



Registrar

National Electric Power Regulatory Authority
Islamic Republic of Pakistan

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No. NEPRA/PAR-124/15627-15629
October 11, 2018

Subject: Decision of the Authority in the matter of Motion for Leave for Review filed by Central Power Purchasing Agency (Guarantee) Ltd. against NEPRA's Decision dated 02.04.2018 [Case No. NEPRA/PAR-124]

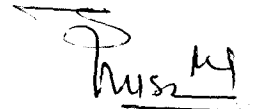
Dear Sir,

This is in continuation of this office letter No. NEPRA/PAR-124/5351-5353 dated April 2, 2018 whereby Determination of the Authority in the matter of Proposal for Approval of EPC Stage Tariff of Kohala Hydropower Project filed by Central Power Purchasing Agency (Guarantee) Ltd. was communicated to the Federal Government for notification in the official Gazette.

2. Enclosed please find herewith the subject Decision of the Authority along with Annex-I, II, III, IVa and IVb (30 pages).
3. 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.
4. Order of the Authority's Decision is to be notified in the Official Gazette.

Encl: As above

Enclosure: As above



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(Syed Safer Hussain)

Secretary
Ministry of Energy
'A' Block, Pak Secretariat
Islamabad

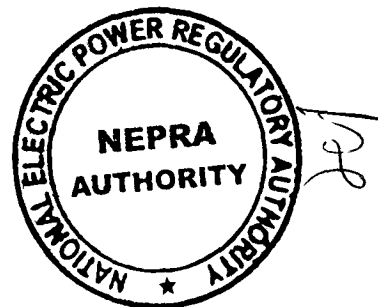
CC:

1. Secretary, Cabinet Division, Cabinet Secretariat, Islamabad.
2. Secretary, Ministry of Finance, 'Q' Block, Pak Secretariat, Islamabad.



**DECISION OF THE AUTHORITY IN THE MATTER OF MOTION FOR LEAVE FOR
REVIEW FILED BY CENTRAL POWER PURCHASING AGENCY AGAINST NEPRA'S
DECISION DATED 02.04.2018**

1. Brief facts leading to the disposal of the case are that pursuant to Regulation 3 of Import of Power Regulations, 2017 (hereinafter referred as “Regulations”), Central Power Purchasing Agency (Guarantee) Limited (hereinafter referred to as “CPPA”) had filed a tariff proposal dated October 10, 2017 for determination of rates proposed by 1124 MW Kohala Hydropower Project (Hereinafter referred as “the Project”) located in the territory of AJK. After observing due process of law, the determination into the matter was issued by NEPRA on April 02, 2018.
2. Kohala Hydro Company (Private) Limited (hereinafter referred as “Project Company”) being aggrieved opted to file a review motion against the determination dated April 02, 2018. Since the Project Company could not file the review petition directly before NEPRA, therefore, it approached CPPA for the purposes, accordingly, the review petition of Project Company was simply forwarded by CPPA (G) to NEPRA for consideration along with its own comments.
3. The request forwarded by CPPA (G) seeking review of the determination dated April 02, 2018 (hereinafter referred as “Impugned Determination”) was considered by the Authority and it was admitted on July 10, 2018 for further proceedings. It was also decided to provide an opportunity of hearing to the parties to the proceedings; accordingly, the hearing in this regard was held on July 19, 2018, for which letters of invitation for participation and submission of comments were sent to the major stakeholders. The hearing was attended by representatives of Kohala Hydropower Company Limited (KHCL), Private Power & Infrastructure Board (PPIB), and Azad Jammu & Kashmir Power Development Organization (AJK-PDO), and others. No written comments or Interventions were filed by any of the stakeholders.
4. **Review was sought in respect of following components of tariff contained in the Impugned Determination:-**
 - i) Engineering & Supervision costs;
 - ii) Community Investment Plan;
 - iii) Project Development cost;
 - iv) Sinosure cost;
 - v) Financing fees and charges;
 - vi) Financing spreads on local loan.



