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Before Telangana Electricity Regulatory Commission at Hyderabad

Filing No.:
Case No.:

In the matter of:

Inviting objections / suggestions on the petition(s) filed by Northern Power Distribution Company Limited of Telangana Limited (TSNPDCCL) and Southern Power Distribution Company Limited of Telangana Limited (TSSPDCL) for approval of the Aggregate Revenue Requirement (ARR) for Retail Supply Business and Tariff for Retail Sale of Electricity for the year 2016-17.

And

In the matter of:

Indus Towers Ltd., Survey No. 133,4-51, 8th Floor, SLN Terminus, Beside Botanical Gardens, Gachibowli, Hyderabad- 500032

AFFIDAVIT

I, Binu Gopinath, son of Govinda Gopinathan Pillai aged 39 years residing at 403, 4th Floor, Vijay Pratap Residency, Defence colony, Sainikpuri, Secunderabad – 500094. I do solemnly affirm and say as follows:

I am the Energy Controller of Indus Towers Ltd., Survey No. 133, 4-51, 8th Floor, SLN Terminus, Beside Botanical Gardens, Gachibowli, Hyderabad - 500032, the petitioner in above matter and I am duly authorized to make this affidavit. The statements made in herein are true to my knowledge are based on information I believe them to be true.

Solemnly affirmed at Hyderabad on this day the 04th of April, 2016 that the contents of the above affidavit are true to my knowledge, no part of it is false and nothing material has been concealed there from.




Binu Gopinath
Energy Controller

Place: Hyderabad

Date: 04.04.2016

Date: 04-04-2016

To,

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

Subject: Filing objections / suggestions on the petition(s) filed by petition(s) filed by Northern Power Distribution Company Limited of Telangana Limited (TSNPDCL) and Southern Power Distribution Company Limited of Telangana Limited (TSSPDCL) for approval of the Aggregate Revenue Requirement (ARR) for Retail Supply Business and Tariff for Retail Sale of Electricity for the year 2016-17.

Respected Sir,

Indus Towers with a portfolio of more than 126,000 towers is the largest telecom tower company of the world. Indus has a presence in the 16 major telecom circles of India. It has its headquarters at Gurgaon, National Capital Region of Delhi and offers services to the three major telecom operators in the wireless space and other wireless service providers such as broadcasters and broadband service providers.

The telecom industry plays an important role in the world economy and is a significant factor in extending the last mile connectivity to the vast Indian population. Telecom towers enable telecom operators to provide network connections to mobile users. Telecom services are like a lifeline to all businesses and has been notified as essential services by the Department of Telecommunication, which are at par with defence, national security and other emergency services like medical emergencies, fire services etc. and in fact permeates each & every section of society and generates huge revenue for the State & Central exchequer.

Indus Towers is in the business of owning and operating telecom towers on behalf of the major telecom players in India. Indus Towers Limited presently operates approximately 6974 telecom tower sites in Telangana which are located across the state, making Indus Towers Limited a high value consumer of the electricity distribution company of the state. We have been supported by the state utilities to provide uninterrupted service to mobile consumers across the region. We are also among the largest consumer of the three distribution companies of Telangana & have paid INR 231.3 Cr. /annum towards charges for electricity consumption in FY 2014-15. Also we have security deposit to a tune of 40 Crore with two distribution companies.



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TOWERS

The connected load of a typical telecom tower in the state varies from 5 kW to 25 kW per site, with more than 85% of towers having connected load less than or equal to 18 kW. The connected load of each tower varies based on the number of operators supported by the tower and the use of air conditioning for the same.

We would like to bring to the notice of the commission that mobile telecom tower industry forms a unique energy consumption profile, as well as serving as a last-mile connectivity provider and come under the domain of essential service for social benefit.

The energy input for these telecom tower sites is availed from Low Tension (LT) supply and these towers are categorized as commercial consumers by the state utilities. Being an energy intensive business sector, our business works on reliable supply of electricity at sites by state distribution utilities.

State distribution utilities TSNPDCL & TSSPDCL have filed petitions for approval of the Aggregate Revenue Requirement (ARR) for Retail Supply Business and Tariff for Retail Sale of Electricity for the year 2016-17. In this regard TSERC has published the notice for inviting comments from various consumers. In response, we, M/s Indus Towers Ltd., file our objections/ suggestion herewith on the petition submitted by state distribution utilities to the Hon'ble Commission.

A statement containing the brief details of objections/suggestions is submitted along with an annexure (Annexure A) on detailed objections/suggestions.

We also submit that we wish to be heard in person on the day and place designated and notified for the public hearing.

Yours Sincerely,

For Indus Towers Ltd.,


Binu Gopinath
(Energy Controller)



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SUMMARY TABLE

Name & full address of the objector	Brief details of objection(s)/ suggestion(s)	Whether Objector wants to be heard in person
Binu Gopinath, Indus Towers Ltd., Survey No. 133,4-51, 8 th Floor, SLN Terminus, Beside Botanical Gardens, Gachibowli, Hyderabad- 500032	1) Rationalization of tariff for telecom Commercial consumers	Yes
	2) Introduction of a new Sub-category for telecom towers	
	3) Redesign of ToD tariff scheme	
	4) Implementation of Consolidated Billing & Roll out of AMR (Automatic Meter Reading) systems	

For Indus Towers Ltd.


Binu Gopinath
(Energy Controller)

ANNEXURE A

BEFORE,

Honourable Telangana State Electricity Regulatory Commission - Hyderabad

IN THE MATTER OF

Inviting objections / suggestions on the petition(s) filed by Northern Power Distribution Company Limited of Telangana Limited (TSNPDCL) and Southern Power Distribution Company Limited of Telangana Limited (TSSPDCL) for approval of the Aggregate Revenue Requirement (ARR) for Retail Supply Business and Tariff for Retail Sale of Electricity for the year 2016-17.

AND

IN THE MATTER OF

Indus Towers Ltd., Survey No. 133, 4-51, 8th Floor, SLN Terminus, Beside Botanical Gardens, Gachibowli, Hyderabad- 500032

Context of our Objections

1. Distribution utilities of Telangana Northern Power Distribution Company Limited of Telangana Limited (TSNPDCL) and Southern Power Distribution Company Limited of Telangana Limited (TSSPDCL) have filed petition for approval of the Aggregate Revenue Requirement (ARR) for Retail Supply Business and Tariff for Retail Sale of Electricity for the year 2016-17.
2. According to the proposal the following structure for NDS category consumers is being proposed:

Parameter	Existing Charges	Proposed Charges	Hike proposed
Fixed charges (in INR/kW/month)	53	53	Nil
Energy charges (in INR)	0-50 units: 6.6 50-100 units: 7.8 100-300 units: 8.6 300-500 units: 9.1 More than 500 units: 9.7	0-50 units: 7.26 50-100 units: 8.58 100-300 units: 9.46 300-500 units: 10.01 More than 500 units: 10.67	10%

3. Telecom towers have been categorized under the Non-Domestic Supply (NDS) category in Telangana. The energy expenses of the telecom tower operators constitute nearly 35% of the total operating cost. The high cost of energy which results from the high electricity tariffs prevalent in the state and usage of costly power generated by DG sets affects the operational costs of companies such as Indus Towers Limited which in turn might lead to higher telecom tariffs in the state.
4. The following documents have been referred to in preparation of the objections
 - Electricity Act, 2003;
 - National Tariff Policy, 2016;
 - The ARR for 2016-17 submitted by the state utilities; and
 - The relevant Tariff Orders and Regulations issued by TSERC

Our Objections/ Comments on Specific Issues

On the basis of the same and petition for approval of the Aggregate Revenue Requirement (ARR) for Retail Supply Business and Tariff for Retail Sale of Electricity for the year 2016-17.

