BEFORE THE HARYANA ELECTRICITY REGULATORY COMMISSION AT PANCHKULA

Case No. HERC/Petition No. 13 of 2024
Date of Hearing : 14.05.2024
Date of Order : 15.05.2024

In the Matter of

Petition under Section 86(1)(b) of the Electricity Act, 2003 read with Haryana Electricity Regulatory Commission (Conduct of Business) Regulations, 2019 seeking approval of source and permission to schedule power for the procurement of 200 MW Hydro Power on Medium Term basis from Hydro Power Stations in Nepal for a period of five (05) years starting from year 1st July to 15th November each year at a tariff of Rs. 5.52/kwh at ISTS delivery point including trading margin of Rs. 0.04/Kwh along with approval of draft PPA.

Petitioner
Haryana Power Purchase Centre, Panchkula (HPPC)

Respondent
NTPC Vidyut Vyapar Nigam Ltd. (NVVN)

Present on behalf of the Petitioner
1. Ms. Sonia Madan, Advocate
2. Sh. Ajay Kumar Bansal, Xen, HPPC

Present on behalf of the Respondent
1. Shri Kundan Lal, Manager

Quorum

Shri Nand Lal Sharma	**Chairman**
Shri Naresh Sardana	**Member**
Shri Mukesh Garg	**Member**

ORDER

Brief Background of the case

1. The present petition has been filed by HPPC, seeking approval of source as well as draft PPA for procurement of 200 MW Hydro Power from Nepal for a period of five (05) years from 1st July to 15th November each year at a tariff of Rs. 5.52/kwh at ISTS delivery point including trading margin of Rs. 0.04/Kwh.
2. Petitioner's submissions are as under:-

2.1 That HPPC had earlier filed a Petition (No. 20 of 2023) before this Hon'ble Commission seeking approval of source for the procurement of 200 MW Hydro Power on medium term basis from Hydro Power Stations in Nepal during the months of June to October for a period of five (05) years starting from year 2023 till October 2027 at a tariff of Rs.5.45/kWh at delivery point of 400KV Muzaffarpur ISTS Substation of Dhalkebar

Muzaffarpur Cross-Border Transmission Line. The Hon'ble Commission, vide Order dated 08.05.2023, granted source approval. It was however, directed to negotiate the trading margin, in future so that it is not more than 3.5 paise per unit. It is hereby brought to the notice of the Hon'ble Commission that out of approved power source of 200 MW, only 109 MW was scheduled. Since the approved power was of cross border nature, approval of designated authority i.e. Ministry of Power (MoP) was required and same was accorded on 05.09.2023 for 109 MW out of 200 MW. Further, NVVN vide email dated 08.09.2023 informed that they had to submit applications to MoP for approval of supply for remaining 90 MW. As per information provided to the Petitioner, the said approval is still pending.

2.2 That NVVN, vide an email dated 27.07.2023, submitted their fresh proposal for supply of upto 300 MW hydro power from cross border at a tariff of Rs. 5.54/kWh. The relevant excerpts of the said offer is elucidated herein under : -

S.no.	***Description***	***Units***
1.	*Quantum*	*Upto 300 MW*
2.	*Delivery Point*	*ISTS Regional Periphery*
3.	*Period of Supply*	*1-July to 15-Nov in each year for a period of 5 years from start date of supply*
4.	*Proposed Tariff*	*Rs. 5.54/kWh (Including trading margin)*

2.3 That in response to the said offer, the petitioner vide email dated 11.08.2023 requested NVVN to intimate the month-wise quantum and trading margin corresponding to the proposal. Subsequently, NVVN vide email dated 16.08.2023**,** submitted the revised proposal as under-

S.no.	***Description***	***Units***
1.	*Quantum*	*Upto 200 MW*
2.	*Delivery Point*	*ISTS Regional Periphery*
3.	*Period of Supply*	*1-July to 15-Nov in each year for a period of 5 years from start date of supply*
4.	*Proposed Tariff*	*Rs. 5.54/kWh (Including trading margin of Rs. 0.06/kWh) payable by HPPC to NVVN*

