

(Cover Letter)

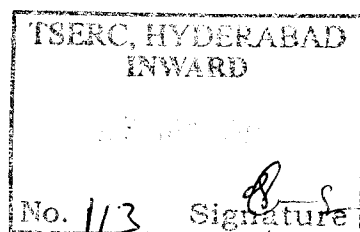
Lr.No.: ENC(I)/DCEI/DT2/AEE20/Electricity Tariff proposals dated 22<sup>nd</sup> Jan, 2018

<b>From,</b>  <b>The Engineer-in-Chief (Irrigation)</b> <b>I&amp;CAD Department,</b> <b>2nd Floor, Jalasoudha,</b> <b>Errum Manzil,</b> <b>Hyderabad - 500 082.</b>	<b>To,</b>  <b>The Secretary,</b> <b>TSERC</b> <b>Singareni Bhavan</b> <b>Lakdikapul, Hyderabad</b>  <b>The Chief General Manager,</b> <b>Commercial &amp; RAC,</b> <b>TSSPDCL, Ground Floor,</b> <b>Mint Compound,</b> <b>Hyderabad-63</b>  <b>The Chief General Manager,</b> <b>IPC &amp; RAC,</b> <b>TSNPDCL, H.No.2-5-31/2,</b> <b>Vidyut Bhavan,</b> <b>Nakkalagutta, Hanumakonda,</b> <b>Warangal-1</b>
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Dear Sir,

**Sub: Comments/objections on tariff proposed for Govt. Lift Irrigation Schemes, as part of the Petition for ARR and Tariff proposals for the Retail Supply Business filed by Southern Power Distribution Company Telangana Limited (TSSPDCL) and Northern Power Distribution Company of Telangana Limited (TSNPDCL)**

With Reference to the Public Notice issued by Hon'ble Telangana State Electricity Regulatory Commission (TSERC) in the subject matter, the I&CAD, Govt. of Telangana, would like to submit its detailed comments and suggestions on the tariff proposal for Lift irrigation schemes for FY 2018-19 in the State of Telangana. Hon'ble TSERC is requested to take due consideration of our submission as enclosed herewith, while finalising the retail supply tariff applicable for Govt. Lift Irrigation schemes.



**Yours Faithfully,**



**The Engineer-in-Chief (Irrigation), I&CAD Department**

**(Encl: Comments/objections on the ARR and Tariff proposals for the Retail Supply Business, filed by TSSPDCL and TSNPDCL)**

BEFORE THE TELANGANA STATE ELECTRICITY REGULATORY  
COMMISSION, HYDERABAD

FILING NO. \_\_\_\_\_

CASE NO. \_\_\_\_\_

IN THE MATTER OF:

Filing objections/suggestions on the ARR and Tariff proposals for the Retail Supply Business, Cross Subsidy Surcharge Proposals and Additional Surcharge Proposal for the FY 2018-19 by Power Distribution Companies in Telangana

AND IN THE MATTER OF:

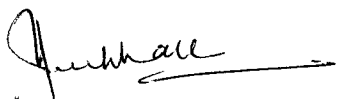
I&CAD, Govt. of Telangana

... Applicant/Objector

VERSUS


1. Southern Power Distribution Company Telangana Limited - TSSPDCL
2. Northern Power Distribution Company of Telangana Limited - TSNPDCL

...RESPONDENTS

  
Engineer in Charge (Irrigation),  
ERRUMMANZIL,  
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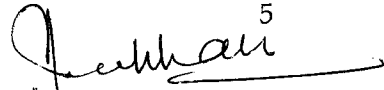
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## A. Background