1. Rationalization of tariff for telecom towers in the state

Indus Towers operates more than 7000 telecom tower sites across the state of Telangana. The connected load of a typical telecom tower site in the state varies from 5 kW to 25 kW, with more than 85% of the towers having connected load less than or equal to 18 kW. The connected load of each tower varies based on the number of operators supported by the tower and the use of air conditioning for the same.

Currently, the energy input for these telecom tower sites is availed from Low Tension (LT) supply and these towers are categorized as commercial consumers by Telangana utilities. The telecom towers continuously consume power all around the day thereby maintaining a high load factor through a high sale by connected load ratio. Around 86% of the tower's electricity consumption is fairly constant over a 24 hours period. Due to this telecom towers don't contribute significantly to the peak hour consumption of the discoms and are a part of the base load of the distribution utility. Such a load profile doesn't put pressure on the distribution utility to buy additional short term power at higher prices thereby leading to overall **lower 'cost to serve'** for such consumers.

The current average tariff structure for commercial consumer (assuming 12 kW at 0.75 load factor operating 24 hours a day) is INR 9.71/unit in the state. The petitioner would like to state that the **current tariff/unit is amongst the highest in the country for any category of consumer**. The tariff orders of different states have been studied for analysis of existing tariff applicable for commercial category. The state wise details of demand and energy charges for commercial category is shown below for reference.

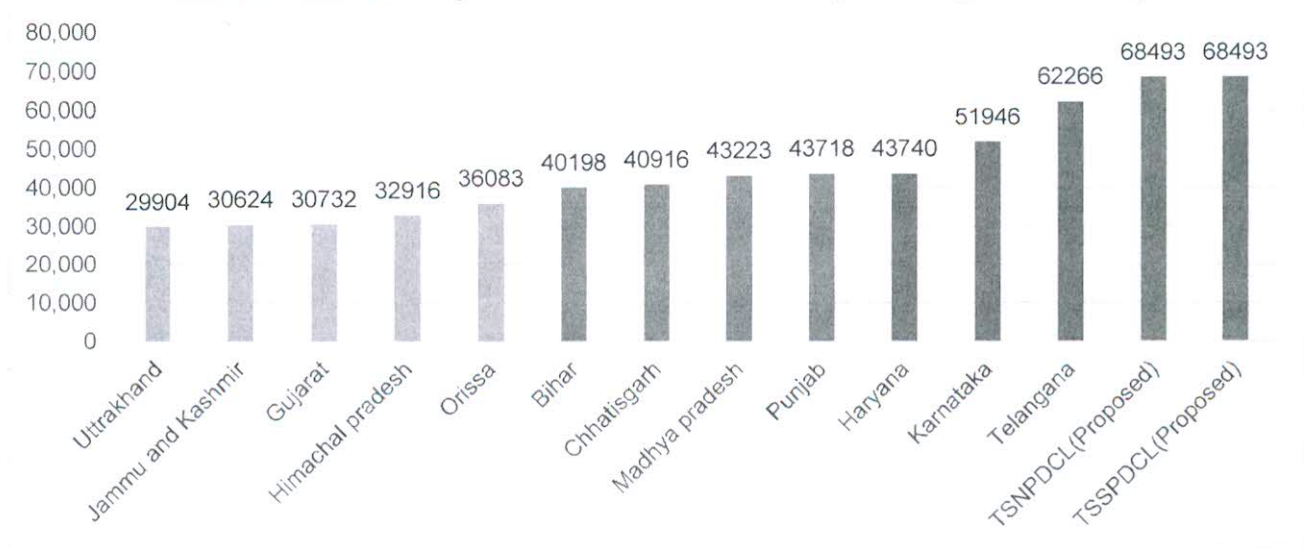
State wise comparison of tariff for Commercial Consumers

#	State	Fixed Charges	Energy Charges (INR/unit)
1	Jammu & Kashmir	INR 95/KW month for Three phase	For Three phase For all units – INR 4.55
2	Uttarakhand	Fixed Charges • 0- 25 kW – INR 35 per kW	• 0- 25 kW – INR 4.55 per unit; • Above 25 kW - 4.55 INR per kVAh
3	Himachal Pradesh	Single part tariff for load < =20 kVA • Consumer service charges – INR 70 per month ; Two part tariff for load > 20 kVA • Consumer service charges – Nil • Demand Charges – INR 80 per kVA per month	Single part tariff for load < 20 kVA – INR 4.95; Two part tariff for load > 20 kVA & <= 100 kVA – INR 4.70
4	Chhattisgarh	Fixed Charges 0-3 kW - INR 60 per kW	• 0- 100 – INR 4.40

#	State	Fixed Charges	Energy Charges (INR/unit)
		Above 3 kW - INR 120 per kW	<ul style="list-style-type: none"> • 101- 500 – INR 4.90 • Above 500 unit – INR 6.20
5	Jharkhand	<ul style="list-style-type: none"> • Connection charges <=2 kW – INR 32 / connection/month; • Fixed charge (> 2 kW) - INR 190/KW/ month 	<ul style="list-style-type: none"> • > 2 kW - INR 5.65
6	Punjab	Nil	<ul style="list-style-type: none"> • Consumption <100 units – INR 6.53 • Consumption >100 units – INR 6.75
7	Bihar	INR 200/kW per month	<ul style="list-style-type: none"> • Consumption <100 units – INR 5.15 • Consumption >100 units – INR 5.45 • Consumption <100 units – INR 5.85
8	Madhya Pradesh	INR 95/kW per month	<ul style="list-style-type: none"> • Consumption <50 units – INR 5.75 • Consumption >50 units – INR 6.50
9	Haryana	Nil	<ul style="list-style-type: none"> • For all units - INR 6.75
10	Karnataka	Fixed Charges <ul style="list-style-type: none"> • Rs. 40 per kW 	<ul style="list-style-type: none"> • 0- 50 units: INR 6.95 • Rest of units – INR 7.95
11	Rajasthan	Fixed Charges INR 85/kW/ month	<ul style="list-style-type: none"> • 0- 100 – INR 6.75 • 101- 200 – INR 7.15 • 201- 500 – INR 7.45 • Above 500 unit – INR 7.85
12	Telangana (Existing)	53	<ul style="list-style-type: none"> • 0-50 units: 6.6 • 50-100 units: 7.8 • 100-300 units: 8.6 • 300-500 units: 9.1 • More than 500 units: 9.7
13	TSNPDCL(Proposed)	53	<ul style="list-style-type: none"> • 0-50 units: 7.26 • 50-100 units: 8.58 • 100-300 units: 9.46 • 300-500 units: 10.01 • More than 500 units: 10.67
14	TSSPDCL(Proposed)	53	<ul style="list-style-type: none"> • 0-50 units: 7.26 • 50-100 units: 8.58 • 100-300 units: 9.46 • 300-500 units: 10.01 • More than 500 units: 10.67

Source: Relevant Tariff Orders

Cost of electricity for a telecom tower (in INR per month)



Assumption: a tower with a connected load of 12 kW, load factor of 0.75 and 24 hours power supply from grid.