2.4 That in view of the foregoing, the offer of NVVN along with other hydro offers were deliberated in 70th SCPP meeting wherein it was decided to call all the traders/generators for negotiation. In this regard, a meeting was convened on 28.12.2023 with all the traders/generators. Considering the directives of the Hon'ble Commission, the tariff was negotiated. As a result thereof, NVVN revised its offer. The relevant excerpts of the said minutes of meeting are reproduced herein below-

"In pursuance to the direction of SCPP in its 70th meeting in respect of proposals of Hydro power with HPPC in respect of 624 MW Kiru HEP of M/s NHPC and 900 MW Arun-3 HEP of SAPDC through M/s PTC ***and 200 MW cross border power from Nepal***

through M/s NVVN, a meeting has been convened on 28.12.2023 in the chamber of MD, UHBVN to negotiate the tariff offered by the generators/traders.

1. ***M/s NVVN's offer in respect of 200 MW cross border power from Nepal*** *M/s NVVN, in respect of its offer for* ***200 MW cross border power intimated that they have offered the best price and resisted to reduce the tariff. MD, UHBVN pressed to reduce the tariff and NVVN agreed to reduce the trading margin by 2 paisa thereby reducing tariff from Rs. 5.54/kWh to Rs. 5.52/kWh****.*

....." *(Emphasis Supplied)*

2.5 That the power from NVVN is required to meet the power demand during peak season. In the State of Haryana, power demand is increasing on account of rapid industrialization and mass urbanization. Additionally, the power demand of the State rises exponentially during the summer/paddy season due to power requirement of AP tubewell as well as air conditioning load. Considering the past trend of the maximum demand witnessed in the State, it is expected that the peak demand may cross 14000 MW in FY 2024-25. The brief details of year wise maximum demand are as under:

Year	Max. Demand (MW)
2021	12120
2022	12687
2023	13055

2.6 That HPPC is facing a deficit of power to meet the demand of the consumers of the State due to non-availability of power from CGPL Mundra & Faridabad Gas Power Plant (FGPP). Further availability of power from thermal power plants reduces owing to less availability of coal from mines in rainy season. In order to mitigate the coal shortfall in the supply of domestic coal, MoP issued various directives mandating blending of coal in the Thermal Power Plants. Considering the uncertainty in supply of coal to thermal power plants, hydro power offered by NVVN will be supplied round the clock in summer months and will help in meeting power deficit in the State of Haryana.

2.7 That as per the demand supply projections, the average deficit in the upcoming years is tabulated as under-

A. Mode of peak demand (considering all sources)

Month	FY 2024-25	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29
April	1729	1704	1241	747	1010
May	17	**-216**	**-904**	**-1603**	**-1490**
June	136	**-456**	**-1139**	**-1923**	**-2088**
Jul	**-460**	**-1012**	**-1649**	**-2424**	**-2578**
Aug	113	**-509**	**-956**	**-1663**	**-1744**
Sep	**-1870**	**-2771**	**-3483**	**-4355**	**-4317**
Oct	792	287	**-70**	**-512**	**-12**
Nov	2973	2649	2354	2042	2915
Dec	1997	1615	1279	924	1752

Jan	1695	1300	951	583	1397
Feb	1749	1357	1010	644	1461
March	2299	1917	1593	1548	2389

B. Mode of peak demand (considering all sources excluding CGPL & FGPP)

Month	FY 2024-25	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29
April	980	955	492	**-2**	261
May	**-732**	**-965**	**-1653**	**-2352**	**-2239**
June	**-613**	**-1205**	**-1888**	**-2672**	**-2837**
Jul	**-1209**	**-1761**	**-2398**	**-3173**	**-3327**
Aug	**-636**	**-1258**	**-1705**	**-2412**	**-2493**
Sep	**-2619**	**-3520**	**-4232**	**-5104**	**-5066**
Oct	43	**-462**	**-819**	**-1261**	**-761**
Nov	2224	1900	1605	1293	2166
Dec	1248	866	530	175	1003
Jan	946	551	202	**-166**	648
Feb	1000	608	261	**-105**	712
March	1550	1168	844	799	1640

2.8 That the projected power demand vis-à-vis actual availability shows that there is deficit in July to October each year. The current power procurement scenario based on medium term basis is feasible and favourable to the State of Haryana.

