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National Electric Power Regulatory Authority Islamic Republic of Pakistan

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No. NEPRA/R/SA(Tariff)/TRF-172/SHPL-2011/14705-14707

June 9, 2020

Subject: **Decision of National Electric Power Regulatory Authority in the matter of Petition for Modification of EPC Reference Tariff filed by Central Power Purchasing Agency Guarantee Limited (CPPA-G) for 147 MW Patrind Hydro Power Project (Case No. NEPRA/TRF-172/SHPL-2011)**

Dear Sir,

Please find enclosed herewith the subject decision of the Authority (08 Pages) in Case No. NEPRA/TRF-172/SHPL-2011.

2. The decision is being intimated to the Federal Government for the purpose of notification in the official gazette pursuant to Section 31(7) of the Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997.

3. Order of the Authority's Decision is to be notified in the official Gazette.

Enclosure: As above


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(Syed Safer Hussain)

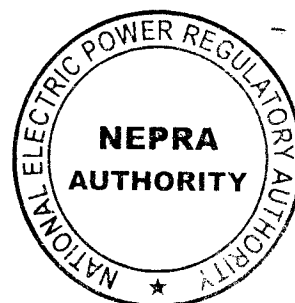
Secretary
Ministry of Energy (Power Division)
'A' Block, Pak Secretariat
Islamabad

CC: 1. Secretary, Cabinet Division, Cabinet Secretariat, Islamabad.
2. Secretary, Ministry of Finance, 'A' Block, Pak Secretariat, Islamabad



**DECISION OF NATIONAL ELECTRIC POWER REGULATORY AUTHORITY IN
THE MATTER OF PETITION FOR MODIFICATION OF EPC REFERENCE
TARIFF FILED BY CENTRAL POWER PURCHASING AGENCY GUARANTEE
LIMITED (CPPA-G) FOR 147 MW PATRIND HYDRO POWER PROJECT**

1. Star Hydro Power Limited (herein referred as the "Project Company" or "SHPL") has setup a 147 MW Patrind Hydro Power Plant (the Project) in the territory of Azad Jammu and Kashmir (AJ&K).
2. The Authority granted permission to CPPA-G for procurement of power from Patrind Hydropower Project on September 29, 2008, and thereafter approved the levelized feasibility stage Tariff of Rupees 4.8223/kWh (US cents 6.1042/kWh) at a reference exchange rate of PKR 79 per US Dollar) vide decision dated February 13, 2009.
3. The Authority on January 27, 2012, under Regulation 5(6) of IPPR, approved the Power Purchase Agreement between CPPA-G and SHPL for procurement of power from 147 MW Patrind Hydropower Project, at a negotiated tariff of Rs. 7.0496/kWh (US cents 8.2936/kWh at US\$D/PKR exchange rate of Rs. 85.0) levelized over a period of 30 years starting from Commercial Operation Date (COD).
4. CPPA G, vide letter dated August 16, 2018, forwarded a Tariff Modification petition submitted by SHPL in respect of Modification of EPC Stage Level Tariff for 147 MW Patrind Hydropower Project. The Authority after detailed deliberation on the Tariff Modification Petition decided vide its decision dated January 18, 2019, that the Tariff Modification Petition was not maintainable and can only be considered if both CPPA-G and SHPL agree on the amendment of the PPA and then send the amended PPA for approval of NEPRA.
5. Later, SHPL, vide letter dated February 01, 2019, submitted a Review Motion against the aforementioned Decision of the Authority dated January 18, 2019. The Authority admitted the subject Review Petition for further processing, on which hearing was held on August 21, 2019, attended by representatives of SHPL, PPIB, CPPA-G, and legal counsel of SHPL, however the same was adjourned on SHPL's request.
6. The Authority rescheduled the hearing which was then held on October 10, 2019. After considering the argument put forward for maintainability of review petition of SHPL, the Authority decided to admit the Tariff Petition against which the Review Motion was filed and also decided to provide an opportunity of hearing on the contents of modification, communicated to SHPL vide letter dated January 13, 2020.
7. Subsequent to the admission of the instant petition, the Authority held hearing in the matter on January 17, 2020, at NEPRA Tower, Ataturk Avenue (East), G 5/1, Islamabad. Accordingly advertisement was published in national dailies on January 09, 2020 and notices of hearing were sent on January 14, 2020.