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5. Within the principles provided under NEPRA (Review Procedure) Regulations, 2009, a review is competent only on account of some mistake or error apparent on the face of record or from any other sufficient reasons.
6. Having heard the respective contentions raised by the Project Company and other stake holders as well as written comments filed by CPPA(G) and after perusal of the record, head-wise findings of the Authority are as under:-

i. **Engineering & Supervision costs:**

Under the head of Engineering & Supervision cost, review of the following sub-heads have been requested:-

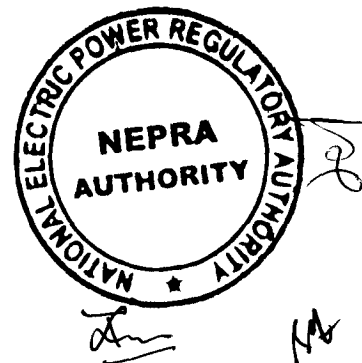
- a. Owner's Engineer;
- b. Independent Engineer and Reopener Verifier under PPA.

In the Impugned Determination, the Authority allowed a cost of US\$ 20.7 million for Owner's Engineer, whereas a combined cost of US\$ 1 million was allowed for Independent Engineer (IE)/Reopener Verifier (RV).

As per review, it is requested to consider the fact that owner's engineer (OE) has been selected by the Project Company after an International Competitive Bidding; and based on that allow a minimum base price of USD 23.5 million under the contract already executed with owner's engineer, Lahmeyer Consortium. The CPPA opposed the request of KHCL regarding Owner Engineer cost, stating that the investigation, detail engineering and design are usually carried out by the EPC contractor in EPC mode thus the role of owner's engineer is rather limited. In view thereof the CPPA do not consider the Owner Engineer cost of KHCL to be appropriate and support the decision already taken by the Authority.

KHCL submitted that the allowed amounts of US\$ 0.5 million each for Reopener Verifier and Independent Engineer are insufficient to cover costs to be incurred by Project Company; and requested the Authority to allow US\$ 1 million and US\$ 1.3 million for IE and RV respectively, to be adjusted on the basis of actual at COD. The CPPA opposed this request of KHCL, stating that the costs allowed in the Impugned Determination for IE and RV are in line with the costs allowed to other hydropower projects keeping in view the scope, size and period of excavation. The CPPA supported that IE and RV cost should be maintained at US\$ 0.5 million each.

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The facts mentioned by KHCL for Owner's Engineer cost have already been considered by the Authority at the time of the Impugned Determination. No new convincing evidence or facts have been provided in this matter. Therefore, the justifications provided do not warrant review of the Owner Engineer cost allowed for Kohala HPP. The request of KHCL in this regard is denied.

Further, the Authority noted that the CPPA have not endorsed the Project Company's argument that the scope of work for the Independent Engineer has increased due to new tripartite PPA, and hence the allowed IE cost has been recommended by CPPA to be retained. However, after reviewing the scope of work of RV for Kohala HPP with approx. 36 km of tunneling works, the Authority considers that the argument of KHCL is legitimate. Hence the Authority has decided that cost of RV be capped at US\$ 1.0 million instead of US\$ 0.5 million as indicated by CPPA. The combined cost cap for IE/RV is therefore allowed to be increased to US\$ 1.5 million as opposed to US\$ 1.0 million allowed in the Impugned Determination.

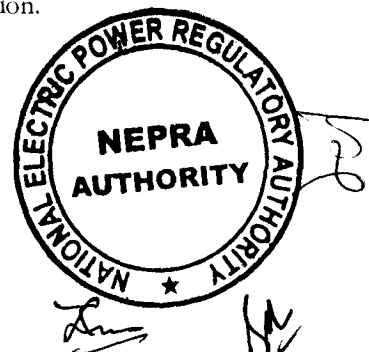
ii. **Community Investment Plan (CIP):**

In the Impugned Determination, the cost claimed by KHCL for Community Investment Plan (CIP) at the time for CIP, i.e. US\$ 5.7 million, was allowed as the maximum cap.

