

BEFORE THE HON'BLE KERALA STATE ELECTRICITY REGULATORY COMMISSION

In the matter of: Petition under Regulation 77(3)(f) of the KSERC (Terms and Conditions for Determination of Tariff) Regulations 2018 seeking approval for entering into swap transactions for managing the unexpected energy crisis during March 2020 due to the forced outage of 2 units at Idukki hydel station.

KSEBL MOST HUMBLY STATES THAT:

1. Kerala State Electricity Board Limited files the instant petition seeking approval for entering into swap transactions for managing the unexpected energy crisis during March 2020 due to the forced outage of 2 units at Idukki hydel station.
2. KSEBL had reviewed the peak and energy demand for the months from February 2020 to May 2020 and it was observed that there would be a peak demand shortage of around 336 to 570MW during evening peak and energy shortage of around 200MU per month.
3. To overcome the anticipated power and energy shortage in the summer months, it was decided to tie up firm power through SWAP/DEEP portal for about 50% of the shortage and remaining 50% through Day ahead market in Power Exchange as required based on market trends.
4. Subsequently, KSEBL had entered into banking transactions with PTC India Ltd. and BSES Yamuna Power Ltd. for banking power with KSEBL Ltd, during the period from 01-02-2020 to 30-09-2020 with the approval of Hon'ble Commission as submitted below.

Supply from PTC- TPDDL to KSEBL			Return from KSEBL to PTC-TPDDL			
Supply Period	Quantum (MW)	Duration (hrs)	Return Period	Duration (hrs)	Return %	Trading Margin (ps/kWh)
01-02-2020 to 29-02-2020	50	RTC	16-06-2020 to 30-09-2020	0-4 & 17-18.30 & 22.30- 24.00 (uniformly distributed)	102%	2.98
	50	0-6				
	100	20-24				
01-03-2020 to 31-03-2020	50	RTC				
	100	0-6				
	50	18-20				
01-04-2020 to 30-04-2020	100	20-24				
	50	RTC				
	100	0-6				
	25	18-23				

Supply from BYPL to KSEBL			Return from KSEBL to BYPL			
Supply Period	Quantum (MW)	Duration (hrs)	Return Period	Duration (hrs)	Return %	Trading Margin (ps/kWh)
16-02-2020 to 29-02-2020	75	RTC	16-06-2020 to 30-09-2020	0-3 & 13-17	103%	NIL
01-03-2020 to	75	RTC				

31-03-2020				& 22 - 24.00 (uniformly distributed)		
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5. The above banking transactions enable meeting about 50% of the expected power deficit during February and March 2020 and partly during April 2020. Through above banking transactions only 75MW is obtained during the peak hours in April 2020 and no banking transaction is available during May 2020. Approval of Hon'ble Commission was obtained vide order dated 14-1-2020 in OP 62/2019.
6. Considering the shortage in meeting the peak and energy demand for the months April 2020 and May 2020, and in order to take an early action for avoiding power crisis and to avoid scheduling of high cost internal thermal generation, KSEBL invited bids for short term power procurement through DEEP portal and Adani Enterprises Ltd and DB Power Ltd were emerged as successful bidders as per the price discovered as shown below.

Table 1 : Adani Enterprises Ltd (AEL)

Period	Duration Hrs	Quantum (MW) on Firm basis	Rate at Delivery Point i.e. Kerala Periphery	Source of Power
01.04.2020 to 30.04.2020	00:00 to 24:00	100	Rs. 3.72/- (Rupees Three and Seventy Two paise Only) per kWh	Raipur Energen Ltd, Chhattisgarh in the Western Region.
01.05.2020 to 31.05.2020	00:00 to 24:00	150	Rs. 3.76/- (Rupees Three and Seventy Six paise Only) per kWh	
01.05.2020 to 31.05.2020	19:00 to 23:00	50	Rs. 4.25/- (Rupees Four and twenty five paise Only) per kWh	

Table 2 : DB Power Ltd (DBPL)

Period	Duration Hrs	Quantum (MW) on Firm basis	Rate at Delivery Point i.e. Kerala Periphery	Source of Power
01.04.2020 to 30.04.2020	19:00 to 23:00	50	Rs. 4.24/- (Rupees Four and Twenty Four paise Only) per kWh	DB Power Ltd, Chhattisgarh in the Western Region.