Based on the above and considering the current load profile of an average telecom tower, it is costlier to operate a telecom tower in Telangana as compared to all other major states in the country. This includes the adjacent states in Southern India. It can be observed from the table and the graph shown above that the existing tariff for Commercial category in Telangana is already amongst the highest tariffs for commercial consumers in India. If the tariffs are not brought down it would be detrimental to the effective operations of a commercial consumer of electricity like Indus Towers.

The two state utilities have proposed a relative increase of in Annual Revenue Requirement. TSNPDCL has asked for an increase of ARR from INR 8,116.548 crore (estimated) in 2015-16 to INR 8,830 crore in 2016-17 at an increase of 9% and TSSPDCL has asked for an increase of ARR from INR 20,286.57 crore (approved) in 2015-16 to INR 21,376.86 crore in 2016-17 at an increase of 7%. And in such scenario if the additional burden of increased ARR would increase the operational cost of the consumer impacting the quality of services.

Also, it should be noted that the cross subsidy levels in the state have been consistently high and the currently prevalent Avg. Cost of Supply (ACoS) at 180% is among the highest prevalent in the country.

The current variance of electricity tariff for Telecom tower with the Cost of supply is as below:

	TSNPDCL		TSSPDCL	
	FY 15-16 (As per tariff order)	FY 16-17 (Proposed)	FY 15-16 (As per tariff order)	FY 16-17 (Proposed)
Charge per unit(INR) at current tariff (Assuming 12kW load, load factor 75%)	9.71	10.7	9.71	10.7
Cost of supply for LT Cat II - Non-domestic category(INR/unit)	8.4	6.85	6.85	6.8
% Cross subsidy surcharge w.r.t Cost of supply for LT Cat II - Non-domestic category	116%	156%	142%	157%
Average cost of supply(ACOS) (INR/unit)	6.19	6.66	5.43	6.35
% Cross subsidy surcharge w.r.t Average cost of supply(ACOS)	157%	161%	179%	169%

As per the above table it can be seen that the prevailing charges for Telecom tower are not in line with the spirit of the National Tariff policy which stipulated that all tariffs should be within $\pm 20\%$ of the average cost of supply by FY 2010-11 and after that there should be progressive reduction in cross subsidies resulting into reduction in the $\pm 20\%$ limit. Also, given the socially favourable nature of telecom industry this is very much higher and needs to be reduced.

On the regulations side, Section 61 of the Electricity Act, 2003 lays down the broad principles and guidelines for determination of retail supply tariff. The basic principle is to ensure that tariff should progressively reflect the cost of supply of electricity and reduce the cross subsidies amongst categories within a period to be specified by the Commission. Also the mandate of the National Electricity Policy that the tariff should be within plus or minus 20% of the average cost of supply by FY 2010-11 should be the guiding principle.

Section 61 of the Electricity Act, 2003 lays down the broad principles and guidelines for determination of retail supply tariff:

“ 61 Tariff regulations.- *The Appropriate Commission shall, subject to the provisions of this Act, specify the terms and conditions for the determination of tariff, and in doing so, shall be guided by the following, namely:--*

(a) the principles and methodologies specified by the Central Commission for determination of the tariff applicable to generating companies and transmission licensees;

(b) the generation, transmission, distribution and supply of electricity are conducted on commercial principles;

(c) the factors which would encourage competition, efficiency, economical use of the resources, good performance and optimum investments;

(d) safeguarding of consumers' interest and at the same time, recovery of the cost of electricity in a reasonable manner;

(e) the principles rewarding efficiency in performance;

(f) multiyear tariff principles;

(g) that the tariff progressively reflects the cost of supply of electricity and also reduces cross-subsidies in the manner specified by the Appropriate Commission;

(h) the promotion of co-generation and generation of electricity from renewable sources of energy;

(i) the National Electricity Policy and tariff policy:

PROVIDED that the terms and conditions for determination of tariff under the Electricity (Supply) Act, 1948, the Electricity Regulatory Commissions Act, 1998, and the enactments specified in the Schedule as they stood immediately before the appointed date, shall continue to apply for a period of one year or until the terms and conditions for tariff are specified under this section, whichever is earlier ”

The basic principle is to ensure that tariff should progressively reflect the cost of supply of electricity and reduce the cross subsidies amongst categories within a period to be specified by the Commission. Also the mandate of the National Electricity Policy that the tariff should be within plus or minus 20% of the average cost of supply by FY 2010-11 should be the guiding principle.

*“The mandate of the NEP that the **Tariff should be within plus or minus 20% of the average cost of supply by FY 2010-11** has been the guiding principle. In working out the cost of supply the Commission worked out the basis of average cost of supply, in the absence of relevant data for working out consumer category-wise cost of supply.”*

In the same context, taking reference to a decision by APTEL in the case of Mumbai Airport vs. MERC in 2011, we clearly see that in view of the nature of the services provided by the petitioner and increase in cross subsidy imposed by MERC, APTEL directed the commission to recalculate the tariff taking into account the National Tariff Policy recommendations of +/- 20% cross subsidy limits. The following are extracts quoted from the order.

Mumbai Airport vs. MERC (2011)

*“(i) The Appellant contends that the Appellant has been made to pay a higher level of cross subsidy under the new tariff fixation. **This Tribunal has been consistently taking the view that no particular category of consumers can be made to pay a higher tariff on the ground that those consumers were responsible for purchase of costly power.** The purchase of costly power depends upon the total consumption in the area of consumption of the Distribution Licensee. No particular category of consumers can be blamed for such increase.*

(.....)

(ii) According to the Appellant, there is an increase in cross subsidy level and consequently there is a tariff shock. The Appellant by virtue of the nature of the business has to consume huge quantity of electricity. Keeping in view the nature of services being provided by the Appellant, it will not be advisable that the Appellant should in any way reduce the quality of its services. **Causing the tariff shock as well as the increase in cross subsidy are both opposed to National Tariff Policy. Therefore, the impugned order in respect of this aspect has to be interfered with.**

(....)