KHCL submitted that in their earlier submission, the requested amount was based on initial estimates and were under a request to be allowed on actual basis at COD tariff stage. KHCL submitted that since the Authority has an intention to put a cap, it is requested to increase the cap under CIP from US\$ 5.76 million to US\$ 7.029 million. KHCL submitted that based on recent discussions with the relevant authorities of AJK, following development works under CIP have been agreed:

| S.N. | CIP Schemes | US\$ Mill |
|------|---|-------------|
| 1 | Communication (including Roads, Village Paths & Bus stations) | 2.09 |
| 2 | Water, Sanitation and Waste management | 1.83 |
| 3 | Community Services (including Public parks, community centers etc.) | 1.51 |
| 4 | Health Facilities, Education & Training | 1.59 |
| | TOTAL | 7.03 |

However, the CPPA opposed the request of KHCL stating that the cap of US\$ 5.7 million is sufficient to meet CIP under the requirement of EPA. The CPPA recommended that there is no need to increase this cost cap from US\$ 5.7 million to US\$ 7.03 million.



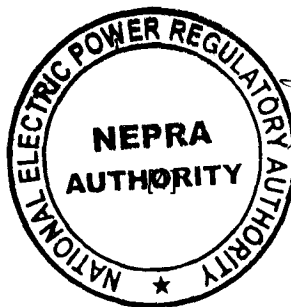


The Authority noted that no additional study has been conducted to rationalize the increase in this cost. More importantly, to increase a cost above the initially claimed amount falls outside the scope of a Review Motion. Keeping in view the costs allowed to similar hydropower projects under this head as well as the comments of the CPPA, the Authority considers that the cost of US\$ 5.7 million allowed to KHCL for CIP is sufficient. The request of KHCL to increase the cost cap is, therefore, denied.

iii. **Project Development cost**

KHCL submitted that the Authority has allowed CPEC security cost as part of the project development cost; and requested that this cost should be allowed in addition to the Project Development Cost, as allowed to other CPEC projects in compliance of Authority's decision for the Induction of Security Cost for CPEC projects dated 3rd August 2017. The CPPA opposed the view of KHCL stating that the cost approved by the Authority for Kohala hydropower project is high compared to other hydropower projects and the decision of the Authority is quite clear, that the Security cost of the Project Company shall be adjusted at the time of the COD. CPPA is of the view that Authority has accommodated the security cost under CPEC and there is no need to mention it separately as requested by the Project Company.

In the Impugned Determination, the allowed total Project Development cost includes the maximum CPEC security cost payable by the Project during the construction period, whereas the CPEC security cost payable by the Project will be adjusted as per the actual cost paid by the Project Company at the time of COD; based on a separate decision of the Authority in the matter of Induction of Security Cost for CPEC Projects dated August 3, 2017 which was made in pursuance of ECC decision dated 23rd September 2016. The Impugned Determination was issued subsequent to the aforementioned decision dated August 3, 2017. Therefore, the CPEC security cost during project construction period (payable by the Project @ US\$ 150,000 per annum) was capitalized in the Project cost so as to reflect the true cost of electricity; as excluding the CPEC security cost, which is eventually paid by the consumers, would have understated the tariff of the Project. Subsequent to the admission of the Review Motion, the Authority has issued another decision dated July 17, 2018 regarding Motions for Leave for Review filed against Decision of the Authority in the matter of Induction of Security Cost for CPEC Projects in the Power Tariff to Ensure Security Sustainability, whereby it has been made abundantly clear that the matter of US\$ 150,000/- per annum payable by the CPEC projects under security protection clause of IA is between GOP/PPIB/AEDB and IPP and should be dealt with by GOP/PPIB/AEDB under the IA. Accordingly, the Authority has amended its earlier decision dated August 3, 2017. The latest decision of the Authority dated





July 17, 2018 will be applicable to all CPEC projects, including Kohala HPP and tariff will be adjusted accordingly at COD.

iv. **Sinosure Cost:**

In the Impugned Determination, the Authority allowed Sinosure fee as a recurring fee as part of tariff based on Overseas Investment Insurance Policy as allowed in case of Karot HPP. A maximum rate of 0.60% of the outstanding balance of the allowed foreign Debt and interest was allowed by the Authority.

