

PUNJAB STATE ELECTRICITY REGULATORY COMMISSION
SITE NO. 3, BLOCK B, SECTOR 18-A, MADHYA MARG, CHANDIGARH

Petition No. 27 of 2022
Date of Hearing: 20.07.2022
Date of Order: 09.08.2022

Petition for approval under Section 86 (1) (b) of the Electricity Act, 2003 for the Power Procurement plan on Short Term basis for FY 2022-23 read with the Public notice issued by Punjab State Electricity Regulatory Commission dated 23.10.2012.

AND

In the matter of: Punjab State Power Corporation Limited, The Mall,
Patiala - 147001

.....Petitioner

Commission: Ms. Viswajeet Khanna, Chairperson
Sh. Paramjeet Singh, Member

PSPCL: Sh. Rupinderjit Singh Randhawa, CE/ARR&TR
Sh. Ravi Luthra, SE/TR-2
Sh. Gurvinder Singh, Sr.Xen/TR-5
Sh. Baljinder Pal Singh, AE/TR-5
Sh. Sandeep Kumar, ASE/TR

ORDER:

1. Punjab State Power Corporation Limited (PSPCL) has filed the present petition under Section 86 (1) (b) of the Electricity Act, 2003 read with Regulation 9 of the Punjab State Electricity Regulatory Commission (Power Purchase and Procurement Process of Licensee) Regulations, 2012.
2. Submissions made in the petition are summarized as under:
 - i. **Power Scenario:-** PSPCL has submitted that while submitting ARR PSPCL envisaged that it will be able to arrange sufficient

power by banking arrangements and also by short term power procurement at reasonable prices in addition to already tied up sources at its disposal to meet demand of summer season 2022. However, due to the current high prices of imported coal and countrywide constrained coal supply conditions and related market scenario cheaper power is not available in the exchanges and market. Also due to low power availability, banking options with other states/utilities have reduced considerably. Due to rise in prices of imported coal, CGPL Mundra power station has stopped supplying contracted power of 475 MW. PSPCL has re-assessed the power requirement for the State of Punjab for the period from 10.06.2022 to 30.09.2022 as per details hereunder:

ii. Assessment of Unrestricted Demand:-

The prospective month-wise unrestricted peak demand of Punjab for the period from 01.06.2022 to 30.09.2022 has been worked out by considering 3% rise over the peak demand of the corresponding period of the previous year.

a) Demand Pattern for Previous year i.e. 2021(in MW)

(MW)	1st to 9th June	10th to 14th June	15th to 30th June	1st to 15th July	16th to 31st July	1st to 15th Aug	16th to 31st Aug	1st to 15th Sep	16th to 30th Sep
Min. Demand registered	3650	2814	6901	6411	5838	8753	6842	5433	4852
MAX Demand met	9783	11730	13359	13431	12791	13021	13215	12002	11496
Unrestricted max Demand	9783	11730	15336	14514	14744	13021	13215	12002	11496
With 3% Rise on above	10076	12081	15796	14950	15186	13412	13611	12362	11841

b) Unrestricted Peak Demand (MW)

Month	2019-20	2020-21	2021-22	Average of last 3 years	Projection for 2022-23 with 3% rise over average of last year 3 years	Projection for 2022-23 with 3% rise over 2021-22
May	8850	8201	8195	8415	8668	8441
June	13149	12683	15336	13723	14134	15796
July	13606	13148	14744	13833	14248	15186
August	12009	12815	13215	12680	13060	13611
September	11825	12433	12002	12087	12449	12362

c) Unrestricted Peak Demand (MUs)