(iv) **The State Commission will have to re-determine the tariff for the Appellant keeping in view the monetary implications for the two sides, the nature of the consumption of the Appellant as also the observations made by us in our judgment. On such re-determination, the amounts found to have been paid in excess by the Appellant to the Distribution Company will have to be refunded. The said excess amount instead of being refunded at one stroke will be adjusted as against the future electricity bills of the Appellant at the rate of not more than Rs. 1 crore per month."**

Taking another reference to another APTEL's order for Tata Steel vs. OERC in 2011, we see again that the commission had been directed by APTEL to calculate the tariff based on +/- 20% cross subsidy as guided by National Tariff Policy. The following are extracts from the order:

Tata Steel vs. OERC (2011)

*"The State Commission is directed to correctly determine the variation in tariff of each consumer category/subcategory with respect to average cost of supply in accordance with the directions given in this **Judgment to see whether the mandate of the Tariff Policy of having tariff within \pm 20% of the average cost of supply has been met or not in respect of the appellants' category and other categories"***

As it is apparent from the above APTEL orders, the hike asked by the state utilities is unjustified and in violations of APTEL orders as well as National Tariff Policy recommendations.

It is the petitioner's humble submission that telecom towers with stable energy consumption 24 hours a day allow the utility to schedule demand in advance and hence the need to buy expensive short term power is significantly reduced for these consumers. This in turn leads to reduced cost to supply for these consumers.

Standard of Performance has no mention of compensation provided to consumers in case load shedding by the utility. Hence this leads to unreliability of the power situation at feeder level for the petitioner. The reliability of electricity at tower sites determines the quality of supply that the petitioner shall be able to deliver to consumers of telecom services. The charges (fixed and variable) being incurred from such consumers should be reflective such feeder level electricity unreliability that tower consumers face in daily operations.

It is our humble request to the commission that such consumption pattern variations and quoted APTEL decision for tariff rationalization based on National Tariff Policy recommendation be taken as inputs in the tariff determination process for the state in FY 2015-16, and more favourable operating conditions pertaining to telecom industry be considered when designing the tariff in the state.

2. Introduction of a new Sub-category for Telecom Towers within Commercial category

Quoting from Section 62 (3) of the Electricity Act 2003:

“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 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.”

Taking a cue from the above section of the Electricity Act, 2003, Commissions across various states in India have introduced specific sub-categories for certain types of consumers under the commercial category as can be observed across various states as shown in the table below:

State wise comparison of sub-categories for Commercial Consumers

#	State	Sub-categories under Commercial	Applicability
1	Uttarakhand	RTS-2 - 1.1	(i) Government/Municipal Hospitals (ii) Government/Government Aided Educational Institutions (iii) Charitable Institutions registered under the Income Tax Act, 1961 and whose income is exempted from tax under this Act
		RTS-2 - 1.2	Small Non Domestic Consumers with connected load upto 4 kW and consumption upto 50 units per month
		RTS-2 -1.3	Other Non-Domestic Users including single point bulk supply above 75 kW for shopping complexes/multiplex/malls including common facilities (such as lifts, common lighting and water pumping system).
		RTS-2 -1.4	Independent Advertisement Hoardings: All commercial (road side / roof top or on the side of the buildings etc.) standalone independent advertisement hoardings such as private advertising sign posts/ sign boards/ sign glows/flex that are independently metered through a separate meter.
2	Madhya Pradesh	LV 2.1	Light, fan and power to Educational Institutions including workshops & laboratories of Engineering Colleges / Polytechnics/it is, Hostels for students or working women or sports persons
		LV 2.2	Light, fan and power to Railways (for purposes other than traction and supply to Railway Colonies/water supply), Shops/showrooms, Parlours, All Offices, Hospitals and medical care facilities including Primary Health Centres, clinics, nursing homes belonging to either Govt. or public or private organisations, public buildings, guest houses, Circuit Houses, Government Rest Houses, X-ray plant, recognized Small Scale Service Institutions, clubs, restaurants, eating establishments, meeting halls, places of public entertainment, circus shows, hotels, cinemas, professional's chambers (like Advocates, Chartered Accountants, Consultants, Doctors etc.), bottling plants, marriage gardens, marriage houses, advertisement services, advertisement boards/ hoardings, training or coaching institutes, petrol pumps and service stations, tailoring shops,

#	State	Sub-categories under Commercial	Applicability
			laundries, gymnasiums, health clubs, telecom towers for mobile communication and any other establishment (except those which are covered in LV 2.1), who is required to pay Commercial tax/service tax/value added tax (VAT)/entertainment tax/luxury tax under any Central/State Acts.
3	Jharkhand	Non Domestic Services (NDS)- I (Rural)	For all categories under rural not covered under NDS – II (Urban) and for connected load not exceeding 2 kW
		Non Domestic Services (NDS)- II (Urban)	For Urban Areas covered by Notified Areas Committee /municipality / Municipal Corporation / All District Town / All Sub-divisional Town / All Block Hqrs. /Industrial Area & Contiguous Sub-urban area, market place rural or urban & connected load up to 85.044 KW (100 kVA), except for categories covered under NDS-III. For commercial consumer of rural area having connected load above 2 kW
		Non Domestic Services (NDS)-III	Advertisements and hoardings at commercial establishments, public places etc.
4	Kerala	LT-VI (A) Non-domestic	Applicable to premises of religious worship, government or aided private educational institutions, libraries and reading rooms of educational institutions, government hospitals, private hospitals and charitable institutions etc.
		LT- VI (B) Non-domestic	Applicable to offices and institutions under State/Central Government, Corporations, Boards under State/Central Government/Local bodies, Kerala Water Authority (KWA); Kerala State Road Transport Corporation (KSRTC); Kerala State Water Transport Corporation (KSWTC) Hostels run by the State or Central Government; hostels run by State Social Welfare Board etc. Offices of advocates or chartered accountants or company secretary or consulting engineers or tax consultants or architects or cost accountants or of management consultants Social organizations like museums, zoo etc.
		LT- VI (C) Non-domestic	Applicable to offices or institutions under, Income tax/Central Excise, Customs, offices under motor vehicles department/ sales tax department/ excise department etc.
		LT- VI (D) Non-domestic	Applicable to orphanages, schools and hostels of mentally retarded students, deaf/dumb/blind/physically handicapped persons, old age homes etc.
		LT- VI (E) Non-domestic	sports and / or arts clubs (with connected load not exceeding 2000 W);; sailing and / or swimming clubs (with connected load not exceeding 2000 W);; gymnasium (with connected load not exceeding 2000 W); libraries and reading rooms other than those of educational institutions; press clubs; offices of political parties approved by Election Commission of India; e-toilet and public comfort stations
		LT- VI (F) Non-domestic	Private hospitals, private clinics, private clinical laboratories, private X-ray units, private mortuaries, private blood banks, private scanning centres, computer training institutes, self-financing educational institutions (including hostels), private coaching or tuition centres, cinema studios, Audio/video cassette recording/duplication units, CD recording units
		LT-VII (A) Commercial	Commercial consumers such as shops, other commercial establishments for trading, showrooms, display outlets,

