

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

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

FILING NO /2021

CASE No.

IN THE MATTER OF:

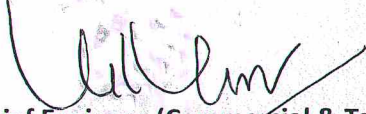
Filing of petition on 'Proposals to recover the additional liability incurred during period from July 2021 to September 2021 over approved level on Generation and Power Purchase due to variation in cost of fuel, from all consumers including Bulk Consumers and other Licensees through fuel surcharge.

AND

IN THE MATTER OF:

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

Applicant



**Chief Engineer (Commercial & Tariff)
Kerala State Electricity Board Limited**

Affidavit verifying the application for filing the "Proposals to recover the additional liability incurred during period from July 2021 to September 2021 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, Sasankan Nair C.S, son of G Chellappan Pillai, aged 55 years residing at Sasindu, Snehapuri Road, Karimom, Thiruvananthapuram-13, do solemnly affirm and state as follows:

I am the **Chief Engineer (Commercial & Tariff)** 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 th day of January 2022 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


Chief Engineer (Commercial & Tariff)
Kerala State Electricity Board Limited,
Vydyuthi Bhavanam, Pattom
Thiruvananthapuram – 695 004

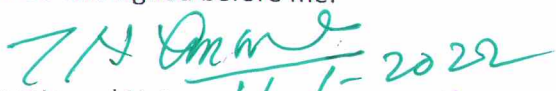
VERIFICATION

I, Sasankan Nair C.S, son of G Chellappan Pillai, aged 55 years residing at Sasindu, Snehapuri Road, Karimom, Thiruvananthapuram-13, the above named deponent, solemnly affirm at Thiruvananthapuram on this, the th day of January 2022 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


Chief Engineer (Commercial & Tariff)
Kerala State Electricity Board Limited
Vydyuthi Bhavanam, Pattom
Thiruvananthapuram – 695 004.

Solemnly affirmed and signed before me.


Advocate and Notary 11.1.2022

T. N. OMANA
Advocate & Notary
Thiruvananthapuram Revenue District,
Kerala State South India



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

IN THE MATTER OF: **Proposals to recover the additional liability incurred during period from July 2021 to September 2021 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.**

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

- I. Regulation 86 of KSERC (Terms and Conditions for Determination of Tariff) Regulations, 2018 notified as per No. 2076/F&T/2017/KSERC dated 26th October 2018 (hereinafter referred to as 'Regulations 2018'), enables KSEBL 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) therein 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. This Honourable Commission, as per tariff order dated 08.07.2019, has directed KSEB Ltd to submit regularly, application for approval of fuel surcharge as per provisions of the Tariff Regulations, 2018. Accordingly, KSEBL is filing this petition.
- III. KSEBL has power allocation from various Central Generating Stations and KSEBL has entered into long Term agreements with various generators for meeting the demand of the State. The details are enclosed as Annexure-I.
- IV. Honourable Commission vide order dated 08.07.2019 had approved a quantum of 29106.51 MU as generation and power purchase of KSEBL for the year 2021-22; 7051.05 MU as internal hydro generation, 11274.77 MU as purchase from Central Generating Stations and 8647.06 MU as purchase through long term contracts. Monthly schedule of purchase from various stations was subsequently approved by the Honourable Commission vide letter dated 06.08.2019. Copy is attached as **Annexure-II**. Current petition is prepared based on the same.
- V. Scheduling of power from fifteen Central Generating Stations and ten IPPs were approved by this Honorable Commission in the order dated 08.07.2019 on the ARR &

ERC of KSEBL for the control period 2018-2022 and monthly schedule as per the letter dated 06.08.2019 mentioned under para above. Out of the fifteen CGS four are atomic power stations and remaining eleven are thermal stations. Supply of power from Bhavini atomic power plant has not yet commenced. Atomic power stations do not have a change in the cost of fuel and hence this petition does not cover those stations. This petition covers only the fuel price variation relating to sources of power approved by this Honorable Commission as mentioned above and as under regulation 86 of Regulations 2018.

- VI. KSEBL had filed separate petitions for recovering fuel surcharge for the control period till date based on this concept. Out of this, this Honorable Commission has been pleased to issue orders on petitions relating to first and second quarters of FY 2019-20 as per orders dated 14.02.2020 and 27.04.2020. Facts being as submitted under para V above this Honorable Commission has not admitted the fuel price variation in respect of three IPP stations viz Jindal India Thermal Power Ltd- 100 MW, Jhabua Power Ltd- 100 MW and Jindal Power Ltd -150 MW, which were contracted by KSEBL based on tenders invited under DBFOO basis in 2014. Honorable Commission has considered drawal of power from these stations at a cost equivalent to that being paid to M/s. BALCO, for the provisional estimation of cost of power while approving the ARR & ERC for the control period, 2018-2022.
- VII. This Honorable Commission has further ordered that approval for power purchase from the stations mentioned above shall be given only after getting approval from Government of India as well as from Government of Kerala on the entire power purchase under DBFOO. It was also mentioned in the order that actual tariff paid by KSEBL for procuring power from these three stations were much higher and reiterated that, during truing up of accounts for the respective financial years, the excess amount incurred for procuring power from these three generators shall not be considered, unless KSEBL gets the approval for power purchase from Government of India for deviations from the guidelines and on getting the approval of Government of Kerala on the entire power purchase under DBFOO.
- VIII. It is submitted that as KSEBL is aggrieved with the above orders and KSEBL filed separate review petitions on the two orders dated 14.02.2020 and 27.04.2020 before this Honorable Commission on 30.03.2020 and 04.06.2020 respectively for allowing passing on the additional fuel cost incurred thereunder.
- IX. This Honorable Commission rejected the prayers of KSEBL on both the petitions together as per order dated 14.08.2020 directing KSEBL to file separate petition, rather than filing review petitions.
- X. With due respect to the orders of this Honourable Commission, from August 2020 onwards, KSEBL has limited payment towards power purchase from the above mentioned three stations limiting to the rate of M/s BALCO at Kerala periphery. It is

further submitted that KSEBL has filed separate petition before this Honorable Commission seeking final and conclusive order in the matter of the drawal of power contracted against the PSAs of the three generating stations and public hearing on the same was scheduled on 12.03.2021 which was adjourned by Honorable Commission.

- XI. It is submitted that this Honorable Commission has already adopted the lowest tariff of Rs.4.29 per kWh obtained under the tender mentioned above as per order dated 30.08.2016. It is also submitted that scheduling of contracted power from the three stations under consideration has also been approved by this Honorable Commission as per letter dated 22.12.2017. This Honorable Commission has considered the cost of scheduling of power from these three stations, even though ceiling the price to that of M/s. BALCO, in the ARR & ERC of KSEBL as per order dated 08.07.2019. In consideration of these facts and since this Honorable Commission has not indicated any variable charges for the power purchased from the three stations under consideration anywhere, KSEBL is considering the fuel price variation of these three stations based on the variable charges adopted by it, for estimation in the MYT petition for the control period 2018-2022 and the actual variable charge being incurred. The total additional liability from these three stations so arrived amounts to Rs 7.75 Crores.
- XII. As stated in para X above, KSEBL forfeited Rs 24.27 Cr during this quarter by limiting the payment towards power purchase from the above mentioned three stations to the rate of M/s BALCO at Kerala periphery, complying the order of Honorable Commission. Hence KSEBL is not claiming the additional liability from these stations amounting to Rs 7.75 crores. KSEBL humbly requests before the Honorable Commission to pass on the amount payable as per final orders in the case of above mentioned stations, as and when the same materializes.
- XIII. It is submitted that there has been variation in energy availability than approval, from various approved generating stations. Reasons for the same are submitted below:
 - i. Change in annual maintenance schedule
 - ii. Unscheduled outages in generating stations as well as transmission lines
 - iii. Variation in normative auxiliary consumption and plant load factor of various CGS in the Tariff Regulations 2019-2024 issued by CERC in March 2019, from those considered while issuing tariff order dated 08.07.2019.
- XIV. Estimated energy availabilities of the Central Generating Stations submitted in the MYT petition (2018-2022) were based on the maintenance schedules of previous years. Annual maintenance schedule of the CGS for the control period including 2021-22 were not published at the time of submission of MYT petition. There is variation in energy availability from the approval while considering the actual status. Unscheduled

outages has also occurred at CGS due to technical issues. The CERC Tariff regulations for the control period from 2019-2024 came into force subsequently and hence there is difference in normative PLF, PAF and auxiliary consumption of certain stations.

