

Table-1
Summary of the additional liability claimed by KSEB Ltd as fuel surcharge

Sl No	Source	Approved	Actuals (Rs/ kWh)			Energy procured at Exbus	Addl liability claimed as FS
		(Rs/ kWh)	Jul-19	Aug-19	Sep-19	(MU)	(Rs.Cr)
Central Generating Stations							
1	NTPC-RSTPS Stage I & II	2.49	2.70	2.70	2.77	448.25	10.04
2	NTPC-RSTPS Stage III	2.45	2.66	2.66	2.73	84.16	1.92
3	Talcher	1.73	1.82	2.16	2.39	741.31	17.07
4	Simhadri TPS Stage II	2.89	3.17	3.12	3.34	133.86	4.09
5	NLC-Stage-1	2.64	2.66	2.64	2.64	106.42	0.08
6	NLC-Stage-II	2.64	2.66	2.64	2.64	142.44	0.1
7	NLC I Expansion	2.44	2.42	2.42	2.42	98.48	-0.23
8	NLC II Expansion	2.44	2.48	2.48	2.48	56.51	0.19
9	Vallur STPS	3.13	3.91	3.65	3.77	84.87	2.95
10	NTPL	3.21	3.07	2.81	3.16	137.4	-2.18
11	NTPCKudgi	3.91	3.84	3.79	3.98	169.28	-0.22
Independent Power Producers							
12	RTPS	2.25	2.8	3.02	3.09	96	4.15
13	Mejia	2.41	2.72	2.99	2.88	129	2.43
14	Maithon Power Ltd- Contract I	2.34	2.73	2.68	2.71	304.55	7.11
15	Maithon Power Ltd- Contract II	2.34	2.73	2.68	2.71	201.93	4.71
16	Jindal Power Ltd-Bid I	1.29	1.31	1.31	1.31	377.56	0.71
17	Jhabua Power Ltd-Bid I	1.91	1.95	1.96	1.96	217.09	0.62
18	Jindal Power Ltd-Bid II	1.19	1.27	1.27	1.27	283.18	2
19	Jhabua Power Ltd-Bid II	1.73	1.82	1.82	1.82	188.78	1.11
20	JITPL	1.03	1.14	1.14	1.14	188.78	2.07
21	BALCO	1.19	1.15	1.15	1.15	188.78	-0.73
	Total					4378.63	57.99

3. KSEB Ltd proposed to recover the additional liability as fuel surcharge @Rs. 0.10/unit, from December 2019 onwards, as detailed below.

Table 2
Rate of fuel surcharge claimed by KSEB Ltd

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 2019 (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	

4. As per the sub Regulation (6) of Regulation 86 of the Tariff Regulation, 2018, KSEB Ltd has to file the petition with all relevant details for the approval of the amount of fuel surcharge to be recovered/ adjusted from the consumers, within 30 days after the close of each quarter. Accordingly, the petition for approval for the fuel surcharge for the second quarter has to be filed on or before 31st of October 2019. However, the petition was filed on 11.11.2019 with a delay of 12 days in filing the petition. KSEB Ltd has filed an application for 'condonation of delay' along with the original petition, wherein it is submitted that, the delay occurred mainly on account of the delay in finalizing the regional energy accounts (REA) by the SRPC. Considering the submission of KSEB Ltd, the Commission condoned the delay in filing the petition for the approval of the fuel surcharge for the second quarter of the FY 2019-20 and admitted the petition as OA No 02/2020.
5. The Commission admitted the petition as OA No 02/2020 and published it in the website of the Commission for comments of the stakeholders. Public hearing on the petition was held at the Court Hall of the Commission on 19.02.2020.
6. Sri K G P Nampoothiri, Executive Engineer presented the petition on behalf of KSEB Ltd and responded to the queries of the Commission. KSEB Ltd submitted that, the total additional liability incurred by KSEB Ltd during the second quarter of the financial year 2019-20 over approved level is Rs 63.73 crore. However as per the provisions of the KSERC (Terms and Conditions of Determination of Tariff) Regulations, 2018, the additional liability admissible as fuel surcharge is Rs 57.98 crore. KSEB Ltd proposed to recover the amount admissible @Rs 0.10/unit from the consumers from December 2019 onwards. The representative of KSEB Ltd further submitted that, increase in variable cost of CGS and other generators whose tariff is determined by CERC is mainly due to the following.
 - (1) Changes in the norms of SHR and auxiliary consumption as per the CERC (Terms and Conditions of Tariff) Regulations, 2019, compared to the CERC (Terms and Conditions of Tariff) Regulations, 2014.
 - (2) Increase in the price of the domestic coal as per the orders of the Coal India Ltd and its subsidiaries.
 - (3) Increase in railway freight charges.
 - (4) Blending of imported coal with domestic coal to overcome the shortage of domestic coal.
7. Sri Ratheesh Kumar, HT & EHT Association made a detailed presentation on the subject petition and its summary is given below.
 - (i) T&D loss claimed by KSEB Ltd is 14.91%, 8.77% and 13.10% respectively for the months of Jul'19, Aug'19 and Sep'19, as against the T&D loss of 12.42% approved for the year 2019-20. KSEB Ltd may be directed to clarify the reason for such abnormal variations.

- (ii) There is wide variation on the variable cost approved and the actuals for the CGS like Talcher-II, Vallur STPS, Ramagundam STPS etc.
 - (iii) There was a reduction in energy availability by 403.90 MU from the IPPs, when compared to the energy schedule approved and actual.
 - (iv) KSEB Ltd has not submitted the reasons for increase in variable cost.
 - (v) HT&EHT Association also requested that, the petitioner may be directed to upload the details of the fuel surcharge collected at the website of the KSEB Ltd.
8. Sri. Saji Mathew, MRF Ltd submitted that, the Commission may deeply appraise the reasons for the monthly variation on the T&D loss approved and the actuals.
9. Based on the deliberations during the hearing, the Commission in its daily order dated 27.02.2020, directed the following.
- (1) KSEB Ltd, shall submit the reasons in detail for the reduction in energy availability from CGS, and long term contracts from IPPs for each month of the second quarter of the FY 2019-20, with documentary evidence.
 - (2) Commission noted that, there is wide variation on the variable cost claimed during the second quarter of the FY 2019-20. For example, the variable cost of Talcher-II station claimed for the month of July was Rs 1.82/unit, however the variable cost claimed for September 2019 was Rs 2.39/ unit, i.e., an increase of Rs 0.57/unit (31.31%) over July 2019.