#	State	Sub-categories under Commercial	Applicability
			business houses, hotels and restaurants (having connected load exceeding 1000 W), private lodges, private hostels, private guest houses, private rest houses, private travellers bungalows, freezing plants, cold storages, milk chilling plants, bakeries (without manufacturing process), petrol/diesel/ LPG /CNG bunks, automobile service stations, computerized wheel alignment centres, marble and granite cutting units, LPG bottling plants, house boats, etc.
		LT-VII (B) Commercial	Commercial consumers such as shops, bunks, hotels, restaurants, telephone / fax / e-mail / photocopy booths and internet cafes having connected load of and below 1000 Watts and consumption below 300 units. Energy charges applicable as per LT-VII(A) for consumers with load of or below 1000 Watts with consumption over 300 units.
		LT-VII (C) Commercial	Cinema theatres; circus; sports and arts clubs, sailing or swimming clubs and gymnasium having connected load exceeding 2000W.
		LT-VIII (A) Unmetered street lights	Various categories of unmetered public lighting per lamp
		LT-VIII (B) Metered street lights and Traffic Signal Lights	Meter street lights and tariff signal lights
		LT-IX Display lighting and hoardings	Display lighting, hoarding, and external illumination of buildings for publicity and sales- promotion purposes.
5	Delhi	Mushroom Cultivation	Available for mushroom growing/cultivation up to 100 kW
6	Tamil Nadu	Tariff I-A	Domestic purpose, Handlooms in residences of handloom weavers, Public conveniences and Integrated woman sanitary Complexes, Community Nutrition Centres, Anganwadi Centres, Nutritious Meal Centres and school buildings associated with the Government welfare scheme, etc.
		Tariff I-B	Huts in Village Panchayats and special grade panchayats, houses constructed under Jawahar Velai Vaiipu Thittam, TAHDCO Kamarajar Adi Dravidar housing schemes, huts in Nilgiris District and hut with concrete wall in the schemes of state and central Governments.
		Tariff I-C	For railway colonies, plantation worker colonies, defence colonies, Police Quarters, Residential quarters of Kudankulam Nuclear power project. This tariff is also applicable for the HT/EHT consumers who opt for extending supply under this category for their residential colonies / quarters, etc.
		Tariff II-A	Public Lighting, Public Water Supply and Public Sewerage System belonging to Government/local bodies /TWAD Board/MMSSB, Railway level crossings, private agriculture wells/private wells hired by Government/CMWSSB/TWAD Board/Local bodies to draw water for public distribution etc.
		Tariff II-B (1)	Government and Government aided Educational Institutions, Hostels run by such Educational Institutions, Hostels run by Adi-Dravidar and Tribal Welfare, Backward Class Welfare Departments and other Government agencies, Government Youth Hostels, Scouts camps, Government Hospitals, Hospitals under the Control of local bodies etc.

#	State	Sub-categories under Commercial	Applicability
		Tariff II-B (2)	Private educational institutions and hostels run by them
		Tariff II-C	Places of public worship including Trichy Rockfort temple, its environs and for the road and path ways leading to the temple.
		Tariff III-A(1)	Cottage and tiny industries, Micro enterprises engaged in the manufacture or production of goods pertaining to any industries specified in the first schedule to Industries
		Tariff III-A(2)	Power looms, Braided Cords Manufacturing and related ancillary tiny industries engaged in warping, twisting, and winding
		Tariff III-B	Welding sets, Information Technology services
		Tariff IV	Pumping of water/supply of water to all agricultural and allied activities such as cultivation of food crops, vegetables, seeds, trees and other plants. Sericulture, floriculture, horticulture, mushroom cultivation, cattle farming, poultry and other bird farming, fish/prawn culture etc.
		Tariff V	Multi tenements/multi-storeyed buildings/residential complexes where the number of flats/Tenements utilized for commercial and other purposes exceeds 25% of the total built up area etc.
		Tariff VI	Temporary activities, construction of buildings and lavish illumination etc.

Source: Relevant Tariff Orders

It can be observed that states such as Madhya Pradesh, Jharkhand and Uttarakhand have introduced sub-categories targeting consumers based on type of activity within non-domestic/commercial category

Creation of a special sub-category under the commercial category should be considered for all telecom towers due to the reasons discussed below:

2.1. Coverage of telecom tower operators under Universal Service Obligation

Telecom tower operators are covered by a Universal Service obligation as defined in the amended Indian Telecom Act, 1985 under which all major telecom players have the obligation to provide access to basic telegraph services to people in rural and remote areas at affordable and reasonable prices.

Clause 6.0 of New Telecom Policy 1999, stipulates the Universal Service Obligations (USO) as shown below:

“The Government is committed to provide access to all people for basic telecom services at affordable and reasonable prices. The Government seeks to achieve the following universal service objectives:

- *Provide voice and low speed data service.*
- *Achieve Internet access to all district headquarters.*
- *Achieve telephone on demand in urban and rural areas*”

The provision of world class telecommunications infrastructure and information is the key to rapid economic and social development of the state.

Hence, it is the humble submission of the petitioner to the Hon'ble Commission to consider classifying telecom towers under a separate sub-category within the existing Commercial Category taking a cue from the Section 62 (3) of the Electricity Act 2003, given the socially favourable nature of telecom industry and the nearly flat load profile which leads to a lower cost of serve for such consumers. Taking into account the high commercial tariffs applicable on such consumers currently, a suitable relaxation in the tariff applicable to such a sub-category should be strongly considered.

2.2. Essential nature of business

Essential services like Telecom Towers are required to provide an uninterrupted service and hence form the backbone for many other essential services like medical emergencies, law and order response, weather emergencies etc. These essential services depend on efficient functioning of telecom and in turn telecom services depend on efficient supply of electricity at tower sites. Hence such services like telecom towers should be provided relief by formation of a sub category for the industry under commercial, tariffs for which should be reflective of actual cost to serve for the consumer.

Telecom services are like a lifeline to all businesses and has been notified as essential services by the Department of Telecommunication, which are at par with defence, national security and other emergency services like medical emergencies, fire services etc. and in fact permeates each & every section of society and generates huge revenue for the State & Central exchequer. Seeing the importance of mobile communication and Mobile Communication Towers, Secretary, Department of Telecommunication, Government of India, has written a letter to all the Chief Secretaries of State Governments and Administrators of Union Territories vide D.O No.17-2/2013-S-1 dated 08-Aug- 2013, which covers:

Telecom towers have been given infrastructure status by Government of India vide gazette notification no. 81, dated 28.03.2012. All benefits, as applicable to infrastructure industry, should be extended. Electricity connection may be provided to BTS site on priority.

2.3. Favourable Load/ Consumption Profile

The consumption/load profile of a telecom tower is unique amongst general commercial consumers given the high load factor and nearly flat load profile of such connections.

- **High Load factor:** The telecom towers continuously consume power all around the day thereby maintaining a high load factor through a high sale by connected load ratio. This is beneficial as it allows spreading of fixed cost over larger number of units sold.
- **Flat Load profile:** Around 58% of electricity is consumed by a telecom tower, is on account of electronic components which include BTS, Microwave radio equipment and antennas while the air conditioning constitutes 26% of the tower's electricity consumption. Given that 84% of the power consumed by/load of the telecom towers are fairly constant over a 24 hour

period, telecom towers do not contribute significantly to the peak hour consumption of the discoms and are a part of the base load of the distribution utility. Such a load profile doesn't put pressure on the distribution utility to buy additional power at peak hours at higher prices thereby leading to a **lower 'cost to serve'** for such consumers.