2.9 That the State of Haryana currently has a tied capacity of 14026.68 MW out of which large hydro share is 3060.47 MW i.e. 21.8%. The peaking power scheduled from NVVN will not only add to the hydro profile of the State but will also cover up the deficit in the months of July to October. The bifurcation of the contracted capacity on the basis of type of plant is as under-

Particulars	Contracted Capacity (in MW)	Contracted Capacity (in %)
Thermal	8138.84	58.02%
Large Hydro	3060.47	21.82%
Solar	1201.92	8.57%
Wind	714.65	5.09%
Gas	569.10	4.06%
Nuclear	100.93	0.72%
Sugar mill	95.20	0.68%
Small Hydro	73.20	0.52%
Biomass	72.37	0.52%
Total	**14026.68**	**100%**

2.10 That in order to meet the growing demand for the State, it is incumbent upon the Petitioner to have capacity addition in its power portfolio from various sources. The hydro power has an advantage as it suits the demand curve of the State and is also a renewable source of energy.

2.11 That it is pertinent to consider that the recent directives/advisories of Ministry of Power (MoP) aim towards sweeping energy transition effort to replace fossil fuel use. India is a

crucial player in the global clean energy transition. In order of facilitate the energy transition, MoP is constantly promoting renewable energy sources. MoP, vide notification dated 20.10.2023 specified minimum share of consumption from renewable energy sources. In the said notification, it is also specified that the hydro renewable component may be met from power outside India as approved by the Central Government. As such the cross-border power as sought to be approved in the instant petition will help meet the hydro energy component.

2.12 That, in case the petitioner buys deficit quantum through the power exchange(s) during the summer/ paddy season of the year 2024, there is a likelihood of procuring the power at an exorbitant price coupled with unreliable supply during the peak season which consequently shall lead to large scale power cuts for the consumers of Haryana. Further, for time slots where rates in power exchange are higher, there is difficulty in clearance of requisite bid quantum. The details of the power procured by the petitioner through power exchange in FY 2022-2023 and FY 2023-2024 is tabulated hereunder :-

Month	**Month wise Purchase of quantum during 2022-23**		
	Qtm (LU)	**Total Cost (Rs. in Lakh)**	**Landed cost (Rs/ kWh)**
Apr	5619.37	62661.02	11.50
May	5478.38	43433.84	8.20
Jun	5109.66	36327.65	7.35
Jul	2006.17	12064.33	6.22
Aug	3330.85	20577.17	6.40
Sept	4078.20	28938.93	7.31
Oct	274.60	1193.24	4.49
Nov	607.34	3109.81	5.32
Dec	1809.56	11862.33	6.83
Jan	2667.41	22846.18	8.95
Feb	3012.94	22362.93	7.72
Mar	869.51	4766.54	5.69
Total	**34863.98**	**270143.98**	**8.02**

Month	**Month wise Purchase of quantum during 2023-24**		
	Qtm (LU)	**Total Cost (Rs. in Lakh)**	**Landed cost (Rs/ kWh)**
Apr	432.03	4308.22	9.97
May	1284.13	10013.75	7.80
Jun	816.44	5919.38	7.25
Jul	264.41	1761.07	6.66
Aug	1431.91	12243.59	8.55
Sept	3229.80	24632.87	7.63
Oct	759.01	6361.17	8.38
Nov	318.83	1190.47	3.73
Dec	768.42	3504.22	4.56
Jan	3151.00	23768.25	7.54
Total	**12455.97**	**93702.98**	**7.52**

2.13 That the rates discovered by the petitioner in tender floated through DEEP Portal for procurement of power on short term basis is higher than the quoted offer of NVVN. The landed rates discovered are tabulated here under:-

