormal quantum of surplus power for the 5th control period. It is noteworthy that, in the revised resource plan for five years of the 5th control period, TSTRANSCO has projected availability of surplus power in the state to the tune of 35225.77MU, 37024.22MU, 31666.98MU, 25732.20 MU and 15559.03 MU, respectively. Compared to the resource plan first submitted, TRANSCO has reduced availability of surplus power to the tune of about 1000 MU only per year in its revised plan for the 5th control period.
- 5. The DISCOMs have maintained that "it is to be observed that the analysis of the energy balance of the State has been done considering the availability of power as well as demand for the year as a whole, however in actual month on month basis there will be surplus energy available in certain spells of the day as well as months and also energy deficit in certain spells of the day as well as months." Due to fluctuations in demand curve and the kind of power mix available, such imbalances in power supply are technically unavoidable. Spinning reserve is expected to take care of such imbalances. But, availability of abnormal quantum of surplus power is a result of bad planning and avoidable imbalance in power mix. It is unrealistic to presume that whatever surplus power is available, it is a result of fluctuations in demand. Addition to surplus power due to fluctuation in demand, here, decrease in projected demand, can be understood. Here, too, availability of abnormal quantum of surplus power cannot be attributed to fluctuations in demand, its impact being proportionate to actual decrease, if any, in projected demand.
- **6. Discoms have explained that they** shall closely monitor the progress of the construction of new generating stations along with the materialization of additional loads (MU) and accordingly estimate the timelines of availability of power from such generating stations

and shall strive to better utilize resultant surplus power in the times blocks/ days / months and reduce the burdens on the consumers of the state. Trying to utilise surplus power is one thing and avoiding availability of unwarranted surplus power is quite another. The DISCOMs have explained that they shall explore the possibility of entering Banking Agreements with other states who have different power requirement patterns based on the availability/requirement of power. Banking of power is always beneficial to Discoms as Power will be received during Peak season where market rates will be higher and returned during non-peak season. It is a strange proposition. Which DISCOM will agree to banking of power by other DISCOMs during non-peak hours/season and give back that power during peak hours/season? If it is beneficial to the DISCOM which banks its surplus power with another DISCOM during non-peak hours/season and takes back the same during peak hours/season, at the same time, it is not beneficial to the other DISCOM with whom power is banked in that manner. It also implies the untenable presumption that the DISCOM with which surplus power of another DISCOM is banked needs such power during non-peak hours/season and does not need or does have surplus power during peak hours/season. Going by the logic of TSDISCOMs, DISCOMs of other states also may prefer banking of their surplus power with TSDISCOMs and take back the same during peak hours/seasons. In such a situation to whom is it beneficial? Surplus power is invariably thermal power with highest variable cost, as per the principle of merit order dispatch. It is difficult to sell such power in the market or through exchanges. The TSDISCOMs have not explained their experience of banking their surplus power with DISCOMs of other states and what kind of benefit the former have derived in such transactions. Moreover, such a banking arrangement involves inter-state transmission losses and transmission charges, thereby cutting into benefit, if any, in such transactions. While banking facility is provided to must-run VRE units which have no PPAs with DISCOMs concerned, as per regulations of the Commission, there is no such provision for banking of surplus power of one DISCOM with another DISCOM and it all depends on mutual understanding between DISCOMs concerned. Therefore, the proposition of TSDISCOMs on benefits of banking surplus power falls in the realm of hypothetical theory.

7. The growth rates of demand for power for different categories of consumers during the 5th control period, as shown in the additional information given circle-wise, are relatively higher vis a vis growth rates during the 4th control period, even without considering the projected growth rates for requirement of power by LISs. The DISCOMs have to explain the basis on which such higher growth rates for requirement of power by different categories of consumers during the 5th control period are projected. If their projections turn out to be unrealistic and actual demand turns out to be lesser than the projected one, availability of surplus power would increase proportionately with resultant adverse consequences.

