

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

at its office at C.V. Raman Pillai Road, Vellayambalam,
Thiruvananthapuram.

FILING NO /2019

CASE No.

IN THE MATTER OF:

Filing of petition on 'Proposals to recover the additional cost incurred during the period July 2019 to September 2019 over approved level on Generation and Power Purchase due to variation in cost of fuel, from all consumers including Bulk Consumers and other Licensees through fuel surcharge.

AND

IN THE MATTER OF:

Kerala State Electricity Board Limited, Vydyuthi Bhavanam, Pattom,
Thiruvananthapuram

Applicant

**Deputy Chief Engineer (Commercial & Planning)
with full powers of Chief Engineer
Kerala State Electricity Board Limited**

Affidavit verifying the application for filing the 'Proposals to recover the additional cost incurred during the period July 2019 to September 2019 over approved level on Generation and Power Purchase due to variation in cost of fuel, from all consumers including Bulk Consumers and other Licensees through fuel surcharge.

I, **B.Pradeep**, son of Sri.P.Balachandran, aged 54 years residing at Vipanchika, Anayara P.O., Thiruvananthapuram do solemnly affirm and state as follows:

I am the **Deputy Chief Engineer (Commercial & Planning) with full powers of Chief Engineer** of the Kerala State Electricity Board Limited, Vydyuthi Bhavanam, Pattom, Thiruvananthapuram, and the petitioner in the above matter and I am duly authorized by the Board to make this affidavit on its behalf. I solemnly affirm at Thiruvananthapuram on this the 12th day of November 2019 that the contents of the above petition are true to my information, knowledge and belief. I believe that no part of it is false and no material has been concealed there from.

Deponent

**Deputy Chief Engineer (Commercial & Planning)
with full powers of Chief Engineer**
Kerala State Electricity Board
Limited,
Vydyuthi Bhavanam,
Pattom
Thiruvananthapuram -
695 004

VERIFICATION

I, the above named deponent, solemnly affirm at Thiruvananthapuram on this, the 12th day of November, 2019 that the contents of the affidavit are true to my information, knowledge and belief, that no part of it is false and that no material has been concealed there from.

Deponent

**Deputy Chief Engineer (Commercial & Planning)
with full powers of Chief Engineer**
Kerala State Electricity Board
Limited

Vydyuthi Bhavanam,
Pattom
Thiruvananthapuram -
695 004.

Solemnly affirmed and signed before me.

Advocate and Notary

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

IN THE MATTER OF: **Proposal to recover the additional cost incurred during the period July 2019 to September 2019 over approved level on Generation and Power Purchase due to variation in cost of fuel, from all consumers including Bulk Consumers and other Licensees.**

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

The petitioner, KSEBL, respectfully submits this petition based on the provisions of the KSERC (Terms and Conditions for Determination of Tariff) Regulations, 2018 notified as per No. 2076/F&T/2017/KSERC dated 26th October 2018.

- I. As per Regulation 86 of the Terms and Conditions of Determination of Tariff Regulations 2018, KSEBL is eligible to recover the additional liability on account of variation in actual fuel cost over approved level through fuel surcharge at the rates approved by the Hon'ble Commission. Regulation 86 (5) of KSERC Tariff Regulations, 2018 stipulates that *“Every Distribution business/licensee shall, within thirty days after the close of each quarter, submit to the Commission an application*

with all relevant details required for the approval of the amount of fuel surcharge to be adjusted from the consumers and of the rate and period of such adjustment”.

- II.** Further, Honourable Commission in the tariff order dated 08.07.2019 has directed KSEB Ltd to submit regularly, at specified intervals, application for approval of fuel surcharge and also submit proposals for passing on the impact of change in hydro-thermal mix as per provisions of the Tariff Regulations, 2018.
- III.** The present petition is filed as per Regulation 86 of the Terms and Conditions of Determination of Tariff Regulations 2018.
- IV.** Honorable Commission vide order dated 08.07.2019 had approved the power purchase cost of KSEB Ltd as Rs.8613.94 crore and the quantum of generation and power purchase as 28128.83 MU, for the year 2019-20. Honourable Commission approved 6998.42 MU as internal hydro generation, 11241.96 MU from Central Generating Stations, 8647.06 MU through long term contracts.
- V.** Hon'ble Commission is yet to adopt the rate for 350 MW of power contracted through DBFOO basis ie;100 MW from M/s Jindal India Thermal Power Limited,100 MW from Jhabua Power limited and 150 MW from Jindal Power Limited. Vide order dated 08.07.2019 Honourable Commission has considered scheduling power from these stations at the bid quantum and considered the overall purchase rate of power from M/s BALCO for the estimation of cost of power provisionally. But the variable cost of these three stations are not specified in the order. It may kindly be noted that the DBFOO framework allows pass through of actual fuel cost based on predetermined Station Heat Rate, which shall not exceed 2350 kCal/kWh. Further, the Station Heat Rate has to be certified by the generators by following tests prescribed in the PSA prior to date of commissioning. The Station Heat rates duly certified by generators under Bid 2 viz; M/s Jindal PowerLtd (150 MW), M/s Jhabua Power Ltd (100 MW) , M/s Jindal India Thermal Power Ltd (100 MW) and M/s BALCO (100 MW) are 2327 kCal/kWh, 2347.9kCal/kWh, 2350 kCal/kWh and 2350 kCal/kWh respectively. Further, the delivered cost of coal to each generator would depend on the grade of coal supplied by Coal India Ltd or its subsidiaries, the notified price of coal of the respective mine from which coal is supplied and the cost of