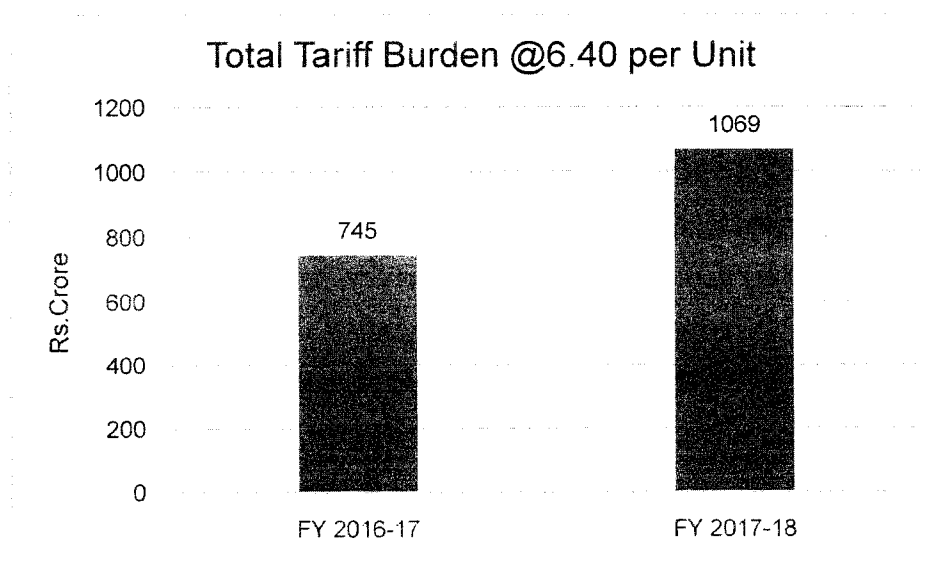
1. The new State of Telangana came into existence on 2nd June 2014 with 10 Districts from erstwhile State of Andhra Pradesh. In the process of achieving Golden Telangana, Irrigation & CAD Department of Telangana State is making every effort to harness and utilize all the available water resources for benefit of the Agricultural sector, Industrial Sector and also providing drinking water for overall development.
2. The development of Irrigation in Telangana is mostly dependent on Godavari and Krishna rivers and their tributaries, tanks & ponds. In Telangana, the rivers are flowing at lower elevations (levels) and majority of the Ayacut (*'Ayacut' is the 'area' served by an irrigation project such as a canal, dam or a tank*) is at higher elevations (levels) and water cannot reach to these Ayacut by gravity. Whatever Ayacut possible by gravity flow, is already developed and further scope for development of Ayacut by gravity flow is meagre. Thus, in order to meet the majority Ayacut irrigation needs, it is necessary to pump a large quantity of water to high heads and take it to long distances for irrigation purpose. Therefore, in Telangana, it is essential to go for Lift Irrigation (LI) schemes with large capacity pumps with high discharge in a big way for meeting Ayacut needs. This would enable displacement of maximum quantity of water to the needy areas in minimum time possible during monsoon period. The rating of each of the pump motor sets already installed are of the order of 10 MW to 20 MW, and those proposed to be installed in the coming years are of high rating, of the order of 150 MW and above.
3. Considering the significance of such large LI schemes in the socio-economic development of the State, large capacity pumping station schemes are formulated by Govt. Owing to the large capacity pumps, the consumption of these pumps is huge and the financial burden will be too high for farmer of the Ayacut areas to bear. Further, there will be undue discrimination between farmers in LI scheme based Ayacut areas and those farmers in other areas where water flows by gravity from dams and

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reservoirs. Hence as on today, Govt. is paying the power bills of all lift irrigation schemes.

4. As per Tariff Order issued by Hon'ble TSERC for the year 2017-2018, the tariff for Govt. lift irrigation schemes is set @ Rs.6.40 /unit (KVAH). Based on the consumption of LI schemes, the total tariff burden on the Govt. over FY 2017-18 is expected to be around Rs. 1000 Cr. The chart below shows the total tariff burden on I&CAD during FY 2016-17 to FY 2017-18.


Figure-1: Total Tariff Burden on LI Category



5. The above tariff burden is expected to multiply considering the capacity addition planned of LI scheme in the coming future. In this context, considering the grounds elaborated in this submission, the I&CAD requests the Hon'ble Commission to significantly reduce the tariff applicable for Govt. LI category.

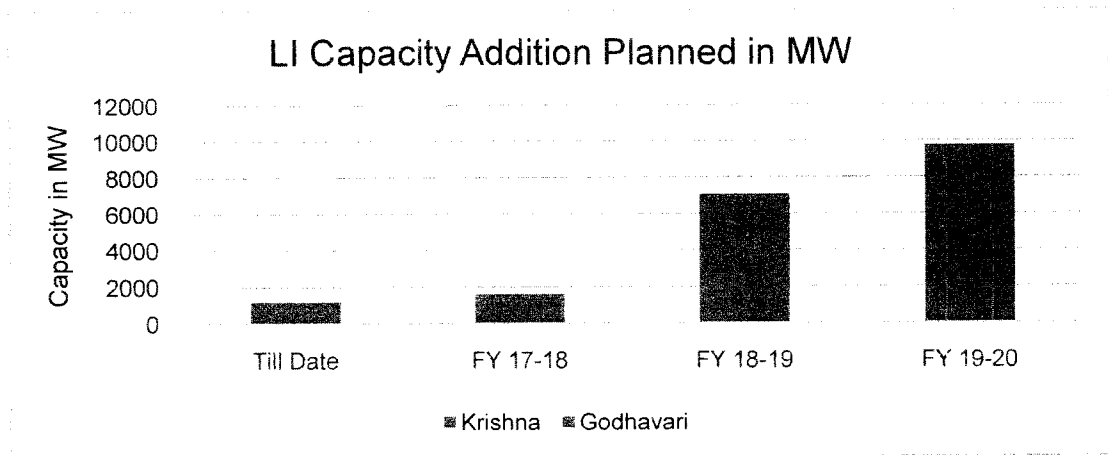
#### **B. LI Capacity Addition Planned**

6. Considering the critical role irrigation has to play in the socio-economic development of the State, I&CAD has planned to take up large number of LI schemes and commensurate LI pumping capacity addition in the coming

  
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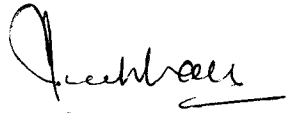
years in the State of Telangana. I&CAD has taken up 34 Major and Medium Irrigation Projects. The list of the major schemes planned along with its capacity is enclosed as **Annexure-1**. The total installed capacity is envisaged to increase to about 10,000 MW by 2020 from the existing level of 1200 MW. The chart below shows the capacity addition planned for LI schemes in the State (for Krishna river and Godavari river) till 2020.

