

The Karnataka Electricity Regulatory Commission

No.16-1C, Miller Tank Bed Area, Vasanthanagar, Bangalore-560 052

No:KERC/DD(Tariff)/FTS-1111/2021

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DISCUSSION PAPER

ON THE RECOVERY OF FIXED CHARGES IN THE ELECTRICITY BILLS

1. Preamble:

The Electricity Bills preferred by the Electricity Supply Companies (ESCOMs) generally consists of two components namely the Fixed charges and the energy charges. While the Fixed Charges are levied on the sanctioned Load of the installations, the Energy Charges are based on the KWh (units) of electricity consumed by the Consumers.

The Fixed costs are the costs which are incurred by the ESCOMs to pay the fixed charges of Generating Companies, Transmission Company and meet the costs towards creation and maintenance of Distribution network with in the ESCOMs.

The Fixed costs in the Generating Company are those which are incurred in land acquisition, construction of Generating station, payment of employee costs (salaries & pension), O & M expenses, interest on loans, depreciation, return on equity and taxes thereon.

Similarly, fixed costs in Transmission (based on the transmission capacity created) and Distribution Companies (towards the distribution network), pertain to all the costs incurred for creation of transmission/ distribution network, payment of employee costs (salaries & pension), O & M expenses payment of interest on loans, depreciation, return on equity and taxes thereon.

The above fixed costs have to be borne, by the ESCOMs, month on month, irrespective of the quantum of energy sold to the consumers.

Whereas, the Fixed Charges/ Demand Charges, included in the bill, pertain to the charges levied in tariff, based on the sanctioned load of the consumers' installations. These are expressed in terms of Rs. per kW or Rs. per KVA of the sanctioned load / contracted demand.

Fixed charges are levied to recover the fixed cost incurred in arranging power supply to the end consumers. Whereas, Energy Charges or the variable charges are those which relate to the cost of generation of electricity generated from a generating unit. It mainly consists of the fuel costs in the form of cost of coal or gas in thermal units or any other form of fuels used for generation of Electricity. The fuel costs also include the secondary fuel oil used in generation of electricity.

While the Fixed cost determined on per kW / KVA per month (of the sanctioned load basis) remain the same, the energy charges vary according to the quantum (KWh/ unit) of electricity generated and consumed by the Consumer.

Traditionally, while the rate of recovery of fixed charges in the retail supply tariff was being fixed at a nominal rate, substantial portion of the fixed cost of electricity was recovered through energy/ variable charges. Thus, the recovery of fixed cost and the energy charge was not reflective of the actual per unit costs towards fixed and variable expenses incurred by the Electricity Supply Companies (ESCOMs).

As per the provisions of the Electricity Act, 2003, due to introduction of 'Open Access' in the electricity business, the ESCOMs are required to allow open access to their consumers to enable them buy power from other sources at mutually agreed/ contracted rates. While availing open access the consumers buy power from outside sources other than the ESCOMs and to the extent of power purchased from outside sources, the consumers will not pay energy charges to the ESCOMs. A non-exclusive consumer will bear the fixed charges as per the Tariff schedule. Thus, the ESCOMs will not be able to recover the fixed costs which are a part of the energy/ variable charges, thereby the ESCOMs are required to pay the fixed costs to the generating and transmission companies, irrespective of the energy purchased/transmitted by them. Since

a substantial portion of fixed costs is included in the energy charges, distribution licensees are unable to recover the part of fixed charges included in energy charges from the open access consumers on the energy purchased through open access. In the process, ESCOMs are made to pay fixed charges to the generators and transmission charges to the transmission company even for the energy not purchased by the Open Access consumers. Thus, the ESCOMs are losing the energy charges (revenue) for the energy sourced through open access but they have to also pay all the fixed costs towards generation, transmission and distribution activities even for the energy not purchased and in the process other grid consumers will be made to bear that fixed costs.

In view of the above situation, ESCOMs have been praying the Commission to substantially increase the rate of recovery of Fixed Charges and to proportionately reduce the Energy Charges so as to ensure adequate recovery of fixed costs from consumers, including Open Access consumers, with reference to the actual fixed costs incurred by them.

The Commission has been considering gradual increase in the rate of fixed costs over a period of time, with a view to balance the interest of both consumers and ESCOMs, instead of substantially increasing the fixed cost upfront.

Now, with a view to review the recovery of fixed costs vis-à-vis the actual fixed costs incurred and to take a view in the matter, this Discussion Paper is being issued, as part of the consulting process, to take the feedback from the all the stakeholders before taking a decision on the adequate recovery of fixed costs.