7. KSEBL has submitted before Hon'ble Commission the details of above short term power procurement and has requested approval for entering into agreements with the above firms. Hon'ble Commission vide order dated 13-3-2020 in OP 6/2020 has approved the above short term transaction.

8. With the above swap transactions and short term power procurement KSEBL could meet 50% of the anticipated shortage in peak demand and energy provided the hydro availability and availability of CGS are as planned.
9. However, unexpectedly, on 20-1-2020 Unit-2 and on 1-2-2020 Unit-6 of Idukki HEP tripped on forced outage. On detailed examination it was observed that the tripping was due to the flashing of 11kv bushing of excitation transformer of unit-2 and flashing of Lightning Arrestor-voltage transformer of unit-6. Detailed examination and rectification works are going on. It is expected that Unit-2 will be put in service by the 1st week of April 2020 and Unit-6 by the 1st week of May 2020.
10. This incident has created an additional shortage of 260MW during peak and additional energy shortage of around 40.3MU in the month of March 2020 .
11. The impact of these outages on the present power scenario was reviewed again. Since these two units were expected to come back to service only by April and May 2020, based on the deficit in generation from Idukki, it was decided to revise the original LGB with revised hydro availability. On analyzing the LGB, it was found that the peak demand shortage comes to around 580 MW. The revised LGB with reduced hydro availability for the months of March 2020 is submitted below.

Peak Demand (MW)

	20-Mar
Peak Demand	4400
Hydro	1483
Outages	-100
Wind, IPPs	30
CGS Net	1184
LTA net	1000
OA + UI	50
swap	175
DEEP purchase	0
Total	3822
Surplus (+) /Deficit(-)	-578

12. Accordingly, after analyzing the power scenario, in order to manage the unexpected shortage during the summer month of March 2020, KSEBL decided to invite banking tender from traders/ utilities for banking power with KSEB Ltd during the period from 01-03-2020 to 31-08-2020 as per the terms and conditions and as per the timelines specified in the Bid document for 50% of the shortage in peak demand. It is decided to meet the balance power requirement through day ahead market.
13. Wide publicity was given to the banking tender through two national dailies and through the official website of KSEBL. The requirement of power specified in the Bid document was as follows :

Supply to KSEB Ltd			Return from KSEB Ltd		
Period	Duration (hrs)	MW	Period	Duration hrs	MW
01-03-2020 to 31-03-2020	RTC	50	01-07-2020 to 31-08-2020	04.00 to 18.00	Banked power along with the quoted return premium in a uniformly distributed pattern
	14.00 to 24.00	100			

Delivery point : Regional periphery of the Exporting Utility during supply as well as return period

14. The offers received were opened at 3pm on 24-02-2020. Two bidders participated in the tender, namely
- BYPL, New Delhi (Utility-direct participation)- (1 offer)
 - Manikaran Power Ltd MPL(trader): BRPL, New Delhi (2 offers) and PSPCL, Punjab (1offer)

15. The offers received are tabulated as below:

Sl. No.	Name of the Bidder	Supply Period	Quantum (MW)	Duration (hrs)	Return period	Return duration (hrs)	Quoted Return %	Trading Margin Ps/kwh
1	BYPL	Mar-2020	50	RTC	01-07-2020 to 31-07-2020	12-18	60% of 100% banked power	NIL
					01-08-2020 to 31-08-2020	12-18	40% of 100% banked power	
2	MPL- BRPL Preference 1	Mar-2020	50	RTC	01-07-2020 to 31-08-2020	0-2	103%	0.86
			100	14-24		& 14-17		
3	MPL- BRPL Preference 2	Mar-2020	50	RTC	01-07-2020 to 31-08-2020	4-18	104%	0.86
			100	14-24				
4	MPL- PSPCL	Mar-2020	50	RTC	01-07-2020 to 31-07-2020	4-18	105%	3.00