- XV. KSEBL has constituted a “market monitoring committee” for monitoring the power market on a daily basis. Scheduling of CGS and IPPs are being strictly monitored on a day to day basis by this committee in order to ensure that the generators are not diverting power to other utilities by backing off supply to KSEBL. Websites of respective RLDCs, are made use of to ensure that the generators are abiding by the provisions of PPA/PSA. Details of station wise availability and reasons for reduction are enclosed as **Annexure-III**. Actual availability for the period July to September 2021 are indicated in the REA statements of SRPC.
- XVI. Invoices for the power supplied are prepared based on the REA statements published by SRPC. Final REA statements for the month of July and August 2021 and the provisional REA for September 2021 are relied up on in this petition. Tariff of the sources of purchase of power mentioned above being determined by the CERC, the charges are calculated applying the formula specified in the tariff regulations issued by CERC. Regarding variable charges, the landed cost of fuel for the month is verified with the details in Form 15. The price of fuel corresponding to the grade and quality is taken from the latest price notification of Coal India Ltd/Singareni Collieries Ltd inclusive of royalty, taxes and duties as applicable. Transportation cost by rail or any other means is taken from the latest freight charges of railways or otherwise. RLDC charges, incentive claims and the various supplementary claims are verified in line with the corresponding regulations/CERC orders. In the case of IPPs the invoices are processed as per the provisions in PPA.
- XVII. In addition to the variation in availability as mentioned under para XIV, there is variation in the per unit variable cost also, over the approved level on account of variation in normative SHR and auxiliary consumption (consequent to the notification of CERC Tariff Regulation for control period 2019-24), variation in the price of primary fuel as well as secondary fuel, variation in calorific value and cost of transportation of fuel. Following points are submitted in this regard.
- i. In the order dated 08.07.2019, the variable charges of various stations for the control period including 2020-21 was calculated by this Honorable Commission by giving an escalation of 2% on annual basis, on the actual variable charges for the first half of the year 2018-19. The CERC notified Tariff Regulations 2019 on 07.03.2019, with effective date as 01.04.2019. As per this there has been revision in normative station heat rate and auxiliary consumption for various stations. Accordingly, energy charges increased considerably compared to the estimation. This aspect has not been taken care of in the order dated 08.07.2019.

- ii. Variation of energy charges depends on the price notified for each mine which are different from mine to mine, grade of coal, blending ratio of imported coal and domestic coal, receipt of coal from different sources, distance from the mine, mode of transport etc.
- iii. In the case of coal-based stations the linkage of fuel is mainly from Coal India Ltd (CIL) and Singareni Collieries Ltd (SCCL). Due to shortage from linkage sources, the generating stations has to augment coal from other domestic sources and imported coal as well. Coal from Eastern Coal Fields (ECL) and SECL is expensive as compared to coal from Mahanadi coal fields (MCL) under Coal India Ltd due to the variations in grade of coal and other reasons. Price of coal from Singareni Collieries (SCCL) is based on the price notifications of Singareni Collieries from time to time whereas price of Coal India Ltd (CIL) is based on the notification dated 08.01.2018. Fuel price is based on the coal price and the transportation cost. Coal India Ltd has issued price notification dated 27.11.2020 and revised the price and transportation cost with effect from December 2020. There are frequent revisions in SCCL price notification compared to CIL.
- iv. Following price revisions have been notified by SCCL subsequent to MYT petition which has contributed to increase in energy charges.
 1. SCCL price notification no.107/2018-19 dt 11.10.18 wef 01.10.18
 2. SCCL price notification no.109/2018-19 dt 28.11.18 wef 01.12.18
 3. SCCL price notification no.111/2018-19 dt 31.12.18 wef 01.01.19
 4. SCCL price notification no.113/2018-19 dt 9/3/2019 wef 09.03.19
 5. SCCL price notification no.114/2019-20 dt 04/05/19 wef 04.05.19
 6. SCCL price notification no.117/2019-20 dt 31/08/19 wef 01.09.19
 7. SCCL price notification no.118/2019-20 dt 30/11/19 wef 01.12.19
 8. SCCL price notification no.119/2019-20 dtd 10/2/20 wef 11/2/2020
 9. SCCL price notification no,121/2019-20 dtd 1.03.2020 wef 01/.03.2020
 10. Corrigendum 4 to price notification no,121/2019-20 dtd 30.05.2020 wef 01/6/2020
 11. Corrigendum 5 to price notification no,121/2019-20 dtd 06.06.2020 wef 01/6/2020
 12. SCCL price notification no.125/2020-21 dtd 18/12/20 wef 19/12/2020
 13. Corrigendum 1 to price notification no,125/2020-21 dtd 05.01.2021 wef 06/1/2021
 14. Corrigendum 4 to price notification no,125/2020-21 dtd 27.02.2021 wef 01.03.2021
- v. In the case of lignite-based stations, NLC has issued the Lignite transfer price guidelines 2019-24 on 17.09.2019 having effect from October 2019. As per the revised guidelines, the basic price of pooled lignite is revised from Rs. 1950/ton to Rs. 2050/ton with effect from 01.10.2019. Further, security charges, ground water charges and recovery of lignite price due to surrender of power of the linked power plants etc are billed in addition to basic price from 01.10.2019 onwards. NLC has been raising invoices based on the LPPF of Rs 2241.5848 per MT. Hence energy charges of NLC stations has increased from the third quarter of FY-19 onwards. KSEBL has remitted the charges under protest till July 2020.

As NLC did not have the jurisdiction to issue guidelines, KSEBL raised dispute against the same before Honorable CERC. Honorable CERC conducted public hearing and was pleased to issue stay on the guidelines issued by NLC at the time of hearing and directed NLC to continue the billing at the rates prevailing corresponding to the tariff period 2009-2014 based on the MoC guidelines issued vide order No 28012/1/2014-CA-II dated 2.1.2015. Since CERC stopped functioning after public hearing due to Covid pandemic daily orders and final orders on the same was not issued till 03.02.2020. Mean while based on oral directions, KSEBL has been admitting bills at the lignite transfer price of Rs 2132.239 per MT based on the MoC guidelines issued vide order No 28012/1/2014-CA-II dated 2.1.2015 from the month of August 2020 onwards.