- **8.** The DISCOMs have maintained that they shall utilize the Surplus Power Portal i.e., PUShP platform an initiative by MoP, GoI, where it is possible for the Discoms to indicate their surplus power in times blocks/ days / months on portal from all of their tied-up sources. Those Discoms of other States who need power will be able to requisition the surplus power and the new buyer has to pay both Fixed Charges and Variable Charges as determined by the appropriate Regulatory Commission. This shall reduce the fixed cost burden on the Discoms and will also enable all the available generation capacity to be utilized. TS Discoms, have already utilized the services of PUShP platform in order to meet its requirements in the month of May 2023. It is elementary that PUShP platform cannot push out the DISCOMs who pushed themselves in the predicament of saddling themselves with avoidable surplus power; at best, it can facilitate exchange of information relating to expected availability of surplus power during specific times among the DISCOMs in the country. PUShP platform cannot create demand for power. If a DISCOM indicates in advance availability of surplus power with it at a later date and at a specific time/period, it does not mean that other DISCOMs necessarily require that power during that time/period. TSDISCOMs have not given details of their transactions through PUShP platform in May, 2023, and the benefits, if any, derived. In view of the undeniable fact that, normally, surplus power is available with DISCOMs during off-peak hours/seasons and additional power is required by them during peak hours/seasons, the role, as well as impact, of PUShP platform is marginal in the sense that it simply facilitates exchange of information among the DISCOMs in different states.
- 9. The DISCOMs have maintained that they shall also strive to materialize revenue from any resultant surplus in smaller time periods by selling the surplus power in the power exchanges. In the year FY 2022-23, TS Discoms have sold 2952 MU and realized a revenue of Rs. 1694 Crore and for FY 2023-24 Q1, TS Discoms have sold 482 MU and realized a revenue of Rs. 179 Crore. When did the TS DISCOMs sell their surplus power, whether it was during peak hours or off-peak hours? If they sold their surplus power during peak hours/season, it shows bad planning which led to availability of surplus power during peak hours/seasons. If they sold their surplus power during off-peak hours/season, whether it was profitable to them or caused loss to them needs to be explained by the DISCOMs. In any case, the data given by the DISCOMs confirms that the scope for selling their surplus power through power exchanges is very much limited. In other words, the DISCOMs cannot depend on this kind of arrangement to sell the abnormal quantum of surplus power which they have projected to be available during the 5th control period.
- **10. TS DISCOMs have maintained that they** shall explore the Battery energy storage systems for utilizing the surplus energy and feeding back to the system during the period of peak hours thereby reducing the dependency on the short-term power purchases to

balance the demand and supply. There are no experiences in the country to show that a viable, economical and affordable battery energy storage system is developed and put to use. How long it would take for such a system to become a reality is anybody's guess. Based on such uncertainties, it is not wise to plan for procurement of power under long-term power purchase agreements which lead to availability of abnormal quantum of avoidable surplus power.

- 11. It is to be noted that, if sale of surplus power between DISCOMs of states, banking facility and battery storage system are considerable and effective, it would be beneficial. On the other hand, if they are substantial and growing, they would decrease need for purchasing power in the market and through power exchanges at higher rates and irresistible attraction for purchasers and even sound the death-knell of play of legalised black marketing of power by market forces depending on intensity of the above-mentioned three options in future. The growth of sale of power in the market and through power exchanges and dependence of the DISCOMs for purchase of power on such market sources indicates that the above-mentioned three options have yet to establish their effectiveness. In other words, scope for the said three options is very much limited and cannot contribute to considerable disposal and reduction in abnormal quantum of surplus power projected to be available to the TSDISCOMs during the 5th control period.
- 12. Regarding purchase of smart meters, the DISCOMS have shown the supply of cost pre-paid meters for single phase meter as Rs.8192.16 and Rs.8036.80 and of three phase meter as Rs.10757.08 and Rs.10492.91. They have explained that "Vide GO MS No.1, Dt:03.01.2016, Energy (Budget) Department, Govt. of Telangana decided that all Govt. Departments should have prepaid meters at their own cost w.e.f 1st April, 2016. In this regard it is to be noted that the prepaid meters were procured, installed and are being maintained with the cost being borne by the respective departments of GoTS. In view of the above GO, TS Discoms have floated tenders with specification Nos.CGM/P&MM/STN-113/15 and STN-114/15. Pre-bid meeting was conducted on 29.01.2016 and participation from 6 and 7 prospective bidders was seen for three phase and single-phase bids respectively. The price quotes from all the qualified bidders for Supply, Installation and FMS were matched in the bidding process. Purchase Order for single phase meters were placed on 3 successful bidders, however only two parties have supplied the meters and for 3 phase Purchase Orders were placed on 4 successful bidders, however only two parties have supplied the meters. The cost of the meter was included in the CC bills of the Government Services where prepaid meters were installed and they were allowed to pay the meter cost in three (3) installments as per the orders contained in the above G.O cited." Installation cost and facility management service charges, which are also substantial, are extra. The DISCOMs have not given the unit cost, including all charges to be paid during the life span of the meter and the details thereof. In the detailed project report under RDSS for implementation of smart meters sanctioned by PFC Ltd. (nodal agency for implementing RDSS in Andhra Pradesh)

it is shown that expected life cycle unit cost for single phase meter and three phase meter is Rs.6000/- only as on 17.3.2022. Whether the TSDISCOMs have sought and got approval of the Hon'ble Commission for the tenders floated by them for purchasing smart meters and whether the Hon'ble Commission has subjected the entire process to prudence check is not known. The substantial variation between the costs indicated by PFC Ltd. and the higher costs for which the DISCOMs purchased the same underlines the need for subjecting the entire process to prudence check. We once again request the Hon'ble Commission to call for related files, examine the same, subject them to prudence check and make the details public by posting the same in its web site and allow us to make further submissions on the issue.

13. We request the Hon'ble Commission to permit us to make further submissions after receiving and studying responses of the DISCOMs to our submissions during the scheduled public hearing.

Thanking you,

Yours sincerely,

M. Venugopala Rao Senior Journalist & Convener, Centre for Power Studies H.No.1-100/MP/101, Monarch Prestige, Journalists' Colony, Serilingampally Mandal, Hyderabad - 500 032

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