KSERC ADVISORY BOARD MEET @TVM ON 17-12-2018.

AR Satheesh,

KSERC Advisory Committee Member

- *The KSEBL'S ARR ,ERC & Tariff Propsal is for the Control Period 2018-2022.*
- *The ARR &ERC Submitted based on the KSERC Tariff Regulations-2018.*
- *Two Tariff Hikes Proposed in this Control period first one for 2018-19 and second one for 2020-21.*

KSEBL'S FIRST MULTI-YEAR TARIFF PROPOSAL

No	Head	2018-19	2019-20	2020-21	2021-22
1	ARR in Rs Cr	14247.34	15512.45	16348.70	17240.93
2	ERC in Rs Cr	13146.64	14113.20	14283.48	14722.01
3	Revenue Gap in Rs Cr.	1100.70	1399.05	2065.28	2518.92
4	Revenue Gap in Paise/kWh	50.84	60.91	86.56	101
5	Revenue Gap as % of ERC	8.37	9.91	14.46	17.11

SUMMARY OF KSEBL ARR & ERC PROPOSALS

Across All Category	Existing tariff	Revised Tariff 2018-19	Tariff 2019-20	Revised Tariff 2020-21	Tariff 2021-22
Sales in MU	21648.91	21648.91	22969.67	23858.52	24991.44
Revenue in Rs Cr(non tariif income and out side sales not accounted)	12430.59	13532.30	14501.47	15814.69	16451.77
Realisation in Rs/kWh	5.74	6.25	6.31	6.63	6.58
Avg.Power Purchase Cost in Rs/kWh	3.58	3.18		3.37	
Increase In Revenue in Rs.Cr		1101.71	2070.88	3384.10	4021.18
% Increase in Revenue		8.86	16.56	27.22	32.35

IMPACT OF THE TARIFF OF PROPOSAL

Across All Category	Existing tariff	Revised Tariff 2018-19	Tariff 2019-20	Revised Tariff 2020-21	Tariff 2021-22
Sales in MU	21648.91	21648.91	22969.67	23858.52	24991.44
Revenue in Rs Cr(Including out side sales,non tariff not considered)	13247.17	14326.91	15464.21	16332.88	16764.15
Realisation in Rs/kWh	5.75	6.61	6.73	6.85	6.71
Avg.Power Purchase Cost in Rs/kWh	3.58	3.18		3.37	
Increase In Revenue in Rs.Cr		1079.74	2217.04	3085.71	3516.98

IMPACT OF THE TARIFF OF PROPOSAL

Category of Consumer.	% Increase in 2018-19	% Increase in 2020-21	Unit Cost Increase from Current level in Rs	Total % Hike from present level
HT	7.25	8.44	1.09	16.47
EHT-66 KV	15.01	9.87	1.58	27.38
EHT-110KV	10.89	4.81	0.91	16.25
EHT-220 KV	15.74	9.33	1.45	24.87
Across Category	8.86	4.63	0.86	14.98