transportation which again depends on the mode of transportation and distance from mine. Hence, KSEBL is provisionally assessing the additional liability due to these purchases based on the actual variable cost of these stations with respect to the variable cost used for estimation in the MYT petition dated 31.10.2019.

- VI.** The actual per unit variable cost of power purchase for first quarter, from various sources, over the approved level has varied on account of changes in the price of primary fuel, secondary fuel and changes in calorific value of fuel. KSEBL prepared the fuel surcharge petition for the second quarter based on the monthly schedule approved by the Honorable Commission vide letter dated 06.08.2019.
- VII.** An abstract of comparison of approved variable cost and actual from approved sources and the additional liability due to the variation as per fuel surcharge regulations is given in the **Table 1** and Table 2 below.

Table-1					
SI No	Source	Approved	Actuals (Rs/ kWh)		
		(Rs/ kWh)	July-19	Aug-19	Sept-19
Central Generating Stations					
1	NTPC-RSTPS Stage I & II	2.49	2.70	2.70	2.77
2	NTPC-RSTPS Stage III	2.45	2.66	2.66	2.73
3	Talcher	1.73	1.82	2.16	2.39
4	Simhadri TPS Stage II	2.89	3.17	3.12	3.34
5	NLC-Stage-1	2.64	2.66	2.64	2.64
6	NLC-Stage-II	2.64	2.66	2.64	2.64
7	NLC I Expansion	2.44	2.42	2.42	2.42
8	NLC II Expansion	2.44	2.48	2.48	2.48
9	Vallur STPS	3.13	3.91	3.65	3.77
10	NTPL	3.21	3.07	2.81	3.16
11	NTPCKudgi	3.91	3.84	3.79	3.98
Independent Power Producers					
12	RTPS	2.30	2.80	3.02	3.09
13	Mejia	2.46	2.72	2.99	2.88
14	Maithon Power Ltd-Contract I	2.39	2.73	2.68	2.71

15	Maithon Power Ltd-Contract II	2.39	2.73	2.68	2.71
16	Jindal Power Ltd-Bid I	1.29	1.31	1.31	1.31
17	Jhabua Power Ltd-Bid I	1.91	1.95	1.96	1.96
18	Jindal Power Ltd-Bid II	1.19	1.27	1.27	1.27
19	Jhabua Power Ltd-Bid II	1.73	1.82	1.82	1.82
20	JITPL	1.03	1.14	1.14	1.14
21	BALCO	1.19	1.15	1.15	1.15

VIII. The summary of additional liability for second quarter as per fuel surcharge regulations is given in table below.

Table 2 Additional liability for the second quarter 2019-20							
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)
CGS	2202.98	1816.52	1679.43	2.45	2.61	35.43	33.81
IPPs I	2175.65	1871.41	1747.36	1.47	1.53	28.30	24.18
Total	4378.63	3687.92	3426.79	1.96	2.06	63.73	57.98

IX. Honorable Commission may please note that KSEBL has incurred an additional liability of Rs 63.73 crores for purchasing 3687.92 MU of energy from various approved sources during the second quarter of FY 2019-20. Out of which Rs 57.98 Cr. is the admissible additional liability as per regulations. Details in this regard as per the provisions of fuel surcharge formula specified in 'Annexure X' to Tariff Regulations, 2018, are furnished in **Annexure I**. A summary of additional financial liability/savings during the period from July-2019 to September-2019 is furnished in **Annexure II**.

X. Honourable Commission may please note that the actual demand during the quarter was less by 420.53 MU. But the actual hydro generation was less by 644.85 MU, power from CGS decreased by 453.38 MU, renewable energy purchase less by 138.34 MU and power purchased from private IPPs outside the State through long term contracts decreased by 304.29 MU against the approved quantum. This necessitated in

the increase in power purchase through short term/ as well as deviation settlement mechanism, by 565.06 MU resulting in fall in external sale.

XI. KSEBL has purchased 565.06 MU from short term market through exchanges and by means of power transfer through deviation settlement mechanism during the second quarter of FY-19 at a total amount of Rs 175.07 Cr @ Rs 3.10 per unit which is less than the average cost of power purchase approved for 2019-20. However, it is submitted that the said quantum had to be purchased against the shortfall from various sources as detailed in para X above, marginal cost of which is lower than the rate of short term procurement, and has created additional financial liability on the petitioner, over and above the approved power purchase cost.