Period	NIT-108		NIT-110		Total NIT-108 & 110	
	Total Quantum (MW)	Weighted Average Landed Rate (Rs./unit)	Total Quantum (MW)	Weighted Average Landed Rate (Rs./unit)	Total Quantum (MW)	Weighted Average Landed Rate (Rs./unit)
01-05-24 to 31-05-24	735	8.38	72	8.75	807	8.42
01-06-24 to 30-06-24	1188	7.29	247	8.09	1435	7.43
01-07-24 to 31-07-24	2090	6.91	247	7.93	2337	7.02
01-08-24 to 31-08-24	1915	6.74	197	7.95	2112	6.85
01-09-24 to 30-09-24	1890	6.64	222	7.95	2112	6.77
01-10-24 to 15-10-24	755	6.75	-	-	755	6.75
Weighted average Rate during 01-05-24 to 15-10-24	**6.99**		**8.04**		**7.10**	

The landed tariff of current proposal for 200 MW cross border power of NVVN at Haryana periphery shall be approx. Rs. 6.21/kWh [5.48 (tariff at delivery point) + 0.04 (Trading Margin) + 0.53 (Transmission charges) + 0.16 (Transmission losses)].

2.14 That considering the foregoing, the hydro power procurement from NVVN will help the petitioner to combat the deficit at a feasible tariff in comparison to the cost of power available in the exchange and the rates discovered in the current short-term tenders.

2.15 That Discoms are under a statutory obligation to supply 24×7 uninterrupted power supply in its licensed area. The Electricity (Rights of consumers) rules notified by Ministry of Power, GoI, also strive to establish that the consumers have the right to get reliable services and quality electricity from the distribution licensee(s) of his area. Accordingly, HPPC is making all the necessary steps and gear up it sources to ensure quality service and un-interrupted power supply in its licensed area

2.16 That the Petitioner-HPPC is making constant efforts to arrange a reliable and feasible power supply. Considering the position of power deficit in the State, growing requirement of power, HPPC considers that the sourcing of hydro power through NVVN will be in the overall interest of State of Haryana.

2.17 That the following prayers have been made:-

a) Grant source approval for procurement of up to 200 MW hydro power on medium term basis from hydro power stations in Nepal for a period of five (05) years starting from year 2024, 1st July to 15th November each year at a tariff of Rs. 5.52/kwh at ISTS delivery point including trading margin of Rs. 0.04/kwh;

b) Approve the draft PPA enclosed herewith as Annexure P-1;

c) Allow HPPC to schedule 200 MW hydropower from NVVN at a tariff of Rs. 5.52/kwh; and

d) Pass any other order(s) and or direction(s), which the Hon'ble Commission may deem fit and proper in the facts and circumstances of the case.

Proceedings in the Case

3. The case was initially heard on 09.04.2024, in the courtroom of the Commission, wherein the Commission observed that HPPC has itself shown availability of surplus power in the month of November in all the years from FY 2024-25 to FY 2028-29. Further, as submitted by the petitioner itself in its petition, the price of power in the power exchange, has shown declining trend in the month of November. Accordingly, HPPC was directed to review the present proposal of purchasing 200 MW power in the month of November (01st November to 15th November) in the FY 2024-25 to FY 2028-29. HPPC was further directed to certify on an affidavit that in projecting the deficit of power in the FY 2024-25 to FY 2028-29, all the power approved by the Commission till date including the recently approved short term power, has been considered and no other proposal of cheaper power is under consideration with HPPC.

4. The case was subsequently heard on 29.04.2024, wherein the petitioner produced an affidavit dated 25.04.2024, in pursuant to the directions of this Hon'ble Commission, in its interim order dated 09.04.2024. She pleaded that the delay has occurred on account of the revision of the proposal by the respondent, who have agreed to supply power from 15th June to 31st October each year for five years instead of the original proposal of 01st July to 15th November. However, from plain reading, the Commission observes that HPPC has projected demand availability scenario for the FY 2024-25, on the basis of 'peak demand', showing deficit in all the months from April to October, 2024. However, five years demand availability scenario has been projected on the basis of 'mode of peak demand', which shows deficit in the month of September 2024 alone and deficit in all the years from FY 2025-26 to FY 2029-30, in the months covered under the present petition. Accordingly, the Commission directed that there should be uniformity in the approach of the DISCOMs in projecting demand availability scenario and the historical peak demand based projection may not give the true picture as the peak demand might have touched only in some time blocks of the day. Further, the Commission perused the daily generation data being submitted by SLDC, Haryana, which shows that Discoms have sold 3933 lac units in the month of April, 2024, till 28.04.2024, in the power exchanges at rates ranging from Rs. 2.94/Unit to Rs. 5.83/Unit, as against the power procurement cost of Rs. 5.79/unit (360 MW power approved for a period of five years