IMPACT OF THE TARIFF OF PROPOSAL

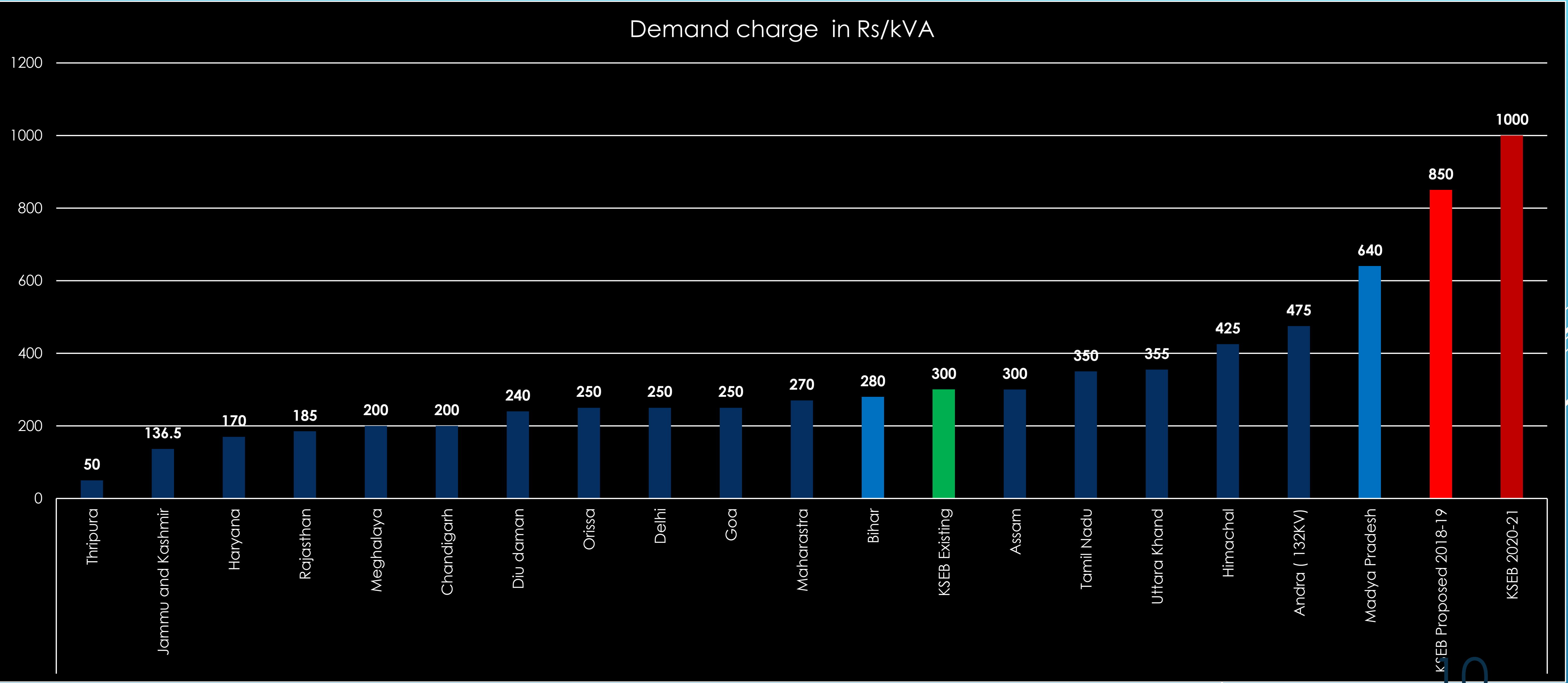
Category of Consumer.	Present Demand Charge in Rs/kVA	Demand Charge for 2018-19 in Rs/kVA	Demand Charge for 2020-21 in Rs /kVA.	Total % Hike from present level
HT	300	600	750	150 %
EHT-66 KV	300	850	1000	233 %
EHT-110KV	290	825	950	228 %
EHT-220 KV	280	700	850	204 %
HT -V Domestic	350	475	500	42.85 %