XII. The month wise details of short term procurement are given in the table below.

Table 3 Details of procurement from Short-term market and traders									
Source	July			August			September		
	Quantu m	Rate	Amou nt	Quantu m	Rate	Amou nt	Quantu m	Rate	Amou nt
	MU	Rs/ unit	Rs Cr.	MU	Rs/ unit	Rs Cr.	MU	Rs/un it	Rs Cr.
IEX	300.71	3.32	99.69	89.72	3.46	31.00	11.73	3.60	4.22
PXIL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DSM	73.51	2.52	18.55	54.05	2.76	14.94	35.35	1.88	6.66
Total	374.21	3.16	118.2 4	143.76	3.20	45.94	47.08	2.31	10.88

*Quantum and rate at Kerala periphery

XIII. In addition to the above KSEBL had entered into banking arrangements with various utilities for availing supply of power through swap contracts. KSEBL vide petition dated 04.06.2019 has submitted the banking proposals which was approved by Honorable Commission vide order dated 24.10.2019. KSEBL returned 112.21 MU through swap contracts which was already availed earlier for meeting the power deficit of the State during the summer months from February 2019 to April 2019.

XIV. Further, Hon'ble Commission had not given approval for scheduling power from RGCCPP for the year 2019-20 vide tariff order dated 08.07.2019. But as per power purchase agreement KSEBL is bound to pay fixed charges. KSEBL has incurred Rs 15.60 crores towards fixed charges remitted to RGCCPP for the second quarter. It is humbly submitted that power purchase cost

being an uncontrollable cost, Hon'ble Commission may kindly allow this at the time of truing up.

- XV.** It is prayed that Honourable Commission may approve the additional liability of Rs 57.98 crores for the second quarter of FY2019-20 as per Regulation 86 of KSERC Tariff Regulations, 2018 and allow KSEBL to recover this additional cost as fuel surcharge from all categories of consumers including bulk consumers/licensees @ 10 paise per unit as per the regulations. The details of calculation are furnished in **Annexure III**.

PRAYER

KSEBL humbly prays before this Hon'ble Commission that,

- (a) The additional financial liability incurred by KSEBL, amounting to Rs 57.98 Cr., due to the variation in power purchase cost resulting from the variation in cost of fuel for the period from July to September 2019 for the procurement/generation of energy from various thermal sources as per Regulation 86 of KSERC Tariff Regulations, 2018 as detailed in **Annexure I & II** to this petition may kindly be approved.
- (b) This approved additional cost may kindly be allowed to be recovered from consumers including bulk consumers and other licensees as fuel surcharge, as per the Regulation 86 of KSERC Tariff Regulations, 2018, from December 2019 onwards, @ 10 paise per unit.

**Deputy Chief Engineer (Commercial & Planning)
with full powers of Chief Engineer**

**Acc: 1. Formats 1 to 4
2. Annexure I, II, III**

Formats

Format-1

Details of Energy Billed for retail sale July-September 2019(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)	5053.54

(b)	Sale to bulk consumers/ other licensees (MU)	149.56
(c)	Total energy sales (MU)	5203.11
2	Energy Input (Excluding External losses) (MU)	5938.47
3	T & D Losses (Internal) (%)	12.38

Details of energy billed for retail sale for second quarter 2019-20						
Month	Retail Sales (MU)		T&D loss(%)		Energy Input(MU)	
	Actual	Approved	Actual	Approved	Actual	Approved
April	1815.15		14.91		2133.13	
May	1707.37		8.77		1871.40	
June	1680.59		13.10		1933.93	
Total	5203.11		12.38		5938.47	

Format 2											
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)
Jul-19											
BDPP											
KDPP											
Aug-19											
BDPP											
KDPP											
Sept-19											
BDPP											
KDPP											

Format-3						
Month Wise Details of Purchase of Energy (claiming for fuel surcharge cost)						
Source	Energy Purchase (MU) at exbus		Variable Cost (Rs/kWh)		Total variable cost (Rs.Cr)	
	Actual (A)	Approved ('B)	Actual (C)	Approved ('D)	Actual E=A*C	Approved (F=B*D)
July-19						
Central Generating Stations						
RSTPS I & II	155.24	153.95	2.70	2.49	41.91	38.33
RSTPS III	42.53	0.00	2.66	2.45	11.30	0.00
Talcher Stage-II	211.69	224.57	1.82	1.73	38.44	38.85
Simhadri TPS Stage II	53.78	53.18	3.17	2.89	17.03	15.37
NLC Stage-I	39.29	35.86	2.66	2.64	10.43	9.47
NLC Stage-II	44.74	52.41	2.66	2.64	11.88	13.84
NLC I Expansion	46.61	20.50	2.42	2.44	11.27	5.00
NLC II Expansion	16.63	25.60	2.48	2.44	4.12	6.25
Vallur STPS	21.48	31.90	3.91	3.13	8.39	9.98
NTPL	25.24	46.30	3.07	3.21	7.75	14.86
Kudgi	18.64	57.04	3.84	3.91	7.16	22.30
Sub total CGS	675.87	701.31	2.51	2.48	169.70	174.25
Long Term contracts with generators outside the State						
DVC Reghunathpur TPS	24.90	32.35	2.80	2.30	6.97	7.43
DVC Mejia TPS	32.63	65.56	2.72	2.46	8.87	16.11
Maithon Power Ltd-Contract I	47.82	102.62	2.73	2.39	13.04	24.48
Maithon Power Ltd-Contract II	47.82	102.62	2.73	2.39	13.04	24.48
Jindal Power Ltd-Bid I	124.78	127.22	1.31	1.29	16.35	16.41
Jhabhua Power Ltd -Bid I	71.47	73.15	1.95	1.91	13.94	13.97
Jindal Power Ltd-Bid II	93.55	95.42	1.27	1.19	11.84	11.35
Jhabhua Power Ltd -Bid II	62.15	63.61	1.82	1.73	11.32	11.00
Jindal India thermal Power Ltd	64.17	63.61	1.14	1.03	7.32	6.55
BALCO	67.55	63.61	1.15	1.19	7.77	7.57
TOTAL LTA	636.84	789.77	1.73	1.76	110.46	139.37
Total	1312.70	1491.08	2.13	2.10	280.15	313.62
August-19						
Central Generating Stations						
RSTPS I & II	154.36	129.64	2.70	2.49	41.75	32.28
RSTPS III	41.02	42.77	2.66	2.45	10.90	10.48