Month	2019-20	2020-21	2021-22	Average of last 3 years	Projection for 2022-23 with 3% rise over average of last year 3 years	Projection for 2022-23 with 3% rise over 2021-22	As per ARR FY 2022-23
May	4803	4035	4634	4491	4625	4773	5554
June	6813	6661	7045	6840	7045	7256	7848
July	7323	7381	8282	7662	7892	8531	8433
August	7122	7518	8262	7634	7863	8509	8204
September	6706	7269	6469	6814	7019	6663	7722

iii. Power arranged from outside the state

a) Banking of power

The power banked in advance by PSPCL during the winter is received back during the next summer and the power received in advance from other states during summer is returned back during the following winter. As per commitments already made, it is expected that around 1756 MUs will be given in advance up to 30.4.2022, which are to be received back during Paddy season-2022. In addition to this as per past years practice, on average around 1450 MW (2222 MUs) of Power is to be received in advance from Madhya Pradesh, Himachal Pradesh etc., which will be returned back during winter season of FY 2022-23. Further, it is anticipated that 4466 MUs of

power will be available during the period from June to September 2022 under banking arrangements.

b) Procurement of Non-Solar Renewable Power

Recently Himachal Pradesh State Electricity Board Limited (HPSEBL) had floated a tender enquiry (for only night hours) for sale of Non Solar Renewable power, where PSPCL participated with a competitive landed rate of around Rs. 4.75/kWh. Despite putting in a reasonably high quote, PSPCL could not secure this power.

iv. Keeping in view all the facts PSPCL has worked out the availability of power from all the sources with the following assumptions:-

- a. All the Units of NPL Rajpura & TSPL Talwandi Sabo have been considered operational with 100% capacity during the period.
- b. Both the units of GVK have not been considered operational.
- c. Own generation has been considered with outage of one unit of 250MW against Installed Capacity of 1760 MW.
- d. Banking of power considered during this period is tentative which includes advance tie-ups of average 1000 MW.
- e. Demand has been considered with 3% rise over previous year's peak demand. However, the demand is highly weather sensitive and there is always a high level of unpredictability in the demand analysis.
- f. In energy based power scenario, energy requirement/availability has been prepared considering the average energy requirement/availability from all the sources.
- g. The gap in demand has been worked out considering the peak demand likely to be met during this period and anticipated peak availability from all sources.

- h. Within the state of Punjab PEDDA/ NRSE power comprising of Non Solar and solar power sources has been considered with an availability factor of 60% i.e. around 600 MW.
- v. PSPCL has submitted the availability demand Gap on energy basis as under:-

Availability Demand Gap on Energy Basis

To meet Demand on Energy Basis	Unit	Paddy- 2022				Total
		Jun-22	Jul-22	Aug-22	Sep-22	
Availability	Mus	7260	8557	8422	7511	31750
Demand	Mus	7848	8433	8204	7722	32208
Gap (-ve means deficit & +ve means surplus)	Mus	-588	123	217	-211	-458

Requirement of Power on the basis of Peak Demand	Unit	PADDY 2022									Total
		1 to 9 th June	10 th to 15 th June	16 th to 30 th June	1 to 15 th July	16 th to 31 st July	1 to 15 th Aug	16 th to 31 st Aug	1 to 15 th Sep	16 th to 30 th Sep	
Availability	MW	9623	10495	10721	11943	11392	11339	11122	10630	10316	
Power arranged from recent tender enquiry with cost below APPC	MW	0	375	375	500	500	500	500	470	470	
Total availability	MW	9623	10870	11096	12443	11892	11839	11622	11100	10786	
Demand anticipated	MW	10076	12221	14766	14949	15186	13412	13611	12362	12806	
Gap (-ve means deficit & +ve means surplus)	MW	-453	-1351	-3670	-2507	-3294	-1573	-1990	-1262	-2020	
Power that is required to be purchased upto ATC limit	MW	453	1351	2771	1531	2102	1573	1990	1262	2020	
	MU	98	195	998	551	807	566	764	454	727	5160
Short Term Power Purchase to be Procured (80% of above gap)	MU	78	156	798	441	646	453	611	364	582	4128
	MW	363	1081	2217	1225	1682	1258	1592	1010	1616	
Say	MW	400	1100	2200	1200	1700	1250	1600	1000	1600	

PSPCL has sought Commission's approval assuming to accommodate any drop in demand due to change in the weather

conditions or other unforeseen factors, 80% of the total gap (4128 Mus) may be tied up through Short Term power purchase on advance reservation basis by inviting tenders and the balance 20% (826 MUs) may be arranged depending upon requirement on real time basis by resorting to Day-ahead power purchase through Energy Exchange.