The Commission has considered the following aspects/ points in the Discussion Paper:

1. Fixed costs involved in the supply of electricity and the extent of recovery being made;
2. Impact of increase in fixed costs on ESCOMs, Grid Consumers and the Open Access consumers;
3. Time frame for giving effect to full fixed cost recovery;

4. Any other relevant issues faced by ESCOMs/ Grid Consumers/ OA Consumers in recovery/ non-recovery of Fixed costs.

2. Fixed costs involved in the supply of electricity and the extent of its recovery in tariff:

- a. The Commission, while deciding the increase in Fixed Charges, in its Tariff Orders, has been considering the amount of fixed costs actually incurred in respect of Generation, Transmission and distribution activities.
- b. The Commission, while considering revision of retail supply tariff, has also been considering the likely demand or fixed charges to be raised in the monthly bills, from the consumers.
- c. During the process of determination of retail supply tariff for FY21, FY22 and FY23, the following are the details of approved fixed costs in respect of generation, transmission, distribution and retail supply and the likely recovery of fixed charges in the revenue:

Fixed Cost in the Approved ARR for FY2020-21						
	(Amt. In Rs. Crs)					
	BESCOM	MESCOM	CESC	HESCOM	GESCOM	Total
Particulars	Fixed cost in Approved ARR	Fixed cost in Approved ARR	Fixed cost in Approved ARR	Fixed cost in Approved ARR	Fixed cost in Approved ARR	Fixed cost in Approved ARR
Fixed Costs in Power Purchase cost including Transmission charges in the Approved ARR for FY2020-21	7366.68	1275.66	1411.67	2506.351	1771.1	14331.46
Distribution Costs of ESCOMs:						
O&M Expenses	2365.61	702.32	846.08	1180.93	851.19	5946.13
Depreciation	606.35	153.53	172.23	260.05	172.10	1364.26
Interest and Finance charges	1070.35	227.72	288.18	542.36	259.54	2388.15
RoE with MAT	288.20	167.04	20.58	0	87.40	563.22
Consumer Education Fund	1.00	0.50	0.50	0.50	0.50	3.00
Less: Other Income	-441.89	-133.38	-74.83	-285.66	-93.09	-1028.85
Surplus/ Deficit for FY19(APR) carried forward to ARR of FY21	1947.34	-233.55	-62.81	401.22	-215.04	1837.16
Total Fixed Cost in the Approved ARR for FY21	13203.64	2159.84	2601.60	4605.751	2833.70	25404.53
Approved ARR	24371.86	4011.34	4821.22	9382.86	5713.29	48300.57

Variable cost of Power Purchase cost	11168.21	1851.50	2219.62	4777.109	2879.59	22896.04
Recovery allowed in Demand/ Fixed Charges (as per D21)	4918.71	585.43	580.62	968.34	587.07	7640.17
Recovery of FC over fixed cost in %	37.25%	27.11%	22.32%	21.02%	20.72%	30.07%
Appd. Revenue Gap Allowed for FY21	1198.02	210.74	264.56	493.94	305.88	2473.14
Fixed cost Recovery against the Gap (as per D21)	451.64	69.69	67.41	130.10	70.65	789.49
% of FC recovery to total Gap	37.70%	33.07%	25.48%	26.34%	23.10%	31.92%

Fixed Cost in the Approved ARR for FY2021-22						
(Amt. in Rs. Crs)						
	BESCOM	MESCOM	CESC	HESCOM	GESCOM	Total
Particulars	Fixed cost in Approved ARR	Fixed cost in Approved ARR	Fixed cost in Approved ARR	Fixed cost in Approved ARR	Fixed cost in Approved ARR	Fixed cost in Approved ARR
Fixed Costs in Power Purchase cost including Transmission charges in the Approved ARR for FY2020-21	7605.81	1278.452	1781.68	3307.428	1733.302	15706.68
Distribution Costs of ESCOMs:						
O&M Expenses	2477.65	796.62	887.12	1379.23	887.07	6427.69
Depreciation	911.22	186.77	198.72	285.66	208.11	1790.48
Interest and Finance charges	1023.66	238.57	276.80	573.32	265.97	2378.32
RoE with MAT	284.69	151.67	0	0	0	436.36
Consumer Education Fund	1.00	0.50	0.50	0.50	0.50	3.00
Less: Other Income	-583.02	-89.88	-77.67	-290.07	-107.24	-1147.88
Surplus (-)/ Deficit for FY20(APR) carried forward to ARR of FY21	1594.99	103.15	187.07	-617.95	209.19	1476.45
Total Fixed Cost in the Approved ARR for FY22	13565.43	2727.32	3331.39	4782.19	3286.12	27692.45
Approved ARR	24058.04	4507.65	5180.69	9519.60	5951.77	49218.18
Variable cost of Power Purchase cost	10393.036	1780.33	1849.30	4737.41	2665.65	21425.726
Recovery of Fixed Charges allowed as Demand	5519.73	763.19	726.18	1373.33	732.10	9114.53

Charges/ (D-21 Format)						
Overall Recovery of FC over fixed cost in %	40.69%	27.98%	21.80%	28.72%	22.28%	32.91%
Appd. Revenue Gap Allowed for FY22	856.97	170.35	204.35	357.12	230.61	1819.40
Fixed cost Recovery against the Gap (as per D21)	651.05	105.61	90.22	202.73	112.90	1162.51
% of FC recovery to total Gap	75.97%	62.00%	44.15%	56.77%	48.96%	63.96%