Talcher Stage-II	142.88	299.42	2.16	1.73	30.82	51.80
Simhadri TPS Stage II	39.34	29.22	3.12	2.89	12.26	8.44
NLC Stage-I	30.69	35.86	2.644	2.64	8.11	9.47
NLC Stage-II	49.88	39.31	2.644	2.64	13.19	10.38
NLC 1 Expansion	44.67	39.63	2.42	2.44	10.79	9.67
NLC II Expansion	14.97	15.71	2.48	2.44	3.72	3.83
Vallur STPS	10.39	31.90	3.65	3.13	3.79	9.98
NTPL	41.53	46.30	2.81	3.21	11.65	14.86
Kudgi	11.73	57.04	3.79	3.91	4.44	22.30
Total	581.44	766.80	2.60	2.39	151.4 2	183.50
Long Term contracts with generators outside the State						
DVC Reghunathpur TPS	20.43	32.35	3.02	2.30	6.16	7.43
DVC Mejia TPS	32.86	0.00	2.99	2.46	9.83	0.00
Maithon Power Ltd-Contract 1	80.37	102.62	2.68	2.39	21.57	24.48
Maithon Power Ltd-Contract II	80.37	0.00	2.68	2.39	21.57	0.00
Jindal Power Ltd-Bid I	114.64	127.22	1.31	1.29	15.02	16.41
Jhabhua Power Ltd -Bid I	47.49	73.15	1.96	1.91	9.31	13.97
Jindal Power Ltd-Bid II	85.98	95.42	1.27	1.19	10.88	11.35
Jhabhua Power Ltd -Bid II	41.30	63.61	1.82	1.73	7.52	11.00
Jindal India thermal Power Ltd	63.07	63.61	1.14	1.03	7.19	6.55
BALCO	56.40	63.61	1.15	1.19	6.49	7.57
TOTAL LTA	622.91	621.59	1.85	1.59	115.5 5	98.77
Total	1204.3 6	1388.3 9	2.22	2.03	266.9 7	282.27
September-19						
Central Generating Stations						
RSTPS I & II	143.05	164.66	2.77	2.49	39.64	41.00
RSTPS III	37.65	41.39	2.73	2.45	10.29	10.14
Talcher Stage-II	138.34	217.32	2.39	1.73	33.08	37.60
Simhadri TPS Stage II	43.88	51.46	3.34	2.89	14.64	14.87
NLC Stage-I	34.66	34.70	2.644	2.64	9.17	9.16
NLC Stage-II	43.74	50.72	2.644	2.64	11.57	13.39
NLC 1 Expansion	45.03	38.35	2.42	2.44	10.88	9.36
NLC II Expansion	21.21	15.20	2.48	2.44	5.26	3.71
Vallur STPS	11.51	21.07	3.77	3.13	4.34	6.59
NTPL	32.77	44.80	3.16	3.21	10.36	14.38
Kudgi	7.38	55.20	3.98	3.91	2.93	21.58
Total	559.21	734.87	2.72	2.47	152.1 7	181.79
Long Term contracts with generators outside the State						
DVC Reghunathpur	17.93	31.30	3.09	2.30	5.55	7.19

TPS						
DVC Mejia TPS	36.87	63.44	2.88	2.46	10.64	15.59
Maithon Power Ltd-Contract 1	95.97	99.31	2.71	2.39	25.97	23.69
Maithon Power Ltd-Contract II	95.97	99.31	2.71	2.39	25.97	23.69
Jindal Power Ltd-Bid I	113.93	123.12	1.31	1.29	14.93	15.88
Jhabhua Power Ltd -Bid I	19.31	70.79	1.96	1.91	3.78	13.52
Jindal Power Ltd-Bid II	85.44	92.34	1.27	1.19	10.81	10.99
Jhabhua Power Ltd -Bid II	16.79	61.56	1.82	1.73	3.06	10.65
Jindal India thermal Power Ltd	61.63	61.56	1.14	1.03	7.03	6.34
BALCO	67.79	61.56	1.15	1.19	7.80	7.33
TOTAL LTA	611.65	764.29	1.89	1.76	115.53	134.87
Total	1170.86	1499.16	2.29	2.11	267.69	316.65