- vi.** Honorable CERC vide daily order dated 3.2.2021 has kept the said guidelines dated 17.09.2019 in abeyance and has directed that till the regulations for computation of input price of lignite are notified by the Commission , NLCIL is directed to continue to consider the lignite transfer price based on the MoC guidelines dated 2.1.2015 subject to revision in accordance with the regulations for computation of lignite transfer price to be notified by the CERC. Thus KSEBL has been paying the charges to NLC at the rates corresponding to the tariff period 2009-2014 and is claiming the same through fuel surcharge petition. As the final decision is pending, KSEBL humbly requests before the Honorable Commission to approve the actual expenses incurred once Honorable CERC issues final orders on the same.
- vii.** Monthly energy charges vary depending upon the receipt of coal from different sources. The energy charge rate calculated as per Tariff regulations is based on the following formula:

$$\text{Energy charge rate} = \frac{\{(GHR-SFC*CVSF) *LPPF/CVPF+(SFC*LPSFi) +(LC*LPL)\}}{100/(100-Aux)}$$
Where,
GHR is Gross station heat rate in Kcal per kWh
AUX =Normative auxiliary energy consumption in percentage.
CVPF = Weighted Average Gross calorific value of coal as received, in kCal per kg for coal-based stations less 85 Kcal/Kg on account of variation during storage at generating station;
- viii.** In case of blending of fuel from different sources, the weighted average Gross calorific value of primary fuel shall be arrived in proportion to blending ratio:
CVSF = Calorific value of secondary fuel, in kCal per ml;
ECR = Energy charge rate, in Rupees per kWh sent out;
SHR = Gross station heat rate, in kCal per kWh;
LPL = Weighted average landed cost of limestone in Rupees per kg;
LPPF = Weighted average landed fuel cost of primary fuel, in Rupees per kg, per litre or per standard cubic metre, as applicable, during the month.
LPSFi = Weighted Average Landed Fuel Cost of Secondary Fuel in Rs/ml during the month:

- ix. Energy charges depends on gross calorific value of primary and secondary fuel CVSF, and CVPF as well as landed price of primary and secondary fuel (LPPF and LPSFi). The parameters CVPF in the equation of energy charges varies depending upon the grade of fuel which in turn depends on the receipt of coal from different sources and also blending of fuel. Different grades of coal have different prices. Thus, the landed price of fuel again depends on grade of fuel, source of fuel, transportation cost (depends on distance from coal source and mode of transport), price notified for each mine which are different from mine to mine etc. The monthly variation of these parameters leads to variation in monthly energy charges. The details of calorific value and landed price of coal is available in Form 15 attached as **Annexure VI**.

XVIII. Approved and actual variable cost of approved sources are shown in **Table 1** below.

Table-1					
Sl No	Source	Approved	Actual (Rs/ kWh)		
		(Rs/ kWh)	July-21	Aug-21	Sept-21
Central Generating Stations					
1	NTPC-RSTPS Stage I & II	2.600	2.665	2.560	2.668
2	NTPC-RSTPS Stage III	2.540	2.613	2.515	2.633
3	Talcher	1.800	1.874	1.777	1.739
4	Simhadri TPS Stage II	3.010	2.796	2.805	2.990
5	NLC-Stage-1	2.750	2.646	2.653	2.655
6	NLC-Stage-II	2.740	2.646	2.653	2.655
7	NLC I Expansion	2.540	2.402	2.409	2.409
8	NLC II Expansion	2.540	2.576	2.548	2.548
9	Vallur STPS	3.260	3.167	2.922	3.131
10	NTPL	3.340	3.063	3.033	2.844
11	NTPCKudgi	4.060	3.187	3.532	3.515
Independent Power Producers					
12	RTPS	2.388	3.072	3.129	3.067
13	Mejia	2.558	2.890	2.912	2.958
14	Maithon I	2.483	2.462	2.688	2.766
15	Maithon II	2.483	2.462	2.688	2.766
16	Jindal Power Ltd-Bid I	1.340	1.320	1.330	1.330
17	Jhabua Power Ltd-Bid I	1.980	1.920	1.990	1.990
18	Jindal Power Ltd-Bid II	1.214	1.320	1.320	1.320
19	Jhabua Power Ltd-Bid II	1.765	1.920	1.990	1.990
20	JITPL	1.051	1.150	1.170	1.170
21	BALCO	1.240	1.170	1.170	1.160

* - Variable charges adopted by KSEBL in estimating the power purchase in ARR

- XIX. The reasons for monthly variation in fuel charges of M/s Jhabua Power Ltd is due to the following

1. As per the Completion Certificate produced by the firm for PSA 1, the Gross Station Heat Rate (SHR) of the Power Station is 2341.94 kCal/kWh and the net SHR at the point of Grid Connection is 2465.2 kCal/kWh. KSEBL has adopted the net SHR of 2465.2 kCal/kWh for computation of both Fixed charges and fuel charges as per PSA. The firm has filed petition before CERC in the matter of value of SHR to be taken for the payment of Fixed Charges and Fuel Charges for both PSAs. As per CERC order dated 25.05.2020 in petition No. 169/MP/2019, for the purpose of calculating Fixed Charges for both PSAs, net SHR of 2347.9 kCal/kWh shall be considered for comparison with specified SHR of 2350 kCal/kWh as per schedule-C and for the purpose of calculating Fuel charges for both PSAs, the Final SHR of 2465.2kCal/kWh shall be considered, accounting for the operational margin of 5 %. KSEBL has filed petition before APTEL on 28.09.2020 to review the CERC order dated 25.05.2020 and KSEBL has maintained the status quo of billing done till April 2020 and not adopted the values mentioned in CERC order until the issue is legally settled in APTEL.

As per APTEL order dated 13.05.2021, since there is only one generating unit of 600 MW capacity in the power station, the net SHR for PSA1 and PSA 2 shall be same as 2465.2 kCal/kWh. Accordingly, the computation of Fixed charges and Fuel charges under PSA 1 and PSA 2 shall be on the basis of this Station Heat rate/SHR/net station heat rate of 2465.2 kCal/kWh. In view of the foregoing, the APTEL set aside the Impugned Order dated 25th May, 2020 passed by the Central Commission in Petition No.169/MP/2019. The matter is remitted back to the Central Commission with the direction to consider the matter afresh keeping in view the opinion expressed in this Judgment and issue appropriate orders in accordance with law. Hence Board has filed petition before CERC on 11.06.2021 for implementation of the order of APTEL. Based on the APTEL order, KSEBL decided to compute the Fixed charges and Fuel Charges of monthly bills of both PSAs of Jhabua Power Ltd from June 2021 onwards with SHR as **2465.2 kcal/kWh** as per the APTEL order dated 13.05.2021. Accordingly Fixed charges and Fuel charges for both PSAs are computed with SHR 2465.2 kCal/kWh.

2. As per Article 21 of the PSA, applicable Fixed Charges (Indexed FC for AY 2021-22) has been computed based on final WPI for January 2021 and is computed as Rs 2.01 per kWh. The firm has claimed 2.23 per kWh as the fixed charge for the AY 2021-22. As the GHR increases, fuel charge increases to 1.99 Rs per unit.
- i. For the month of July the fuel charge is only Rs 1.92 per unit. This is because M/s Jhabua has been allocated coal from NCL (Northern Coal Fields Ltd) under import substitution for the month of March 21 against their FSA at MCL. This coal from NCL has also been accounted for the month of June and July 2021. The actual landed cost incurred by the firm is less than the notified landed cost as per the PSA, and the modified landed cost is Rs 3.23 per unit which is less than the value as per PSA (Rs 3.34 per unit). As per Clause 22.1.1 of the PSA, the SHR shall be increased @ 0.15% on each successive anniversary of COD (COD: 01-12-2016). KSEBL has considered this escalation from the month of June 2021 as KSEBL has adopted SHR of 2465.2 kCal/kWh for both PSAs from the month of June 2021 onwards as per APTEL order dated 13.05.2021. Accordingly, the fuel charge of July works out to Rs. 1.92 per kWh.
- ii. Further the evacuation facility charges has been increased by Rs.10/Ton to Rs 60/ton with effect from 01-08-2021 vide CIL price notification No CIL/M&S/pricing 733 dated 30-07-2021 and as per MCL notification 182/30-07-2021 surface transportation charges applicable for MCL from 01-08-2021 to 31-01-2022 has been increased to Rs. 83/ton (for 3-10km) from the existing rate of Rs 74/Ton.