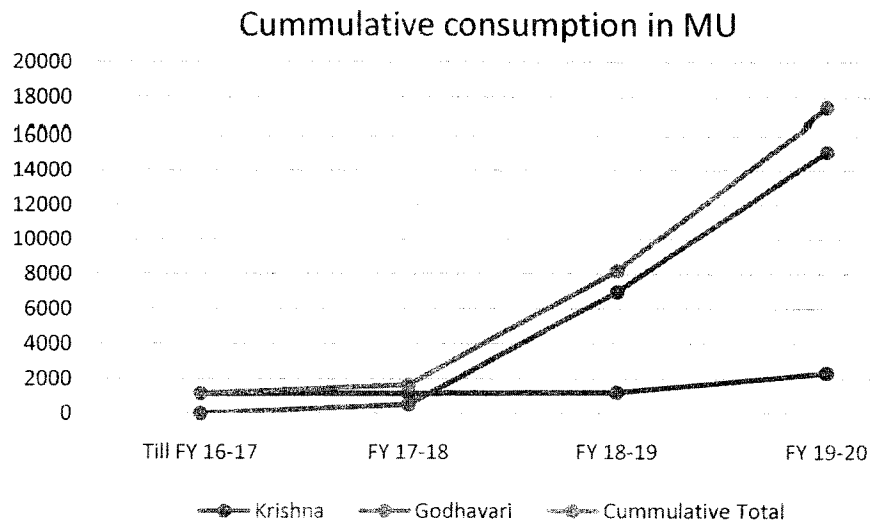
Figure 2: LI scheme - cumulative capacity addition planned



7. Corresponding to the capacity addition planned as shown above, the envisaged increase in energy consumption by LI schemes is depicted in the Figure below.

Figure 3: LI scheme - cumulative consumption expected

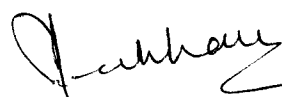
  
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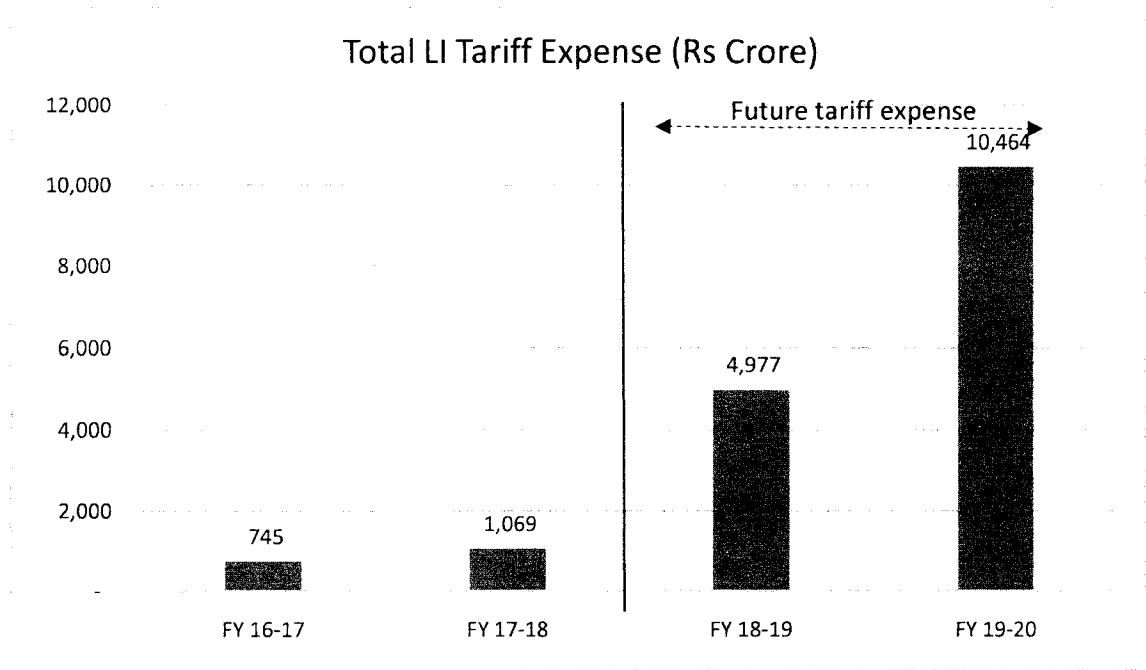
**C. Expected Tariff Burden on LI projects - till FY 2020**

8. Upon perusal of the Petitions filed by TSSPDCL and TSNPDCL, it is observed that the Discoms are proposing revision in the tariff structure for LI category whereby, the presently applicable single part tariff (only energy charge) is proposed to be revised to two-part present tariff consisting of Demand Charge and Energy Charge. Further, as per the proposal, the demand charges would vary on seasonal basis. Considering the expected LI consumption and the proposed tariffs (for projection purpose, it is assumed that the proposed tariff for FY 2018-19 would remain at the same level in FY 2019-20 as well), the tariff burden on LI category in the coming years have been worked out and the same is shown in the Figure below:

Figure 4: Electricity expenses expected for LI schemes (Rs Cr)

  
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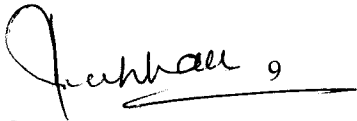




9. As can be seen, with the proposed tariff level, the tariff burden on account of Govt. LI category is expected to be huge. The same calls for a suitable down-revision in the tariff for Govt. LI category. It is also pertinent to compare the tariff for LI schemes across various States. **Annexure-2**, provides a table which shows comparison of LI category tariff across various States. It is evident that, tariff for LI scheme in Telangana is one of the highest except for Uttar Pradesh and Haryana.
10. In this context, I&CAD request the Hon'ble Commission to relook at the tariff of Govt. LI category tariff and suitably reduce the same.