- Commercial consumers with consumption profiles consisting of extra demand in peak hours necessitate purchase of short term power which is about INR 1.00 /unit more costly than the average power purchase rate of the utility. As the cost of power purchase accounts for over 70 % of the overall cost incurred by the utility in supplying power to consumers, the cost to serve for commercial consumers such as Indus with a relatively flatter consumption profile is much lesser than consumers with a higher demand during the peak hours.
- **Power factor** of telecom towers load is maintained close to unity (1). This has been done by installation of power factor correction devices as a part of capital expenditure of setting up the towers. This minimizing reactive loading of the electricity network and its ill effects.
- **Energy Efficiency:** Various measures to reduce the energy consumption per call made have been taken by the tower industry. They include sharing of tower infrastructure among various providers, provision of better insulation and integration with natural cooling to reduce air-conditioning consumption, promoting energy efficient active infrastructure. All these measure have contributed positively to lower energy consumption through policy change and better engineering along with additional capex in some cases.

2.4. Additional investment made to make up for deficiency in electric supply

Power consumed by load of the telecom towers is fairly constant and predictable (with 84% load being constant throughout) and need continuous electric supply for 24 hour period. Since the current supply is not reliable and is deficient, the petitioner is forced to use DG sets with battery back up on all BTS towers. This usage of costly power generated by DG sets forces companies such as Indus Towers Limited to incur additional capital expenditure and operational costs for maintaining reliability of supply. This pushes the net electricity charges of the telecom companies.

2.5. Contribution to overall productivity generation owing to the nature of business.

Worldwide the telecom sector has been recognized as large productivity generator and multiple studies have shown its spread has contributed to rise of economic activity and incomes of societies. Telecom industry directly and indirectly employs 10,000 approx. State based talent across wide spectrum of technical and managerial roles have seen their aspirations fulfilled through continuing growth of the sector. They are helping in driving the local economy and on an aggregate level, providing as many employment opportunities as other industrial consumers.

Hence, it is thereby **appealed** that the telecom tower industry forms a very different consumption profile and comes under the domain of essential service provider for social benefit. Considering the ease of serving such consumers, appropriate relaxations in tariff should be provided.

3. Redesigning of Time of Day scheme in the state

3.1. Implementation status of ToD in the country

- ⇒ All major states of India have already implemented TOD tariff, including the state of Telangana. However, this implementation is only across certain consumer categories. A list of some states with implementation status is given here:

State	TOD Available	Applicable for Category of Consumer
Uttar Pradesh	Yes	All voltage level consumer categories
West Bengal	Yes	All voltage level consumer categories
Karnataka	Yes	All voltage level consumer categories
Maharashtra	Yes	All voltage level consumer categories
Delhi	Yes	All voltage level consumer categories
Tripura	Yes	All voltage level consumer categories
Kerala	Yes	All voltage level consumer categories
Uttarakhand	Yes	All voltage level consumer categories
Punjab	Yes	Only HT consumers
Tamil Nadu	Yes	Only HT consumers
Madhya Pradesh	Yes	Only HT consumers

- ⇒ It can be seen, most of the states have already implemented TOD tariff, and some like West Bengal, Delhi, and Maharashtra have made it available across all consumer categories, irrespective of voltage levels.
- ⇒ As has been already stated, the implementation of TOD and increasing its coverage has been mandated by the Electricity Act and FOR guidelines National Tariff Policy and National Electricity Policy.

3.2. Design principles of ToD in India

- ⇒ The ToD tariff in Telangana is unique in its design, as it levies huge penalty on consumers for consuming power in peak hours, and there is little incentive for shifting the usage to off-peak hours. Even if the consumption of power is shifted to off-peak hours it might still lead to losses for the consumer given the gap in penalty and incentives. This mechanism is not incentivizing consumers enough for taking on more power during the peak load hours of the day, and thus the design philosophy of ToD, i.e. balancing the load factor of distribution companies has to be relooked at.
- ⇒ The ToD design in Telangana is unlike any other state in the country. We have compiled a brief analysis of the prevailing regulations concerning TOD tariff in some of the states in the country.

⇒ Gujarat

The case for Gujarat paves way for other states in India, as Gujarat implements TOD Tariff for HT consumers. While provision of TOD for LT consumers exists, that is limited to only WWSP category (Water works and sewage pumping) the latest Tariff Schedule for Gujarat states for HT consumers:

*For the consumers eligible for using supply at any time during 24 hours, entire consumption shall be billed at the energy charges specified above. However, the energy consumed during night hours of 10.00 PM to 06.00 AM next morning as is in excess of one third of the total energy consumed during the month, shall be **eligible for concession** at the rate of 85 paise per unit.*

⇒ West Bengal

West Bengal is a strong case in point, as it has made TOD tariff available to all category of consumers, regardless of voltage level or power demand. West Bengal Electricity Regulatory Commission has separate tariff schedules – for consumers on normal retail tariff, and for consumers opting for TOD tariff.

As an example, tariff applicable on Commercial (Urban) consumers is given below:

Normal Retail Supply Tariff –

<i>First 180 units</i>	<i>Rs 5.92</i>
<i>Next 120 units</i>	<i>Rs 7.12</i>
<i>Next 150 units</i>	<i>Rs 7.75</i>
<i>Next 450 units</i>	<i>Rs 8.18</i>
<i>Above 900 units</i>	<i>Rs 8.67</i>

Optional TOD Tariff –

<i>06:00 hrs – 17:00 hrs</i>	<i>Rs. 7.47 for all units consumed</i>
<i>17:00 hrs – 23:00 hrs</i>	<i>Rs. 8.96 for all units consumed</i>
<i>23:00 hrs – 06:00 hrs</i>	<i>Rs. 6.35 for all units consumed</i>

⇒ **Maharashtra**

Maharashtra has gone forward and made TOD tariff available for LT as well as HT voltage levels. The LT tariff applicable for LT-Industrial consumers is:

0600 to 0900 hours	Rs. 0.00 <i>(over and above normal energy charges)</i>
0900 to 1200 hours	Rs. +0.80 <i>(over and above normal energy charges)</i>
1200 to 1800 hours	Rs. 0.00 <i>(over and above normal energy charges)</i>
1800 to 2200 hours	Rs. +1.1 <i>(over and above normal energy charges)</i>
2200 to 0600 hours	Rs. -2.5 <i>(discount on normal energy charges)</i>

⇒ **Uttar Pradesh**

The regulatory commission of UP has allowed TOD tariff applicability to be extended to LT level consumers too, by covering LMV-6 (Small & Medium Power) Consumers. The TOD tariff rates are as below:

22:00 hrs – 06:00 hrs	- 7.5% <i>(discount on normal energy charges)</i>
06:00 hrs – 17:00 hrs	0%
17:00 hrs – 22:00 hrs	+ 15% <i>(increase on normal energy charges)</i>

⇒ Karnataka

Karnataka levies TOD tariff on LT consumers as well, by covering LT-V category consumers under TOD. Time of the day tariff was made mandatory Order for installations under HT2 (a), HT2 (b) and HT2 (c) with contract demand of 500 KVA and above.