Modification Request

8. SHPL vide the Modification Petition has claimed an additional amount of USD 7,872 million to the already approved Project Cost of USD 362.392 million, resulting in the modified project cost of USD 370.264 million.
9. Brief of the revised project cost as per the Modification Petition is as under:

Item	Reference EPC Stage	Modified Cost	Difference
US\$ in Millions			
EPC Costs	289.775	289.775	-
Land Cost for Pond, Structure and Right of Way	0.700	0.700	-
Advisory Costs	7.346	10.662	3.316
Company Operation & Administration Cost	6.580	9.200	2.620
NTDC Independent Engineer Fee	0.300	0.300	-
Permission and Approval Fee	0.200	0.200	-
O&M Mobilization Cost	0.750	0.750	-
Customs Duty	4.970	4.970	-
Taxes on Advisors	0.485	0.485	-
Construction Phase Insurance	7.369	7.369	-
Lender's Financing Fee	5.017	5.139	0.122
Lenders' Advisory Fees	1.800	1.800	-
L/C and Guarantee	0.103	0.103	-
Interest During Construction (IDC)	36.997	37.661	0.664
Security Cost	-	1.000	1.000
Environment & Social Cost	-	0.150	0.150
Total Project Cost in USD	362.392	370.264	7.872
Total Project Cost in PKR	30,803	31,472	669.120

Comments of Stakeholders

10. NTDC vide its letter dated August 16, 2019, filed an intervention request and submitted as under:
- The modification petition if accepted will result in the consequential changes in the terms, rates and conditions of the PPA for which NTDC's consent is required and has not been solicited/obtained.
 - No adjustment should be allowed on account of additional costs claimed by SHPL due to delay in achieving COD as the issue is in dispute and pending adjudication by an expert (Mr. Badr ul-Murtiza appointed in terms of section 18.2 of the PPA) and the same does not lie within the jurisdiction of the Authority.



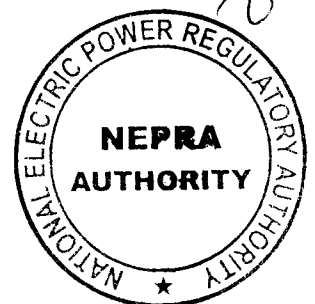


- iii. SHPL's unilateral change in the design of the sand trap is in violation/breach of PPA under section 4.1(a), where SHPL cannot approve design without an amendment to the PPA.
11. CPPA-G vide letter dated August 20, 2019, referred its letter dated August 16, 2019, and submitted that it had already conveyed NEPRA that "CPPA-G does not support the modification of EPC Stage Tariff of the subject project as this has not allowed in the mechanisms as defined by NEPRA". Also referring to its letter dated February 27, 2019, CPPA-G in reply to NEPRA letter dated January 18, 2019, stated that "...Patrind HPP has already achieved its COD and its project cost has achieved finality and thus concluded. Therefore despite any precedence in the part, it is not prudent to re-open the EPC Stage Cost."
12. Punjab Power Development Board, Energy Department (PPDB) vide its letter dated February 06, 2020, submitted that "The Sponsor's cost modification request is neither covered in the negotiated & approved tariff by NEPRA nor is covered under the Mechanism upon which the Agreement has been based. None of the requested elements falls in the purview of adjustment provided in the negotiated tariff and Mechanism. Therefore, the Sponsor's request will tantamount to reopening of tariff negotiations and may not be supported."
13. PEDCO vide its letter dated January 23, 2020, highlighted the issue of Energy payments of the Patrind HPP in terms of Water Use Charge (WUC) to be determined at the rate of Rs.0.425/kWh instead of Rs.0.15/kWh, however, the submitted comments did not pertain to the modification petition of SHPL, thus not considered under this petition.