**D. Review of tariff set in the past & issues associated**

11. I&CAD would like to highlight some of the issues it has observed which would have led to setting high tariff for LI category in the past. It is humbly submitted that the Hon'ble Commission may kindly take cognisance of the same while setting tariff for LI category in the future.
  - a. Cost of supply for LI scheme is determined along with CPWS category and not standalone for LI scheme

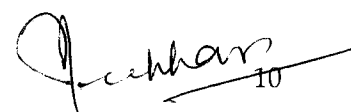
  
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- b. Uniform Tariff notified across all voltage levels despite significantly different cost of supply (CoS)
- c. The notified Uniform Tariff should have been aligned to highvoltage level consumption, where consumption is several times higher than lower voltage consumption
12. The Hon'ble Commission has adopted the embedded cost methodology to determine the Category-wise CoS for each category and tariff thereof. According to this methodology, all the cost components of the Aggregate Revenue Requirement as determined by the Commission for TSSPDCL and TSNPDCL are allocated to the existing consumer categories to determine their respective CoS. The costs are functionalised under the heads of generation (G), transmission (T), distribution (D) and retail supply. Post functionalisation, the costs based on their nature are classified as demand and energy cost components. These categories of costs are allocated to individual consumer categories based on the specific allocation factors.
13. The tariff notified in accordancewiththismethodology for FY 2017-18 is reproduced in the following table:

**Table-1: Cost of supply and Notified Tariff for FY 2017-18**

Voltage Level	Voltage wise Cost of Supply for LI & CPWS	Sales for LI & CPWS	Per Unit Voltage wise Cost of Supply	Notified Tariff
	Rs. Cr	MU	Rs./kVAH	Rs./kVAH
11 kV	139.85	222.85	6.28	6.40
33kV	121.83	215.30	5.66	6.40
132 kV and above	908.38	1,773.04	5.12	6.40

- a. Firstly, as can be observed, the cost and sales of two-categories Viz., LI and CPWS have been clubbed together and the cost to supply has been determined. The influence of CPWS category

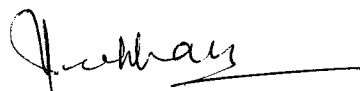


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should have been excluded while determining the cost of supply and the final tariff for LI category.

- b. Secondly, clear and significant difference can be observed in the calculated cost of supply and the final notified tariffs. While it may not be possible to have tariffs exactly matching cost of supply, consistent and significantly higher tariffs suggest bias against LI category.
- c. Thirdly, since maximum LI consumption is at '132 kV & above' level, the notified uniform tariff should have been worked out giving more weightage for '132 kV & above' consumption. Accordingly, the tariff should have been more towards Rs. 5.12/ kVAH which is the cost of supply at '132 kV & above'. I&CAD, would like to emphasize on this point that all the future capacity addition in LI capacity is expected at 132kV & above category. In view of the same, while setting tariff for future years, a lower tariff in line with the lower cost of supply at higher voltages must be considered.

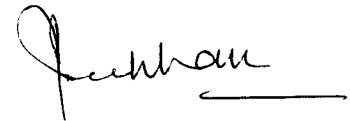
14. Benefits of lift irrigation schemes for the public at large is self-evident. Further the same has a significant impact on the socio-economic development of the State as a whole. In this context, considering water to be a public good, the tariff for electricity consumption for making available such public good, should ideally be much lower than other category of consumers. However, in the present case, the present tariff for LI category is set higher than the cost to supply for the category and even higher than the Average Cost of supply (AcoS) of the Distribution Companies. This naturally poses undue additional burden on LI consumption. Therefore, while fixing tariff for LI category, it is requested that the tariff should be at best set at the same level as cost to supply this category and no way higher than the same, which otherwise would bring additional burden and delay further implementation of such schemes in the State.

  
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## **E. Unique consumption pattern of LI Category**

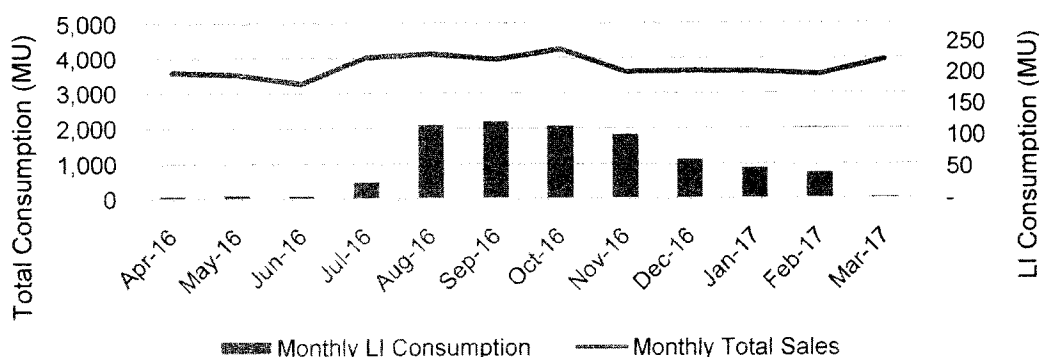
15. **How consumption of LI category is unique? – calls for unique dispensation – case for seasonal tariff.** LI pumps are mostly operated in monsoon period, for lifting water from Krishna and Godavari rivers and tributaries depending on the water availability during the period. Accordingly, the consumption pattern of the LI pumping stations is also seasonal, linked to months when water is available in the said rivers and its water bodies. The consumption pattern of LI pumping stations for FY 2016-17 (actuals for 11 major schemes) and for FY 2017-18 is shown in the following graphs. The consumption graphs are shown for aggregated consumption of two Telangana Discoms (TSSPDCL & TSNPDCL).