KSEB Ltd shall submit a detailed report with the supporting documents on the reasons for such abnormal variations.
 - (3) KSEB Ltd shall submit the reasons for the variations in the cost claimed and cost approved for the power purchase from the different sources as per the petition on fuel surcharge for the second quarter of the FY 2019-20.
 - (4) It is further directed that, henceforth KSEB Ltd shall include the detailed report with supporting documents on the reasons for the variations on the variable cost approved and actuals, along with the petitions on fuel surcharge to be filed before the Commission.
 - (5) KSEB Ltd shall also publish the details of the fuel surcharge collected in each month at its website regularly, not later than 10th of subsequent month.

10. In compliance of the directions of the Commission, KSEB Ltd vide the letter dated 16.03.2020 submitted the additional details and its summary is given below.

- (1) Reduction in energy availability from CGS and IPPs compared to the approved level.

The reduction in energy availability from CGS and IPPs compared to the approved level was due to the following reasons.

- (i) Due to change in annual maintenance schedule
- (ii) Due to unscheduled outages in generating stations as well as transmission lines
- (iii) Coal shortage
- (iv) Due to change in normative auxiliary consumption and plant load factor in the Tariff Regulations 2019-2024

KSEBL estimated the energy availability of the CGS in the MYT petition based on the maintenance schedule of past years. The annual maintenance schedule of the CGS for the year 2019-20 was not published at the time of preparation of MYT petition. The actual maintenance schedule has varied in 2019-20 and thus the energy availability has varied accordingly. In addition to the scheduled outages, unscheduled outages of CGS also occurred during second quarter due to various reasons including coal shortage. Further, the CERC Tariff regulations for the control period from 2019-2024 came into force subsequently and there is difference in normative PLF, PAF and auxiliary consumption of certain stations. The monthly fixed charges payable to the thermal generating station is based on percentage of plant availability factor achieved up to the end of that month.

- (2) Reasons for monthly variation in fuel cost from Central Generating Stations.

The monthly energy charges depends on the price notified for different grades of coal for each mine which are different from mine to mine, grades of coal delivered in the month, blending ratio of imported coal and domestic coal, ratio of domestic coal receipt from different sources and the distance between the source of coal and generating station, mode of transport etc.

The energy charge payable are calculated based on the formula specified in the CERC Tariff Regulations, 2019. The energy charge depends on the GCV of the primary and secondary fuel, as well as the landed price of primary and secondary fuel. The landed price of fuel depends on the grade of coal, blending of domestic and imported coal, transportation cost, price notified by the Coal India Ltd and its subsidiaries etc.

- (3) Reasons for the variations in the variable cost approved and claimed from the different sources.

The Commission approved the variable charges for the year 2019-20, after giving an escalation of 2% on the actual variable charges for the year 2018-19. CERC notified the Regulation 'CERC (Terms and Conditions of Tariff) Regulations, 2019 on 07.03.2019, which is effective from 01.04.2019. CERC revised the norms for the station heat rate and auxiliary consumption for all CGS and those stations whose tariff is determined by CERC, and this has resulted in increase in energy charge compared to the year 2018-19. The impact of the CERC Tariff Regulations 2019 was not considered in the approved tariff of 2019-20.

The variation of energy charges cannot be uniform for all stations, as it depends on the price notified for each mine, grade of coal, blending ratio of imported coal and domestic coal, distance from source and mode of transport etc.

Analysis and Decision

11. The Commission has examined in detail the petition filed by KSEB Ltd for the approval of the fuel surcharge for the second quarter of the financial year 2019-20, the objections made by the stakeholders, additional submissions made by KSEB Ltd, with reference to the provisions of the Electricity Act, 2003 and Tariff Regulations, 2018 notified by the Commission and directions issued by the Hon'ble Appellate Tribunal for Electricity (APTEL) to the State Commissions.

12. The Section 62(4) of the Electricity Act, 2003 provides for recovery of fuel surcharge as per the fuel surcharge formula specified by the Commission.

The Section 62(4) of the Electricity Act-2003 is extracted below for ready reference.

“(4) No tariff or part of any tariff may ordinarily be amended more frequently than once in any financial year, except in respect of any changes expressly permitted under the terms of any fuel surcharge formula as may be specified.”

13. Hon'ble APTEL vide the judgment dated 11.11.2011 in OP No. 1 of 2011 had issued directions to all the State Commissions in the Country, regarding the fuel surcharge as follows.

65. In view of the analysis and discussion made above, we deem it fit to issue the following directions to the State Commissions:

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(vi) Fuel and Power Purchase cost is a major expense of the distribution Company which is uncontrollable. Every State Commission must have in place a mechanism for Fuel and Power Purchase cost in terms of Section 62 (4) of the Act. The Fuel and Power Purchase cost adjustment should preferably be on monthly basis on the lines

of the Central Commission's Regulations for the generating companies but in no case exceeding a quarter. Any State Commission which does not already have such formula/mechanism in place must within 6 months of the date of this order must put in place such formula/ mechanism."

14. The Regulation-86 of the KSERC (Terms and Conditions for Determination of Tariff) Regulations, 2018 (hereinafter referred as Tariff Regulations, 2018), deals with the 'Fuel Surcharge Formula' and related aspects, which is extracted below for ready reference.

"86. Fuel surcharge formula.-(1) The tariff or part of any tariff determined in accordance with these Regulations, shall not ordinarily be amended, more frequently than once in any financial year, except in respect of any changes expressly permitted by the Commission under the terms of fuel surcharge formula specified in this Regulation.

(2) Fuel surcharge is the amount approved by the Commission in terms of the formula specified under Annexure X, by way of recovery from or refund to the consumer, so as to enable the distribution business/licensee to pass through to the consumer additional expenditure or savings due to:

(i) the difference between the actual cost of fuel and the cost of fuel approved in Aggregate Revenue Requirement by the Commission for the generation of electricity in the generating stations owned by the distribution business/licensee; and

(ii) the difference on account of the change in cost of fuel, between the actual cost of power purchase and the cost of power purchase as approved by the Commission in the Aggregate Revenue Requirement.