KHCL submitted that since the issuance of the Impugned Determination dated April 2, 2018, the Project Company has been in discussions with the lead bank, i.e. China Development Bank (CDB), to explore the possibility of changing the structure of the financing from Buyer's Credit to Overseas Investment Insurance under Sinosure policy. However, the CDB through its letter dated April 10, 2018 have communicated that they are unable to consider change in the Sinosure cover.

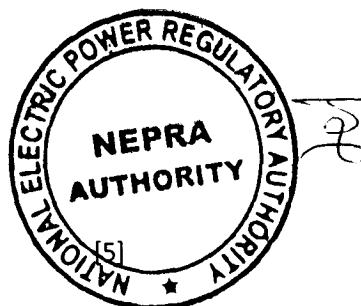
The CPPA opposed KHCL stating that the Overseas Investment Insurance should be preferred over Buyer's Credit since it has a lower impact to the consumers. CPPA requested the Authority that the request for allowing Buyer's Credit Policy should not be entertained. CPPA supports decision of the Authority to allow Sinosure fee at a maximum rate of 0.60% of the outstanding balance of foreign Debt and interest allowed by the Authority.

The Authority has decided to maintain its decision to allow Overseas Investment Insurance policy, as it has a relatively lower impact on levelized tariff. If the Project Company cannot avoid using Buyer's Credit policy then the rate of Buyer's Credit Sinosure will be adjusted so that the impact on levelized tariff for both policies is equal.

v. **Financing fees and charges**

In the Impugned Determination, the Authority allowed financing fees and charges at 2.5% of debt amount (excluding the impact of Sinosure, IDC and financial fee and charges), reducing it from 3.5% requested in the tariff proposal.

KHCL highlighted that the Authority in its recent decisions No. NEPRA /TRF-408/PTPL-2017/20789-20791 dated December 26, 2017 for RLNG based project and for Thar Coal Upfront tariff, has allowed Financing Fee and Charges at 3% of the debt amount for a project





having a construction period of 26 months. KHCL requested the Authority to allow a cap of 3% of the debt amount for financial charges.

CPPA opposed the view of KHCL stating that the liquidity position of financial markets has currently improved and they are now able to finance the industry at lower credit terms. CPPA suggested that the reduction in financing fee and charges is line with the financial market conditions, and requested the Authority to maintain its decision in this matter.

The Authority has noted that the financing fees and charges at 2.5% of debt amount (excluding the impact of Sinasure, IDC and financial fee and charges) are more than sufficient to cover the expenses of this large project. The request of KHCL is, therefore, declined.

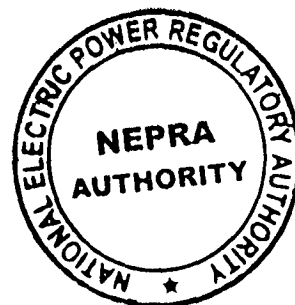
vi. **Financing spreads on local loan**

In the Impugned Determination, the Authority reduced the spreads on local financing from 3% to 2.75%. KHCL submitted that the local lenders have regretted to reduce the rate to 2.75%. KHCL requested the Authority to consider allowing a cap of 3% over KIBOR for local debt.

CPPA opposed the view of KHCL stating that Kohala HPP is a part of the China Three Gorges Corporation (CTGC) which is a big business house having business over the world, therefore there will be no default risk. The Project Company will be in a better position to negotiate the credit terms with the local lenders since the local lenders may have a greater confidence on the Project Company backed by China Three Gorges South Asia Investment Limited (CSAIL). CPPA additionally suggested that that the Authority may review the spread on local loans keeping in view the prevailing financial market conditions and proposed that the spread may be further reduced to 2.5%.

The Authority has decided to decline the request of KHCL to increase local financing spread to 3% based on the recently approved National Electric Power Regulatory Authority (Benchmarks for Tariff Determination) Guidelines, 2018, whereby in case of hydropower projects with capacities over 50MW and construction periods exceeding 3 years, a spread not exceeding 2.75% over KIBOR shall be allowed.