During the month of August and September 2021 the modified landed cost is Rs 3.48 per unit which is more than the value as per PSA (Rs 3.35 per unit). Hence the permissible landed cost is limited to Rs. 3.35 per unit. Accordingly, the fuel charge works out to Rs. 1.99 per kWh based on the SHR of 2480.0245 i.e. $(0.15\%)^4$ of 2465.2 kCal/kWh.

XX. The summary of additional liability for first quarter of 2021-22 as per fuel surcharge regulations is given in **table 2** below.

Table 2 Additional liability for the second quarter 2021-22						
Source	Energy procurement			Add liability		Claim of KSEBL in this petition
	Approved quantity	Actual	Admissible as per regulation	Actual	Admissible as per regulation	
	(MU)	(MU)	(MU)	(Rs. Cr)	(Rs. Cr)	
CGS	2202.98	1687.02	1602.73	-10.04	-9.83	-9.83
IPPs	2278.27	1983.00	1932.04	24.72	23.08	15.33
Total	4481.25	3670.03	3534.77	14.68	13.24	5.50

- XXI. It can be seen from the above table that as per the Regulations there is a net savings amounting to Rs 9.83 Cr during the second quarter of FY 2021-22 while purchasing 1687.02 MU of energy from various Central Generating Stations approved vide order dated 08.07.2019. Further there is a net additional liability of Rs 23.084 Cr as per regulation on account of purchase of energy from various IPPs approved by Honorable Commission vide order dated 08.07.2019, for scheduling energy. Thus the net additional liability as per fuel surcharge regulations is Rs 13.24 Cr(23.084-9.83). As explained in para XI and XII above, KSEBL is not claiming the additional liability from Jindal Power Ltd (150 MW), Jhabua Power Ltd (100 MW) and JITPL (100 MW), amounting to Rs 7.75 crores. Thus, KSEBL is claiming only Rs 5.50 Crores as additional liability for the second quarter of Financial year 2021-22.
- XXII. Details in this regard as per the provisions of fuel surcharge formula specified in Tariff Regulations, 2018, are furnished in **Annexure IV**.
- XXIII. **Details regarding other purchases of power, which are not eligible for fuel price variation as per Regulations 2018**
- KSEBL purchased 2.549 MU through exchanges and 127.385MU export through deviation settlement mechanism during the second quarter of FY-2021-22.
 - KSEBL sold 614.94 MU during second quarter through exchanges and transferred 93.83 MU outside the State through banking arrangements. The details of power procurement/sale through short term transactions is enclosed as **Annexure V**.
- XXIV. It is submitted that as per the regulation 86(8) of the Tariff regulations, *“the adjustment of fuel surcharge as approved by the Commission shall be effected from the third month of subsequent quarter onwards as directed by the Honorable Commission”* ie; the fuel surcharge for the second quarter of FY-22 is to be adjusted from December 2021 onwards as per regulation. Forr calculation purpose, KSEBL is considering the energy sales for the period of three months February 2022 for calculating the rate of fuel surcharge recovery. Calculating on these lines the rate comes to 1 paise per unit. Details of calculation are furnished in **Annexure V**.

PRAYER

KSEBL humbly prays before this Hon'ble Commission that,

- (a) Additional financial liability incurred by KSEBL, amounting to Rs 5.50 Cr, resulting from the variation in variable charges of power purchase from approved sources for the period from July to September 2021 as per regulation 86 of KSERC Tariff Regulations 2018 as detailed in **Annexure IV & V** 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, @ 1 paise per unit from 1st February 2022 onwards.



Chief Engineer (Commercial & Tariff)

Acc: 1. Formats I, III & IV
2. Annexure I-VI

Formats

Format-1

Details of energy billed for retail sale for the second quarter of FY 2021-22						
Month	Energy billed (MU)*		T&D loss(%)		Energy Input(MU)	
	Actual	Approved	Actual	Approved	Actual	Approved
July	1828.44			11.62% at the end of quarter	2017.69	
August	1835.62				2073.39	
September	1893.38				2131.59	
Total	5557.44				6222.67	

*KSEBL is unable to furnish the monthly energy sales corresponding to energy input of a particular month and monthly T&D loss as required by the Honorable Commission due to following constraints.

In the current billing system almost 98% of consumers are billed bimonthly and the billing is done for almost all days for LT Domestic and Commercial bimonthly consumers. Hence the energy sales details corresponding to the energy input of a particular month is not available due to this extended billing. The energy billed data for a particular month includes the energy billed data for the previous two months from the date of billing and not the energy sales against the energy input of that particular month. Hence KSEBL is unable to furnish the monthly T&D loss and energy sales against the energy input of a particular month.

Instead KSEBL is furnishing the energy billed data for the month of July, August and September in the above table and not the energy sales corresponding to energy input during the quarter. The energy input and energy billed shown is exclusive of energy wheeled by embedded open access consumers and consumption against captive generation.

Format-3						
Month Wise Details of Purchase of Energy (claiming for fuel surcharge)						
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-2021						
Central Generating Stations						
RSTPS I & II	87.29	153.95	2.665	2.600	23.26	40.03
RSTPS III	29.00	0.00	2.613	2.540	7.58	0.00
Talcher Stage-II	199.28	224.57	1.874	1.800	37.35	40.42
Simhadri TPS Stage II	29.64	53.18	2.796	3.010	8.29	16.01
NLC Stage-I	16.84	35.86	2.646	2.750	4.45	9.86
NLC Stage-II	27.67	52.41	2.646	2.740	7.32	14.36
NLC 1 Expansion	16.53	20.50	2.402	2.540	3.97	5.21
NLC II Expansion	16.20	25.60	2.576	2.540	4.17	6.50
Vallur STPS	14.87	31.90	3.167	3.260	4.71	10.40
NTPL	21.04	46.30	3.063	3.340	6.44	15.46
Kudgi	7.36	57.04	3.187	4.060	2.34	23.16
Sub total CGS	465.71	701.31			109.89	181.41
Long Term contracts with generators outside the State						
DVC Reghunathpur TPS	18.13	32.35	3.072	2.388	5.57	7.73
DVC Mejia TPS	53.20	65.56	2.890	2.558	15.38	16.77
Maithon Power Ltd- Contract 1	93.06	102.62	2.462	2.483	22.91	25.48
Maithon Power Ltd- Contract II	93.06	102.62	2.462	2.483	22.91	25.48
Jindal Power Ltd-Bid I	101.95	127.22	1.320	1.340	13.46	17.05
Jhabhua Power Ltd -Bid I	52.49	73.15	1.920	1.980	10.08	14.48
Jindal Power Ltd-Bid II	76.55	95.42	1.320	1.214	10.10	11.58
Jhabhua Power Ltd -Bid II	45.54	63.61	1.920	1.765	8.74	11.22
Jindal India thermal Power Ltd	49.05	63.61	1.150	1.051	5.64	6.69
BALCO	52.74	63.61	1.170	1.240	6.17	7.89
TOTAL LTA	635.77	789.77			120.96	144.37
Total	1101.49	1491.08			230.85	325.78
August 2021						
Central Generating Stations						
RSTPS I & II	124.15	129.64	2.560	2.600	31.78	33.71
RSTPS III	38.66	42.77	2.515	2.540	9.72	10.86
Talcher Stage-II	197.20	299.42	1.777	1.800	35.04	53.90
Simhadri TPS Stage II	45.84	29.22	2.805	3.010	12.86	8.80
NLC Stage-I	17.49	35.86	2.653	2.750	4.64	9.86
NLC Stage-II	47.27	39.31	2.653	2.740	12.54	10.77