(3) The distribution business/licensee may be allowed by the Commission to adjust the fuel surcharge on a quarterly basis at the rate and the period of adjustment, as approved by the Commission based on the petition submitted by the distribution business/licensee specifically for this purpose.

(4) (a) The amount of fuel surcharge to be adjusted shall be determined by the Commission in accordance with the formula specified in Annexure X.

(b) The difference between the actual cost of fuel and the approved cost of fuel for own generation shall be computed for each quarter with respect to the month wise quantity of generation as approved by the Commission in the Aggregate Revenue Requirement of the distribution business/licensee, based on merit order.

(c) The difference between the actual cost of power purchase and the approved cost of power purchase on account of change in cost of fuel shall be computed for each quarter with respect to the month wise quantity of power purchase as approved by the Commission in the Aggregate Revenue Requirement of the distribution business/licensee, based on merit order.

(5) Every distribution business/licensee shall, within thirty days after the close of each quarter, submit to the Commission a petition with all relevant details required for the approval of the amount of fuel surcharge to be adjusted from the consumers and the rate and period of such adjustment:

Provided that distribution licensees who purchase electricity from KSEB Limited in bulk for retail sale, are exempted from the above requirement.

(6) The Commission may, after prudence check, approve with modifications if any, the amount of fuel surcharge to be adjusted from the consumers and stipulate the rate and the period of such adjustment.

(7) The rate of adjustment of fuel surcharge shall be expressed as paise per kWh and it shall be adjusted in the energy charges as per the existing tariff for the energy billed to each consumer, on a monthly or bi-monthly basis, as the case may be.

(8) The adjustment on account of fuel surcharge as approved by the Commission shall be effected from the third month of the subsequent quarter onwards or as directed by the Commission.

(9) The fuel surcharge adjustment shall be uniformly applicable to all consumers in the State except the domestic consumers with connected load of and below 500 W and having monthly consumption of and below 20 units.

(10) The Commission may decide appropriate rate and period of adjustment of the amount of fuel surcharge, considering the impact on the tariff of consumers.

(11) (a) The distribution business/licensee shall submit to the Commission, the month-wise details of the changes in the cost of fuel with respect to the approved cost for all its generating stations using liquid fuel or gas or coal, for each quarter separately.

(b) The distribution business/licensee shall submit to the Commission, the source wise and month-wise details of the changes in the cost of power purchase with respect to the approved cost of power purchase on account of change in cost of fuel, for each quarter separately.

(c) The month-wise details as specified in clauses (a) and (b) above, shall be submitted in the Form-I as specified in Annexure-X to these Regulations, on a quarterly basis.

(12) (a) Distribution licensees who purchase electricity from KSEB Limited in bulk for retail sale, shall within fifteen days of the close of each month, provide to KSEB Limited with a copy to the Commission, the month-wise details of retail sale of energy to facilitate the estimation of fuel surcharge.

(b) KSEB Limited shall consolidate the details of such retail sales and indicate with calculations, the provisional amount and rate of fuel surcharge to be adjusted along with the details in Annexure X.

(13) The distribution licensees who purchase electricity in bulk from KSEB Limited shall promptly adjust with KSEB Limited on a monthly basis, the amount of fuel surcharge adjusted from their consumers.

(14) The Commission may seek additional information or any documents, if any, required from the distribution business/licensee and the distribution business/licensee shall submit the details within the time limit stipulated by the Commission.

15. The fuel surcharge formula specified under Annexure X to the Tariff Regulations, 2018 is extracted below.

‘ The Formula for adjustment of fuel surcharge shall be as under:

$$\text{The rate of fuel surcharge adjustment in paise per kWh} = F \div E \times 100$$

Where,-

F = The amount of fuel surcharge in rupees, which is the sum of **Fg, Fp and**

A

E = Energy billed for retail sale to the consumers other than the domestic consumers with connected load of and below 500 W and consumption of and below 20 kWh, in the relevant quarter, based on the approved level of transmission and distribution loss

F_g = Change in the cost of fuel for generation of electricity from own stations

$$= \sum_1^n Q_g \times (R1 - R2)$$

F_p = Change in cost of the energy purchased, due to the change in fuel cost

$$= \sum_1^n Q_p \times (P1 - P2)$$

(F_g and F_p shall be calculated for each station month-wise and added up)

A = Balancing term to take care of difference, if any, in the energy sales

Q_g = Quantity of fuel used for generation of electricity in own stations
 = (Approved station heat rate in kilo calories per kWh X Actual or approved energy whichever is less in MU X 1000) ÷ Calorific value of the fuel in kilo calories per kilo gram

Q_p = Actual quantity of energy purchased or approved whichever is lesser

$R1$ = Actual price of fuel in rupees per metric ton

$R2$ = Approved price of fuel in rupees per metric ton

$P1$ = Actual price of purchased energy in rupees per kWh

$P2$ = Approved price of purchased energy in rupees per kWh

16. The Commission vide the paragraph 7.13 of the order dated 08.07.2019 in OA No.15/2018 has directed KSEB Ltd to strictly comply with the Regulation 86 of the Tariff Regulations, 2018 in filing the petition on fuel surcharge.
17. The Commission vide the order dated 08.07.2019 in OA No. 15/2018 in the matter of approval of the 'ARR, ERC and Tariff for the MYT period 2018-19 to 2021-22' has approved the source wise details of the power purchase and cost from various sources including 'Central Generating Stations (CGS)' and also the power purchase under long term contracts from private IPPs.

Further, the Commission vide the letter dated 06.08.2019 has communicated to KSEB Ltd the month wise details of the energy schedule approved from each of the CGS and long term contracts during the MYT period from 2018-19 to 2021-22.

The provisions for recovery of fuel surcharge provided in the Tariff Regulations 2018, is to recover the additional liability incurred by the licensee on the purchase of power or to pass on the savings if any, to the consumers. While calculating the fuel surcharge only the power purchase cost variations due to fuel cost from the approved sources in ARR are considered.