**Figure-5: Seasonal pattern of LI consumption Vs Total State consumption during FY 2016-17 and FY 2017-18**

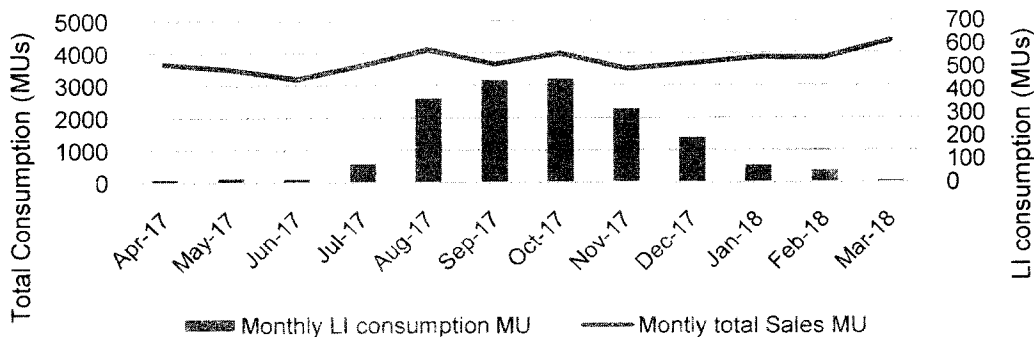


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**Total Consumption Vs LI Consumption (11 schemes)  
- FY 2016-17**



**Total Consumption Vs LI Consumption  
- FY 2017-18\***

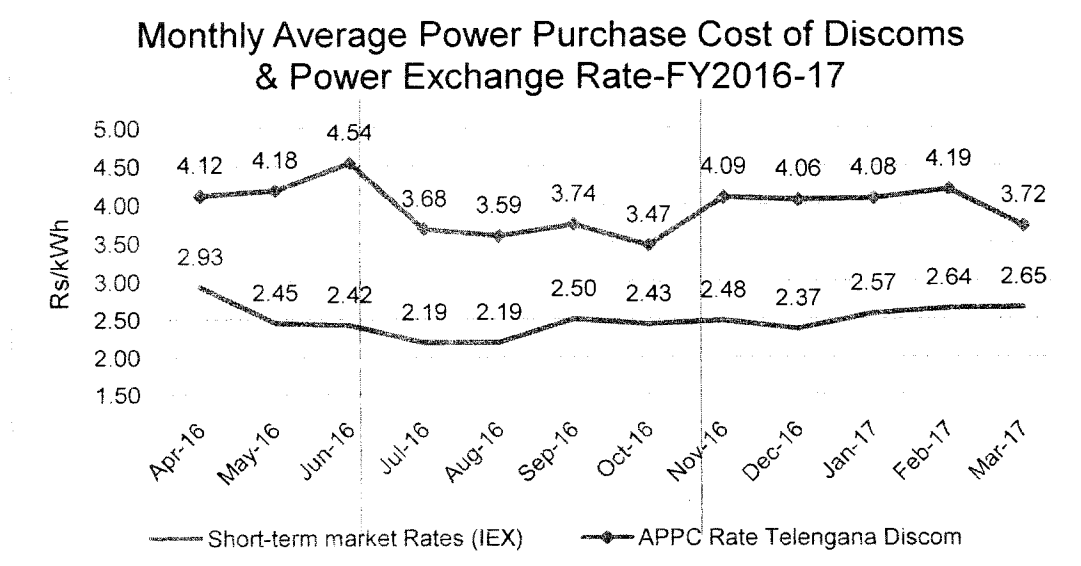


16. Following are the key inferences one can draw from the above graphs.
- LI consumption rises during the month July and falls from the month of November.
  - LI load supports the Discom in flattening its yearly load curve by higher load in monsoon period
  - During monsoon, all reservoirs are full and maximum hydro power generation is possible. Further, in view of rains, power demand is low, due to reduction in domestic, commercial & agriculture demand.
17. It is also worthwhile to analyse the power purchase cost of the Distribution Companies as well as the power market rates during the said period (July to November). This enables assessment of the power purchase cost


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associated with supplying consumers during the monsoon season. The following graph shows the monthly power purchase cost of Telangana Discoms as well as the monthly power market rates on Indian Energy Exchange on all India basis.

**Figure-6: Monthly Average Power Purchase Cost of Discom & Power Exchange Rate**



18. Following are the key inferences one can draw from the above graphs.
- Average Monthly rates in short-term market during monsoon season are on lower side. The power can be specially sourced for supplying the consumption in monsoon period, resulting in lower power purchase cost in the said period, thus benefitting the DISCOMs.
  - During monsoon period, Discoms can avail such cheaper power from market to source the LI Load
  - Cost of supply to LI category should be lower as cost of power procurement for incremental supply to LI category during monsoon season is likely to be much lower. As a result, CoS calculations

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would yield much lower number than the existing Rs.5.12 per unit, if this lower cost of power procurement is considered.

