

**BEFORE THE HONOURABLE KERALA STATE ELECTRICITY
REGULATORY COMMISSION**

IN THE MATTER OF: Proposals to introduce Fuel Price Adjustment Charges on all consumers including Bulk Consumers/ Other Licensees to recover the additional financial liability incurred over approved level on Generation and Power Purchase during the period from October-2014 to December-2014

PETITIONER: Kerala State Electricity Board Limited
Vydyuthi Bhavanam, Pattom,
Thiruvananthapuram - 695 004

The petitioner named above respectfully submits as under:

1. As per the provisions of the KSERC (Fuel surcharge formula) Regulations, 2009, notified vide No. KSERC/2009/ XVII dated 8th January 2010 and also duly complying the directions issued by the Hon'ble Commission vide its order dated 14-08-2014 on ARR&ERC for the year 2014-15, KSEBL had filed the petition on fuel surcharge for the period from July-2014 to September-2014, before the Hon'ble Commission on 25-11-2014.
2. There was substantial difference in the actual variable cost of generation and power purchase over the approved level on account of the increase in price of coal/ lignite and liquid fuels LSHS and Naphtha. Hence, in conforming to the KSERC (Fuel surcharge formula) Regulations, 2009, KSEBL may submit herewith the petition on fuel surcharge for the period from October-2014 to December-2014.
3. A comparison of the variable cost approved and the actuals for the period from Oct-2014 to Dec-2014 are given below.

Table-1. Comparison of variable cost approved and Actual.

Sl No.	Source	Variable cost			
		Approved	Actuals (Rs/ kWh)		
		(Rs/ kWh)	Oct-14	Nov-14	Dec-14
1	NTPC-RSTPS	2.14	2.50	2.53	2.57
2	IGSTPS(Jhajjar)	3.57	4.41	4.58	4.24
3	Talcher Stage-II	1.54	1.56	1.66	1.43
4	Simhadri TPS Stage II	2.09	2.70	2.67	2.70
5	NLC-Stage-1	2.14	2.31	2.34	2.31
6	NLC-Stage-II	1.99	2.31	2.34	2.31
7	NLC Expansion	2.14	2.17	2.21	2.24
8	Vallur STPS	2.15	2.04	2.24	2.30
9	KDPP	11.31	10.63	9.69	8.62

4. As per the provisions of the fuel surcharge formula regulations, KSEB has been filing the details of additional liability incurred for procuring energy from approved sources due to the variations in the prices of fuel during the period from October-2014 to December-2014. Accordingly, the details of additional liability incurred by KSEB for procuring energy from NTPC- Talcher-II, Ramagundam, Simhadri, NLC-II Stage-1, NLC-II Stage-2, NLC-II Expansion, IGSTPS (Jhajjar), Vallur STPS and KDPP are submitted herewith for the approval of the Hon'ble Commission.

(i) NTPC- Talcher-II STPS

5. The month wise details of the energy procured from NTPC's Talcher-II STPS and the actual and approved variable cost and the additional liability incurred during the period from October-2014 to December-2014 is detailed below.

Table-2. Details of additional liability from Talcher-II STPS

Month	Power Purchase			Rate		Addl Liability	
	Approved	Actuals	Admissible for FPA	Approved	Actuals	Actual	Admissible
	(MU)	(MU)	(MU)	(Rs/kWh)	(Rs/kWh)	(Rs. Cr)	(Rs. Cr)
Oct-14	264.45	292.51	264.45	1.54	1.56	0.48	0.43
Nov-14	255.92	282.63	255.92	1.54	1.66	3.32	3.01
Dec-14	264.45	305.70	264.45	1.54	1.43	-3.29	-2.85
Total	784.83	880.84	784.83	1.54	1.55	0.51	0.59

(ii) NTPC- Ramagundam-STPS

6. The details of the actual and approved variable cost of generation from Ramagundam STPS and the additional liability incurred etc, during the period from October-2014 to December-2014 is detailed below.