vi. Requirement of Power on the basis of Peak Demand

Figures in the ARR petition are annual cumulative energy figures, whereas in the proposed short term Power Procurement plan figures are on monthly MW basis. Though in terms of energy, PSPCL may have sufficient capacity to meet the demand, but while meeting peak demand (MW) PSPCL needs to utilize/procure power from all sources. The weather conditions prevailing at that time may also impact the demand scenario significantly. In case of low demand for a short duration due to sudden weather changes, power from possible and available sources including PSPCL's own thermal plants will be backed down at times as per prevailing practice and also NRLDC open access procedure in line with CERC open access guidelines. However, generation of own thermal plants has its strategic importance at 220kV level transmission system for minimizing the transmission constraints on real time basis within the State and for meeting the demand.

vii. The maximum unrestricted demand during the year 2021 was 3240 LUs/day. The maximum peak demand recorded during the year 2021 was 13431 MW, while maximum unmet demand was 15336 MW on 30th June. However, this unprecedented high demand was observed due to an extended dry spell during the month of June-2021. Therefore, the same has been assumed to be at 14336 MW instead of 15336 MW for the corresponding period this year. This

year's maximum peak demand, considering a 3% rise over the unmet demand of the previous year, is anticipated to be around 15,186 MW in the month of July.

viii. PSPCL is presently expected to be surplus in power availability for most of FY 2022-23 except for the months of June to September. At present, the existing ATC/TTC of Punjab has been fixed by NLDC as 7100/7700 MW respectively for 08:00 to 18:00 Hrs. and 7400/8000 MW respectively for the remaining part of the day. This year Punjab's transmission import capability is likely to be enhanced upto 8500 MW. Due to non-availability of power from GVK, if PSPCL is able to fully maintain the state generation capacity within the State of around 6100 MW, barring any exigencies and is able to book to entire transmission capacity, a maximum availability of only around 14600 MW can be arranged.

The latest available variable cost data on actual basis of PSPCL's own thermal generating stations is Rs. 4.36 to 4.39 per kWh respectively, which is quite close to the rates discovered in the current tender enquiry, which has been tied to reduce the quantum of power deficit. Keeping in view that summer season energy prices might be on the higher side, a tender enquiry was floated recently clubbing both the summer and winter season requirements for the period from 10.06.2022 to 31.05.2023. The prices discovered in this enquiry too remained on the higher side ranging from Rs. 4.92 to 6.25/kWh. Further, the Exchange/Market prices trend is also on an increasing graph.

Monthly IEX Rates at NR (Rs./Unit) from November to February for Year 2020-21 and 2021-22 are as under:-

Exchange/ Market area price rate (Rs./Unit) at NR						
Month	2020-21			2021-22		
	Average	Maximum	Minimum	Average	Maximum	Minimum
Nov	2.73	6.00	1.00	3.08	20.00	1.37
Dec	2.83	6.05	1.57	3.54	20.00	1.47
Jan	3.18	8.00	1.55	3.39	11.27	1.58
Feb	3.39	8.75	1.58	4.44	20.00	2.00
Mar (up to 25.03.22)	4.02	9.88	2.34	7.27*	20.00*	2.42*

Month wise Exchange average rates (Rs./Unit) from 10th June 2021 to 20th October 2021 are as under:-

Period/Month	Exchange/ Market area price rate (Rs./Unit) at NR		
	Average	Maximum	Minimum
10th June 2021 to 30th June 2021	3.03	9.67	0.60
July	2.94	10.90	1.00
August	5.06	20.00	1.10
September	4.40	20.00	1.50
1st October 2021 to 20th October 2021	10.30	20.00	1.50

Although energy prices through exchanges last year during the month of June and July remained on the lower side, they increased during the months of August, September and October due to coal shortage in the country and hike in imported coal prices. The situation has become worse in the month of March-2022. Though part of the power requirement will have to be left to be arranged through exchanges, the bulk of requirement needed during the pady season can't be relied upon for purchase through Exchanges only due to volatility in the prices and uncertainty of availability.