IMPACT ON MAXIMUM DEMAND CHARGES

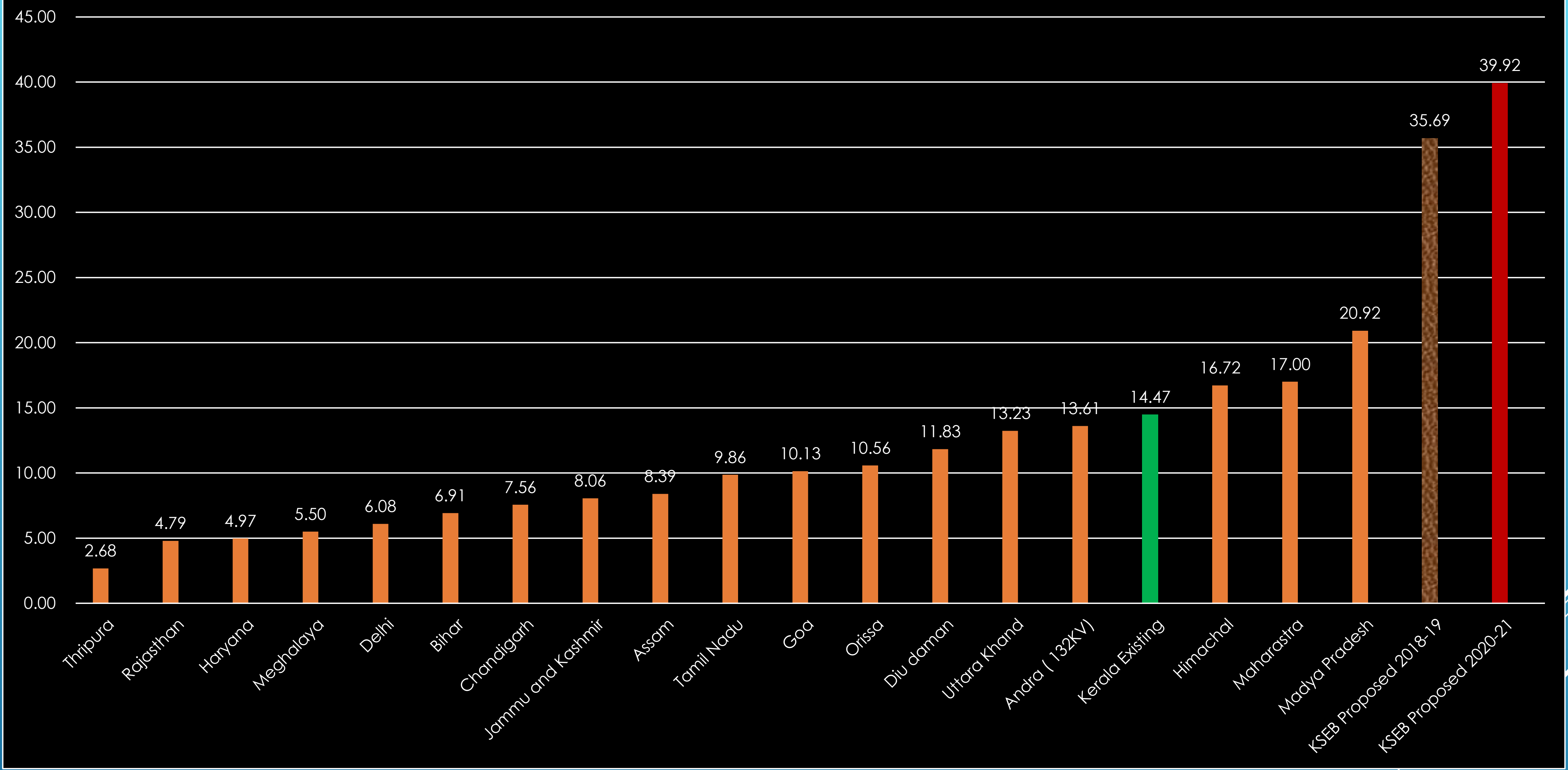
Category of Consumer.	Present Demand Charge as % of Total Cost	Demand Charge for 2018-19 as % of Total Cost	Demand Charge for 2020-21 as % of Total Cost
HT	18.19	33.75	38.68
EHT-66 KV	14.47	35.64	39.92
EHT-110KV	12.36	31.73	34.90
EHT-220 KV	20.61	44.54	48.43
HT-V,Domestic	29.42	41.43	42.99

IMPACT ON MAXIMUM DEMAND CHARGES

Category of Consumer.	Consumption in MU	CL/CD in MW/MVA	Load Factor in % .
LT	15470.15	21583	8.18
HT-V ,Domestic	14.97	10.32	16.56
HT-Commercial	644.82	329.24	22.36
HT-1A,Industrial	2050.72	803.38	29.14
EHT-66 KV, Industrial	247.34	91.05	31.01
EHT-110 KV, Industrial	631.13	168.55	42.75



AND CHARGE ACROSS INDIA IN RS/KVA.