Table-3. Details of additional liability from Ramagundam- STPS

Month	Power Purchase			Rate		Addl Liability	
	Approved	Actuals	Admissible for FPA	Approved	Actuals	Actual	Admissible
	(MU)	(MU)	(MU)	(Rs/kWh)	(Rs/kWh)	(Rs. Cr)	(Rs. Cr)
Oct-14	200.38	210.05	200.38	2.14	2.50	7.50	7.15
Nov-14	193.91	236.20	193.91	2.14	2.53	9.26	7.60
Dec-14	200.38	270.59	200.38	2.14	2.57	11.62	8.60
Total	594.67	716.84	594.67	2.14	2.54	28.37	23.35

(iii) NLC-TPS-II Stage-1

7. The additional liability incurred for purchasing power from NLC-II stage-1 station due to the variation in variable cost of generation during the period from October-2014 to December-2014 is detailed below.

Table-4. Details of additional liability - NLC- TPS-II Stage-1 (630 MW)

Month	Power Purchase			Rate		Addl Liability	
	Approved	Actuals	Admissible for FPA	Approved	Actuals	Actual	Admissible
	(MU)	(MU)	(MU)	(Rs/kWh)	(Rs/kWh)	(Rs. Cr)	(Rs. Cr)
Oct-14	33.00	20.03	20.03	2.14	2.31	0.35	0.35
Nov-14	31.93	30.13	30.13	2.14	2.34	0.60	0.60
Dec-14	33.00	32.59	32.59	2.14	2.31	0.55	0.55
Total	97.93	82.75	82.75	2.14	2.32	1.50	1.50

(iv) NLC-TPS-II Stage-2

8. The details of the additional liability incurred for procuring power from NLC-TPS-II stage-2 during the period from October-2014 to December-2014 is detailed below.

Table-5. Details of additional liability - NLC- TPS-II Stage-2 (840 MW)

Month	Power Purchase			Rate		Addl Liability	
	Approved	Actuals	Admissible for FPA	Approved	Actuals	Actual	Admissible
	(MU)	(MU)	(MU)	(Rs/kWh)	(Rs/kWh)	(Rs. Cr)	(Rs. Cr)
Oct-14	46.99	51.86	46.99	1.99	2.31	1.67	1.52
Nov-14	45.48	47.07	45.48	1.99	2.34	1.64	1.58
Dec-14	46.99	49.94	46.99	1.99	2.31	1.60	1.50
Total	139.47	148.86	139.47	1.99	2.32	4.91	4.60

(v) NLC-TPS-1 Expansion

9. The additional liability incurred for purchasing power from NLC TPS-1 Expansion over the approved level during the period from October-2014 to December-2014 is detailed below..

Table-6. Details of additional liability admissible from NLC-TPS-1 Expansion

Month	Power Purchase			Rate		Addl Liability	
	Approved	Actuals	Admissible for FPA	Approved	Actuals	Actual	Admissible
	(MU)	(MU)	(MU)	(Rs/kWh)	(Rs/kWh)	(Rs. Cr)	(Rs. Cr)
Oct-14	37.06	39.32	37.06	2.14	2.17	0.11	0.11
Nov-14	35.86	30.81	30.81	2.14	2.21	0.22	0.22
Dec-14	37.06	27.38	27.38	2.14	2.24	0.27	0.27
Total	109.98	97.51	95.25	2.14	2.20	0.60	0.60

(vi) **IGSTPS- Jhajjar**

10. The details of the approved and actual generation, approved and actual variable cost and the additional liability incurred for procuring power from Indira Gandhi Super Thermal Power Station- Jhajjar during the period from October-2014 to December-2014 is detailed below.