vide order dated 25.10.23 in case no. 37 of 2023), thereby causing unavoidable losses. Additionally, HPPC was directed to factor in the impact of fixed cost on account of non-scheduling of power from M/s. CGPL with ECR of around Rs. 4.02/unit, in pursuant to the direction issued by the Ministry of Power under Section 11 of the Electricity Act, 2003. HPPC was advised to improve its power procurement planning, which should be considering all prevalent and forceable factors. In this regard, the Commission further observes that IMD has predicted above normal monsoon rains in 2024 due to a favorable weather pattern called *'La Nina'*, which is likely to meet the peak electricity demand of paddy season and has to be considered while projecting the demand-supply position of electricity in the State of Haryana during the July-September of the FY 2024-25 i.e. during paddy season. Taking the above into consideration, HPPC was directed to take a re-look at their proposal of purchasing 200 MW cross-border power for five years from 1st July to 15th November each year at landed cost of Rs. 6.21/kWh (approx.), particularly for the FY 2024-25, taking into consideration of the fact that such a high cost power cannot be used for banking. HPPC may review its power demand and availability scenario after considering all the power approved by the Commission, impact of '*La Nina*' and justifying the sale in the power exchange at a significantly lower price, in the month of April, 2024.

5. The case was next heard on 07.05.2024, wherein HPPC produced an affidavit dated 06.05.2024, in response to the directions of this Hon'ble Commission, in its interim order dated 29.04.2024.

6. **HPPC has submitted as under:-**

RE: JUSTIFICATION FOR SALE IN THE POWER EXCHANGE AT A SIGNIFICANTLY LOWER PRICE IN THE MONTH OF APRIL, 2024: -

6.1 That the Discoms are obligated to supply 24×7 uninterrupted power supply in the area of their jurisdiction. The Electricity (Rights of Consumers) Rules notified by Ministry of Power, GoI vide Order dated 22.02.2024, spells out the right of the Consumers to get reliable services and quality electricity from the distribution licensee(s) of his area.

6.2 That the observation raised by the Hon'ble Commission as regards sale of power by the HPPC in the exchange in the month of April, 2024 appears to be a *prima facie* view which needs a re-consideration in view of the complete factual position. Firstly, the demand of the State, admittedly, is variable in nature and vary from season to season, day-to-day and even in the time blocks during the day. The range of said variation has been witnessed from 1500 MW to 3500 MW. In the month of April, being the harvesting season of rabi crops, field offices keep the RDS and AP feeders switched off on the request of local farmers/panchayats to avoid any instance of fire to the ripened crops.

Resultantly, AP & RDS feeders were being run on minimum load during day hours which led to lesser consumption of power during certain days in April. Secondly, even during off-peak hours of the day, injection of tied up solar power in the grid added upto the surplus quantum. There was surplus quantum of about 3500 MW but in specific time slots. In that eventuality, HPPC, as per the prevailing Regulations and instructions, can surrender/backdown the generators under Merit Order Despatch only up to Technical Minimum equivalent or less than approx. 2500 MW. Therefore, any quantum beyond 2500 MW falls under 'must sell' category to maintain the Grid discipline and loss minimization. In that view, the sale of surplus power in exchange must follow as if the same is not sold, it shall account for Unscheduled Interchange (UI) resulting in heavy under drawal. The UI is levied as 'imbalance charges' which are linked with grid frequency for each time block of the day. DISCOMs endeavour to restrict themselves to overdraw/underdraw within permissible limits from the grid. The Grid Controller imposes penalty for the said UI as deterrent measure and to avoid this penalty, Discoms must sell off/purchase power in Power Exchange(s).