- d. Per unit fixed cost of power purchase during Monsoon season is reduced owing to higher consumption
- e. LI pumps cause minimum burden during non-monsoon/summer, when Discom's power purchase cost is on a higher side

19. Considering the unique consumption pattern, and the corresponding seasonal variation in the cost to supply to LI category, it is requested to keep seasonally varying tariff for LI category such that a lower tariff is set during monsoon period (July to November) and normal tariff for rest of the months in the year. It is also requested that the Hon'ble Commission may work out seasonal cost of supply for LI category considering its unique consumption pattern different (consumption peaks in those months when consumption of all other categories drop).
20. Further, Hon'ble Commission may give suitable directions to the Discoms to undertake power procurement process in such a manner so as to benefit from lower market rates in monsoon period.


#### F. Legal Framework for the claim - Section 62(3) of the EA 2003

21. Section 62 (3) of the Electricity Act, 2003 permits differential tariff for any specified period or time for any category.

*"Section 62. (Determination of tariff): --- (1) The Appropriate Commission shall determine the tariff in accordance with the provisions of this Act for –*

...

*(3) The Appropriate Commission shall not, while determining the tariff under this Act, show undue preference to any consumer of electricity **but may differentiate according to the consumer's***

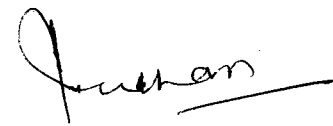
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*load factor, power factor, voltage, total consumption of electricity during any specified period or the time at which the supply is required or the geographical position of any area, the nature of supply and the purpose for which the supply is required.*  
...” (Emphasis Added)

22. In line with the said provision, of the Act, the Hon'ble TSERC has full powers to set a seasonal tariff for LI category considering the seasonal consumption pattern of the same and associated benefits as elaborated above.

**G. Other unique benefits of increasing LI consumption**

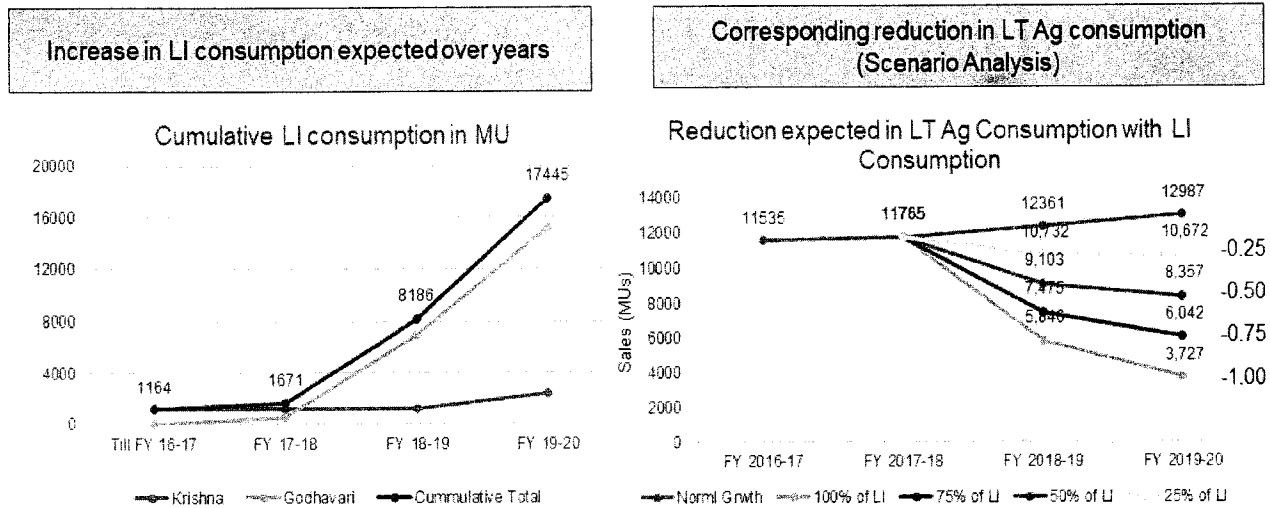
23. Promoting LI scheme can bring in multi-pronged benefits to the Discom and the State Govt. The same is elaborated in the subsequent paragraph with the help of necessary illustration, as and where required.
- a. LI scheme can reduce LT Ag consumption - & LT level loss and overall help Discoms in achievement of Uday scheme targets
  - b. LI scheme would reduce the LT-Agricultural subsidy burden of Govt
24. **Benefits for Distribution Companies:** With increase in LI capacity, water stored through such LI pumps in reservoirs will flow by gravity canals and all the Pump-motor sets which are run by individual farmers to meet ayacut needs in these areas will be no longer required. Thus, increase in number of Large capacity LI pumps shall replace the need for operating/setting up small capacity pumps by individual farmers for irrigation purpose of the same land. The increase in LI consumption and expected decrease in LT Ag consumption under various scenarios is illustrated in the following graphs.