Format-4

Sourcewise Energy Input from July-2019 to September-2019 in MU

Sl No	Particulars	Jul-19		Aug-19		Sep-19		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	320.39		451.74		551.02		1323.15		
	(b) Less Aux consumption	1.60		2.26		2.76		6.62		
	(c) Net Hydro Gen	318.79	519.75	449.48	615.93	548.26	580.49	1316.53		
2	KSEB thermal									
	(a) BDPP	0.00		0.00		0.00		0.00		
	(b) KDPP	0.00		0.00		0.00		0.00		
	(c) Subtotal	0.00		0.00		0.00		0.00		
	(d) Less Aux consumption	0.00		0.00		0.00		0.00		
	(e) Net BDPP+KDPP	0.00		0.00	0.00	0.00	0.00	0.00		
3	Wind Generation(net)	0.21		0.25	0.00	0.09	0.00	0.54		
4	Solar Generation(net)	1.07		1.53	0.00	1.28	0.00	3.88		
	Total own generation(net)	320.07		451.25	615.93	549.63	580.49	1320.95		
3	CGS (Import)	878.14	923.90	779.23	989.40	741.70	939.05	2399.07	2852.35	
4	IPPs									
	RGCCPP	0.00		0.00		0.00		0.00	0.00	0.00
	Wind	19.31		26.66		12.48		58.45		

	Solar	3.83		2.33		5.58		11.75		
	Ullunkal(EDCL)	1.22		2.33		2.32		5.88		
	Iruttukanam Stage-I (VIYYAT)	1.80		2.53		2.29		6.62		
	Iruttukanam Stage-II	0.71		1.29		1.20		3.19		
	Karikkayam HEP(AHPL)	2.61		5.27		4.81		12.70		
	Meenvallom (PSHCL)	1.25		1.25		1.32		3.82		
	Pathamkayam	0.00		0.00		0.00		0.00		
	Subtotal	30.73		41.68		30.00		102.40	0.00	102.40
6	Purchase through Longterm contract									
i	Purchase From DVC Reghunathpur	24.90	32.35	20.43	32.35	17.93	31.30	63.26	96.00	-32.74
ii	Purchase from DVC Mejia	32.63	65.56	32.86	0.00	36.87	63.44	102.36	129.00	-26.64
iii	Purchase from Maithon power-1, ER	47.82	102.62	80.37	102.62	95.97	99.31	224.16	304.55	-80.39
iv	Purchase from Maithon power-2 ,ER	47.82	102.62	80.37	0.00	95.97	99.31	224.16	201.93	22.23
v	Purchase from (JPL STAGE2) -DBFOO	124.78	127.22	114.64	127.22	113.93	123.12	353.35	377.56	-24.21
vi	Purchase from jhabhua-SGPLNLR,TPCL DBFOO	71.47	73.15	47.49	73.15	19.31	70.79	138.27	217.09	-78.82
vii	Purchase from jhabhua- (PSA-2) SGPLNLR,TPCL DBFOO	62.15	63.61	41.30	63.61	16.79	61.56	120.24	188.78	-68.54
viii	Purchase from (JPL STAGE2) -(PSA-2)DBFOO	93.55	95.42	85.98	95.42	85.44	92.34	264.97	283.18	-18.21
ix	Purchase from JITPL	64.17	63.61	63.07	63.61	61.63	61.56	188.88	188.78	0.10
x	Purchase from BALCO	67.55	63.61	56.40	63.61	67.79	61.56	191.74	188.78	2.96
	Sub Total	636.84		622.91		611.65		1871.41	2175.65	-304.24
	Purchase through short term contracts									
	Purchase through exchanges(net)	300.71		91.91		12.01		404.63		
	Deviation settlement mechanism	73.51		54.05		35.35		162.91		
	Swap purchase	0.00	0.00	0.00	0.00	0.00	0.00	0.00		567.54
	Purchase from KPTCL	0.00		0.00		0.00		0.00		0.00
	Traders	1011.05		768.88		659.02		2438.95	1514.91	924.04

	Power Purchase	1919.9 3		1589.7 8		1430.7 1				
	PGCIL losses	60.82		60.56		33.50				
	Net Power Purchase	1859.1 0		1529.2 2		1397.2 1				
	Total Gen & PP	2179.1 7		1980.4 7		1946.8 4				
	Sale outside the State/Swap	46.03		109.07		12.91				
		2133. 13		1871. 40		1933. 93		5938. 47		

ANNEXURE I

DETAILS OF ADDITIONAL LIABILITY

1. Details of Power Purchases - Energy procurement from Central Generating Stations during the period July to September 2019