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7. Environment And Ecology - Cost of Water Bodies

During the proceedings another important issue surfaced which had been raised by KHCL in its submissions to CPPA, however, the CPPA was silent on the matter. KHCL requested that the amount of US\$ 5.76 million approved in the Impugned Determination for Environment and Ecology may be deemed exclusive of cost of water bodies which may have to be constructed as per requirements of AJK Environment Protection Agency (AJK-EPA), if found feasible, at River Jhelum. Further, KHCL proposed that after AJK-EPA has completed the feasibility study for water bodies downstream of Neelum Jhelum hydropower project (NJHPP) on River Neelum and third party review of the feasibility study has been conducted by KHCL confirming the technical and financial viability of the construction of water bodies, the Project Company at that time will approach the Authority to approve the cost for construction of such water bodies downstream of the Kohala hydropower project on River Jhelum.

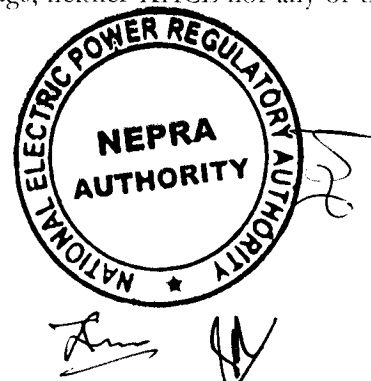
Brief facts on this matter are that the Authority in its Impugned Determination allowed the cost claimed by KHCL for Environment and Ecology Cost amounting to US\$ 5.76 million as the maximum cap for this Project. KHCL had requested to allow this cost as a re-opener in order to accommodate the cost of Water Bodies which was unknown at the time – a request which was disallowed by the Authority in the Impugned Determination.

In its Impugned Determination, the Authority had observed that the initial cost estimates, exact locations or design of water bodies had not finalized and the Project Company was of the opinion that construction of water bodies is not viable as sedimentation and flash floods in the river would wash away these water bodies. AJK-EPA, however, was of the view that a feasibility study of construction of water bodies is being carried out for Neelum Jhelum hydropower project, and if found feasible such construction would have to be carried out for Kohala hydropower project as well.

KHCL submitted in the Review Motion that the cost of US\$ 5.76 million allowed under the head of Environment and Ecology, is insufficient to fulfil the requirements of AJK-EPA to consider the construction of five (5) water bodies downstream of the dam. KHCL stated that the amount of US\$ 5.76 million is already earmarked for environmental costs other than the water bodies.

The Authority has the following observations regarding the cost of water bodies. Documentary evidence suggests that the water bodies may be unnecessary and will have an exorbitantly high cost. Moreover, during the entire proceedings, neither KHCL nor any of the

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AJK govt. agencies have been able to provide any clarity on the feasibility of the proposed water bodies.

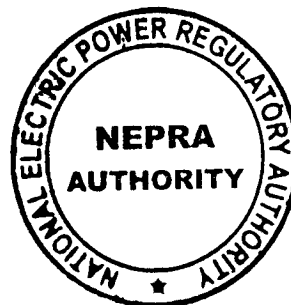
During the hearing the representative of AJK Power Development Organization (AJK-PDO) apprised the Authority regarding AJK govt. concerns on possible issue of scarcity of water in Muzaffarabad city arising from the construction of NJHPP and Kohala HPP on the Neelum and Jhelum rivers respectively. The AJK-PDO, subsequently through its letter dated July 27, 2018 indicated that, based on the cost estimates for construction of water bodies downstream of NJHPP, the estimated cost for construction of 05 Nos. water bodies downstream of Kohala HPP is Rs. 12.975 Billion (or approx.. US\$ 100 million). Consequently, the AJK Private Power Cell (AJK-PPC) vide its letter no. PPC/974-77/2018 dated August 6, 2018 conveyed to the AJK-EPA that the construction of water bodies (clause xxiii of the Conditional Environmental Approval for Kohala HPP) must be ensured.

The Authority noted with concern that this unprecedented high environmental cost, if included in the tariff, results in the levelized tariff of the Project increasing by as much as Rs. 0.41/kWh.