18. KSEB Ltd has claimed fuel surcharge for the following DBFOO contracts of Bid-2 invited by KSEB Ltd, for which the Commission neither granted approval of the PPA nor adopted the tariff as per Section 63 of the Electricity Act, 2003.

- (i) 100 MW power from M/s Jindal India Thermal Power Ltd, New Delhi.
- (ii) 100 MW from M/s Jhabua Power Limited.
- (iii) 150 MW from M/s Jindal Power Limited.

The Commission, vide the letter dated 22.12.2017 allowed KSEB Ltd to schedule the above contracted power, in view of the order of the State Government GO (Ms) No. 22/2017/PD dated 21.10.2017. The Commission had in the said letter clearly mentioned that, the approval of the power purchase mentioned above including the rate of the DBFOO contracts shall be given, only after getting approvals from Government of India for the deviations from the standard bidding documents issued by Ministry of Power, Government of India and after getting the approval of the Government of Kerala on the entire power purchase under DBFOO.

While approving the ARR, ERC and Tariff for the MYT period 2018-19 to 2021-22, the Commission stated as follows.

“Hence the Commission has considered scheduling power from the three projects of Bid-2, ie., 100 MW of power from M/s Jindal India Thermal Power Ltd, New Delhi, 100 MW of power from M/s Jhabua Power Limited and 150 MW of power M/s Jindal Power Limited for the limited purpose of estimating the ARR&ERC for the control period. Since the required approvals from Gol and State Government is still awaited, the Commission is constrained to use the rate equivalent to the cost of power from Balco, which is the L1 of Bid 2. The Commission emphasises that this consideration is only for the purposes of estimating the cost of power provisionally in the ARR and shall not be construed as an approval of the power purchase, rate or of the PPA itself as per Section 63 of the Act which can be considered only after the fulfilment of conditions specified by the Commission in its order dated 31-8-2016”.

The Commission noticed from the invoices and other documents submitted by KSEB Ltd that, the actual tariff paid by KSEB Ltd for procuring power from these three sources were much higher and amounted to Rs.22.75 crore more when compared to the L1 rate of Rs.4.31 per unit paid to BALCO which is the L1 of Bid-2. The Commission further notes that the additional payment under the three DBFOO contracts amounts to Rs 45.13 crore for the first six months of the FY 2019-20. As mentioned above, the Commission vide its order dated 22.12.2017 had allowed KSEB Ltd, to schedule the contracted power from these three generators subject to conditions and while approving the ARR & ERC and tariff for the MYT period 2018-19 to 2021-22, the Commission had considered the rate equivalent to the cost of power from BALCO for estimating the cost of power provisionally from these three generators. The Commission reiterate that, during the truing up of accounts for the respective financial years, excess amount, if any, incurred for procuring power from these three generators shall not be considered, unless KSEB Ltd gets the approval of power purchase from Government of India for the deviations from

the guidelines and on getting the approval of the Government of Kerala on the entire power purchase under DBFOO.

19. The Commission has also noted the clarifications submitted by the KSEB Ltd regarding the (i) Reduction in energy availability from CGS and IPPS over the approved quantum, (ii) Reason for monthly variation in fuel cost from Central Generating Stations.

(i) Reduction in energy availability from CGS and IPPS over the approved quantum.

The Commission has noted that, there is considerable reduction in energy availability from the following CGS/ long term contracts, over approved level, and also noted the reasons submitted for the same. The summary of the reduction in energy availability, and the actual plant availability factor (PAF) of CGS and other IPPs is given below.

**Table-3
Reduction in Plant Availability Factor**

Name of the Station	Quantum energy (MU) approved/ actual for the 2nd quarter		Plant Availability Factor (PAF)			Reason for low PAF
	Actual	Approved	Jul-09	Aug-09	Sep-09	
NTPC Talcher-II	492.91	741.31	70.14%	46.77%	47.15%	Unit-3 under AM from 15/6 to 15/7. Unit-4 under AM from 29/7 to 31/8.
NTPC Vallur STPS	43.37	84.87	50.95%	101.46%	71.60%	Unit-1 & 2 is forced shutdown from 16.07.19 to 17.07.19 and 26.07 to 29.07.19, and RSD from 15.09.19 to 21.09.19. Unit 3 shutdown for annual overhauling from 12.07.19 to 29.08.19, and RSD from 31.08.19 to 12.09.19.
NTPC Kudgi	37.75	169.28				Surrender due to high variable cost, under merit order
DVC Reghunathpur	63.26	96.00	77.70%	69.28%	53.85%	Lower availability due to annual maintenance and coal shortages
Maithon- I	224.16	304.55	49.44%	86.72%	97.79%	One unit shut down from 21.06.2019 to 06.08.2019.
Jhabua Bd-1	138.27	217.09	87.93%	58.43%	24.55%	Plant is total shutdown from 21.08.2019 to 22.09.2019, due to coal shortage and unscheduled maintenance. KSEBL levied damages for availability below 85% other than scheduled outages as per PSA.

KSEB Ltd submitted that, the reduction in energy availability from CGS and IPPs compared to the approved level was due to the following reasons.

- (i) Due to change in annual maintenance schedule
- (ii) Due to unscheduled outages in generating stations as well as transmission lines.
- (iii) Coal shortage
- (iv) Due to change in normative auxiliary consumption and plant load factor in the Tariff Regulations 2019-2024

The Commission noted the reduction in plant availability of CGS, especially the stations owned and operated by NTPC Ltd such as Talcher-II and Simhadri power stations. **The Commission hereby direct KSEB Ltd that, KSEB Ltd shall appraise the actual liability based actual schedule of generation, deemed availability claimed by CGS, its financial impact on tariff on annual basis, and this shall be brought to the attention of CERC and this Commission while truing up.**

- (ii) Reason for monthly variation in fuel cost from Central Generating Stations.

The Commission has also appraised the reasons submitted by KSEB Ltd for the monthly variation in fuel cost from CGS. KSEB Ltd submitted that, the monthly energy charges depends on the price notified for different grades of coal for each mine which are different from mine to mine, grades of coal delivered in the month, blending ratio of imported coal and domestic coal, ratio of domestic coal receipt from different sources and the distance between the source of coal and generating station, mode of transport etc.