Table 1 - Central Generating Stations							
Month	Energy purchased at ex bus			Variable cost of power Purchase at ex bus		Additional Liability	
	Approved	Actual	Admissible for FPA	Approved	Actual	Actual	Admissible
	(MU)	(MU)	(MU)	(Rs/kWh)	(Rs/kWh)	(Rs. Cr)	(Rs. Cr)
1.1 NTPC-RSTPS Stage I & II							
Jul-19	153.95	155.24	153.95	2.49	2.70	3.26	3.23
Aug-19	129.64	154.36	129.64	2.49	2.70	3.32	2.79
Sep-19	164.66	143.05	143.05	2.49	2.77	4.02	4.02
Total	448.25	452.64	426.64	2.49	2.72	10.60	10.04
1.2 NTPC-RSTPS Stage III							
Jul-19	0.00	42.53	0.00	2.45	2.66	0.88	0.00
Aug-19	42.77	41.02	41.02	2.45	2.66	0.85	0.85
Sep-19	41.39	37.65	37.65	2.45	2.73	1.07	1.07
Total	84.16	121.20	78.67	2.45	2.68	2.79	1.92
1.3 NTPC Talcher-II STPS							
Jul-19	224.57	211.69	211.69	1.73	1.82	1.82	1.82
Aug-19	299.42	142.88	142.88	1.73	2.16	6.10	6.10
Sep-19	217.32	138.34	138.34	1.73	2.39	9.14	9.14
Total	741.31	492.91	492.91	1.73	2.08	17.07	17.07
1.4 NLC - TPS - II Stage 1							
Jul-19	35.86	39.29	35.86	2.64	2.66	0.06	0.06
Aug-19	35.86	30.69	30.69	2.64	2.644	0.01	0.01
Sep-19	34.70	34.66	34.66	2.64	2.644	0.01	0.01
Total	106.42	104.64	101.21	2.64	2.65	0.09	0.08

1.5 NLC-TPS-II Stage-2							
Jul-19	52.41	44.74	44.74	2.64	2.66	0.07	0.07
Aug-19	39.31	49.88	39.31	2.64	2.644	0.02	0.02
Sep-19	50.72	43.74	43.74	2.64	2.644	0.02	0.02
Total	142.44	138.36	127.79	2.64	2.65	0.11	0.10
Month	Energy purchased at ex bus			Variable cost of power purchase at ex bus		Additional Liability	
	Approved	Actual	Admissible for FPA	Approved	Actual	Actual	Admissible
	(MU)	(MU)	(MU)	(Rs/kWh)	(Rs/kWh)	(Rs. Cr)	(Rs. Cr)
1.6 NLC-TPS-I Expansion							
Jul-19	20.50	46.61	20.50	2.44	2.42	-0.10	-0.05
Aug-19	39.63	44.67	39.63	2.44	2.42	-0.11	-0.10
Sep-19	38.35	45.03	38.35	2.44	2.42	-0.11	-0.09
Total	98.48	136.31	98.48	2.44	2.42	-0.32	-0.23
1.7 NLC-TPS-II Expansion							
Jul-19	25.60	16.63	16.63	2.44	2.48	0.06	0.06
Aug-19	15.71	14.97	14.97	2.44	2.48	0.06	0.06
Sep-19	15.20	21.21	15.20	2.44	2.48	0.09	0.06
Total	56.51	52.80	46.80	2.44	2.48	0.22	0.19
1.8 NTPC Simhadri TPS - Stage II							
Jul-19	53.18	53.78	53.18	2.89	3.17	1.48	1.47
Aug-19	29.22	39.34	29.22	2.89	3.12	0.89	0.66
Sep-19	51.46	43.88	43.88	2.89	3.34	1.96	1.96
Total	133.86	137.00	126.28	2.89	3.21	4.33	4.09
1.9 Vallur STPS							
Jul-19	31.90	21.48	21.48	3.13	3.91	1.67	1.67
Aug-19	31.90	10.39	10.39	3.13	3.65	0.54	0.54
Sep-19	21.07	11.51	11.51	3.13	3.77	0.74	0.74
Total	84.87	43.37	43.37	3.13	3.81	2.95	2.95
1.10 NTPL							
Jul-19	46.30	25.24	25.24	3.21	3.07	-0.35	-0.35
Aug-19	46.30	41.53	41.53	3.21	2.81	-1.68	-1.68
Sep-19	44.80	32.77	32.77	3.21	3.16	-0.15	-0.15
Total	137.40	99.54	99.54	3.21	2.99	-2.18	-2.18

1.11 NTPC							
KUDGI(Unit I,II & III)							
Jul-19	57.04	18.64	18.64	3.91	3.84	-0.12	-0.12
Aug-19	57.04	11.73	11.73	3.91	3.79	-0.15	-0.15
Sep-19	55.20	7.38	7.38	3.91	3.98	0.05	0.05
Total	169.28	37.75	37.75	3.91	3.85	-0.22	-0.22

2. Details of Power Purchases - Energy procurement from Private Generators Outside the State during the period July to September 2019