22.00 Hrs to 06.00 Hrs	(-) 125 Paise per unit
06.00 Hrs to 18.00 Hrs	0
18.00 Hrs to 22.00 Hrs	(+) 100 Paise per unit

⇒ Punjab

Punjab has introduced TOD tariffs in the state recently. As per the latest Tariff Order, the TOD tariff has been introduced for the time being for Large Supply Industrial Category and Medium Supply Industrial Category consumers only, but pending a detailed look at the applicability & utilization, they may look at extending this provision to other tariff categories too.

06.00 AM to 06.00 PM	Normal Tariff for FY 2014-15
06.00 PM to 10.00 PM	Normal Tariff for FY 2014-15 plus PLEC during peak load hours as approved by the Commission in the Tariff Order for FY 2013-14
10.00 PM to 06.00 AM	Normal Tariff for FY 2014-15 minus Rs. 1.00 per kVAh

3.3. Benefits of ToD Tariff Implementation

⇒ The following factors prevalent in the power sector of our country make TOD tariff implementation crucial:

- The price (or tariff) of electricity:
 - » The electricity tariff is paid for increasing consumption, hence it should be reflective of the incremental cost of supplying a unit of electricity.
 - » Therefore, tariffs should be related to the economic value of future resources to be utilized to meet power demand increases.
- Balancing the load factor of a Discom:

- » The load factor of a Discom gives an important indication as to how efficiently it is able to cater to the demand of its consumers. Higher load factor is desirable as it denotes a higher operational efficiency of power plants.
- » Another incentive to reduce the gap between the peak & average demand is the increasing marginal costs of generation with increase in demand. Since as per Merit Order Dispatch, higher the peak-load of the system, higher is the cost of electricity.
- » Further, by reducing the peak load, the fixed cost of meeting a given demand can be lowered, as any increase in demand can be accommodated without additional investments in new generation capacities. Also, security of supply can be increased without additional cost.

⇒ Thus the relationship between TOD tariff and improving the load factor is very clear. By charging different tariff at peak & off-peak periods, customers are incentivized to shift their loads to off-peak hours, thereby reducing the overall system peak demand and improving the system load factor.

⇒ Cumulative benefits of wide-scale implementation of TOD tariffs:

- Customers responding to high prices and curtailing electricity consumption.
- With cumulative consumption reduction at end consumer level, the peak power demand drops, which in turn would reduce the market clearing price at the peak.

⇒ These benefits will also mean overall sectoral improvement, by leading to:

- Lesser need to build peaking power plants.
- Lower stress on Transmission & Distribution networks resulting in lesser congestion and outages.
- Lower Risk for entities purchasing power from the spot markets.
- Reduction in Greenhouse gas emissions.
- Higher availability of power translating into higher productivity at end consumer level.

⇒ Forum of Regulators: FOR had conducted a study on overall implementation and analysis of TOD tariff in India. The study pointed out all advantages and results of the ongoing implementation of TOD tariffs in the country. The key conclusions of the study are replicated here for reference -

- *The positive impact of TOD as one of the DSM measures on the overall state system has been seen to a certain extent in all the states*
- *In the scenario of gap between demand and supply the system load profile is being maintained by the utilities through the load shedding.*
- *Based on the analysis carried out it is observed that there is a positive impact on the system load profile with the increasing tariff differential between peak and off-peak tariff.*
- *It is observed from the analysis of the information supplied by the distribution licensees in West Bengal and data form TPC-D that extension of TOD to other consumer categories/ introduction of compulsory TOD instead of optional TOD tariff has had a positive impact on the licensee's system load factor.*

3.4. Telecom towers present a very unique load profile for the discom

- The consumption and load profile of a telecom tower is unique amongst general commercial consumers, given the high load factor and nearly flat load profile of such connections.
- Around 58% of electricity consumed by a telecom tower is on account of electronic components which include BTS, Microwave radio equipment and antennas, while the air conditioning constitutes only 26% of the tower's electricity consumption.
- 84% of the power consumed (and thus load) of the telecom towers is fairly constant over a 24 hour period, and are a part of the base load of the Discoms.
- Such a load profile doesn't put pressure on the Discoms to buy additional power at peak hours at higher prices thereby leading to a lower 'cost to serve' for such consumers.

⇒ The various aspects to be considered for TOD applicability on telecom towers are:

- Regulatory policies and spirit of the prevailing regulations:
 - » The Electricity Act 2003 clearly states that "the commission shall not show undue preference to any consumer of electricity". This specifically address that all categories of consumers should be eligible for TOD tariff, and not only consumers of HT voltage levels.
 - » The recent National Tariff Policy released in 2016 emphasizes on the importance of two part tariff have mandated that it is to be made available for all consumers within 5 years. Section 8.4.1 states

"Two-part tariffs featuring separate fixed and variable charges and time differentiated tariff shall be introduced on priority for large consumers (say,

consumers with demand exceeding 1 MW) within one year and subsequently for all consumers within a period of five years or such period as may be specified. This would also help in flattening the peak and implementing various energy conservation measures.”

- » The National Tariff Policy also supports TOD tariffs by saying “This (TOD tariffs) would help in flattening the peak and implementing various energy conservation measures”.
- » Forum of Regulators has also stated that “Time of the day metering is important while propagating and implementing Demand Side Management and achieving energy efficiency. Hence, TOD metering... should be introduced wherever it has not already been done”. Again, emphasis is put on inducting more consumer categories in TOD regulations.

- Technical

- » Telecom tower consumers are willingly undergo the required capital expenditure in form of installation of special TOD meters.

- Legal

- » Telecom tower operators are covered by a Universal Service obligation as defined in the amended Indian Telecom Act, 1885 under which all major telecom players have the obligation to provide access to basic telegraph services to people in rural and remote areas at affordable and reasonable prices.
- » Clause 6.0 of New Telecom Policy 1999, stipulates the Universal Service Obligations (USO) as shown below:

“The Government is committed to provide access to all people for basic telecom services at affordable and reasonable prices. The Government seeks to achieve the following universal service objectives:

- *Provide voice and low speed data service.*
- *Achieve Internet access to all district headquarters.*
- *Achieve telephone on demand in urban and rural areas*

.....”

- » Looking at an APTEL order from Appeal No. 80 of 2013, Dated: 25th October, 2013, Jaipur, Jodhpur & Ajmer Vidyut Vitran Nigam Limited v/s

Rajasthan Electricity Regulatory Commission; the following points support TOD tariff, as:

The relevant observations and findings of the Commission in the order are summarized as under:

i) ToD tariff cannot be applied unless the detailed load analysis justifies the introduction of ToD tariff.

ii) The purpose of ToD is to reduce peak demand and fill up the valleys in the demand curve of the distribution companies.