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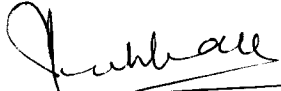


**Figure-7: Increase in LI consumption and expected reduction in LT Ag consumption**



\* Scenarios assumed considering correlation coefficient between LI consumption and Ag consumption to be -1, -0.75, -0.5 & -0.25, (where, '-1.0' corr. coefficient indicates 1% increase in LI consumption resulting in 1% decrease in Ag consumption)

25. It may be noted that the 100% impact of the increase in LI consumption on the LT Agricultural consumption can be visible in the immediately succeeding year of installation of LI capacity for any specific Ayacut region.
26. In addition, the consequent reduction in LT Ag consumption is expected to bring following additional benefits to the Distribution Companies.
  - a. Since LT level sale (high loss level) is going to reduce and HT level sale (low loss level) is going to increase, Discoms are expected to benefit due to significantly lower loss levels at HT voltages.
  - b. The same would benefit Discom in achieving loss reduction trajectory set under UDAY scheme.
  - c. Further, LI schemes are expected to have much higher efficiency than LT pumps, these are bound to be overall reduction in sales and efficient utilisation of resources.

  
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## H. Proposed tariff and impact on LI projects

27. The tariff proposed by the Discoms (TSSPDCL and TSNPDCL) is two-part tariff, with Seasonal variation in the billing demand. While the proposed tariff structure considering demand charges and energy charges is a welcome move, the same is designed in such a manner that the net per unit tariff burden or (ABR) on LI category remains the same. This obviously does not provide any relief to the LI category.

**Table-2: Cost of supply and Notified Tariff**

	Existing Tariff	Proposed Tariff
Demand Charge	NIL	Rs 390/KVA/month
Energy Charge	Rs 6.40 /kVAH	Rs 4.88/kVAH

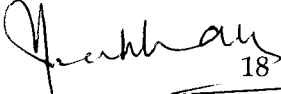
28. In addition, the conditions stated for the proposed tariff are following:

**Proposed Tariff Conditions**

**Demand Charges** would be levied on **80% of Contracted Maximum Demand (CMD)** or Recorded Maximum Demand (RMD) for Operational Months – July to November (5 months)

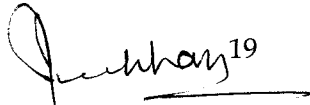
**Demand Charges** would be levied on **30% of Contracted Maximum Demand (CMD)** or Recorded Maximum Demand (RMD) for Non-Operational Months – December to June (7months)

29. Analysis shows that the Average Billing Rate (ABR) or 'effective Per Unit Tariff' considering the proposed two-part tariff works out to be the same as that of the existing single part tariff. Rather, there is a marginal increase in ABR observed in case of the newly proposed tariff, which works out to Rs. 6.44 per Unit compared to 6.40 per Unit, which is the existing tariff. the

  
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detail computation is enclosed as **Annexure-3**. The key observations and comments on the proposed tariff for LI category are as following.

- a. Despite different cost of supply at different voltage level viz. 11 kV, 33 kV and 132 kV & above, Distribution Companies have continued to propose uniform tariff for all voltage levels of supply. Tariffs should reflect cost of supply at each voltage level.
- b. Energy Charge during operational season (July to November) should be lower by at least 10 % considering the cheaper power available during the said period which coincides with the monsoon season as well as the lower power demand period. Distribution Companies can avail cheaper power from power exchanges or through bilateral arrangements during the said period and thus supply power for LI consumption during those months at cheaper rates.
- c. Seasonal Billing Demand is welcome. However, the present tariff proposed such that there no benefit for LI scheme. The per unit tariff burden of LI category would remain the same.
- d. The demand charges to be set at such level that it actually lowers that tariff burden on LI category.
- e. Unfortunately, the proposed two-part tariff does not provide any incentive to LI schemes to manage their loads.
- f. During operational months (July to November), the pumps operate continuously. As a result, load is almost 100%. While during the non-operational months (i.e., from December to June), the Demand Charges is proposed to be levied on **30%** of Contracted Maximum Demand (CMD) or Recorded Maximum Demand (RMD). However, it is highlighted that during the non-operational month, as the categorisation suggest, the LI pumps in the pumping stations will be non-operational and only pumping station auxiliary consumption

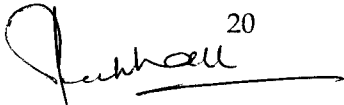
  
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load would exist which would be of the tune of 10% of the Contract Demand.

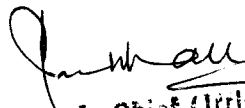
- g. It is important that the conditions are created for LI schemes to operate in efficient manner. The Commission need to set targets close to operation practices. Therefore, the Hon'ble Commission is requested to take into consideration this fact while setting norms for levy of Demand Charges

#### I. Suggestions on Tariff for Govt. LI scheme (HT IV A)

30. Based on the facts and grounds presented above, the following proposal is submitted for the kind consideration of the Hon'ble TSERC.
  - a. Considering the 'public service/ good' nature of the LI schemes, tariff should not be set higher than voltage level of cost to serve.
  - b. The Commission should recognise the benefits (lower losses at distribution level and higher operating efficiency of large pumps) of setting HT LI Schemes over LT agriculture consumption and should set promotional tariff for LI Schemes.
  - c. Seasonal Tariff for Govt. LI category (HT IV A) to be fixed, considering the seasonal consumption patten of the Govt. LI category and in pursuance of the Provision 62 (3) of the Electricity Act, 2003.
  - d. Separate Seasonal Tariff to be set for each voltage level of supply which reflects true voltage-wise cost of supply (CoS) during operational months (July to November) and during non-operational months (December to June).
  - e. Voltage-wise Energy Charge to be fixed such that **Energy Charges during operational months** – July to November (5months) is **lower at least by 10%**, compared to the **Energy Charge set for Non-Operational Months** – December to June (7months), considering the availability of cheaper power during the operational months which are predominantly monsoon/low load months.