Table-7. Details of additional liability from IGSTPS- Jhajjar

Month	Power Purchase			Rate		Addl Liability	
	Approved	Actuals	Admissible for FPA	Approved	Actuals	Actual	Admissible
	(MU)	(MU)	(MU)	(Rs/kWh)	(Rs/kWh)	(Rs. Cr)	(Rs. Cr)
Oct-14	52.65	89.95	52.65	3.57	4.41	7.52	4.40
Nov-14	50.95	125.27	50.95	3.57	4.58	12.64	5.14
Dec-14	52.65	108.00	52.65	3.57	4.24	7.25	3.53
Total	156.24	323.23	156.24	3.57	4.42	27.41	13.07

(vii) **Simhadri TPS- Stage-II**

11. The details of the additional liability incurred for procuring power from Simhadri TPS- Stage-II during the period from October-2014 to December-2014 is detailed below.

Table-8. Details of additional liability from Simhadri TPS- Stage-II

Month	Power Purchase			Rate		Addl Liability	
	Approved	Actuals	Admissible for FPA	Approved	Actuals	Actual	Admissible
	(MU)	(MU)	(MU)	(Rs/kWh)	(Rs/kWh)	(Rs. Cr)	(Rs. Cr)
Oct-14	51.80	34.15	34.15	2.09	2.70	2.07	2.07
Nov-14	50.13	69.67	50.13	2.09	2.67	4.04	2.91
Dec-14	51.80	83.16	51.80	2.09	2.70	5.08	3.16
Total	153.72	186.98	136.08	2.09	2.69	11.19	8.14

(viii) **Vallur STPS**

12. The details of the approved and actual variable cost, and the additional liability incurred for the purchase of power from Vallur STPS during the period from October-2014 to December-2014 is detailed below.

Table-9. Details of additional liability from Vallur STPS

Month	Power Purchase			Rate		Addl Liability	
	Approved	Actuals	Admissible for FPA	Approved	Actuals	Actual	Admissible
	(MU)	(MU)	(MU)	(Rs/kWh)	(Rs/kWh)	(Rs. Cr)	(Rs. Cr)
Oct-14	20.52	11.97	11.97	2.15	2.04	-0.13	-0.13
Nov-14	19.86	13.89	13.89	2.15	2.24	0.12	0.12
Dec-14	20.52	11.35	11.35	2.15	2.30	0.17	0.17
Total	60.89	37.21	37.21	2.15	2.19	0.16	0.16

(ix) Energy schedule from KDPP

13. Considering the energy demand in the Northern Part of the State, KSEBL is constrained to schedule power from KDPP. The additional liability incurred for scheduling power from KDPP during the period from October-2014 to December-2014 is detailed below.

Table-10 Details of additional liability incurred by way of scheduling power from KDPP

Month	Generation			Rate		Addl Liability	
	Approved	Actuals	Admissible for FPA	Approved	Actuals	Actual	Admissible
	(MU)	(MU)	(MU)	(Rs/kWh)	(Rs/kWh)	(Rs. Cr)	(Rs. Cr)
Oct-14	7.56	10.15	7.56	11.31	10.63	-0.69	-0.51
Nov-14	7.31	15.96	7.31	11.31	9.69	-2.58	-1.18
Dec-14	30.23	21.49	21.49	11.31	8.62	-5.78	-5.78
Total	45.09	47.60	36.36	11.31	9.41	-9.04	-7.47

14. Power purchase from traders and energy exchanges

- (i) Though KSEBL had tied up 300 MW with the trader M/s NVVN and 100MW with M/s PTC for the period from March-2014 to February 2017 through Case-1 bid route, MTOA was not granted by the CTU during the period, mainly due to the inter-regional transmission constraints between NEW GRID and SR. Further, KSEBL had tied up about 300 MW with the traders in the Southern Region from June-2014 to May-2015 and additional 175 MW from February-2015 to May-2015. However, due to the transmission congestion between S1-S2 region of the southern grid, STOA was also not granted by SRLDC during the said period. Moreover, due to the interregional transmission constraints and also due to the huge power deficit in the Southern Grid, the volume of power transacted through energy exchanges during the months of October and November-2014 is marginal, but at excessive rates. Considering the above, the power procured through traders, exchanges etc during the months of October, November and December-2014 was much less than the approved quantum.
- (ii) The details of the power purchase through traders and energy exchanges during the period from October -2014 to December - 2014 are detailed below.