Proceedings

14. Based on the comments of stakeholders, relevant professionals and contents of the Review Petition, the following list of issues were framed and discussed for deliberation:

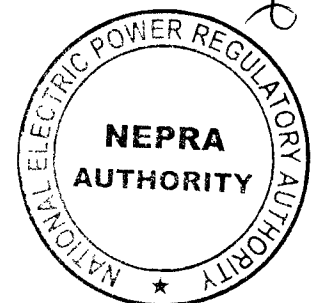
- Issue # 1) Implications of Change in Design of the project on reference EPC price.
- Issue # 2) Mutual agreement of CPPA-G and SHPL regarding amendment of the PPA.
- Issue # 3) Additional Security Cost incurred by Project Company.
- Issue # 4) Additional Environment & Social Costs incurred by Project Company.
- Issue # 5) Additional Advisory costs incurred by the Project Company.
- Issue # 6) Additional Operation & Administration cost incurred by the Project Company.
- Issue # 7) Additional costs resulting from delay in the financial close of the project.
- Issue # 8) Additional costs from delay in Achieving Commercial Operations Date.





Issue # 9) Increase in variable and fixed O&M cost already allowed to the Project Company

15. Brief grounds submitted by the SHPL which has been reflected in its modification petition and also recorded during the hearing are as follows:
- i. Design Change: it is important to highlight here is that SHPL did not mention the issue of deduction in cost due to design change in its modification request. However, it disagreed to the PPIB's Panel of Expert's decision on design change of sand trap through modified pool and bypass tunnel dated July 31, 2019 wherein PPIB recommended a deduction of USD 18.094 million from the approved EPC cost of the Project. SHPL subsequently submitted that it rejects the basis provided by PPIB for POE's design change and requests PPIB to share the details based on which such deductions are recommended.
 - ii. Amendment of PPA: SHPL submitted that no amendment in the PPA can be made without the approval of NEPRA Authority
 - iii. Additional Security Cost: According to SHPL there is no component of security in the EPC Reference Tariff, however, due to the adverse situation of the country the police departments of the provincial governments of AJK and KP directed the Project Company to acquire additional security services, for which and SHPL has requested for an increase of USD 1 million as modified security cost.
 - iv. Environmental and Social Cost: SHPL stated that no environmental and social cost has been allowed in the EPC Reference Tariff, and due to an obligation by the lenders (International Financial Institutions) to undertake additional environmental & social activities which resulted in additional costs for the Project Company, SHPL thus requested for an increase of USD 0.15 million as modified environmental and social cost.
 - v. Additional Advisory Cost: SHPL requested for an increase of USD 3.316 million as additional advisory cost, the reason for which is due to delay in achieving Financial Close and Commercial Operations Date.
 - vi. Additional Project Company Cost: SHPL vide the Modification Petition has requested for an increase of USD 2.620 million as additional Project Company cost, the reason for which is due to delay in achieving Financial Close and Commercial Operations Date.
 - vii. Additional Cost resulting from Delay in Financial Close: SHPL vide the Modification Petition has requested for additional costs (advisory and company cost) due to delay of about 1 year in achieving Financial Close, which was consequent to delay in land acquisition and execution of concession agreements.



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- viii. Additional Cost resulting from Delay in Commercial Operation Date: SHPL vide the modification petition has requested for additional costs (IDC and lender financing fees) due to delay of about 233 days in achieving Commercial Operations Date, which was consequent to delay in the provision of Power Purchaser's interconnection facilities by NTDC/CPPA-G.
- ix. Increase in Variable and Fix O&M Cost: SHPL vide the modification petition has requested for an increase in variable O&M and fixed O&M (foreign + local) cost which includes the procurement of VSAT link (requirement of the power purchaser), social and environmental obligations by the lenders (river flora/fauna, environmental mitigation and restoration plans) and cost of security services by local police (AJK & KPK).