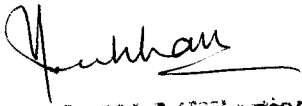
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- f. Voltage-wise Demand charges to be fixed such that **Demand Charges** are levied on 10% of **Contracted Maximum Demand (CMD)** or Recorded Maximum Demand (RMD) for Non-Operational Months – December to June (7months).

  
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**Annexure-1: List of the major LI schemes planned along with its capacity**

<b>LI schemes Planned/under Execution</b>	<b>Capacity in MW</b>
<b>Schemes of Krishna River</b>	
Kalwakurthy LIS	450.00
Bhima LIS-1	48.00
Bhima LIS-2	48.00
Nettempadu LIS	119.00
Koilsagar LIS	30.00
AMR LIS	84.00
<b>Under Execution</b>	
Palamur Ranga Reddy LIS	4720.00
Udayasamudram Irrigation Scheme	32.00
Thumilla LIS	21.50
Gattu LIS	10.50
<b>Schemes of Godavari River</b>	
Devadula LIS	476.46
Yellampally LIS	135.78
Jogapur LIS	13.60
Alisagar LIS	24.60
Guthupa LIS	17.63
Choutuppal Hanumanth Reddy LIS	5.19
Kadam LIS	8.20
Manthani LIS	8.40
Muktheshwara LIS Phase 2	7.05
<b>Pumping stations under Execution</b>	
Kaleshwaram LIS	4831.51
Gouravelli -Thotapally LIS	96.00
Gouravelli- gandipally LIS	17.60
Hathighat LIS	64.90
Ramappa Pakala LIS	16.00
Seetharama LIS	650.00
Flood Flow Canal LIS	156.00

  
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**Annexure-2: Tariff for LI schemes across various States.**


State	Tariff			
Karnataka (BESCOM)	Govt LI Scheme- 225 paise/ unit subject to an annual minimum of Rs. 1240 per HP / annum	Pvt LI Scheme-		
		Express Feeder-Fixed Charge- Rs 50/HP/Month Others- Rs 30/HP/month	Energy Charge- Rs 2.25/kWh	
Maharashtra	Demand Charges Rs 40/ kVA/ month		Agri Pumpset	
			Agri Others	
		11 kV/22kV	Rs/ 4.13/kWh	Rs 5.39/ kWh
		33 kV	Rs/ 3.39/kWh	Rs 4.65/ kWh
	66kV above	Rs/ 3.30/kWh	Rs 4.56/ kWh	
Tamil Nadu*	Demand Charge- NIL; Energy Charge- Rs 6.35/ kWh			
Kerala	Demand Charge- Rs 170/kVA of Billing Demand/Month; Energy Charge- Rs 2.80/kWh			
Andhra Pradesh	Govt/ Pvt LI Scheme- Rs 5.82/ kVAh			
Madhya Pradesh	Demand Charge (Annual Min Consumption-750 unit/kVA)		Energy Charge	
	11 kV	Rs 250 /kVA	Rs 5.50/ kWh	
	33 kV	Rs 270 /kVA	Rs 5.30/ kWh	
	132 kV	Rs 300 /kVA	Rs 5.00/ kWh	
Telangana	Demand Charge- NIL;	Energy Charge- Rs 6.40 /kWh		
Punjab	Demand Charge- NIL;	Energy Charge- Rs 5.06 / kWh		
Haryana	Demand Charge- Rs 180/ BHP;	Energy Charge- Rs 6.90/ kWh		
Uttar Pradesh	Demand Charge (Min Charge-Rs 1000 /kVA/month)		Energy Charge	
	11 kV	Rs 320 /kVA	Rs 7.70/ kVAh	
	33 kV/ 66kV	Rs 310 /kVA	Rs 7.55/ kVAh	
	132 kV	Rs 300 /kVA	Rs 7.35/ kVAh	

**Annexure-3:**

Effective Per Unit tariff computation for LI based on new tariff proposed for FY  
2018-19

Annexure-3 (Effective Per Unit tariff computation for LI based on new tariff proposed)						
For FY 2018-19				For FY 2018-19		
HT IV A	MVAH (Energy Consumption of LI)			MW (Contract Demand)		
	TSSPDCL	TSNPDCL	Total	TSSPDCL	TSNPDCL	Total
11 kV	41	27	68	50	59	108
33 kV	45	45	90	41	57	97
132 kV	1717	3708	5425	1558	1905	3463
<b>Total</b>			<b>5583</b>			<b>3669</b>

	Rate	Jul-Nov	Other Months	Total
		Rs. Cr	Rs. Cr	Rs. Cr
Demand Charge(Rs/KVA/month)	390	572	300	873
Energy Charge(Rs./KVAH)	4.88	1135	1589	2724
Total Annual Tariff Payable (in Rs. Cr)				3597
Effective Per Unit Rate (Rs./kVAH)				6.44

  
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