Table 2 - Private Generators Outside the State							
Month	Energy purchased at ex bus			Variable cost of power Purchase at ex bus		Additional Liability	
	Approved	Actual	Admissible for FPA	Approved	Actual	Actual	Admissible
	(MU)	(MU)	(MU)	(Rs/kWh)	(Rs/kWh)	(Rs. Cr)	(Rs. Cr)
2.1 Maithon Power Ltd (150 MW) - Contract I							
Jul-19	102.62	47.82	47.82	2.39	2.73	1.64	1.64
Aug-19	102.62	80.37	80.37	2.39	2.68	2.40	2.40
Sep-19	99.31	95.97	95.97	2.39	2.71	3.07	3.07
Total	304.55	224.16	224.16	2.39	2.70	7.11	7.11
2.2 Maithon Power Ltd (150 MW) - Contract II							
Jul-19	102.62	47.82	47.82	2.39	2.73	1.64	1.64
Aug-19	0.00	80.37	0.00	2.39	2.68	2.40	0.00
Sep-19	99.31	95.97	95.97	2.39	2.71	3.07	3.07
Total	201.93	224.16	143.79	2.39	2.70	7.11	4.71
2.3 Jindal Power Limited -Bid I (200 MW)							
Jul-19	127.22	124.78	124.78	1.29	1.31	0.25	0.25
Aug-19	127.22	114.64	114.64	1.29	1.31	0.23	0.23
Sep-19	123.12	113.93	113.93	1.29	1.31	0.23	0.23
Total	377.56	353.35	353.35	1.29	1.31	0.71	0.71

2.4 Jhabua Power Limited-Bid I (115 MW)							
Jul-19	73.15	71.47	71.47	1.91	1.95	0.29	0.29
Aug-19	73.15	47.49	47.49	1.91	1.96	0.24	0.24
Sep-19	70.79	19.31	19.31	1.91	1.96	0.10	0.10
Total	217.09	138.27	138.27	1.91	1.95	0.62	0.62
2.5 Jindal Power Limited -Bid II (150 MW)							
Jul-19	95.42	93.55	93.55	1.19	1.27	0.71	0.71
Aug-19	95.42	85.98	85.98	1.19	1.27	0.65	0.65
Sep-19	92.34	85.44	85.44	1.19	1.27	0.65	0.65
Total	283.18	264.97	264.97	1.19	1.27	2.00	2.00
Month	Energy purchased at ex bus			Variable cost of power Purchase at ex bus		Additional Liability	
	Approved	Actual	Admissible for FPA	Approved	Actual	Actual	Admissible
	(MU)	(MU)	(MU)	(Rs/kWh)	(Rs/kWh)	(Rs. Cr)	(Rs. Cr)
2.6 Jhabua Power Limited-Bid II (100 MW)							
Jul-19	63.61	62.15	62.15	1.73	1.82	0.57	0.57
Aug-19	63.61	41.30	41.30	1.73	1.82	0.38	0.38
Sep-19	61.56	16.79	16.79	1.73	1.82	0.15	0.15
Total	188.78	120.24	120.24	1.73	1.82	1.11	1.11
2.7 Jindal India Thermal Power Limited-Bid II (100 MW)							
Jul-19	63.61	64.17	63.61	1.03	1.14	0.71	0.70
Aug-19	63.61	63.07	63.07	1.03	1.14	0.69	0.69
Sep-19	61.56	61.63	61.56	1.03	1.14	0.68	0.68
Total	188.78	188.88	188.24	1.03	1.14	2.08	2.07
2.9 BALCO - BID II(100 MW)							
Jul-19	63.61	67.55	63.61	1.19	1.15	-0.27	-0.25
Aug-19	63.61	56.40	56.40	1.19	1.15	-0.23	-0.23
Sep-19	61.56	67.79	61.56	1.19	1.15	-0.27	-0.25
Total	188.78	191.74	181.57	1.19	1.15	-0.77	-0.73
2.10 DVC Mejia (100 MW)							

Jul-19	65.56	32.63	32.63	2.46	2.72	0.85	0.85
Aug-19	0.00	32.86	0.00	2.46	2.99	1.76	0.00
Sep-19	63.44	36.87	36.87	2.46	2.88	1.58	1.58
Total	129.00	102.36	69.50	2.46	2.87	4.18	2.43
2.11 DVC RTPS (50 MW)							
Jul-19	32.35	24.90	24.90	2.30	2.80	1.25	1.25
Aug-19	32.35	20.43	20.43	2.30	3.02	1.47	1.47
Sep-19	31.30	17.93	17.93	2.30	3.09	1.43	1.43
Total	96.00	63.26	63.26	2.30	2.95	4.15	4.15

3 Summary of total additional liability for the secondquarter

The summary of additional liability as per fuel surcharge regulations is given below.