Table-11. Details of the energy purchase through traders etc

Month	Approved			Actual power purchase ((including traders, exchange and Deviation settlement)	Shortfall over approval
	Traders-firm contract	Traders- day ahead market	Total		
	(MU)	(MU)	(MU)		
Oct-14	220.39	102.03	322.42	136.59	185.83
Nov-14	213.28	139.68	352.96	201.59	151.37
Dec-14	220.39	146.67	367.06	329.73	37.33
Total	654.06	388.38	1042.44	667.91	374.53

15. Additional power purchase from RGCCPP Kayamkulam.

- (i) While approving the ARR, Hon'ble Commission had not given approval for scheduling power from RGCCPP kayamkulam. However due to the shortfall in energy availability from traders/ exchanges etc, KSEBL was constrained to schedule power from RGCCPP Kayamkualm during the months of October-2014 to December-2014. The details are given below.

Table-12. Details of energy purchase from RGCCPP Kayamkulam

Month	Approved	Actuals		Excess purchase from RGCCPP
	(MU)	Quantum (MU)	Variable cost (Rs/unit)	(MU)
Oct-14	0.00	86.47	12.40	86.47
Nov-14	0.00	96.68	10.94	96.68
Dec-14	0.00	59.76	10.18	59.76
Total	0.00	242.90		242.90

16. Summary of the Additional financial liability incurred during the period from October-2014 to December-2014.

- (i) The summary of the additional financial liability incurred for procuring electricity from different sources for the period from October-2014 to December-2014 is given below.

Table-13. Summary of the additional liability incurred during the period from October-2014 to December-2014 on account of variation in fuel cost.

Source	Energy procurement			Per unit cost		Add liability	
	Approved quantity	Actual	Admissible as per regulation	Approved	Actual	Actual	Admissible as per regulation
	(MU)	(MU)	(MU)	(Rs/kWh)	(Rs/kWh)	(Rs. Cr)	(Rs. Cr)
Talcher-II	784.83	880.84	784.83	1.54	1.55	0.51	0.59
Ramagundam- II&III	594.67	716.84	594.67	2.14	2.54	28.37	23.35
NLC-II Stage-1	97.93	82.75	82.75	2.14	2.32	1.50	1.50
NLC-II Stage-2	139.47	148.86	139.47	1.99	2.32	4.91	4.60
NLC- Exp- Stage-1	109.98	97.51	95.25	2.14	2.20	0.60	0.60
Jhajjar	156.24	323.23	156.24	3.57	4.42	27.41	13.07
Simhadri	153.72	186.98	136.08	2.09	2.69	11.19	8.14
Vallur STPS	60.89	37.21	37.21	2.15	2.19	0.16	0.16
KDPP	45.09	47.60	36.36	11.31	9.41	-9.04	-7.47
Total	2142.82	2521.82	2062.86			65.60	44.55

17. KSEBL kindly request before the Hon'ble Commission to approve the additional liability admissible as per the KSERC (Fuel Surcharge Formula) Regulations, 2009 as detailed above for the period from October-2014 to December-2014 and allow to recover the same from all consumers including bulk consumers as fuel surcharge.

Prayer

KSEB humbly prayed before the Hon'ble Commission that,

- (a) The additional liability incurred for 'Generation and Power Purchase' due to the variation in fuel prices for the period from October-2014 to December-2014 as detailed in the petition may kindly be approved as 'fuel surcharge' as per the KSERC(Fuel Surcharge Formula) Regulations, 2009.
- (b) The fuel surcharge approved may be allowed to recover from consumers including bulk consumers as per the KSERC(Fuel Surcharge Formula) Regulations, 2009 with immediate effect.