Further, it has been observed that the AJK Environmental Protection Agency (AJK-EPA) has imposed the option of creating/constructing at least five (5) water bodies downstream of the Kohala HPP to meet the following objectives: to reclaim the aesthetics of the river, to rule out the chances of encroachment, to minimize possibilities of change in microclimatic conditions, to provide facilities for recreational activities, to promote tourism, and to enhance livelihood opportunities in the area. Moreover, it was observed that an extensive assessment exercise has already been carried out through the Environmental Social Impact Assessment (ESIA) study of the Project. The Authority noted that the ESIA makes no mention of the water bodies, but rather highlights other, more effective and cost efficient impact mitigations measures for, inter alia, the aesthetics and tourism, climate change, livelihood and well-being, and cultural heritage of the project area. Therefore, most of the objectives which the AJK govt. intends to achieve through the construction of water bodies have already been addressed in the ESIA. Keeping in view the ESIA results, the Authority, through its Impugned Determination approved a substantial amount of US\$ 5.7 million as Environment and Ecology cost. Following the ESIA should ensure that the project impacts remain within the acceptable limits defined in the Environmental Laws and Regulations of AJK and Pakistan, as well as IFCs performance Standards on Environmental and Social Sustainability.

It is pertinent to mention here that the ecological flow downstream of the diversion for Kohala HPP has already been increased from 15 cumecs to 30 cumecs. The Authority

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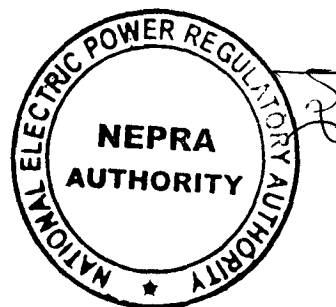
considers that environmental protection is one of the most important aspects of the Project, however, only those costs can be allowed which are incurred prudently to achieve this objective. The Project Company has been directed to undertake all works related to environmental protection, including the construction of water bodies provided they are financially and technically viable, within the budget approved for environment and ecology. It is advised to revisit the environmental requirements, especially the requirement of the water bodies and consider its alternate solutions, so that the Project Company can meet all requirements within the budget approved for Environment and Ecology.

For the reasons mentioned above, the cost of water bodies seems to be an imprudent cost. Therefore, it cannot be allowed in addition to the cost already allowed for Environment and Ecology, i.e. US\$ 5.76 million.

8. KHCL also raised other matters in its request which were not specifically commented on by the CPPA. KHCL pointed out that the Authority in the Impugned Determination omitted to include the sharing mechanism for any saving achieved in spreads over LIBOR and KIBOR, as per the standard clause of the Implementation Agreement. The Authority observed that KHCL's submission with regard to provision of sharing of Savings on Financial Spreads, which has been provided in other determinations of the hydropower projects as an incentive with the purpose of obtaining loan for projects at a lower interest than the allowed rate, has been overlooked. The request for provision of interest rate sharing mechanism is valid and therefore allowed. In case, the spread on LIBOR and/or KIBOR is agreed below 410 basis points and/or 275 basis points respectively, the benefit of such reduction in rate will be adjusted in proportion of 40% to the Project Company and 60% to the consumer through necessary adjustment in tariff. On all other matters raised by KHCL, the Authority has decided to maintain its earlier decisions.

9. Considering the above findings, the review petition is partially allowed and the Impugned Determination is modified and the revised Order is given as under to be notified in the official gazette pursuant to section 31(7) of the Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997:-

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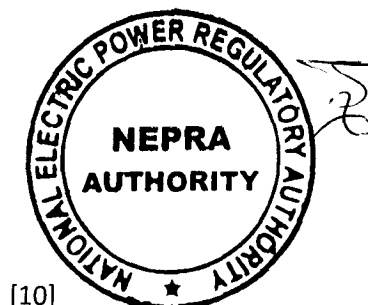


10. **ORDER:**

The Authority, in exercise of its powers contained in Regulation 4(3) of the NEPRA (Import of Electric Power) Regulations, 2017, has decided to approve the following rates and terms and conditions for import of power by Central Power Purchasing Agency (CPPA) from Kohala Hydro Company (Private) Limited.