16. The already committed return quantum of banked power by KSEBL to PTC-TPDDL and BYPL, as per the offers received against the banking EoI invited on 01-10-2019 is as follows:

Month	Duration	Quantum (MW)
16-06-2020	0-3	339
to	3-4	251
30-09-2020	13-17	89

	22-22.30	89
	22.30-24	339

17. Thus the offers received on 24-02-2020 against the banking tender was analyzed after considering the already committed return of KSEBL and the following matters were observed:

- (i) Offer under item no.(1) above submitted directly by BYPL:
- This offer is not as per the requirement specified in the Bid document, since no supply was offered during 14-24hrs.
 - The return duration has been reduced to 6hrs (12-18 hrs) from the specified 14hrs (4-18 hrs)
 - Even though the return percentage quoted is 100%, the month wise return quantum required by BYPL was non-uniform i.e. 60% during July 2020 and 40% during Aug 2020, by which the return quantum during July 2020 would be 120MW and that of during August would be 80MW, for availing 50MW RTC alone.
 - After including the already committed return quantum of 89MW from 13-17 hrs under banking EoI, by importing 50MW RTC power alone during March 2020, the return burden of KSEBL during 13-17 hrs can go up to (89MW+120MW) during July 2020 and (89MW+80MW) during August 2020, which is not attractive.
- (ii) Offer under item no.(2) above submitted by BRPL through Manikaran Power Ltd (trader):
- The already committed return power by KSEBL under banking EoI during 0-3 hrs is 339MW, which is a considerable quantum during monsoon season. Hence while inviting banking tender, it was specified in the conditions that offers outside the specified duration in the bid document i.e. 4-18 hrs will be rejected. Hence this offer submitted by MPL-BRPL cannot be considered as the return duration i.e. 0-2 hrs is outside the specified duration as per the Bid document.
- (iii) Offer under item no.(3) above submitted by BRPL through Manikaran Power Ltd (trader):
- This offer is exactly matching with the requirement specified by KSEBL in the bid document during supply as well as return period i.e supply of 50MW RTC and 100MW from 14-24 hrs during March 2020 and return of banked power from 4-18 hrs during 01-07-2020 to 31-08-2020.
 - The return percentage quoted is 104% and the quantum of power to be returned during 4-18 hrs from 01-07-2020 to 31-08-2020 comes to 81.71MW.
 - The trading margin quoted by Manikaran Power Ltd is 0.86paise/kwh while supplying power to KSEBL. The financial impact in case of supply of entire quantum during March 2020 is Rs. 5,86,520/-.

- Further it is stated in the bid document that priority will be given to the offers submitted as per the requirement of KSEBL.
- (iv) Offer under item no.(4) above submitted by PSPCL through Manikaran Power Ltd (trader):
 - This offer is not as per the requirement specified in the Bid document, since no supply was offered during 14-24hrs.
 - The return percentage (105%) quoted by PSPCL and the trading margin of 3ps/kwh quoted by trader are comparatively high.
 - The return period has been reduced to one month instead of two months. Thus, even though the return duration is 14hrs (4-18 hrs) as specified in the Bid document, the banked power has to be returned in one month i.e. July 2020, thus the return quantum during July 2020 would be 90MW, for availing 50MW RTC alone.
 - After including the already committed return quantum of 89MW from 13-17 hrs under banking EoI, by importing 50MW RTC power alone during March 2020, the return burden of KSEBL during 13-17 hrs can go upto (89MW+90MW) during July2020, which is not attractive.