6.3 That the HPPC is committed to take effective feasible measures in the interest of the State. When the cost of power available in the Power Exchange(s) is lower than the variable cost of the tied-up sources, HPPC take steps to backdown the tied up sources upto Technical Minimum according to merit order and purchase power during those time slots from Power Exchanges, and vice versa.

6.4 That insofar as the facts and figures as regards sale of power for the month of April is concerned, the HPPC had sold total of 7182 LUs @ average rate of Rs. 4.77/unit out of which 979 LUs were sold @ Rs. 10/unit in April, 2024. The sale of power in the month of April, 2024 is marginally higher than Average Power Purchase Cost (APPC) for FY 2024-25 which is Rs. 4.60/unit, as approved by this Hon'ble Commission vide its order dated 05.03.2024. Nonetheless, HPPC has also purchased 64.71 LUs @ Rs. 5.09/unit in April 2024 owing to the variation in demand as elucidated hereinabove. It is also worthwhile to mention that HPPC also purchased 5619.37 LUs in April, 2022 at average rate of Rs. 11.50/unit and 449.35 LUs in April, 2023 at average rate of Rs. 9.97/unit.

6.5 That during the slots where the State of Haryana is in deficit, the Discoms are required to purchase power from the Exchange for as high Rs. 10/unit and only proportionate quantum gets clear from the required quantum. The demand cannot be predicted with 100% accuracy. For instance, the demand in the month April, 2023 was high due to uncertain weather and western disturbances whereas in April 2024, the demand is relatively lesser. The transition phase between the seasons is often uncertain and arbitrary in nature.

6.6 That the State of Haryana has a peculiar demand pattern where the demand during peak season typically lies around 13000 MW to 14000 MW whereas the demand in lean season hovers around 7500 MW. The availability during lean season reduces substantially due to annual maintenance of plants, reduction of hydro generation due to less availability of water in river etc. Therefore, surplus power available with Discoms during lean period, if any, is banked with other utilities so that the banked power shall be returned to the State in next summer/paddy season which help the Discoms to meet the deficit as well as reduce the dependency on power exchanges.

6.7 That regarding the observation of the Hon'ble Commission regarding impact of fixed cost on account of non-scheduling of power from CGPL, HPPC has submitted that the fixed cost is being paid to CGPL under protest and the pending litigations in that respect. HPPC had paid 50% of the total capacity charges i.e., Rs. 61,37,43,262/- for the period from 05.05.2022 to 31.12.2022 in compliance with the Order of the Hon'ble APTEL dated 18.04.2023. The matter is still *sub-judice* before Hon'ble APTEL in an Appeal No. 171 of 2022 filed by the HPPC. Further, the Ministry of Power has issued directions under Section 11 of the Electricity Act, 2003 firstly from 16.03.2023 to 30.06.2023, which was further extended from time to time and now up to 15.10.2024. HPPC is paying capacity charges under protest (after adjusting URS capacity charges payable by other beneficiaries to HPPC and sale of power by CGPL in power exchange) in compliance with the meeting held under aegis of CEA on 19th April 2023. The payment under protest was the only resort to avoid adverse consequences stipulated under LPS Rules, 2022. As such, the HPPC has taken all steps considering the larger interest of the State.

RE: DEMAND SUPPLY PROJECTIONS CONSIDERING El Niño and La Niña EFFECT -

6.8 That while carrying out forecasting for long term, HPPC uses methodology of Mode of Peak as the mode refers to most occurring values. The Mode of peak demand is computed on monthly basis by arranging peak demand felt during the last 10 years in ascending order and then finding the value (demand) which occurs most frequently. The mathematical model used to predict Mode of Peak demand is as under:-

$$M_0 = l + \left(\frac{f_1 - f_0}{2f_1 - f_0 - f_2}\right) h$$

Where,
M_0= Mode of Peak Demand
l = lower limit of the interval,
h = size of the interval
f_1= frequency of modal class
f_0= frequency of class preceding the modal class
f_2= frequency of class succeeding the modal class

HPPC has further submitted that while carrying out forecasting for short term, HPPC uses actual CAGR on the historic peak demand of the state. The HPPC has duly put forth demand supply projections both on mode of peak demand as well as peak demand vide Affidavit dated 26.04.2024. Considering these demand supply projections, the HPPC is fulfilling the demand with tied up long term/medium term sources and arranging the power to meet the deficit through long/medium term tender(s). Beside these, the remaining deficit power shall be arranged through short-term tenders on yearly basis. Any demand beyond aforementioned tie-ups is being met through Power Exchanges which also act as load balancing instrument to cater the instantaneous variation of demand during the day.