NLC 1 Expansion	30.35	39.63	2.409	2.540	7.31	10.07
NLC II Expansion	11.27	15.71	2.548	2.540	2.87	3.99
Vallur STPS	14.09	31.90	2.922	3.260	4.12	10.40
NTPL	30.52	46.30	3.033	3.340	9.26	15.46
Kudgi	25.02	57.04	3.532	4.060	8.84	23.16
Total	581.85	766.80			138.98	190.97
Long Term contracts with generators outside the State						
DVC Reghunathpur TPS	20.78	32.35	3.129	2.388	6.50	7.73
DVC Mejia TPS	44.25	0.00	2.912	2.558	12.88	0.00
Maithon Power Ltd- Contract 1	98.09	102.62	2.688	2.483	26.37	25.48
Maithon Power Ltd- Contract II	98.09	102.62	2.688	2.483	26.37	25.48
Jindal Power Ltd-Bid I	119.91	127.22	1.330	1.340	15.95	17.05
Jhabhua Power Ltd -Bid I	62.67	73.15	1.990	1.980	12.47	14.48
Jindal Power Ltd-Bid II	89.91	95.42	1.320	1.214	11.87	11.58
Jhabhua Power Ltd -Bid II	54.49	63.61	1.990	1.765	10.84	11.22
Jindal India thermal Power Ltd	59.19	63.61	1.170	1.051	6.93	6.69
BALCO	48.13	63.61	1.170	1.240	5.63	7.89
TOTAL LTA	695.51	724.21			135.81	127.60
Total	1277.36	1491.01			274.79	318.57
September 2021						
Central Generating Stations						
RSTPS I & II	130.08	164.66	2.668	2.600	34.71	42.81
RSTPS III	38.50	41.39	2.633	2.540	10.14	10.51
Talcher Stage-II	243.79	217.32	1.739	1.800	42.40	39.12
Simhadri TPS Stage II	42.29	51.46	2.990	3.010	12.64	15.49
NLC Stage-I	20.02	34.70	2.655	2.750	5.32	9.54
NLC Stage-II	46.72	50.72	2.655	2.740	12.40	13.90
NLC 1 Expansion	30.65	38.35	2.409	2.540	7.38	9.74
NLC II Expansion	19.43	15.20	2.548	2.540	4.95	3.86
Vallur STPS	18.58	21.07	3.131	3.260	5.82	6.87
NTPL	17.10	44.80	2.844	3.340	4.86	14.96
Kudgi	32.30	55.20	3.515	4.060	11.35	22.41
Total	639.46	734.87			151.97	189.22
Long Term contracts with generators outside the State						
DVC Reghunathpur TPS	19.66	31.30	3.067	2.388	6.03	7.47
DVC Mejia TPS	44.53	63.44	2.958	2.558	13.17	16.23
Maithon Power Ltd- Contract 1	96.08	99.31	2.766	2.483	26.57	24.66
Maithon Power Ltd- Contract II	96.08	99.31	2.766	2.483	26.57	24.66
Jindal Power Ltd-Bid I	117.47	123.12	1.330	1.340	15.62	16.50
Jhabhua Power Ltd -Bid I	60.73	70.79	1.990	1.980	12.09	14.02
Jindal Power Ltd-Bid II	88.12	92.34	1.320	1.214	11.63	11.21
Jhabhua Power Ltd -Bid II	52.81	61.56	1.990	1.765	10.51	10.86
Jindal India thermal Power Ltd	68.28	61.56	1.170	1.051	7.99	6.47
BALCO	7.95	61.56	1.160	1.240	0.92	7.63
TOTAL LTA	651.72	764.29			131.12	139.71
Total	1291.18	1499.16			283.08	328.93

Sourcewise Energy Input from July 2021 to September 2021 in MU										
Sl No	Particulars	Jul-21		Aug-21		Sep-21		Total		Difference (MU)
		Actual	KSERC order	Actual	KSERC order	Actual	KSERC order	Actual	KSERC order	
		(MU)	(MU)	(MU)	(MU)	(MU)	(MU)	(MU)	(MU)	
1	Hydro									
	(a) Gross Gen	969.20	655.00	1005.62	748.79	723.75	714.74	2698.57	2118.53	580.04
	(b) Less Aux consumption*	4.85		5.03		3.62		13.49	0.00	13.49
	(c) Net Hydro Gen	964.35	655.00	1000.59	748.79	720.13	714.74	2685.07	2118.53	566.55
2	KSEB thermal									
	(a) BDPP	0.00		0.00		0.00		0.00	0.00	
	(b) KDPP	0.00		0.00		0.00		0.00	0.00	
	(c) Subtotal	0.00		0.00		0.00		0.00	0.00	
	(d) Less Aux consumption	0.00		0.00		0.00		0.00	0.00	
	(e) Net BDPP+KDPP	0.00		0.00		0.00		0.00	0.00	
3	Wind Generation(net)	0.15	0.18	0.13	0.31	0.19	0.20	0.48	0.70	-0.22
4	Solar Generation(net)	0.51	3.97	0.58	3.97	0.62	3.97	1.71	11.90	-10.19
	Total own generation(net)	965.02	659.15	1001.30	753.06	720.94	718.91	2687.26	2131.12	556.14
3	CGS (Import)	626.33	925.05	713.46	990.55	870.73	940.16	2210.52	2855.76	-645.24
4	IPPs							0.00		0.00
	RGCCPP	0.00		0.00						
	BSES	0.00		0.00				0.00		
	KPCL	0.00		0.00				0.00		
	Wind	17.37		17.25		15.54		50.15		
	Solar	10.23		8.80		13.57		32.61		
	Ullunkal(EDCL)*	3.13		2.94		2.45		8.52		
	Iruttukanam -I	2.14		2.42		2.05		6.61		
	Iruttukanam Stage-II	1.19		1.25		1.16		3.60		
	Karikkayam (AHPL)	7.58		6.89		5.22		19.68		
	Meenvallom (PSHCL)	1.27		1.71		1.52		4.50		
	*Pathamkayam (MREPPL)	4.94		5.07		3.99		14.00		
	*Deviyar-Micro HEP	0.02		0.02		0.02		0.05		
	Subtotal	47.87	280.70 annually	46.34	280.70 annually	45.52	280.70 annually	139.72	280.70 annually	
6	Purchase through Longterm contract									
	i DVC Reghunathpur	18.13	32.35	20.78	32.35	19.66	31.30	58.57	96.00	-37.43
	ii DVC Mejia	53.20	65.56	44.25	0.00	44.53	63.44	141.98	129.00	12.98
	iii Maithon power-1	93.06	102.62	98.09	102.62	96.08	99.31	287.23	304.55	-17.32
	iv Maithon power-2 ,	93.06	102.62	98.09	102.62	96.08	99.31	287.23	304.55	-17.32
	v Jindal Power Ltd -Bid I	101.95	127.22	119.91	127.22	117.47	123.12	339.33	377.56	-38.23
	vi Jhabua power Ltd-Bid I	52.49	73.15	62.67	73.15	60.73	70.79	175.89	217.09	-41.20
	vii Jhabua power Ltd-Bid II	45.54	63.61	54.49	63.61	52.81	61.56	152.84	188.78	-35.94
	viii Jindal Power Ltd -Bid I	76.55	95.42	89.91	95.42	88.12	92.34	254.58	283.18	-28.60
	ix Purchase from JITPL	49.05	63.61	59.19	63.61	68.28	61.56	176.52	188.78	-12.26
	x Purchase from BALCO	52.74	63.61	48.13	63.61	7.95	61.56	108.82	188.78	-79.96
	Sub Total	635.77	789.77	695.51	724.21	651.72	764.29	1983.00	2278.27	-295.27
	SECI- PPA1(against RE energy approved)	12.88		10.65		5.13		28.66		
	SECI -PPA2(against RE energy approved)	19.32		15.98				42.99		
		0.00	787.71 annually	0.00	787.71 annually	7.69	787.71 annually	0.00	787.71 annually	
	TOTAL from SECI	32.21	787.71 annually	26.63	787.71 annually	12.81	787.71 annually	71.65	787.71 annually	