| Tariff Components | Year 1-12 | Year 13-30 | Indexation |
|---------------------------------|--------------|---------------|------------------|
| Variable Charge (Rs/kWh) | | | |
| Variable O&M - Local | 0.1121 | 0.1121 | Pakistan CPI |
| Variable O&M - Foreign | 0.0480 | 0.0480 | PKR/US\$, US CPI |
| Water Use Charge | 0.4250 | 0.4250 | |
| Fixed Charge (Rs/kW/M) | | | |
| Fixed O&M - Local | 98.7982 | 98.7982 | Pakistan CPI |
| Fixed O&M - Foreign | 148.1973 | 148.1973 | PKR/US\$, US CPI |
| Insurance | 105.5339 | 105.5339 | PKR/US\$ |
| Debt Service (Local) | 158.3077 | - | KIBOR |
| Debt Service (Foreign) | 1,499.5079 | - | LIBOR, PKR/US\$ |
| Return on Equity (ROE) | 803.7326 | 854.3489 | PKR/US\$ |
| ROE During Construction | 544.6875 | 544.6875 | PKR/US\$ |

- i. The reference tariff has been calculated on the basis of net contracted capacity of 1,112.760 MW and net annual energy production of 5,149 GWh.
- ii. In the above tariff, no adjustment for Carbon Emission Reduction receipts (CERs) has been accounted for. However, upon actual realization of CERs, the same shall be distributed between the Power Purchaser and KPCL in accordance with the GOP Policy for Power Generation Projects 2002 as amended from time of time.
- iii. The above tariff is applicable for a period of thirty (30) years on BOOT basis commencing from Commercial Operation Date (COD).
- iv. Debt service will be paid in the first 12 years of commercial operation of plant after COD.
- v. In case, the spreads on LIBOR and KIBOR are agreed at lower than 410 basis points and 275 basis points respectively, the benefit of such reduction in rate will be adjusted in proportion of 40% to the Project company and 60% to the consumer through necessary adjustment in tariff.
- vi. Redemption of equity has been allowed after 12 years of commercial operation of the plant.

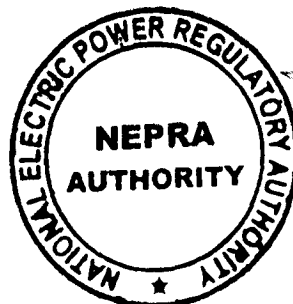




- vii. Sinusure Fee on debt component of tariff for 12 years period after COD is allowed at per annum rate of 0.6% (calculated on semi-annual basis) is given in the tariff table attached herewith as Annex-III.
- viii. The reference PKR/Dollar rate has been assumed at 1 USD = 104.85 PKR.
- ix. The component wise tariff is indicated at Annex-III.
- x. Debt Servicing Schedules are attached as Annex-IV a & b.

I. One-Time Adjustments

- a. The Principal repayment and the cost of debt will be adjusted at COD as per the actual borrowing composition, LIBOR and KIBOR at the relevant date.
- b. Interest During Construction (IDC) will be adjusted at COD on the basis of actual debt composition, debt drawdown of loan (not exceeding the amount allowed by the Authority) and applicable 6-months LIBOR & KIBOR during the actual project construction period (not exceeding the construction period allowed by the Authority).
- c. The specific items of project cost to be paid in foreign currency will be adjusted at COD on account of actual variation in exchange rate over the reference PKR/US\$ exchange rate of Rs. 104.85 on production of verifiable documentary evidence to the satisfaction of the Authority.
- d. Duties and/or taxes, not being of refundable nature, imposed on the Company up to the commencement of its commercial operations for the import of its plant, machinery and equipment will be adjusted on actual basis at COD, as against reference allowed amount of US\$ 28.510 million, upon production of verifiable documentary evidence to the satisfaction of the Authority.
- e. Civil Works Cost will be adjusted on account of variation in the price of construction material (Cement, Steel, Labour and Fuel) during the project construction period based on mechanism attached herewith as Annex-I.
- f. The prices of tunnels will be adjusted due to variation in rock type/classification in accordance with the mechanism attached herewith as Annex-II. However, the total quantities shall not be varied and remained fixed as on signing of the Contract.
- g. Cost of land and resettlement will be adjusted in accordance with the Hydropower Mechanism based on authentic documentary evidence at COD.