6.9 That the La Niña softens the peak demand of the State during ensuing paddy season. However, the proposal in question is medium term for a period of 5 years and considering the estimated deficit as per the demand supply scenario forecasted by HPPC, there will be requirement of power in the upcoming years where there will be no existence of such phenomenon. It is evident from the historic data that demand within a State consistently rises on an annual basis as its economic activities expand. The power procurement is planned considering the envisaged demand in future years.

6.10 That there is no specific methodology for integrating the influence of weather phenomenon such as El Niño and La Niña in the existing forecasted demand supply prepared by HPPC for the State of Haryana. Moreover, the day-to-day impact of weather is already being incorporated in the day ahead predictions which are being carried out through computerized automated system/software having machine learning developed by HARTRON.

6.11 That the power procurement sought for in the present petition is under medium term which will help meet power deficit in paddy season for next five years. The period considered for procurement of power is 15th June to 30th October during which the State has peak requirement of power. At such time, the power from exchanges becomes unreliable due to non-clearance of quantum owing to less availability of power pan India. It is also pertinent to consider that the tariff in recent medium term tenders ranges from Rs. 5.30/unit to Rs. 5.79/unit and therefore, the tariff of Rs. 5.52/unit for supply of power by the Respondent is just and reasonable. In order to bridge the gap between demand and supply, HPPC had also floated two 750 MW short term tenders for the period 1st May to 15th October in which the discovered tariff ranges from 6.72/unit to 8.75/unit at CTU periphery which is more than tariff of medium term power. The rates of recent short-term tenders floated by HPPC is tabulated as under for ready reference in this regard: -

S.No.	Short term tender specification	Tariff discovered at Haryana periphery excluding transmission charges (in Rs./unit)
1.	NIT-102	6.80
2.	NIT-103	7.85
3.	NIT-108	6.72
4.	NIT-110	8.75

6.12 That the State of Haryana has been constantly progressing as a dynamic and progressive State. Two-third of the State falls in extended National Capital Region and its power demand is increasing on account of economic growth to the tune of 7.10% per year, post COVID, resulting in rise of consumption in the industrial/commercial sectors in the State. Additionally, after considering the fact that the State of Haryana is an agrarian economy, the power demand of the State rises exponentially during the summer/paddy season due to AP load along with the air conditioning load in the commercial sectors. The year-wise details of maximum demand which have been successfully met by Discoms are as under –

Financial Year	Max. Demand (MW)
2021-22	12120
2022-23	12687
2023-24	13055
2024-25	14287*

*Considering the historical peak demand felt during last 10 years and restricted CAGR @ 6.12% as per 20th Electric Power Survey (EPS) report of CEA, it is expected that the peak demand may cross 14000 MW in FY 2024-25

6.13 That the HPPC endeavours not only to arrange a reliable and quality power supply during peak/summer/paddy season but also try to optimize the cost of power procurement by constantly looking for opportunity to purchase cheaper power and banking of surplus power in lean season. Considering the position of power deficit in the State and the growing requirement of power, the sourcing of hydropower through NVVN, in the wisdom of HPPC, is in the overall interest of State of Haryana.

6.14 That in light of the foregoing factual position, HPPC prayed that the Hon'ble Commission may kindly grant source approval for procurement of up to 200 MW hydro power on medium term basis from hydro power stations in Nepal for a period of five (05) years starting from year 15th June to 31st October each year at a tariff of Rs. 5.52/kwh at ISTS delivery point including trading margin of Rs. 0.04/kwh and approve the draft PPA thereby allowing scheduling of power w.e.f. 15th June, 2024.