The summary of the monthly variation in landed price of coal and GCV of fuel claimed by the CGS having much variation in variable cost over approved level is given below.

Table-4
Variation in landed price of coal and Gross Calorific Value of CGS

Month	Talcher		Simhadri		Vallur		Kudgi	
	Landed cost of coal (Rs/MT)	GCV (kCal/kg)	Landed cost of coal (Rs/MT)	GCV (kCal/kg)	Landed cost of coal (Rs/MT)	GCV (kCal/kg)	Landed cost of coal (Rs/MT)	GCV (kCal/kg)
Jul-19	2114	3085	3120	3365	4804	3222	6784	4290
Aug-19	2312	2833	4040	3316	4252	3033	6775	4349
Sep-19	2373	2634	4061	3146	4842	3359	6294	3853

The Commission noted the claims raised by the CGS and IPPs whose tariff is being determined by CERC. However, from the copy of the claims of the CGS submitted by KSEB Ltd, it is difficult to quantify the variation in actual variable cost especially for the power plants used fuel from multiple sources including

import from other countries. Hence, the Commission direct that, KSEB Ltd shall insist the CGS and other IPPs to provide the exact details of the fuel used from different sources including its price on monthly basis and provide a copy of the same to the Commission along with the petition for approval of the fuel surcharge.

20. The month wise details of the power purchase and variable cost from each of the approved sources as per the ARR, ERC and Tariff order dated 08.07.2019 in OA No. 15/2018 and the actuals are detailed in the subsequent paragraphs.

Table-5
Talcher-II Super Thermal Power Station

Month	Quantum (MU)				Rate (Rs/ kWh)		Addl liability as FS (Rs.Cr)	
	Approved	Actual	Claimed by KSEB L for 'FS'	Eligible for 'FS' as per Regulation	Approved	Actual	Actual	Approved for recovery as 'FS'
(1)	(2)	(3)	(4)	(5)= Lesser of (2) & (3)	(6)	(7)	(8)	(9)= (5)x((7)-(6))
Jul-19	224.57	211.69	211.69	211.69	1.73	1.82	1.82	1.82
Aug-19	299.42	142.88	142.88	142.88	1.73	2.16	6.10	6.10
Sep-19	217.32	138.34	138.34	138.34	1.73	2.39	9.14	9.14
Total	741.31	492.91	492.91	492.91	1.73	2.08	17.06	17.06

Table-6
Ramagundam Stage -I &II

Month	Quantum (MU)				Rate (Rs/ kWh)		Addl liability as FS (Rs.Cr)	
	Approved	Actual	Claimed by KSEB L for 'FS'	Eligible for 'FS' as per Regulation	Approved	Actual	Actual	Approved for recovery as 'FS'
(1)	(2)	(3)	(4)	(5)= Lesser of (2) & (3)	(6)	(7)	(8)	(9)= (5)x((7)-(6))
Jul-19	153.95	155.24	153.95	153.95	2.49	2.70	3.26	3.23
Aug-19	129.64	154.36	129.64	129.64	2.49	2.70	3.24	2.72
Sep-19	164.66	143.05	143.05	143.05	2.49	2.77	4.01	4.01
Total	448.25	452.65	426.64	426.64	2.49	2.72	10.51	9.96

Table-7
Ramagundam STPS Stage-III

Month	Quantum (MU)				Rate (Rs/ kWh)		Addl liability as FS (Rs.Cr)	
	Approved	Actual	Claimed by KSEB L for 'FS'	Eligible for 'FS' as per Regulation	Approved	Actual	Actual	Approved for recovery as 'FS'
(1)	(2)	(3)	(4)	(5)= Lesser of (2) & (3)	(6)	(7)	(8)	(9)= (5)x((7)-(6))
Jul-19	0.00	42.53	0.00	0.00	2.45	2.66	0.89	0.00
Aug-19	42.77	41.02	41.02	41.02	2.45	2.66	0.86	0.86
Sep-19	41.39	37.65	37.65	37.65	2.45	2.73	1.05	1.05
Total	84.16	121.20	78.67	78.67	2.45	2.68	2.81	1.92

Table-8
NLC-TPS-II Stage-1

Month	Quantum (MU)				Rate (Rs/ kWh)		Addl liability as FS (Rs.Cr)	
	Approved	Actual	Claimed by KSEB L for 'FS'	Eligible for 'FS' as per Regulation	Approved	Actual	Actual	Approved for recovery as 'FS'
(1)	(2)	(3)	(4)	(5)= Lesser of (2) & (3)	(6)	(7)	(8)	(9)= (5)x((7)-(6))
Jul-19	35.86	39.29	35.86	35.86	2.64	2.660	0.08	0.06
Aug-19	35.86	30.69	30.69	30.69	2.64	2.644	0.01	0.01
Sep-19	34.70	34.66	34.66	34.66	2.64	2.644	0.01	0.01
Total	106.42	104.64	101.21	101.21	2.64	2.650	0.10	0.08

Table-9
NLC-TPS-II Stage-2

Month	Quantum (MU)				Rate (Rs/ kWh)		Addl liability as FS (Rs.Cr)	
	Approved	Actual	Claimed by KSEB L for 'FS'	Eligible for 'FS' as per Regulation	Approved	Actual	Actual	Approved for recovery as 'FS'
(1)	(2)	(3)	(4)	(5)= Lesser of (2) & (3)	(6)	(7)	(8)	(9)= (5)x((7)-(6))
Jul-19	52.41	44.74	44.74	44.74	2.64	2.660	0.07	0.07
Aug-19	39.31	49.88	39.31	39.31	2.64	2.644	0.02	0.02
Sep-19	50.72	43.74	43.74	43.74	2.64	2.644	0.02	0.02
Total	142.44	138.36	127.79	127.79	2.64	2.649	0.11	0.10