Short Term contracts									
Purchase thru DEEP from RPPREL power through AEL									
Purchase thru DEEP from JPL-2 power through PTCL									
Purchase thru DEEP from DB power through GMRETL(RTC)									
Purchase thru DEEP from DB power through GMRETL									
Sub total									
Purchase through exchanges at SR periphery	0.43	0.00	0.94	0.00	1.27	0.00	2.63		2.63
Deviation settlement mechanism at Kerala periphery	-14.46		-20.34		-4.64		-39.44		-39.44
SWAP									
Additional solar RPO aproved		1065.21 annually						1065.21 annually	
Power Purchase	1328.14		1462.54		1577.41		4368.09		
PGCIL losses	38.48		46.66		48.40		133.55		
Net Power Purchase	1289.66		1415.88		1529.01		4234.54		
Total Gen & PP	2254.67		2417.18		2249.95		6921.80		
External sale	200.40	annual external sale:-	307.53	annual external sale:-	107.01	annual external sale:-	614.94	annual external sale:-	
Swap return	-36.58	811.21	-36.25	811.21	-21.00	811.21	-93.83	811.21	
Energy demand	2017.69	2239.06	2073.39	2409.91	2121.94	2264.01	6213.02	6912.98	-699.96
*Note:-Actual auxiliary consumption shown is not including transformer losses and switch yard losses									

Annexure-I				
Power contracted through long Term agreements				
Allocation from Central Generating Stations				
No.	Station	IC (MW)	Allocation	Allocated Capacity to KSEBL (MW)
		MW	%	2021-22
		MW	%	MW
1	RSPTS Stage I & II	2100	11.67%	245.07
2	RSTPS Stage III	500	12.20%	61
3	TALCHER - Stage II	2000	21.35%	427
4	Simhadri Exp	1000	8.56%	85.55
5	NLC-II- Stage-1	630	10.00%	63
6	NLC-II- Stage-2	840	10.72%	90.02
7	NLC- Exp- Stage-1	420	16.25%	68.24
8	NLC - II Exp	500	16.25%	81.23
9	MAPS	440	5.23%	23.01
10	KAIGA Stg I& II	440	8.64%	38.01
11	KAIGA Stg II	440	7.95%	34.98
12	Kudamkulam Unit I	1000	14.01%	140.1
13	Kudamkulam unit II	1000	13.30%	133
14	Vallur JV with	1500	3.33%	49.95
15	NTPL(Tuticorin JV)	1000	7.25%	72.5
16	Kudgi Unit I,II & III	2400	4.66%	111.72
17	NLC new thermal	1000	3.24%	32.4
	Total			1756.54
Power contracted with IPPS through long Term contracts				
	Generator	Contracted capacity		
18	Maithon Power Ltd-Contract I	150		
19	Maithon Power Ltd-Contract I	150		
20	DVC Mejia TPS	100		
21	DVC Reghunathpur TPS	50		
22	Jindal Power Ltd -Bid I	200		
23	Jhabua Power Ltd-Bid I	115		
24	Jindal Power Ltd -Bid II	150		
25	Jhabua Power Ltd-Bid II	100		
26	Jindal India Thermal Power Ltd-Bid II	100		
27	BALCO	100		

ANNEXURE - II

Monthly energy schedule approved for Central Generating Stations at exbus for the year 2021-22

Source	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Total
RSPTS Stage I & II	164.66	153.95	125.46	153.95	129.64	164.66	170.15	148.98	129.64	170.15	126.61	170.15	1,808.01
RSTPS Stage III	41.39	42.77	41.39	41.39	42.77	41.39	42.77	41.39	42.77	42.77	31.05	42.77	453.27
TALCHER - Stage II	289.76	299.42	289.76	224.57	299.42	217.32	224.57	217.32	299.42	273.83	238.09	299.42	3,172.90
Simhadri Exp	51.46	53.18	28.28	53.18	29.22	51.46	53.18	51.46	53.18	53.18	48.64	58.44	584.87
NLC-II- Stage-1	27.22	35.86	27.22	35.86	35.86	34.70	28.12	34.70	35.86	35.86	30.25	35.86	397.35
NLC-II- Stage-2	50.72	52.41	38.04	52.41	39.31	50.72	52.41	38.04	39.31	52.41	49.25	52.41	567.42
NLC- Exp- Stage-1	38.35	39.63	38.35	20.50	39.63	38.35	39.63	38.35	39.63	19.93	37.07	39.63	429.02
NLC - II Exp	24.77	25.60	24.77	25.60	15.71	15.20	25.60	24.77	25.60	25.60	23.95	25.60	282.78
MAPS	11.08	11.45	11.08	11.45	11.45	11.08	5.72	11.08	5.72	11.45	10.60	11.45	123.59
KAI/GA Stg I & II	33.82	24.32	43.30	44.75	44.75	32.03	44.75	43.30	44.75	44.75	41.51	44.75	486.76
K'kulam - I & II	137.64	142.23	137.64	142.23	142.23	137.64	142.23	137.64	142.23	72.71	134.43	142.23	1,538.37
Vallur IV with	20.58	31.90	30.87	31.90	31.90	21.07	31.90	20.58	31.90	31.90	30.62	31.90	347.05
NTP(L)(Tuticorin JV)	44.80	46.30	22.11	46.30	46.30	44.80	46.30	44.80	46.30	46.30	21.40	46.30	501.99
Kudgi Unit I & III	66.24	68.45	66.24	57.04	57.04	55.20	57.04	55.20	57.04	68.45	65.79	68.45	742.20
Bhavini	24.52	24.52	24.52	25.34	25.34	24.52	25.34	24.52	25.34	25.34	21.11	25.34	271.21
Total	1,027.03	1,027.46	949.03	925.05	990.55	940.16	989.71	932.15	945.97	974.61	910.36	1,094.69	11,706.77

Monthly energy schedule approved for LTA at exbus for 2021-22

Source	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Total
Maithon power	99.31	102.62	99.31	102.62	102.62	99.31	102.62	99.31	102.62	102.62	92.73	102.62	1,105.73
Maithon power	99.31	102.62	99.31	102.62	102.62	99.31	102.62	99.31	102.62	102.62	92.73	102.62	1,105.73
DVC-Meija TPS	63.44	65.56	63.44	65.56	65.56	63.44	65.56	63.44	65.56	65.56	58.37	65.56	705.50
DVC-R'pur TPS	31.30	32.35	31.30	32.35	32.35	31.30	32.35	32.35	32.35	32.35	27.76	32.35	348.10
Jindal Power	123.12	127.22	123.12	127.22	127.22	123.12	127.22	123.12	127.22	127.22	114.91	127.22	1,497.96
Jindal Power	92.34	95.42	92.34	95.42	95.42	92.34	95.42	92.34	95.42	95.42	86.18	95.42	1,123.47
Jindal Thermal	61.56	63.61	61.56	63.61	63.61	61.56	63.61	61.56	63.61	63.61	57.46	63.61	748.98
Jhabua Power	70.79	73.15	70.79	73.15	73.15	70.79	73.15	70.79	73.15	73.15	66.07	73.15	861.33
Jhabua Power	61.56	63.61	61.56	63.61	63.61	61.56	63.61	61.56	63.61	63.61	57.46	63.61	748.98
BALCO	61.56	63.61	61.56	63.61	63.61	61.56	63.61	61.56	63.61	63.61	57.46	63.61	748.98
Total	764.31	789.79	764.31	789.79	724.23	764.31	789.79	733.01	789.79	687.16	711.33	789.79	8,994.76