DEMAND CHARGE AS % OF TOTAL COST ACROSS INDIAN STATES

TARIFF RATIONALIZATION - INCREASE IN FIXED COSTS

Hon'ble MERC in its MYT Order of MSEDCL for the period from FY 2016-17 to FY 2019-20 in paragraph 8.10 Rationalization of fixed cost, stated that

"The Commission has noted the increase in the supply availability of MSEDCL and, therefore, there is now a strong case for increase in the Fixed / Demand Charges, which were substantially reduced from the Order in Case No. 72 of 2007. ***However, such increase in Fixed Charges should be gradual and not steep. Therefore, the Commission has approved a gradual increase in Fixed / Demand Charges over the 3rd Control Period, just sufficient to keep the revenue recovery from Fixed Charges at around 17% of the total revenue of MSEDCL***

The increase in fixed charges should be gradual over a period of time and should not be steep, unnecessarily burdening the consumers. However, the Petitioner in its Petition has sought ***for 40% of recovery from existing 13% which is highly irrational***.

KEY OBJECTIONS

HT and EHT consumers with inductive load incur significant capital costs to install capacitor banks at their premises to maintain the power factor over the prescribed limits as set by the Hon'ble Commission.

The applicable tariff and the cross subsidy surcharge are significantly high for the HT & EHT consumers, ***the power factor incentive is the only incentive that a consumer is benefited to maintain its power factor***.

The Hon'ble Commission in its recent tariff Order vide order dated 17.04.2017 in the matter of determination of Tariff for the year 2017-18 on suo-motu proceedings has ordered to ***increase the power factor incentive from 0.25 % to 0.5% of energy charges*** for each 0.01% unit increase in power factor from 0.9 'for power factor between 0.9 to 1.00' in the case of LT IV ToD billed consumers and HT & EHT consumers. Such **increase in Power factor incentive is encouraging for the HT & EHT consumers to maintain the power factor within the permissible limits**

DECREASE AND EVENTUAL REMOVAL OF POWER FACTOR INCENTIVE

- However, KSEBL has proposed that the minimum power factor to be maintained by consumer to be eligible for the power factor incentive is be fixed as 0.95 and the rate of incentive for power factor improvement be fixed as 0.25% of energy charges for each 0.01 unit increase in power factor for 2018-19 and 2019-20 and fixed as 0.12% for FY 2020-22 for eliminating incentive by next control period.
- An illustration of the existing and proposed power factor incentive proposal along with proposed Energy charges for EHT 66kV consumer in the distribution network of Kerala, maintaining Unity power factor is shown below:-

Incentive per unit (paise per kWh) comparison for EHT 66 kV Industrial consumer of KSEB with Unity PF	Existing PF incentive for Unity PF – 5% of Energy charges in ps/kWh	Proposed PF incentive for Unity PF – 1.25% of Energy charges in ps/kWh
Existing Energy charges @ 5.2 per kWh	26	7
Proposed Energy charges @ 4.50 per kWh	23	6

- ***PF incentive in Maharashtra:- Rs. 1790 Crore, 7.65% of the HT EHT billing revenue and 3.5% of the total revenue. Whereas, in Kerala:- Incentive payout is Rs. 72 crore, which is 0.74% of the revenue in the existing tariff with 5 % incentive for unity pf.***

DECREASE AND EVENTUAL REMOVAL OF POWER FACTOR INCENTIVE

- *Comparison of the power factor incentive available across various states in India at Unity PF and the prospective average savings*