Table-10
NLC-I- Expansion

Month	Quantum (MU)				Rate (Rs/ kWh)		Addl liability as FS (Rs.Cr)	
	Approved	Actual	Claimed by KSEB L for 'FS'	Eligible for 'FS' as per Regulation	Approved	Actual	Actual	Approved for recovery as 'FS'
(1)	(2)	(3)	(4)	(5)= Lesser of (2) & (3)	(6)	(7)	(8)	(9)= (5)x((7)-(6))
Jul-19	20.50	46.61	20.50	20.50	2.44	2.42	-0.09	-0.05
Aug-19	39.63	44.67	39.63	39.63	2.44	2.42	-0.09	-0.10
Sep-19	38.35	45.03	38.35	38.35	2.44	2.42	-0.09	-0.09
Total	98.48	136.31	98.48	98.48	2.44	2.42	-0.27	-0.24

Table-11
NLC-II- Expansion

Month	Quantum (MU)				Rate (Rs/ kWh)		Addl liability as FS (Rs.Cr)	
	Approved	Actual	Claimed by KSEB L for 'FS'	Eligible for 'FS' as per Regulation	Approved	Actual	Actual	Approved for recovery as 'FS'
(1)	(2)	(3)	(4)	(5)= Lesser of (2) & (3)	(6)	(7)	(8)	(9)= (5)x((7)-(6))
Jul-19	25.60	16.63	16.63	16.63	2.44	2.48	0.07	0.07
Aug-19	15.71	14.97	14.97	14.97	2.44	2.48	0.06	0.06
Sep-19	15.20	21.21	15.20	15.20	2.44	2.48	0.09	0.06
Total	56.51	52.81	46.80	46.80	2.44	2.48	0.22	0.19

Table-12
Simhadri STPS

Month	Quantum (MU)				Rate (Rs/ kWh)		Addl liability as FS (Rs.Cr)	
	Approved	Actual	Claimed by KSEB L for 'FS'	Eligible for 'FS' as per Regulation	Approved	Actual	Actual	Approved for recovery as 'FS'
(1)	(2)	(3)	(4)	(5)= Lesser of (2) & (3)	(6)	(7)	(8)	(9)= (5)x((7)-(6))
Jul-19	53.18	53.78	53.18	53.18	2.89	3.17	1.51	1.47
Aug-19	29.22	39.34	29.22	29.22	2.89	3.12	0.90	0.66
Sep-19	51.46	43.88	43.88	43.88	2.89	3.34	1.97	1.96
Total	133.86	137.00	126.28	126.28	2.89	3.21	4.39	4.09

Table-13
Vallur STPS

Month	Quantum (MU)				Rate (Rs/ kWh)		Addl liability as FS (Rs.Cr)	
	Approved	Actual	Claimed by KSEB L for 'FS'	Eligible for 'FS' as per Regulation	Approved	Actual	Actual	Approved for recovery as 'FS'
(1)	(2)	(3)	(4)	(5)= Lesser of (2) & (3)	(6)	(7)	(8)	(9)= (5)x((7)-(6))
Jul-19	31.90	21.48	21.48	21.48	3.13	3.91	1.68	1.68
Aug-19	31.90	10.39	10.39	10.39	3.13	3.65	0.54	0.54
Sep-19	21.07	11.51	11.51	11.51	3.13	3.77	0.74	0.74
Total	84.87	43.38	43.38	43.38	3.13	3.81	2.95	2.95

Table-14
NLC Tamilnadu Power Ltd (NTPL)

Month	Quantum (MU)				Rate (Rs/ kWh)		Addl liability as FS (Rs.Cr)	
	Approved	Actual	Claimed by KSEB L for 'FS'	Eligible for 'FS' as per Regulation	Approved	Actual	Actual	Approved for recovery as 'FS'
(1)	(2)	(3)	(4)	(5)= Lesser of (2) & (3)	(6)	(7)	(8)	(9)= (5)x((7)-(6))
Jul-19	46.30	25.24	25.24	25.24	3.21	3.07	-0.35	-0.35
Aug-19	46.30	41.53	41.53	41.53	3.21	2.81	-1.66	-1.66
Sep-19	44.80	32.77	32.77	32.77	3.21	3.16	-0.16	-0.16
Total	137.40	99.54	99.54	99.54	3.21	2.99	-2.18	-2.18

Table-15
NTPC- Kudgi

Month	Quantum (MU)				Rate (Rs/ kWh)		Addl liability as FS (Rs.Cr)	
	Approved	Actual	Claimed by KSEB L for 'FS'	Eligible for 'FS' as per Regulation	Approved	Actual	Actual	Approved for recovery as 'FS'
(1)	(2)	(3)	(4)	(5)= Lesser of (2) & (3)	(6)	(7)	(8)	(9)= (5)x((7)-(6))
Jul-19	57.04	18.64	18.64	18.64	3.91	3.84	-0.13	-0.13
Aug-19	57.04	11.73	11.73	11.73	3.91	3.79	-0.14	-0.14
Sep-19	55.20	7.38	7.38	7.38	3.91	3.98	0.05	0.05
Total	169.28	37.75	37.75	37.75	3.91	3.85	-0.22	-0.22

Table-16
Maithon- contract-1

Month	Quantum (MU)				Rate (Rs/ kWh)		Addl liability as FS (Rs.Cr)	
	Approved	Actual	Claimed by KSEB L for 'FS'	Eligible for 'FS' as per Regulation	Approved	Actual	Actual	Approved for recovery as 'FS'
(1)	(2)	(3)	(4)	(5)= Lesser of (2) & (3)	(6)	(7)	(8)	(9)= (5)x((7)-(6))
Jul-19	102.62	47.82	47.82	47.82	2.39	2.73	1.64	1.64
Aug-19	102.62	80.37	80.37	80.37	2.39	2.68	2.36	2.36
Sep-19	99.31	95.97	95.97	95.97	2.39	2.71	3.10	3.10
Total	304.55	224.16	224.16	224.16	2.39	2.70	7.10	7.10