ix. That PSPCL being a distribution licensee has a universal service obligation to supply electricity and needs to make alternative arrangements so that inconvenience to its consumers can be minimized. PSPCL has no option but to go in for Short Term Power procurement in view of the prevailing situation due to the anticipated power shortage despite its best efforts to tie up the requisite quantum of power at reasonable rates from various other arrangements like banking or through tenders. PSPCL shall endeavour to procure this

power optimally below the average power purchase cost (APPC) i.e. Rs. 4.72/kWh as per Tariff order of FY2021-22. However, due to prevailing market prices, coal supply scenario etc. the same may not be possible and PSPCL may have to procure power beyond Rs. 4.72/kWh to provide sufficient supply to consumers of state.

x. Power Procurement Process: -

As per the previous practice, Short Term Power will be procured through a competitive bidding process on the DEEP portal hosted by Ministry of Power, Govt. of India. In the meantime, PSPCL has initiated a process tender enquiry for procurement of power of 2200 MW (RTC) for the period for exploring the market price. Final decision regarding purchase of power will be taken after the prices are discovered. PSPCL has prayed to the Commission to:

- a) Approve the proposal for purchase of upto 2200 MW (4128 MUs) of short term power on actual basis as required and available i.e. beyond average power purchase cost (APPC) i.e. 4.72/kWh as per Tariff order 2021-22, for the period 10th June 2022 to 30th September 2022 through a competitive bidding process by open tender and on Day ahead / real time basis to meet the demand.
- b) In case of outage of any power generation facility, the requisite procurement of additional power on actual basis may also be allowed.
- c) Pass any such further order(s) as deemed fit in the light of facts of the case.

3. The petition was taken up for hearing on admission on 01.06.2022. PSPCL submitted that the projected requirement of 4128 MUs is part of the expected energy requirement of 65191 MUs as per ARR. It was observed by the Commission that total energy requirement is 65016 MU approved in the Tariff Order for FY 2022-

23 and the present petition has been filed for approval of the short-term power purchase at rates beyond the average power purchase cost (APPC) i.e., Rs. 4.72/kWh as per Tariff order 2021-22, for the period 10th June, 2022 to 30th September 2022 to meet with the demand of power.

The Commission further observed that the power purchase rate mentioned in the petition pertains to Tariff Order for FY 2021-22 while the current year's Tariff Order for FY 2022-23 has determined the APPC at Rs. 4.44/kWh. The power purchase rate cannot be open ended and PSPCL was directed to correctly assess the short-term power purchase rate. The Commission further observed that PSPCL has not considered both units of GVK as being operational in the petition whereas power is currently being procured by PSPCL from GVK also. The Commission also observed that PSPCL has not mentioned whether it has studied the possibility of banking of power when short term power purchase rates are low in the market.

4. PSPCL vide letter No. 6282 dated 10.06.2022 submitted the reply which is summarised as under:
 - I. The Average Power Purchase Cost (APPC) mentioned in the petition may be considered as Rs 4.44/KWh as per Tariff Order of FY 2022-23.
 - II. At present there is no price ceiling for procurement of power on Short Term basis through competitive bidding in the DEEP portal. However, Hon'ble CERC has fixed a price ceiling of Rs. 12/kWh for power procured through all segments (DAM, GDAM, RTM & TAM) of Exchanges.
 - III. A case has been filed before NCLT, New Delhi by the Axis Bank where GVK is allegedly in default in meeting debt

servicing payments to banks and corporate resolution proceedings have been sought against GVK. The case is at the admission stage and it has been ascertained that lenders are in the process of recovering their balance dues / loans from GVK by keeping a check on the cash flows of the company. Part of the payment(s) made by PSPCL to GVK are being retained by the lender bank, thereby reducing the working capital available to GVK. As a result, the coal stock at GVK's plant is critically low. In these circumstances, the probability of getting full contracted capacity from GVK cannot be assumed whereas PSPCL requires immediate arrangements for supply of power during the paddy season.