State	Power factor incentive % at Unity PF	Average Energy charges (Rs/kWh) for HT/EHT - Industrial Tariff	Incentive per unit (paisa/kWh)
Maharastra	7%(applicable to Demand and Energy Charge)	6.98	49
Madhya Pradesh	7%	6.50	46
Goa	5% -(applicable on both fixed and Energy charges)	4.40	26
Chandigarh	5% -(applicable on both fixed and Energy charges)	5.00	30
Bihar	7.5% - -(applicable on both fixed and Energy charges)	6.60	59
West Bengal	8%	7.15	57
Rajasthan	5%	6.15	31
Puducherry	5%	5.30	32
KSEBL Existing	5%	5.20	26
KSEBL Proposed FY19	1.25%	4.50	6
KSEBL Proposed FY21	0.6%	4.50	3

DECREASE AND EVENTUAL REMOVAL OF POWER FACTOR INCENTIVE

* Fixed charge considered to be 20% of the revenue composition for computation of PF incentive

- At present Industrial Units maintain Power factor at Unity will be getting **5 %** reduction in its Energy bill, reduction of **24 ps to 28 ps/kWh**
- The Present PF Incentive starts from 0.90 on-wards, where as in the New proposal it Starts from 0.95.
- In the new proposal Unity Power factor is eligible only **1.25 %** of Energy Bill, around **4.75 ps to 6 ps/kWh** even at UPF,for 2020-21 it will be **0.60%** around **2.28 ps to 2.88ps/kWh** .
- Also suggest elimination of PF incentive by this Control period.
- The PF incentive become a reality in Kerala after many years of fight by HT/EHT Association.
- Even in the latest Tariff Order by Maharashtra Electricity Regulatory Commission for 2019-20 the Incentive for Unity Power factor is ***7.0 % of Total Electricity Bill,including Maximum demand Charge, exclusion only for Duty and Tax components.***

POWER FACTOR INCENTIVE

Introducing kVAh billing will serve the purpose of simplification of billing, dispensing away power factor incentive and system strengthening

Reducing the power factor incentive and increasing the power factor penalty for all the consumers, as proposed by the Petitioner, to maintain power factor has a negative impact on the large HT & EHT consumers.

Consideration of apparent power (active as well as reactive) or also known as KVAh while billing the consumers is inevitable as reactive power being the integral part of the power supplied to consumers.

In the Suomotu tariff Order of the Hon'ble Commission, directed KSEBL to submit the proposal for kVAh billing for HT and EHT Consumers within six months ,and best our knowledge KSEBL not submitted the same.

INTRODUCTION OF KVAH BILLING FOR HT/EHT CONSUMERS

It is pertinent to mention that many states in India have migrated to kVAh based billing

S.No.	State	Year of implementation	Reason for migration to kVAh billing
1	Delhi	2000-01	Improved power factor
2	Chhattisgarh	2005-06	Improved power factor, Better Voltage Profile, Reduction in T&D losses & Overloading, Better Consumer Discipline
3	Jammu& Kashmir	2007-08	Greater Transparency, Reduction in Billing Errors, Reduced Admin. Burden, Better Power Factor.
4	Himachal Pradesh	2001-02	Improvement in system Power Factor, Reduction in billing errors, Reduction in losses, reduction in admin Burden.
5	U.P	2001-02	Improvement in system power factor, reduction in losses.
6	Uttrakhand	2003-04	Improvement in system power factor, reduction in losses.
7	Andhra Pradesh	2011-12	Improvement in power factor, reduction in demand & demand charges, reduction in system losses & overloading, improvement in voltage profile
8	Haryana	2012-13	Improvement in system power factor, reduction in losses
9	Punjab	2014-15	Improvement in system parameters, reduction in technical losses
10	Jharkhand	2018-19	Improved power factor, Better Voltage Profile, Reduction in T&D losses & Overloading, Better Consumer Discipline
11	Gujarat		
12	Madhya Pradesh		
13	Meghalaya		