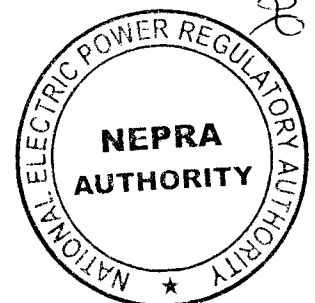
Decision of the Authority

16. Regarding the issue of design change of the project, the Authority noted that this issue was brought to its notice by CPPA G vide its letter dated July 04, 2016. The Authority subsequently directed CPPA G on September 09, 2016, to obtain the approval of the change in the design of the project along with the possible implications on the cost of the project. NEPRA also directed PPIB to obtain Panel of Expert (POE) opinion for any design change. PPIB then engaged POE and had several meetings on the subject with relevant stakeholders such as NTDC, CPPA G, NEPRA, SHPL etc. PPIB on July 31, 2019, submitted minutes of the POE meeting held on May 14, 2019, where POE conveyed its decision on the subject. The minutes stated that the services of an independent consultant was hired for the purpose which was later chosen to be Associated Consulting Engineers (ACE). The ACE submitted a report on the given ToR which was presented before the POE. According to PPIB, ACE highlighted the details along with the associated cost of following major eliminated structure as well as newly added or revised structure related to the revision in Sand-Trap design:

- a) *Removal/Elimination of Sand Trap*
- b) *Downstream shifting of Weir and an increase in its size*
- c) *Modification of Spillway*
- d) *Modification of Power Intake*
- e) *Addition of Bypass Tunnel for Sediment Flushing*

PPIB informed that regarding the prudence of the cost related to the revision in sand trap design, the POE as a matter of principle agreed that:

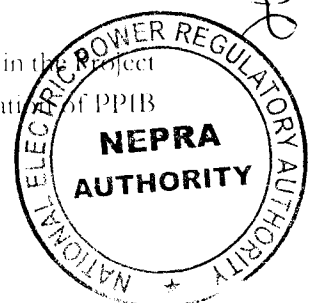
- i. *If there is any structure or component which was part of the design but was not constructed, its 100 % cost should be eliminated from the Total Cost*
- ii. *Any Sunk Cost added in this regard should also be subtracted from the Total Cost*



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- iii. *If there is any new structure or component which was required to be part of the previous design for safe operation of the Project but missed by the sponsors, its cost should not be added in the Project cost*
- iv. *If any structure does not relate with the change in Sand-Trap Design, it should not be considered as part of the current POE approval; and*
- v. *A prudent cost of modified and new structures should be considered.*
17. Based on the above principles, the POE recommended a total EPC cost of USD 271,680,648 compared to USD 289,775,002 approved in the reference EPC tariff, for consideration of NEPRA and made the following decision.
- I. *The POE approved the elimination of earlier Sand-Trap structure and provision of Sand-Trap functionality through modified pool etc., subject to the condition that the Project Company shall be bound to keep such functionality intact throughout the terms of the Project. Any additional operational cost if required, on account of change in the design of Sand-Trap structure, shall be the responsibility of the Project Company*
- II. *Revision in the cost is related to the change in the design of Sand-Trap structure only. Any re-opener or claim available under PPA and/or NEPRA's Tariff Approval/ Hydro Tariff Frameworks/ Guidelines will be reviewed and decided by NEPRA.*
- III. *POE approved the revision in the cost based on estimates provided by M/s Star Hydro Limited; however, NEPRA may review/ analyze the matter based on the detailed information/ documentation provided by the Project Company at the time of True-up of the Tariff for Patrind Hydropower Project.*
18. During the hearing, the Authority observed that SHPL agitated that the basis of cost savings recommended by PPIB was not shared and that their calculations should be based on detailed BOQs and unit rates. The PPIB was directed by the Authority thereon during the hearing to submit the complete detailed calculations. The PPIB vide letter dated 13th February 2020 provided elaboration on their recommendations, however, the SHPL insisted that their demand for providing BOQs and unit rate level calculations have not been fulfilled by PPIB.
19. The Authority after carefully reviewing the documents submitted by PPIB and the manner in which such deductions were computed noted that the approach used by POE to work out the cost differential is best possible effort, as the SHPL's request to use BOQ's may not be possible at this stage. The Authority also noted that the BOQs was developed by the SHPL itself and the modified design undertaken by it could not be evaluated on such numbers which are relevant for a different approach. Therefore, in the opinion of the Authority SHPL's request for evaluation of each cost on BoQ basis may not be justified.
20. In view of the above, the Authority opined that the savings made due to design change in the Project Cost of SHPL should be passed on to the end consumers, therefore the recommendation of PPIB