» Another APTEL order from Appeal No. 175 of 2009, Dated: 14th February, 2011, Tata Power Company Limited v/s Maharashtra Electricity Regulatory Commission; states that:

5.9.6 In order to reduce the requirements for capacity additions, the difference between electrical power demand during peak periods and off-peak periods would have to be reduced. Suitable load management techniques should be adopted for this purpose. Differential tariff structure for peak and off peak supply and metering arrangements (Time of Day metering) should be conducive to load management objectives. Regulatory Commissions should ensure adherence to energy efficiency standards by utilities.

5.9.9. (i) Thus the National Electricity Policy and Tariff Policy mainly provide for improving supply side efficiency and promoting time-of-the-day tariff to encourage the consumer in demand side management as far as the function of distribution licensee is concerned. The energy conservation/energy efficiency in respect of end use has been described mainly in the context of the Energy Conservation Act, 2001.

⇒ It can be concluded, based on the above presented facts, precedence, and reading of all acts & policies in the spirit of freedom & fairness of access to electricity, that telecom towers are an ideal candidate for inclusion in a redesigned TOD tariff regime the state.

4. Implementation of consolidated billing and roll out of AMR meters

The Hon'ble Commission is requested to consider the proposal of compulsory installation of AMR meters and roll out of consolidated billing for large consumers with multiple connections. For consumers such as Indus Towers, where each tower is billed separately, such a measure would drive the efficiency of the discoms by way of savings in billing cost while also ensuring accuracy. Moreover installing AMR meters will eliminate the direct cost of manual meter reading and in addition provide value addition by data analysis. The AMR system provides the utility with much more functionality than simply reducing meter reading cost. The objective of AMR technology is not only to reduce the losses but to bring up a system where energy is accountable and the network can be managed without human intervention.

Advantages for the stakeholders

Utility	Consumer
Ability to detect tamper events and outage occurrences	Precise consumption information for analysis
Billing shall be based on real time consumption rather than past/predicted consumption which in turn leads to more accurate metering for the utility	Clear and concise billing based on real consumption
More intelligence for business planning and accurate decisions at management levels	Automatic outage information and faster recovery for backup generators
Extensive information about the Quality of supply	Better and faster customer service
Saves the utility effort of periodic trips to each physical location to read the meter	Flag potential high consumption before consumer gets a high bill
Better network management and cost efficiency	Increased ability to detect faulty bills and faster resolution of the issues with utility
Lower amount of revenue blocked in disputes	Continuous monitoring of consumption ensures lower risk of disconnection due to disputed bills

Smart meters can become a win-win situation for the utility as well as consumers. Some of the key themes that the utility can drive with Smart meters are:

- **Revenue side improvements** – The automated meters would need minimal manual support in billing. Also will be able to provide consistent and granular data for improved accuracy, which in turn will lead to better bill collection efficiency. This in turn will lead to ease of cash flows for the utility and reduce operational costs. Further the cycle time from meter reading to bill generation and distribution will be considerably shortened leading to reduction in working capital.
- **Regulatory process adherence** – Regulators routinely have asked the utility to provide category wise cost of supply data. Smart meters are a rich source of information about quality as well as quantity of electricity supply. The data coupled with analysis and categorization can provide the framework for calculation of cost of supply and other metrics for each category.

- **Capex Prioritization:** The data received can also be used to detect and profile the various feeders or localities. This information can provide a proxy to quality of supply in the distribution network, which in turn can be used to prioritize capex by the utility. Data backed capex should have higher acceptance with the commission for incorporation in tariff.

The National Tariff Policy 2016 also mandates the installation of smart meters for all category of consumers. Section 8.4.3 says:

*“Appropriate Commission shall, therefore, mandate smart meters for:
 (a) Consumers with monthly consumption of 500 units and more at the earliest but not later than 31.12.2017;
 (b) Consumers with monthly consumption above 200 units by 31.12.2019.
 Further, two way smart meters shall be provided to all prosumers, who also sell back electricity to the grid as and when they require.*

.....

In order to enable energy audit in the distribution system, all distribution companies shall ensure smart meters in their electricity system throughout the chain from transformers at 132kV level right down to distribution transformer level at 11kV and further down to each consumer. Further, in order to reduce theft of power, the distribution companies should have enabling feature like distribution SCADA with distribution management system and energy audit functions. SERCs shall mandate these to be in place within two years.”

Indus towers is a large consumer of electricity with each tower typically consuming over 5000 units each month. Hence each Indus mobile tower site comfortably qualifies for installation of smart meters before 2017 end.

The commission would agree that AMR systems would be a milestone achievement for both the utilities as well as consumers. It is requested that appropriate directives be issued to the distribution utilities in order to consider such implementation on high priority. Indus Towers extends its full support for such initiative and is ready to help and work with the utilities for a successful implementation. In this regard a proposal has also been submitted to discoms for consideration. We request the utility to consider issuing a directive to the utility for taking the matter on an urgent basis.

Prayer to the Hon'ble Commission

Indus Towers with averments made above prays that the Hon'ble Commission may please consider the following objections on the ARR petition and Tariff proposal for FY 2016-17 of distribution utilities of the state:

- 1. Rationalization of tariff for telecom towers in the state:** The petitioner prays that the tariffs for consumers with flat load profile and high power factor requiring electricity on a continuous basis be considered separately while tariffs are being determined for the current year. It is also humbly submitted by the petitioner that quoted APTEL decisions (MERC Vs. Mumbai Airport and Tata Steel Vs. OERC) for tariff rationalization be taken as guiding factors in tariff determination process and tariff for the telecom consumers be considered to be reduced with immediate effect.
- 2. Introduction of a new Sub-category for telecom towers:** It is the humble submission of the petitioner to the Hon'ble Commission to consider classifying telecom towers under a separate sub-category taking a cue from the Section 62 (3) of the Electricity Act 2003, with a suitable relaxation in the applicable tariff given the socially favourable nature of telecom industry and the nearly flat load profile which leads to a lower cost to serve for such consumers.
- 3. Redesigning of the ToD tariff scheme in the state:** We wish to humbly submit, that Time of Day scheme of the state should be redesigned with a view to incentivise consumers to come on board willingly. Subsequently, the commission may kindly study all points, and consider favourably for coverage of mobile towers under a redesigned TOD tariff scheme in the state. We submit to the Commission that the TOD tariff be made applicable on telecom towers also. The Hon'ble Commission may also consider making it optional for certain willing consumers.
- 4. Implementation of Consolidated Billing & Roll out of AMR (Automatic Meter Reading) systems:** We request the Hon'ble Commission to provide directions to the utilities for supporting the proposal of installation of AMR meters and roll out of consolidated billing for large consumers with multiple connections. Such a measure would drive the efficiency of the discoms by way of savings in meter reading and billing cost while also ensuring accuracy. For consumers such as Indus Towers operating telecom towers, each of which is billed separately, implementation of consolidated billing and AMR would be greatly beneficial.