Annexure III Details of energy availability for the second quarter of FY-22

Sl.No.	Name of the Station	Availability						Reason for low availability
		July		Aug		September		
		peak	off peak	peak	off peak	peak	off peak	
1	NTPC RSTPS Stg I & II	87.181	87.589	87.19	86.96	90.555	90.6	
2	NTPC RSTPS Stage III	103.18	103.18	103.16	103.05	103.21	103.21	
3	NTPC Talcher II	85.59	86.27	71.95	71.11	88.24	88.17	August: U# 3 -Forced, U# 5 - Planned
4	NTPC Simhadri Stg II	103.31	102.92	103.98	103.98	96.02	95.99	
5	NLC TPS I Expansion	100.09	100.70	100.79	100.75	92.17	91.42	
6	NLC TPS II Expansion	37.15	37.92	24.14	24.16	37.41	37.55	July: U# 1 & 2- Forced, U#1 – Planned; August: U# 1 – Planned, U# 2 -Forced; September: U# 1 & 2- Forced, U#1 – Planned
8	NLC - II - Stage I	89.93	91.29	65.21	65.40	77.64	77.301	August: U# 1 & 3 – Forced, U# 1 & 2- Planned; September: U# 1 & 2- Forced, U# 3– Planned
9	NLC - II - Stage II	72.69	72.77	94.77	94.902	87.95	88.54	July: U# 4 & 5- Forced, U# 7 – Planned
10	NTECL Vallur	101.39	101.54	67.271	67.204	80.29	80.32	July: U# 2 – Planned
11	NTPL	100.86	100.83	100.91	100.93	52.47	52.83	September: U# 1 & 2- Forced
12	Kudgi	100	100	60.90	60.88	67.66	67.53	August: U# 3 – Forced, U# 1- Planned; U# 2 & 3 - RSD September: U# 1, 2 & 3 - RSD
13	DVC Mejia (100MW)	101.74	101.956	67.594	66.616	81.364	80.543	August: Forced; September: Forced
14	DVC RTPS (50 MW)	86.003	85.813	62.812	61.583	67.702	67.782	August: Forced; September: Forced
15	Maithon Power Ltd-PPA I	99.86	99.86	96.17	95.39	100	100	
16	Maithon Power Ltd-PPA II	99.86	99.86	96.17	95.39	100	100	
17	Jindal Power Ltd-PSA 1	86.44		97.19		85.87		
18	Jindal Power Ltd--PSA 2	86.43		97.11		85.89		
19	Jhabua Power Ltd-PSA 1	93.10		92.60		77.26		September: Forced (Coal Shortage)
20	Jhabua Power Ltd-PSA 2	93.10		92.60		77.27		
21	JITPL	86.27		90.28		95		
22	BALCO	84.73		71.64		11.70		August: Forced; September: Forced

ANNEXURE IV
DETAILS OF ADDITIONAL LIABILITY

1. Details of Power Purchases - Energy procurement from Central Generating Stations during the period July 2021 to September 2021

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-21	153.95	87.29	87.29	2.600	2.665	0.57	0.57
Aug-21	129.64	124.15	124.15	2.600	2.560	-0.35	-0.50
Sep-21	164.66	130.08	130.08	2.600	2.668	0.88	0.88
Total	448.25	341.53	341.53	2.600	2.628	1.10	0.96
1.2 NTPC-RSTPS Stage III							
Jul-21	0.00	29.00	0.00	2.540	2.613	0.21	0.00
Aug-21	42.77	38.66	38.66	2.540	2.515	-0.10	-0.10
Sep-21	41.39	38.50	38.50	2.540	2.633	0.36	0.36
Total	84.16	106.16	77.16	2.540	2.585	0.47	0.26
1.3 NTPC Talcher-II STPS							
Jul-21	224.57	199.28	199.28	1.800	1.874	1.47	1.47
Aug-21	299.42	197.20	197.20	1.800	1.777	-0.45	-0.45
Sep-21	217.32	243.79	217.32	1.800	1.739	-1.49	-1.33
Total	741.31	640.27	613.80	1.800	1.793	-0.47	-0.30
1.4 NLC - TPS – II Stage 1							
Jul-21	35.86	16.84	16.84	2.750	2.646	-0.18	-0.18
Aug-21	35.86	17.49	17.49	2.750	2.653	-0.17	-0.17
Sep-21	34.70	20.02	20.02	2.750	2.655	-0.19	-0.19
Total	106.42	54.34	54.34	2.750	2.652	-0.53	-0.53
1.5 NLC-TPS-II Stage-2							
Jul-21	52.41	27.67	27.67	2.740	2.646	-0.260	-0.260
Aug-21	39.31	47.27	39.31	2.740	2.653	-0.41	-0.342
Sep-21	50.72	46.72	46.72	2.740	2.655	-0.397	-0.397
Total	142.44	121.66	113.70	2.740	2.652	-1.07	-1.00

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)
1.6 NLC-TPS-I Expansion							
Jul-21	20.50	16.53	16.53	2.540	2.402	-0.23	-0.23
Aug-21	39.63	30.35	30.35	2.540	2.409	-0.40	-0.40
Sep-21	38.35	30.65	30.65	2.540	2.409	-0.40	-0.40
Total	98.48	77.52	77.52	2.540	2.408	-1.03	-1.03
1.7 NLC-TPS-II Expansion							
Jul-21	25.60	16.20	16.20	2.540	2.576	0.06	0.06
Aug-21	15.71	11.27	11.27	2.540	2.548	0.01	0.01
Sep-21	15.20	19.43	15.20	2.540	2.548	0.02	0.01
Total	56.51	46.90	42.66	2.540	2.558	0.08	0.08
1.8 NTPC Simhadri TPS – Stage II							
Jul-21	53.18	29.64	29.64	3.010	2.796	-0.63	-0.63
Aug-21	29.22	45.84	29.22	3.010	2.805	-0.94	-0.60
Sep-21	51.46	42.29	42.29	3.010	2.990	-0.08	-0.08
Total	133.86	117.77	101.15	3.010	2.869	-1.66	-1.32
1.9 Vallur STPS							
Jul-21	31.90	14.87	14.87	3.260	3.167	-0.14	-0.14
Aug-21	31.90	14.09	14.09	3.260	2.922	-0.48	-0.48
Sep-21	21.07	18.58	18.58	3.260	3.131	-0.24	-0.24
Total	84.87	47.53	47.53	3.260	3.080	-0.85	-0.85
1.10 NTPL							
Jul-21	46.30	21.04	21.04	3.340	3.063	-0.58	-0.58
Aug-21	46.30	30.52	30.52	3.340	3.033	-0.94	-0.94
Sep-21	44.80	17.10	17.10	3.340	2.844	-0.85	-0.85
Total	137.40	68.66	68.66	3.340	2.995	-2.37	-2.37
1.11 NTPC KUDGI (Unit I, II & III)							
Jul-21	57.04	7.36	7.36	4.060	3.187	-0.64	-0.64
Aug-21	57.04	25.02	25.02	4.060	3.532	-1.32	-1.32
Sep-21	55.20	32.30	32.30	4.060	3.515	-1.76	-1.76
Total	169.28	64.68	64.68	4.060	3.484	-3.72	-3.72

2. Details of Power Purchases - Energy procurement from Private Generators Outside the State during the period July 2021 to September 2021.