Table-17
Maithon- contract-2

Month	Quantum (MU)				Rate (Rs/ kWh)		Addl liability as FS (Rs.Cr)	
	Approved	Actual	Claimed by KSEB L for 'FS'	Eligible for 'FS' as per Regulation	Approved	Actual	Actual	Approved for recovery as 'FS'
(1)	(2)	(3)	(4)	(5)= Lesser of (2) & (3)	(6)	(7)	(8)	(9)= (5)x((7)-(6))
Jul-19	102.62	47.82	47.82	47.82	2.39	2.73	1.64	1.64
Aug-19	0.00	80.37	0.00	0.00	2.39	2.68	2.36	0.00
Sep-19	99.31	95.97	95.97	95.97	2.39	2.71	3.07	3.07
Total	201.93	224.16	143.79	143.79	2.39	2.70	7.07	4.71

Table-18
DVC Mejia

Month	Quantum (MU)				Rate (Rs/ kWh)		Addl liability as FS (Rs.Cr)	
	Approved	Actual	Claimed by KSEB L for 'FS'	Eligible for 'FS' as per Regulation	Approved	Actual	Actual	Approved for recovery as 'FS'
(1)	(2)	(3)	(4)	(5)= Lesser of (2) & (3)	(6)	(7)	(8)	(9)= (5)x((7)-(6))
Jul-19	65.56	32.63	32.63	32.63	2.46	2.72	0.85	0.85
Aug-19	0.00	32.86	0.00	0.00	2.46	2.99	1.74	0.00
Sep-19	63.44	36.87	36.87	36.87	2.46	2.88	1.55	1.55
Total	129.00	102.36	69.50	69.50	2.46	2.86	4.14	2.40

Table-19
DVC RSTPS

Month	Quantum (MU)				Rate (Rs/ kWh)		Addl liability as FS (Rs.Cr)	
	Approved	Actual	Claimed by KSEB L for 'FS'	Eligible for 'FS' as per Regulation	Approved	Actual	Actual	Approved for recovery as 'FS'
(1)	(2)	(3)	(4)	(5)= Lesser of (2) & (3)	(6)	(7)	(8)	(9)= (5)x((7)-(6))
Jul-19	32.35	24.90	24.90	24.90	2.30	2.80	1.25	1.25
Aug-19	32.35	20.43	20.43	20.43	2.30	3.02	1.48	1.48
Sep-19	31.30	17.93	17.93	17.93	2.30	3.09	1.43	1.43
Total	96.00	63.26	63.26	63.26	2.30	2.95	4.16	4.16

Table-20
Jindal Power Limited- Bid-1

Month	Quantum (MU)				Rate (Rs/ kWh)		Addl liability as FS (Rs.Cr)	
	Approved	Actual	Claimed by KSEB L for 'FS'	Eligible for 'FS' as per Regulation	Approved	Actual	Actual	Approved for recovery as 'FS'
(1)	(2)	(3)	(4)	(5)= Lesser of (2) & (3)	(6)	(7)	(8)	(9)= (5)x((7)-(6))
Jul-19	127.22	124.78	124.78	124.78	1.29	1.31	0.25	0.25
Aug-19	127.22	114.64	114.64	114.64	1.29	1.31	0.23	0.23
Sep-19	123.12	113.93	113.93	113.93	1.29	1.31	0.23	0.23
Total	377.56	353.35	353.35	353.35	1.29	1.31	0.71	0.71

Table-21
Jhabua Power Limited- Bid-1

Month	Quantum (MU)				Rate (Rs/ kWh)		Addl liability as FS (Rs.Cr)	
	Approved	Actual	Claimed by KSEB L for 'FS'	Eligible for 'FS' as per Regulation	Approved	Actual	Actual	Approved for recovery as 'FS'
(1)	(2)	(3)	(4)	(5)= Lesser of (2) & (3)	(6)	(7)	(8)	(9)= (5)x((7)-(6))
Jul-19	73.15	71.47	71.47	71.47	1.91	1.95	0.29	0.29
Aug-19	73.15	47.49	47.49	47.49	1.91	1.96	0.24	0.24
Sep-19	70.79	19.31	19.31	19.31	1.91	1.96	0.10	0.10
Total	217.09	138.27	138.27	138.27	1.91	1.95	0.62	0.62

Table-22
BALCO- Bid-2

Month	Quantum (MU)				Rate (Rs/ kWh)		Addl liability as FS (Rs.Cr)	
	Approved	Actual	Claimed by KSEB L for 'FS'	Eligible for 'FS' as per Regulation	Approved	Actual	Actual	Approved for recovery as 'FS'
(1)	(2)	(3)	(4)	(5)= Lesser of (2) & (3)	(6)	(7)	(8)	(9)= (5)x((7)-(6))
Jul-19	63.61	67.55	63.61	63.61	1.19	1.15	-0.27	-0.25
Aug-19	63.61	56.40	56.40	56.40	1.19	1.15	-0.23	-0.23
Sep-19	61.56	67.79	61.56	61.56	1.19	1.15	-0.27	-0.25
Total	188.78	191.74	181.57	181.57	1.19	1.15	-0.77	-0.73

21. The summary of the fuel surcharge claimed by KSEB Ltd for the second quarter of the FY 2019-20 and the same admissible as per the Tariff Regulations 2018 is given below.

Table-23
Additional liability claimed by KSEB Ltd and admissible as per Tariff Regulation's 2018 for the second quarter of the FY 2019-20 (Jul-19 to Sep-19_