Fixed Cost in the Approved ARR for FY2022-23						
(Amt. In Rs. Crs)						
	BESCOM	MESCOM	CESC	HESCOM	GESCOM	Total
Particulars	Fixed cost in Approved ARR	Fixed cost in Approved ARR	Fixed cost in Approved ARR	Fixed cost in Approved ARR	Fixed cost in Approved ARR	Fixed cost in Approved ARR
Fixed Costs in Power Purchase cost including Transmission charges in the Approved ARR for FY2020-21	9620.15	1138.93	1811.96	3141.06	1986.82	17698.92
Distribution Costs of ESCOMs:						
O&M Expenses	2467.15	762.76	901.66	1405.74	1005.54	6543.43
Depreciation	992.66	201.94	284.21	315.68	223.72	2018.21
Interest and Finance charges	1071.08	238.82	176.82	500.63	259.21	2346.56
RoE with MAT						
Consumer Education Fund	1.00	0.50	0.50	0.50	0.50	3.00
Less: Other Income						
Surplus(-)/ Deficit for FY21 (APR) carried forward to ARR of FY23	588.36	341.96	215.40	374.95	179.82	1700.49
Total Fixed Cost in the Approved ARR for FY23	15016.42	2802.38	3454.59	5596.22	3619.79	30489.40
Approved ARR	25574.78	4378.05	5603.94	10040.21	6426.46	52023.44
Variable cost of Power Purchase cost	10558.36	1575.67	2149.35	4443.99	2806.67	21534.04
Recovery allowed in Demand/ Fixed Charges (as per D-21 Format)	5954.29	874.25	1078.25	1690.02	1000.48	10597.31
Recovery of FC over fixed cost in %	39.65%	32.20%	31.21%	30.20%	27.64%	34.76%

Appd. Revenue Gap Allowed for FY23	1028.88	188.56	241.91	422.88	277.27	2159.50
Fixed cost Recovery against the Gap	716.37	122.42	145.12	233.23	142.38	1359.52
% of FC recovery to total Gap	69.63%	64.92%	59.99%	55.15%	51.35%	62.96%

It could be seen from the above Tables that the overall recovery of fixed cost in ESCOMs' tariff, which was 30.07% in FY21 has increased to 34.76% in FY23. Also, the share of fixed charges recovery in the approved revenue gap has increased from 31.92% to 62.96% in FY23. Thus, it has been the endeavour of the Commission to gradually increase the rate of recovery of Fixed Costs from the Consumers.

3. Impact of increase in fixed costs on ESCOMs and Industrial consumers:

In the recent past the ESCOMs have pleaded for enhancement of Fixed charges and reduction of Energy charges with a view to recover fixed costs in full from all the consumers including the open access consumers. It is submitted by the ESCOMs that due to decrease in energy consumption on account of Covid Pandemic, recession and HT consumers availing open access etc., they are losing the fixed costs to the extent of reduced energy consumption by the consumers, for the reason that a substantial portion of Fixed Cost is included in the energy charges. Thus, on the one hand there is under recovery of fixed costs due to reduced energy consumption, on the other hand ESCOMs have to make mandatory payment of fixed costs to generators and transmission charges, irrespective of reduced level of drawal of energy. This is undermining ESCOMs' financial viability.

The consumers in general and industrial consumers in particular are opposing the levy of increased fixed costs stating that due to reduced production (recession due to COVID Pandemic and reduced demand in the market), they are not able to consume the energy up to the required level and levy of fixed costs for the energy not consumed is a financial burden which will increase their cost of production. This increase in costs of production is affecting their competitive pricing strategies resulting in losing the market for their products. Hence, faced with this situation, they will be constrained to close their industries.

Under the above circumstances, in order to balance the interest of ESCOMs and the Consumers, the Commission is left with no other alternative but to consider reasonable increase in the recovery of fixed costs in the tariff to ensure recovery of fixed costs adequately. Hence, in order to protect the interest of all the stakeholders, the Commission hereby proposes to increase the recovery of fixed charges, in a phased manner, in a timeframe of three years.

4. Feedback from ESCOMs, Consumers and other stakeholders.

In order to achieve the objective of recovery of fixed costs in tariff at adequate level, the ESCOMs shall submit their proposals with justification with facts and figures to the Commission to enable the Commission to examine the same in the tariff revision exercise in the ensuing years.

The Consumers may also appreciate the fact that the under recovery of fixed costs due to a large number of consumers opting for Open Access, will undermine the financial viability of ESCOMs and they will not be able to sustain the under recovery for a long time and that substantial increase in the rate of recovery of Fixed Charges/ Demand Charges over a definite time frame and corresponding reduction in the recovery of Energy Charges, is inevitable.

In view of the above facts, the ESCOMs/ Consumers/ other stakeholders are hereby requested to submit their comments/ views/ suggestions to the Commission in the matter of recovery of fixed costs.

The Comments /views and suggestions may please be submitted on or before 25.10.2022 to:

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