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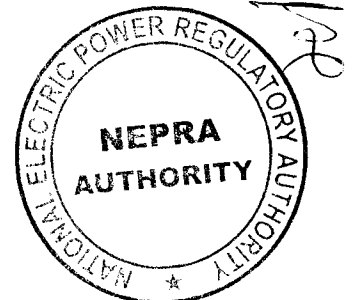


(POE) to deduct USD 18.094 million is justified and accordingly it has been decided to be deducted at the time of SHPL's COD adjustment request.

21. The Authority noted that providing adequate security to any project working in remote areas is a genuine requirement. In the instant case, it was noted that the cost of additional security was paid to Provincial Governments, Police Department (Abbottabad & Muzaffarabad). Therefore, the request of SHPL is in principle allowed. However, this cost shall be considered for SHPL at time of COD Stage Tariff based on verifiable documentary evidence and provided that the SHPL establishes that such cost is not covered in any other approved project cost line item.
22. The Authority also noted that the Project Company has claimed that previously no environment and the social cost was allowed in reference EPC tariff, a statement which is not correct, as the environmental cost of USD 0.5 Million has already been allowed under their EPC cost. And it shall be reviewed at the time of COD adjustment that if actual cost on this account works out to be lower than the approved cost of USD 0.5 million, a deduction shall be made in the project cost.
23. With regards to additional costs claimed by the Company in respect of Advisory Cost, Company cost, Lender Financing Fees, Interest During Construction which were due to delay in achieving Financial Close (F.C) date and Commercial Operation Date (COD) of the company, the Authority noted that this matter should have been minimized by the Project Company themselves, therefore the request for an additional cost on these accounts is rejected.
24. Regarding the additional costs claimed by the Project Company due to delay in achieving COD is in dispute and pending before an expert appointed under the terms of the PPA. Regardless of the outcome, the Authority as a matter of principle don't allow additional cost to be passed on to consumers because of inefficiencies of any party NTDC, Project Company or CPPA-G etc. therefore, the request of SHPL in this regard is rejected
25. The O&M cost as claimed by the Project Company is higher than what is actually paid to the O&M contractor, thus the increase in these cost does not warrant any change. In fact, at the time of COD, the Authority shall deduct annual approved O&M expense, provided the actual O&M expense on this account works out to be less than allowed.

Order

26. Given the above, the Authority considers that the modification petition filed by the CPPA-G on behalf of SHPL does not warrant any change in the approved tariff. However, the following matters shall be addressed in the SHPL's COD adjustment request:
 - i. Deduction of USD 18.094 million from the EPC cost.
 - ii. Deduction in civil works cost escalation cost consequent to deduction of above EPC cost.
 - iii. Consideration of additional security cost based on verifiable documentary evidence on the condition that the same is not claimed under any other head of the approved Project Cost.
27. In light of the above, the modification petition is disposed of.



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28. The above Order of the Authority shall be notified in the Official Gazette in terms of Section 31(7) of the Regulations of Generation, Transmission and Distribution of Electric Power Act, 1997.

AUTHORITY

Saif Ullah Chattha

Member

12.5.2020

Rehmatullah Baloch

Member

Rafique Ahmed Shaikh

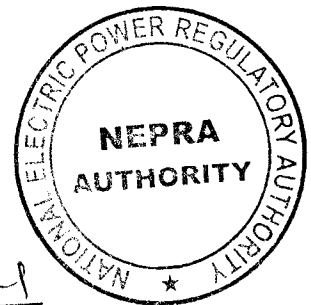
Member

Engr. Bahadur Shah

Member

Tauseef H. Farooq

Chairman



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