Commission's Analysis and Order

7. The case was finally heard on 14.05.2024, wherein HPPC gave a detailed presentation of the power demand-supply scenario projected by it from FY 2024-25 till 2030-21 and averred that there are supply side constraints due to uncertain availability of china made power plants and expected delay in commercial operation date of some of the upcoming projects. The Commission has considered the submission and justification of the petitioner for procurement of 200 MW Hydro Power from Nepal for a period of five (05) years starting from 15th June to 31st October (revised from 1st July to 15th November) each year at a tariff of Rs. 5.52/kwh at ISTS delivery point.

8. The Commission notes that the landed tariff of current proposal for 200 MW cross border power of NVVN at Haryana periphery shall be approx. Rs. 6.21/kWh [5.48 (tariff at delivery point) + 0.04 (Trading Margin) + 0.53 (Transmission charges) + 0.16 (Transmission losses)]. The Commission observes that the the demand-supply position, for the FY 2024-25 to FY 2030-31, portrayed by HPPC, on the basis of mode of peak demand, shows deficit of 215 MW in the month of June and 1286 MW in the month of September, during the FY 2024-25. Whereas, in the remaining months of the FY 2024-25, no shortfall of power has been projected. Even, while projecting this shortfall in the month of June and September, HPPC has not considered the IMD (India Meteorological Department) prediction of above normal rainfall in 2024 due to favorable weather pattern caused by the impact of the 'La Niña' which admittedly softens the peak demand of the State during ensuing paddy season. The Commission has further considered the submissions of HPPC that the proposal in question is for medium term involving a period of five years and that there will be requirement of power in the upcoming years where there will be no existence of such phenomenon.

9. The Commission has noted with concern the submissions of HPPC that there is no specific methodology for integrating the influence of weather phenomenon such as El Niño and La Niña in the demand supply forecast of power prepared by HPPC. Whereas, the day-to-day impact of weather is already being incorporated in the day ahead predictions.

10. The Commission has taken note of the submissions of HPPC that it has sold total power of 7182 LUs @ average rate of Rs. 4.77/unit in the month of April, 2024. Further, non-scheduling of power from M/s. CGPL with ECR of around Rs. 4.02/unit, defying the direction issued by the Ministry of Power under Section 11 of the Electricity Act, 2003, has resulted in the payment of 50% of the total capacity charges i.e., Rs. 61.37 crore, by HPPC, for the period from 05.05.2022 to 31.12.2022

11. The Commission has taken note of the submissions of Shri Kundan Lal, representative of NVVN present in the hearing that the approval of the Ministry of Power (MoP) shall be sought after the source and PPA is approved by this Hon'ble Commission and the same may take considerable time. Shri Lal further informed that approval of MoP is pending even for the balance power of 90 MW out of 200 MW cross border power approved last year.

12. Having observed as above, the Commission is conscious of the fact that with the demand is rising significantly due to rapid industrialization/commercialization and with the constrained supply of power, HPPC may have deficit during the ensuing years. Further, non-availability of certain intra-state thermal generators due to technical glitches/unforeseen circumstances, cannot be ruled out. Even 600 MW RGTPS-Unit 2 is boxed up since last two days, reportedly due to high vibration in Turbine Generator set and is expected to take time for import of equipment from Original Equipment Manufacturer (OEM) in China, which may result in shortfall of power during the current paddy season. Additionally, the short-term rates in the power exchanges are also expected to be exorbitant during the peak months as the power demand in the entire northern region increases during the months from 15th June to 31st October. Hence, the Commission, has considered it appropriate to grant the approval as sought in the present petition for a period of five (05) years from 15th June to 30th October each year.

13. Accordingly, the draft PPA attached with the petition is also approved. The petitioner is directed to file the copy of the signed PPA in the Commission, within two weeks from the date of signing of the PPA.

14. In terms of the above order, the present petition is disposed of.

This order is signed, dated and issued by the Haryana Electricity Regulatory Commission on 15.05.2024.

Date: 15.05.2024 Place: Panchkula	(Mukesh Garg) Member	(Naresh Sardana) Member	(Nand Lal Sharma) Chairman