Revised

REVENUE GAP AND CARRYING COST

- **8.As per G.O (G.O(P)No.46/2013/PD.Dated:31-10-2013),......*Government have notified the Kerala Electricity Second Transfer Scheme(Re-vesting) the assets and liabilities of erstwhile KSE Board in to Kerala State Electricity Board Limited,a fully owned Government Company,constituted under Companies Act,1956.Clause6(9)(d) of the said scheme provides that the electricity duty collected by KSEB for the period from 1-4-2008 to 31-03-2012 will be permitted to be retained in KSEB Ltd,as Government's contribution for fundng the terminal liability.***
- **As per the Government of Kerala order dated May 13, 2015, G.O.(Ms.) No. 17/2015/PD upon Re-vesting of the assets and liabilities of erstwhile KSEB to KSEBL- Netting off the dues between Govt and KSEB:-**
- ***"(i) The proposal of KSEB Ltd. for finalizing accounts after netting off of dues between KSEB and Government, up to 31-10-2013, the date of re-vesting the assets and liabilities of erstwhile KSEB into the Kerala State Electricity Board Limited stands approved. The netting off of accounts has been done on the basis of the principal figures of Electricity Duty and Surcharge (excluding penal interest on non-payment of Electricity Duty and Surcharge), as furnished by the KSEB Limited and after the adjustment, the balance Electricity Duty available with KSEB Ltd. as on 31-10-2013 is Rs. 435.62 crore.***
- ***(ii)…***
- "

Revised

REVENUE GAP AND CARRYING COST

- *iii) In continuation to the adjustment of dues as on 31-10-2013, **the dues between Government and KSEB Limited up to 31-12-2014 stands provisionally netted off**, on the basis of the provisional figures furnished by KSEB Ltd. regarding electricity duty to be paid to Government by KSEB Ltd. as on 31-12-2014. …*
- *….*
- *(vi) The entire duty collection after 31-12-2014 will be transferred to pension fund account as Government contribution, as provided under Clause 2(2) of the G.O., read as eighth paper above"*
- *" Hon'ble Regulatoy Commission was also allowing Terminal Liability during 31-03-2008 to 31-10-2013 in its ARR and Truing Up Orders of the above Period.*
- *Through the first and second Transfer Schemes the Terminal liability is the Obligation of the Government of Kerala ,till the Master Trust is formed to manage the Pension liabilities of the Employees of KSEBL,those who not covered in the New Contributory National Pnsion Scheme.*

- *In GO(Ms)No.17/2015/PD dated:13/05/2015 clearly spelt out that the Electricity Duty Collected and retained by KSEBL during 31-03-3008 to 31-12-2014 is permitted by Govt to utilise against the Pension liabilities .*

- *The above GO .Clause 13 (iii) , (vi) and (viii)The entire duty collection till 31-12-2014 is approved by Govt. as contribution of pension liability from Goverment ...*
- *and once the Master Trust is formed the annual Govt. Contribution of Rs.586.10 Cr for the Pension Fund can account from the Electricity duty collected ...and balance electricity duty and surcharge to be paid to Govt from FY 2015-16 onwards without fail in future years*

- *The total amount of Electricity Duty during this period is Rs.3056.32 Cr.*

- *Request the Hon'ble Commission to deduct this Rs.3056.32 Cr of Govt. Contribution while computing the unbridged revenue gap of KSEBL.*

REVENUE GAP AND CARRYING COST

- Net dues as on 31-12-2014 to be paid to the government was netted off. KSEBL had anticipated receivables from government on account of subsidies and pension liabilities.
- KSEBL was expected to pay the electricity duty collected from the consumers to the government. ***The Hon'ble Commission has allowed KSEBL to recover the pension liabilities through ARR/truing up process.*** As a result, the electricity duty collected till 31-12-2014 amounting to Rs. 3,056.32 crore has been retained by the KSEBL and not settled during the netting off processes.
- In other words, the KSEBL is doubly accounting the money as it has collected pension liabilities from consumers and retained electricity duty allowed by Govt. towards its pension liability.
- Electricity Duty Allowed by Govt Order towards the Terminal Liability as committed in the Transfer Scheme is as follows:-