In view of the above position, only one unit of GVK has been considered as operational, which shall be able to supply 586 MUs from June to September. Hence, energy to be procured, as submitted in the petition, shall get reduced to that extent i.e. from 4120 MUs to 3542 MUs or on an actual basis as required. If more capacity remains available from GVK, it will be used optimally, on actual basis along with other sources available with PSPCL.

- IV. Regarding banking of power with other States, PSPCL has already explored all possibilities of banking of power with other State utilities having complimentary load profile to PSPCL e.g. Tamil Nadu, Himachal Pradesh, Madhya Pradesh, Telangana, Manipur etc. and has entered into banking arrangements with these State Utilities to supply power to PSPCL from June to September 2022. As of now, PSPCL is in its peak demand season and these utilities are in their lean demand period, so banking of power by PSPCL to these utilities is not feasible.

V. In view of the current circumstances in order to meet the demand, especially to cater to the Agriculture sectors requirement of uninterrupted 8 Hrs of power supply, PSPCL will be left with no other option but to procure power at the prevailing market prices. However, it will be the endeavour of PSPCL to ensure sufficient power supply to all its consumers at optimum cost. Consequently, PSPCL amended its prayer as under:-

- a) To approve the proposal for purchase of upto 2000 MW (3542 MUs) or on actual basis through competitive bidding i.e. beyond average power purchase cost (APPC) of Rs. 4.44 KWh (Tariff Order for the year 2022-23) upto the ceiling limit defined by the Hon'ble CERC from time to time (in case of Power Exchanges presently at Rs. 12/KWh) for the period 10thJune2022 to 30thSeptember 2022 or on actual basis. The above shall include power procured from exchanges (DAM, GDAM, RTM & TAM) as per actual requirement to meet the emergent demands of the State.

5. Commission's Observations and Findings

The Commission, after considering the submissions/ additional submissions made by PSPCL, observes and decides as under:

- i) The Commission notes PSPCL's submission that as a distribution licensee, it has a universal service obligation and needs to make alternative arrangements so as to minimise the inconvenience to the consumers of the State.
- ii) The Commission takes note of PSPCL's submission that the requirement of short-term power procurement is part of the energy requirement of 65016MUs already approved by the Commission in the Tariff Order for FY 2022-23 and the present

petition is for the approval of short term power purchase at rates beyond the Average power Purchase Cost (APPC).

- iii) The Commission notes PSPCL's submission that the demand is highly weather sensitive and there is always a high level of unpredictability in the demand analysis. PSPCL has faced power shortage during summer season of 2021 due to an extended dry spell during the month of June 2021.
- iv) The Commission observes that the Central Electricity Regulatory Commission vide Order dated 06.05.2022 in Petition No. 05/SM/2022 & Order 30.06.2022 in Petition No. 09/SM/2022 has fixed a price ceiling of Rs. 12/kWh for power procured through all segments (DAM, GDAM, RTM & TAM) of Exchanges up to 30.09.2022.
- v) **To avoid any shortage of power causing inconvenience to the consumers of the State, the Commission hereby approves the proposal of the petitioner with the direction that keeping in mind the need to keep PSPCL purchase costs at the minimum, all out efforts shall be made by PSPCL for purchase of short-term power in a judicious and economical viable manner after following due procedure as specified in the regulations notified by the Commission.**
- vi) The Commission also observes that in Petition No. 30 of 2021, PSPCL has requested to carry forward a shortfall of 898.70 MUs of Non-Solar and 92.26MUs of Solar RPOs for FY 2021-22 to FY 2022-23. **The Commission notes that renewable power is also available at very reasonable rates in the market and thus directs PSPCL to ensure that renewable power purchase is preferred while procuring the short-term power while keeping in mind commercial considerations in**

order to reduce the carry forward of RPO obligations requested by PSPCL.

The petition is disposed of accordingly.

Sd/-

(Paramjeet Singh)
Member

Sd/-

(Viswajeet Khanna)
Chairperson

Chandigarh

Dated: 09.08.2022