18. Under above circumstances, it is noticed that offer submitted by MPL-BRPL under item no (3) above is the best offer based on the following evaluation criteria:

- i. The bids submitted strictly conform to the supply and return period and duration. Bids with duration and period outside the specified duration and months during the supply period and return period are rejected. Priority given to the offers submitted as per the requirement of KSEB Ltd.
- ii. The bidder quoting the lowest return percentage selected as L1 bidder.
- iii. In the event of more than one bidder being L1, then the bidders quoting the lowest trading margin selected as successful bidder.
- iv. If the L1 bidder does not quote the required quantum, the remaining qualified bidders will be requested to match the L1 bidder's return percentage and trading margin (if trading margin is higher than L1) and balance quantum shall be fulfilled in the order of their rank, upto the required quantum and duration.
- v. In case of a tie in the final selection process, then the successful bidder is selected through a lot.

Even though the offer of BYPL (item (1) under paragraph 15 above) has the lowest return percentage and zero trading margin, the same is not matching with the supply as well as return requirements specified in the bid and thus results in higher quantum of return in shorter duration. Thus, in accordance with selection criteria (i) above, same need not be considered. The arrangement under (2) in paragraph 15 above is to be rejected as per (i) above and arrangement under (4) in paragraph 15 above has quoted a higher return percentage and is not attractive as return is concentrated in one month.

19. If the banking arrangement under item no (3) above is considered, the total quantum of firm power arranged through offers received against banking Eol dated 01-10-2019, short term procurement through DEEP portal and banking tender invited on 13-02-2020, for meeting the expected power deficit from February 2020 to May 2020 is as shown below:

Total Supply to KSEBL (Banking Eol, DEEP & banking tender)		
Month	Duration	Quantum MW)
01-02-2020 to 15-02-2020	0-6	100
	6-20	50
	20-24	150
16-02-2020 to 29-02-2020	0-6	175
	6-20	125
	20-24	225
01-03-2020 to 31-03-2020	0-6	275
	6-14	175
	14-18	275
	18-20	325
01-04-2020 to 30-04-2020	20-24	375
	0-6	250
	6-18	150
	18-19	175
01-05-2020 to 31-05-2020	19-23	225
	23-24	150
	0-19 & 23-24	150
	19-23	250

20. After considering the committed return of banked power tied up through the offers received against banking Eol dated 01-10-2019 and the offer considered against banking tender, the total return of banked power from 16-06-2020 to 31-05-2020 is as shown below.

Return from KSEBL considering banking Eol and tender		
Month	Duration	Quantum (MW)
16-06-2020 to 30-06-2020	0-3	339
	3-4	251
	13-17	89
	22-22.30	89
	22.30-24	339
01-07-2020 to 31-08-2020	0-3	339
	3-4	251
	4-13	81
	13-17	170
	17-18	81
	22-22.30	89
01-09-2020 to 30-09-2020	22.30-24	339
	0-3	339
	3-4	251
	13-17	89
	22-22.30	89
	22.30-24	339

21. As per The Regulation 77(3)(f) of the KSERC (Terms and Conditions for Determination of Tariff) Regulations 2018, the distribution business licensee may enter into a short-term power procurement agreement or arrangement by way of exchange of energy under banking transactions, only with the prior approval of the Commission.
22. Therefore, it is requested that approval may kindly be granted for entering into swap transactions with BRPL through Manikaran Power Ltd as indicated under item no.(3) above as detailed below:

Table A

Supply to KSEB Ltd from MPL-BRPL			Return from KSEB Ltd to MPL-BRPL			
Period	Duration (hrs)	MW	Period	Duration hrs	Return Percentage	Trading margin
01-03-2020 to 31-03-2020	RTC	50	01-07-2020 to 31-08-2020	04.00 to 18.00	104% (in a uniformly distributed pattern)	0.86 paise/kwh
	14.00 to 24.00	100				

Prayer

KSEBL humbly request Hon'ble Commission to grant approval for entering into banking transactions as detailed under Paragraph 22 above with Manikaran Power Ltd (MPL) for the month of March 2020.

Deputy Chief Engineer (Commercial & Planning)
With full powers of Chief Engineer