Sources	Quantum (MU)				Addl liability as FS (Rs.Cr)	
	Approved	Actual	Claimed by KSEB L for 'FS'	Eligible for 'FS' as per Regulation	Claimed by KSEB Ltd	Approved for recovery as 'FS'
Talcher-II	741.31	492.91	492.91	492.91	17.07	17.06
Ramagundam I&II	448.25	452.65	426.64	426.64	10.04	9.96
Ramagundam-III	84.16	121.20	78.67	78.67	1.92	1.92
NLC TPS-II Stage-1	106.42	104.64	101.21	101.21	0.08	0.08
NLC TPS-II Stage-2	142.44	138.36	127.79	127.79	0.10	0.10
NLC-1 Expansion	98.48	136.31	98.48	98.48	-0.23	-0.24
NLC-II Expansion	56.51	52.81	46.80	46.80	0.19	0.19
Simhadri	133.86	137.00	126.28	126.28	4.09	4.09
Vallur STPS	84.87	43.38	43.38	43.38	2.95	2.95
NTPPL	137.40	99.54	99.54	99.54	-2.18	-2.18
NTPC Kudugi	169.28	37.75	37.75	37.75	-0.22	-0.22
Maithon-1	304.55	224.16	224.16	224.16	7.11	7.10
Maithon-2	201.93	224.16	143.79	143.79	4.71	4.71
DVC-Mejia	129.00	102.36	69.50	69.50	2.43	2.40
DVC-Reghunathpur	96.00	63.26	63.26	63.26	4.15	4.16
JPL- 200 MW - Bid1	377.56	353.35	353.35	353.35	0.71	0.71
Jhabua - 115 MW- Bid1	217.09	138.27	138.27	138.27	0.62	0.62
BALCO - Bid2	188.78	191.74	181.57	181.57	-0.73	-0.73
JPL- 100 MW Bid-2	280.10	217.30	217.30	0.00	2.00	
Jhabua-100 MW Bid-2	186.73	165.12	165.12	0.00	1.11	
Jindal Thermal -Bid-2	186.73	175.10	175.10	0.00	2.07	
Total	3717.89	3113.85	2853.35	2853.35	57.99	52.68

As detailed above, as per the provisions of the Tariff Regulations 2018, KSEB Ltd is eligible to recover Rs 52.68 crore as fuel surcharge during the second quarter of the FY 2019-20 i.e., from July-2019 to Sep-2019, due to variation in fuel cost on purchase of power from the approved sources.

22. The Commission has also examined the overall generation and power purchase from various sources during the second quarter of the FY 2019-20, and the details are given below.

Table-24
Summary of the generation and power purchase from July-2019 to September 2019

Particulars	Actual	Approved	Difference
	(MU)	(MU)	(MU)
Hydro (net)	1316.53	1950.55	-634.02
Wind and solar (Own)	4.43	11.36	-6.93
KDPP+BDPP	0.00	0.00	0.00
CGS	2399.07	2852.35	-453.28
Long term PPA	1871.40	2175.70	-304.30
Small IPPs	102.41	272.98	396.97
Short term (exchange +UI)	567.54		
PGCIL loss	154.88	189.41	-34.53
surplus/ SWAP return	168.01	749.35	-581.34
Total demand	5938.49	6324.17	-385.68

It is seen that there was reduction in internal hydel generation as well as the energy scheduled from CGS and IPPs. As directed by the Commission, KSEB vide the letter dated 16.03.2020 has explained in detail the reasons for the reduction in schedule of power from CGS and long term contracts.

23. The Commission has also examined the overall cost of power purchase approved for the second quarter of the FY 2019-20 and also the actuals as per the provisional figures made available by KSEB Ltd. The details are given below.

Table-25
Cost of power purchase approved and the actual(provisional) for the second quarter of the FY 2019-20 (July -2019 to Sep-2019)

Particulars	Approved			Actual		
	Quantity	Rate	Amount	Quantity	Rate	Amount
	(MU)	(Rs/kWh)	(Rs. Cr)	(MU)	(Rs/kWh)	(Rs. Cr)
CGS at KSEB periphery	2747.05	4.09	1123.54	2312.06	4.24	980.31
IPP at KSEB periphery	2091.59	4.21	880.56	1803.53	4.42	797.16
Small IPP				102.41	3.63	37.17
IEX	272.98	3.19	87.08	404.61	3.46	140.00
DSM				162.91	2.68	43.66
SWAP						
Surplus sale	749.35	5.00	374.68			
Total	4362.26	3.93	1716.50	4785.52	4.18	1998.30

As detailed above, as per the provisional figures, the actual overall cost of power purchase incurred by the KSEB Ltd is about Rs 1998.30 crore as against the approval of Rs 1716.50 crore.

24. The Commission vide the order dated 14.02.2020 in OA No. 29/2019, had approved Rs 62.26 crore as fuel surcharge for the first quarter of the financial year 2019-20 (April-2019 to June-2019). This approved amount was allowed to be recovered from the consumers at the rate of Rs 0.10/unit, over a period of three months (90 days) for the consumption from 15.02.2020 or until the approved amount of Rs 62.26 crore is fully realized, whichever is earlier.

However, due to the outbreak of the COVID-19 and subsequent State wide and National lockdown, KSEB Ltd has stopped the spotting billing and the cash collection through its cash counter. Further, due to the lockdowns, the electricity consumption of almost all the consumer categories except domestic category is drastically reduced. Hence, it may take few more months to recover the fuel surcharge approved for the first quarter from the consumers at the rate specified by the Commission. ***In order to ascertain the time frame required to recover the entire amount of Rs 62.26 crores, KSEB Ltd is directed to submit the month wise details of the fuel surcharge collected from 15.02.2020 onwards.***

Considering the present financial difficulties faced by the general public at large due to the COVID-19 pandemic situation, the Commission has taken the considered decision that, the recovery of the fuel surcharge approved for the second quarter of the financial year 2019-20 (July-2019 to September-2019), be allowed only after KSEB ensures the recovery of the fuel surcharge approved for the first quarter at the rate specified by the Commission. ***Hence, within '15 days' from the date of this order, KSEB Ltd shall submit the month wise details of the fuel surcharge collected from the consumers so far, and the additional time required to recover the balance amount.*** The Commission may take an appropriate decision on the recovery of the fuel

surcharge for the second quarter after getting the details of recovery of fuel surcharge from KSEB Ltd for the first quarter..

Orders of the Commission

25. Based on the petitions filed by KSEB Ltd, the objections raised by the stake holders, the additional details submitted by the petitioner, and after having duly considering the provisions of the Electricity Act, 2003 and the Tariff Regulations 2018 , the Commission hereby orders the following.

- (1) The amount admissible for recovery as fuel surcharge for the second quarter of financial year 2019-20 (July 2019 to September 2019) is approved at Rs 52.68 crore.
- (2) The recovery of the fuel surcharge approved as above is deferred for the time being due to the reasons cited under paragraph 24 above.

The petition is disposed off. Ordered accordingly.

Sd/-

**S.Venugopal
Member**

Sd/-

**Preman Dinaraj
Chairman**

Approved for issue

C.R Satheesh Chandran
Administrative Officer
(In Charge of Secretary)