Source	Approved energy requirement (MU)	Actual Energy procurement (MU)	Per unit cost		Additional liability admissible as per fuel surcharge regulations (Rs. Cr)
			Approved (Rs/kWh)	Actual (Rs/kWh)	
CGS					
RSTPS I & II	448.25	452.64	2.49	2.72	10.04
RSTPS III	84.16	121.20	2.45	2.68	1.92
Talcher Stage-II	741.31	492.91	1.73	2.08	17.07
Simhadri TPS Stage II	133.86	137.00	2.89	3.21	4.09
NLC Stage-I	106.42	104.64	2.64	2.65	0.08
NLC Stage-II	142.44	138.36	2.64	2.65	0.10
NLC 1 Expansion	98.48	136.31	2.44	2.42	-0.23
NLC II Expansion	56.51	52.80	2.44	2.48	0.19
Vallur STPS	84.87	43.37	3.13	3.81	2.95
NTPL	137.40	99.54	3.21	2.99	-2.18
Kudgi	169.28	37.75	3.91	3.85	-0.22
Sub Total CGS	2202.98	1816.52	2.45	2.61	33.81
Private IPPs outside the State					
DVC RTPS	96.00	63.26	2.30	2.95	4.15

DVC Mejia	129.00	102.36	2.46	2.87	2.43
Maithon Power Ltd-I, ER	304.55	224.16	2.39	2.70	7.11
Maithon Power Ltd-II, ER	201.93	224.16	2.39	2.70	4.71
Jindal Power Ltd-Bid I	377.56	353.35	1.29	1.31	0.71
Jhabua Power Ltd-Bid I	217.09	138.27	1.91	1.95	0.62
Jindal Power Ltd-Bid II	283.18	264.97	1.19	1.27	2.00
Jhabua Power Ltd-Bid II	188.78	120.24	1.73	1.82	1.11
JITPL	188.78	188.88	1.03	1.14	2.07
BALCO	188.78	191.74	1.19	1.15	-0.73
Sub Total IPPS	2175.65	1871.41	1.47	1.53	24.18
Total	4378.63	3687.92	1.96	2.06	57.98

Annexure-II

Source	Approved energy requirement (MU)	Actual Energy procurement (MU)	Per unit cost		Additional liability on account of variation in power purchase cost of approved sources	
			Approved (Rs/kWh)	Actual (Rs/kWh)	Actual (Rs. Cr)	Admissible as per fuel surcharge regulations (Rs. Cr)
CGS						
RSTPS I & II	448.25	452.64	2.49	2.72	10.60	10.04
RSTPS III	84.16	121.20	2.45	2.68	2.79	1.92
Talcher Stage-II	741.31	492.91	1.73	2.08	17.07	17.07
Simhadri TPS Stage II	133.86	137.00	2.89	3.21	4.33	4.09
NLC Stage-I	106.42	104.64	2.64	2.65	0.09	0.08
NLC Stage-II	142.44	138.36	2.64	2.65	0.11	0.10
NLC 1 Expansion	98.48	136.31	2.44	2.42	-0.32	-0.23
NLC II Expansion	56.51	52.80	2.44	2.48	0.22	0.19
Vallur STPS	84.87	43.37	3.13	3.81	2.95	2.95
NTPL	137.40	99.54	3.21	2.99	-2.18	-2.18
Kudgi	169.28	37.75	3.91	3.85	-0.22	-0.22
Sub Total CGS	2202.98	1816.52	2.45	2.61	35.43	33.81
Private IPPs outside the State						
DVC RTPS	96.00	63.26	2.30	2.95	4.15	4.15

DVC Mejia	129.00	102.36	2.46	2.87	4.18	2.43
Maithon Power Ltd-I, ER	304.55	224.16	2.39	2.70	7.11	7.11
Maithon Power Ltd-II, ER	201.93	224.16	2.39	2.70	7.11	4.71
Jindal Power Ltd-Bid I	377.56	353.35	1.29	1.31	0.71	0.71
Jhabua Power Ltd-Bid I	217.09	138.27	1.91	1.95	0.62	0.62
Jindal Power Ltd-Bid II	283.18	264.97	1.19	1.27	2.00	2.00
Jhabua Power Ltd-Bid II	188.78	120.24	1.73	1.82	1.11	1.11
JITPL	188.78	188.88	1.03	1.14	2.08	2.07
BALCO	188.78	191.74	1.19	1.15	-0.77	-0.73
Sub Total IPPS	2175.65	1871.41	1.47	1.53	28.30	24.18
Total	4378.63	3687.92	1.96	2.06	63.73	57.98

*Variable cost of these stations were not separately approved. Thus variable cost as per MYT projection is taken as approved rate.

Annexure-III

Rate of Fuel Surcharge in Paise per unit	
Amount of Fuel Surcharge (F) in crores	57.98
Energy expected to be billed for Retail sale to whole consumers for the three months starting from December (E) in MU	5699.71
Energy expected to be billed for domestic consumers having monthly consumption less than 20 units and connected load below 20 units during the third quarter in MU	0.22
Energy billed for Retail sale to consumers other than the domestic consumers with connected load less than 500 W and monthly consumption below 20 units consumers for third quarter (E) in MU	5699.49
Rate of fuel surcharge in Paise per unit	10.17
Rounded to 10.00 paise per unit	