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-21	102.62	93.06	93.06	2.480	2.462	-0.17	-0.17
Aug-21	102.62	98.09	98.09	2.480	2.688	2.04	2.04
Sep-21	99.31	96.08	96.08	2.480	2.766	2.75	2.75
Total	304.55	287.23	287.23	2.480	2.641	4.62	4.62
2.2 Maithon Power Ltd (150 MW) - Contract II							
Jul-21	102.62	93.06	93.06	2.480	2.462	-0.17	-0.17
Aug-21	102.62	98.09	98.09	2.480	2.688	2.04	2.04
Sep-21	99.31	96.08	96.08	2.480	2.766	2.75	2.75
Total	304.55	287.23	287.23	2.480	2.641	4.62	4.62
2.3 Jindal Power Limited –Bid I (200 MW)							
Jul-21	127.22	101.95	101.95	1.337	1.320	-0.17	-0.17
Aug-21	127.22	119.91	119.91	1.337	1.320	-0.20	-0.20
Sep-21	123.12	117.47	117.47	1.337	1.330	-0.08	-0.08
Total	377.56	339.33	339.33	1.337	1.323	-0.46	-0.46
2.4 Jhabua Power Limited-Bid I (115 MW)							
Jul-21	73.15	52.49	52.49	1.984	1.920	-0.34	-0.34
Aug-21	73.15	62.67	62.67	1.984	1.990	0.04	0.04
Sep-21	70.79	60.73	60.73	1.984	1.990	0.04	0.04
Total	217.09	175.89	175.89	1.984	1.969	-0.26	-0.26
2.5 Jindal Power Limited –Bid II (150 MW)							
Jul-21	95.42	76.55	76.55	1.214	1.320	0.81	0.81
Aug-21	95.42	89.91	89.91	1.214	1.320	0.95	0.95
Sep-21	92.34	88.12	88.12	1.214	1.320	0.93	0.93
Total	283.18	254.58	254.58	1.214	1.320	2.70	2.70

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-21	63.61	45.54	45.54	1.765	1.920	0.71	0.71
Aug-21	63.61	54.49	54.49	1.765	1.990	1.23	1.23
Sep-21	61.56	52.81	52.81	1.765	1.990	1.19	1.19
Total	188.78	152.84	152.84	1.765	1.969	3.13	3.13
2.7 Jindal India Thermal Power Limited-Bid II (100 MW)							
Jul-21	63.61	49.05	49.05	1.051	1.150	0.49	0.49
Aug-21	63.61	59.19	59.19	1.051	1.170	0.70	0.70
Sep-21	61.56	68.28	61.56	1.051	1.170	0.81	0.73
Total	188.78	176.52	169.80	1.051	1.164	2.00	1.92
2.9 BALCO – BID II(100 MW)							
Jul-21	63.61	52.74	52.74	1.242	1.170	-0.38	-0.38
Aug-21	63.61	48.13	48.13	1.242	1.170	-0.35	-0.35
Sep-21	61.56	7.95	7.95	1.242	1.160	-0.07	-0.07
Total	188.78	108.82	108.82	1.242	1.169	-0.79	-0.79
2.10 DVC Mejia (100 MW)							
Jul-21	65.56	53.20	53.20	2.557	2.890	1.77	1.77
Aug-21	0.00	44.25	0.00	2.557	2.912	1.57	0.00
Sep-21	63.44	44.53	44.53	2.557	2.958	1.79	1.79
Total	129.00	141.98	97.74	2.557	2.918	5.13	3.56
2.11 DVC RTPS (50 MW)							
Jul-21	32.35	18.13	18.13	2.389	3.072	1.24	1.24
Aug-21	32.35	98.09	32.35	2.389	3.129	7.26	2.39
Sep-21	31.30	19.66	19.66	2.389	3.067	1.33	1.33
Total	96.00	135.88	70.14	2.389	3.112	9.83	4.96

3 Summary of total additional liability for the second quarter of FY 2021-22

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	
			Approved	Actual	Actual	Admissible
			(Rs/kWh)	(Rs/kWh)	(Rs. Cr)	(Rs. Cr)
CGS						
RSTPS I & II	448.25	341.53	2.600	2.628	1.10	0.96
RSTPS III	84.16	106.16	2.540	2.585	0.47	0.26
Talcher STPS	741.31	640.27	1.800	1.793	-0.47	-0.30
Simhadri TPS Stage-II	133.86	117.77	3.010	2.869	-1.66	-1.32
NLC Stage-I	106.42	54.34	2.750	2.652	-0.53	-0.53
NLC Stage-II	142.44	121.66	2.740	2.652	-1.07	-1.00
NLC 1 Expansion	98.48	77.52	2.540	2.408	-1.03	-1.03
NLC II Expansion	56.51	46.90	2.540	2.558	0.08	0.08
Vallur STPS	84.87	47.53	3.260	3.080	-0.85	-0.85
NTPL	137.40	68.66	3.340	2.995	-2.37	-2.37
Kudgi	169.28	64.68	4.060	3.484	-3.72	-3.72
Sub Total CGS	2202.98	1687.02			-10.04	-9.8325
Private IPPs outside the State						
DVC RTPS	96.00	58.57	2.388	3.091	4.11	4.11
DVC Mejia	129.00	141.98	2.558	2.918	5.11	3.55
Maithon Power Ltd-I	304.55	287.23	2.483	2.641	4.53	4.53
Maithon Power Ltd-II	304.55	287.23	2.483	2.641	4.53	4.53
Jindal Power Ltd-Bid I	377.56	339.33	1.340	1.327	-0.44	-0.44
Jhabua Power Ltd-Bid I	217.09	175.89	1.980	1.969	-0.19	-0.19
Jhabua Power Ltd-Bid II*	283.18	254.58	1.214	1.320	2.70	2.70
Jindal Power Ltd-Bid II*	188.78	152.84	1.765	1.969	3.13	3.13
JITPL*	188.78	176.52	1.051	1.164	2.00	1.92
BALCO	188.78	108.82	1.240	1.169	-0.77	-0.77
LTA subtotal	2278.27	1983.00			24.72	23.076
Total	4481.25	3670.03			14.68	13.24
Claim						5.50

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

Annexure-V

<u>Rate of Fuel Surcharge in Paise per unit</u>	
Particulars	Quantum
Amount of Fuel Surcharge (F) in crores	5.50
Energy estimation for Retail sale as per MYT petition to whole consumers January 2022 to March 2022 in MU	6412.84
Energy expected for Retail sale to domestic consumers having monthly consumption less than 20 units and connected load below 20 units from January to March 2022 in MU	0.22
Energy estimation for Retail sale as per MYT petition to domestic consumers other than the consumers with connected load less than 500 W and monthly consumption below 20 units consumers for January 2021 to March 2021 (E) in MU	6412.62
Rate of fuel surcharge in Paise per unit($F*1000/E$)	0.86
Rounded to 1 paise per unit	

Annexure –VI Power procurement /sale/transfer through short term contracts/DSM/banking arrangements(Incomplete)			
July			
		Energy at Kerala periphery(units)	Amount (Rs)
A	Power purchase through short term contracts		
I	Power through exchanges		
	IEX (DAM)	210,377.5	428,469
	IEX RTM	202,238	378,242
	IEXTAM	0	0
II	PXIL DAM	0	0
III	Power transfer through DSM	-14,456,608	-76,916,741
August			
I	Power purchase through short term contracts		
	Power through exchanges		
	IEX (RTM)	910,298	6,463,155
III	Power transfer through DSM	-20,343,290	-130,712,497
September			
I	Power through IEX DAM	882687.5	1506957.55
	Power through IEX RTM	343,565	803337.86
II	Power through DSM	-4,637,742	-59209421.76
B	Power sale outside the State		
July			
	IEX (DAM)	135,106,330	466,068,042
	PXIL (DAM)	1,303,750	4,749,224
	PXIL (TAM)	5,212,060	16,909,267
	IEX (RTM)	58,782,113	164,386,080
August			
	IEX (DAM)	239,896,155	1,354,620,619
	PXIL (DAM)	4,981,250	20,831,025
	PXIL (TAM)	0	0
	IEX (RTM)	62,652,600	408,169,324
September			
	IEX DAM	79,952,315	366,919,429
	IEX (RTM& TAM)	26142163	118,925,941
	PXIL (DAM)	323750	1,715,548
	PXIL (TAM)	589,500	1,832,611
C	Energy transaction outside the State through banking		
	July	36,580,000	
	August	36254500	
	September	20,999,500	