Chief Engineer (Commercial & Tariff)

Format-1

Details of Energy Billed for retail sale from October-2014 to December-2014 (Provisional)

1	Energy sales with in the State	Actuals
(a)	Total energy sales to LT, HT and EHT consumers (excl. sales to bulk consumers/ other Licensees) (MU)	4420.77
(b)	Sale to bulk consumers/ other licensees (MU)	139.11
(c)	Total energy sales (MU)	4559.88
2	Energy Input (Excluding External losses) (MU)	5361.19
3	T & D Losses (Internal) (%)	14.95

Format- 2 (a)
Monthwise Details of Generation from BDPP & KDPP

Month	Energy Generation (MU)	Aux. Consumption (MU)	Net Generation (MU)	Station Heat Rate (kCal/ kWh)	Calorific value of fuel (Kcal/ kg)	Quantity of fuel used			Price of fuel		
				LSHS	LSHS	Diesel (litre)	LSHS (MT)	Lube Oil (Litre)	Diesel (Rs/ Litre)	LSHS (Rs/MT)	Lube Oil (Rs/ Litre)
Oct-14											
BDPP	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
KDPP	10.47	0.32	10.15	2110.02	10204.00	15079.00	2184.00	8768.00	52.95	49990.30	149.44
Nov-14											
BDPP	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00
KDPP	16.37	0.42	15.95	2203.22	10204.00	16789.00	3414.78	7642.00	52.95	45883.64	149.44
Dec-14											
BDPP	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00
KDPP	22.02	0.53	21.49	2106.42	10204.00	11120.00	4544.82	17067.00	50.74	41074.72	151.77

Format-3						
Month Wise Details of Purchase of Energy						
Source	Energy Purchase (MU)		Variable Cost (Rs/kWh)		Total variable cost (Rs.Cr)	
	Actual	Approved	Actual	Approved	Actual	Approved
Oct-14						
(i) Talcher-II STPS	292.51	264.45	1.56	1.54	45.52	40.73
(ii) NTPC-RSTPS	210.05	200.38	2.50	2.14	52.45	42.88
(iii) NLC-TPS-II Stage-1	20.03	33.00	2.31	2.14	4.63	7.06
(iv) NLC-TPS-II Stage-2	51.86	46.99	2.31	1.99	11.99	9.35
(v) NLC-TPS-1 Expansion	39.32	37.06	2.17	2.14	8.53	7.93
(vi) Jhajjar	89.95	52.65	4.41	3.57	39.63	18.80
(vii) NTPC -Simhadri	34.15	51.80	2.70	2.09	9.21	10.83
(viii)Vallur STPS	11.97	20.52	2.04	2.15	2.44	4.41
Nov-14						
(i) Talcher-II STPS	282.63	255.92	1.66	1.54	46.85	39.41
(ii) NTPC-RSTPS	236.20	193.91	2.53	2.14	59.80	41.50
(iii) NLC-TPS-II Stage-1	30.13	31.93	2.34	2.14	7.05	6.83
(iv) NLC-TPS-II Stage-2	47.07	45.48	2.34	1.99	11.00	9.05
(v) NLC-TPS-1 Expansion	30.81	35.86	2.21	2.14	6.82	7.67
(vi) Jhajjar	125.27	50.95	4.58	3.57	57.36	18.19
(vii) NTPC -Simhadri	69.67	50.13	2.67	2.09	18.60	10.48
(viii)Vallur STPS	13.89	19.86	2.24	2.15	3.11	4.27
Dec-14						
(i) Talcher-II STPS	305.70	264.45	1.43	1.54	43.79	40.73
(ii) NTPC-RSTPS	270.59	200.38	2.57	2.14	69.52	42.88
(iii) NLC-TPS-II Stage-1	32.59	33.00	2.31	2.14	7.53	7.06
(iv) NLC-TPS-II Stage-2	49.94	46.99	2.31	1.99	11.53	9.35
(v) NLC-TPS-1 Expansion	27.38	37.06	2.24	2.14	6.12	7.93
(vi) Jhajjar	108.00	52.65	4.24	3.57	45.81	18.80
(vii) NTPC -Simhadri	83.16	51.80	2.70	2.09	22.46	10.83
(viii)Vallur STPS	11.35	20.52	2.30	2.15	2.61	4.41