S No.	Particulars	Amount in (Rs. Cr)
1	From 2008-09 to 31-10-2013	2,396.36
2	From 1-11-2013 to 31-12-2014	659.96
3	Total Electricity Duty till 31-12-2014	3,056.32

Revised

The revenue gap to an extent of Rs.3,056.32 crore collected towards electricity duty not paid to the government and pension liabilities approved in ARR/Truing up processes has to be reviewed.

The present Tariff Hike Proposal by KSEBL is to bride the Revenue Gap due to account of Previous unbridged revenue Gap of of Rs 5645.26 Cr and its carrying cost.

On these heads KSEBL claimed Rs1087.64 Cr (Rs.806.47+ Rs.281.17 Cr) in its ARR for 2018-19 in the Current petition.

*If analyse KSEBL revenue ,which will be enough to meet thier expenditure for 2018-19 with the existing tariff itself,**even allowing the entire claims of KSEBL's ARR without any scrutiny.***

If we apply prudent check of the expenditure,energy requirement,loss levels and interest and finance charges,surly it will be be a huge surplus in 2018-19 in the existing tariff itself.

REVENUE GAP AND CARRYING COST

REVENUE GAP AND CARRYING COST

S No.	Particulars	Amount in (Rs. Cr)	Revised Amount in (Rs. Cr)
1	Total un bridged revenue gap as on 31-03-2011 (as per Table 1.3 of the order dated 14-8-2014 in OP No. 9/2014)	424.11	
2	Revenue gap as per the orders on truing up for the year 2011-12	1386.97	
3	Revenue gap as per the orders on truing up for the year 2012-13	3132.97	
4	Total	4944.05	
5	Less: Recovery permitted for 2017-18	1040.92	3903.13
6	Add: Remand order dtd 09.05.17-2009-10		107.90
7	Add: Remand order dtd 19.05.17-2010-11		204.70
8	True up order 2013-14 dated 20.06.2017		195.50
9	True up order 2015-16 dated 21.08.2018		202.97
10	True up order 2016-17 dated 14.09.2018		1031.06
11	**Total unbridged Revenue gap by KSEBL**		**5645.26**
12	***Revenue gap proposed by KSEBL to be recovered each year***		***806.47***
13	***Disallowance on account of collection of electricity duty, which was netted off against receivables from govt. (Pension Liabilities)***		*3056.32*
14	***Total revenue gap after deducting Electricity Duty allowed by GoK for terminal liability***		***2588.94***

Year	Terminal Benifits Approved in Truing Up in Rs Cr	Terminal Benifit Claimed by KSEBL in Rs Cr
2008-09	*495.84*	*495.84*
2009-10	*601.60*	*604.32*
2010-11	*605.78*	*739.21*
2011-12	*708.73*	*711.04*
2012-13	*802*	*765.36*
2013-14	*889.58*	
2014-15		
Total	*4103.53*	

TERMINAL BENIFITS APPROVED BY KSERC IN TRUING UP ORDERS BASED ON APTEL DIRECTIVES.

- *Through the transfer Scheme the* ***entire liability based on the Audited values are approved*** *and after netting off process and enhanced equity there will not be any liability for the new Company KSEBL on 31-10-2013 ,the date of revesting of assets by GoK in the new Company.*

- *on strict sense there will not be any un bridged revenue gap for the new Company KSEBL after the second transfer Scheme.*

- *Request the Hon'ble Commission to revisit the entire true up process from FY 2008 onwards,and arrive at the realistic ARR requirements of KSEBL before deciding to proceed with the Multiyear Tariff process.*

- *Thanks.*