Format-4

Sourcewise Energy Input from Oct-2014 to Dec-2014

Sl No	Particulars	Oct-14		Nov-14		Dec-14		Total		
		Actual	KSERC order	Actual	KSERC order	Actual	KSERC order	Actual	KSERC order	Difference
		(MU)	(MU)	(MU)	(MU)	(MU)	(MU)	(MU)	(MU)	(MU)
1	Hydro									
	(a) Gross Gen	769.79	618.10	555.70	586.06	425.41	540.17	1750.91	1744.33	6.58
	(b) Less Aux consumption	3.85	3.09	2.78	2.93	2.13	2.70	8.75	8.72	0.03
	(c) Net Hydro Gen	765.94	615.01	552.93	583.13	423.28	537.47	1742.15	1735.61	6.55
2	KSEB thermal									
	(a) BDPP	0.00	0.00	3.33	0.00	2.39	0.00	5.72	0.00	5.72
	(b) KDPP	10.47	7.75	16.37	7.50	22.02	31.00	48.86	46.25	2.61
	(c) Subtotal	10.47	7.75	19.70	7.50	24.41	31.00	54.58	46.25	8.33
	(d) Less Aux consumption	0.26	0.19	0.49	0.19	0.61	0.78	1.36	1.17	0.20
	(e) Net BDPP+KDPP	10.21	7.56	19.21	7.31	23.80	30.22	53.22	45.08	8.14
3	CGS (Import)	800.71	847.50	877.11	820.17	1009.99	887.46	2687.81	2555.13	132.68
4	IPPs									
	(a) RGCCPP	86.47	0.00	96.68	0.00	59.76	0.00	242.90	0.00	242.90
	(b) BSES	0.00	0.00	36.45	0.00	0.00	0.00	36.45	0.00	36.45
	(c) KPCL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	(d) Wind	2.36	2.35	2.01	2.02	1.34	2.40	5.72	6.77	-1.05
	(e) Ullumkal	2.69	3.23	1.63	2.98	0.84	2.69	5.15	8.90	-3.75
	(f)MP Steel	3.73	3.40	2.04	3.40	0.40	3.40	6.17	10.20	-4.03
	(g)Iruttukkanam	2.50	1.94	1.48	1.70	1.09	0.75	5.07	4.39	0.68
	(h) Iruttukkanam-II	1.29	0.59	1.02	0.51	0.19	0.23	2.50	1.33	1.17
	(i) Philips Carbon	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	(j) Karikkayam	3.80	6.37	2.03	5.88	1.01	5.30	6.84	17.55	-10.71
	(k) Meenvallom	0.29		0.50	0.00	0.25		1.04	0.00	1.04
	(i) Subtotal	103.14	17.88	143.83	16.49	64.87	14.77	311.84	49.14	262.70
6	Purchase through traders/ excahnge (net)	136.59	322.42	201.51	352.96	329.74	367.06	667.84	1042.44	-374.59
7	Energy sale									0.00
8	SWAP sale									0.00
9	Total									0.00
10	PGCIL losses	27.92	27.12	36.79	26.25	36.95	28.40	101.67	81.76	19.90
11	Net Energy demand within the State	1788.67	1783.24	1757.79	1753.81	1814.74	1808.58	5361.19	5345.63	15.56