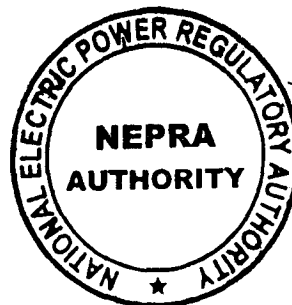


- h. Insurance during construction will be adjusted at COD based on actual subject to the maximum of 2% of the adjusted and approved EPC cost upon production of verifiable documentary evidence to the satisfaction of the Authority.
- i. Financial charges will be adjusted at COD on the basis of actual subject to the maximum of 2.5% of the total debt allowed (excluding the impact of interest during construction, Sinosure fees and financial charges) on production of authentic documentary evidence.
- j. Return on Equity (ROE) and Return on Equity During Construction (ROEDC) will be calculated at COD on the basis of actual equity injections and PKR/US\$ exchange rate variation (within the overall equity allowed by the Authority at COD) over the construction period of 6.5 years allowed by the Authority.
- k. The adjustment for Special return on equity in tariff for the 30-month period will be allowed at COD on the basis of actual equity injections prior to the financial close date on the basis of verifiable documentary evidence to be provided by KHCL.
- l. The amount of Sinosure Fee in project cost based on applicable foreign debt for the project construction period (6.5 years) and Sinosure component based on applicable foreign debt component for operational period after COD (12 years) will be adjusted at COD on the basis of variation in PKR/US\$ exchange rate and based on finalized terms with insurance provider subject to the maximum rate of 0.6% per annum on production of reliable documentary evidence to the satisfaction of the Authority. The reference tariff table for each year of applicable Sinosure Fee will be revised accordingly.
- m. The reference tariff table shall be revised at COD while taking in to account the above adjustments. KHCL shall submit its request to the Authority within 90 days of COD for necessary adjustments in tariff.

II. Pass-Through Items

No provision for income tax has been accounted for in the tariff. If the power producer is obligated to pay any such tax, the exact amount paid by the power producer (the Company) shall be reimbursed by the Power Purchaser to the Company on production of original receipts. This payment should be considered as pass-through payment (Rs/kW/M) spread over a twelve (12) months period in addition to fixed charges in the Reference Tariff.

Withholding tax shall be paid @ 7.5% of the return on equity (including return on equity during construction). The Power Purchaser shall make payment on account of withholding tax at the time of actual payment of dividend subject to maximum of 7.5% of 17% equity according to the following formula:





$$\text{Withholding Tax Payable} = \{ \{ 17\% * (E_{(Ref)} - E_{(Red)}) \} + ROEDC_{(Ref)} \} \times 7.5\%$$

Where:

| | | |
|-----------------|---|---|
| $E_{(Ref)}$ | = | Adjusted Reference Equity at COD |
| $E_{(Red)}$ | = | Equity Redeemed |
| $ROEDC_{(Ref)}$ | = | Adjusted Reference Return on Equity during Construction |

In case the Company does not declare a dividend in any particular year or only declares a partial dividend, then the difference in the withholding tax amount (between what has been paid in that year and the total entitlement as per the Net Return on Equity) would be carried forward and accumulated so that the Company is able to recover the same as a pass through item from the Power Purchaser in future on the basis of the total dividend payout.

III. Hydrological Risk

Hydrological Risk shall be borne by the Power Purchaser in accordance with the GoP Policy for Power Generation Projects 2002.

IV. Indexation

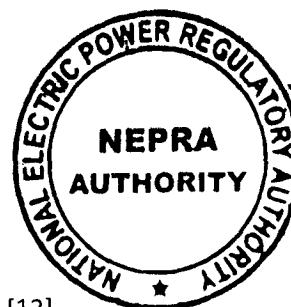
The following indexations during operational period shall be applicable to the reference tariff:

i) Indexation applicable to O&M

The Variable O&M cost is based on 70% local and 30% foreign expense. The Fixed O&M cost is based on 40% local and 60% foreign expense. The local part of O&M will be adjusted on account of Inflation (CPI General), whereas the foreign part of O&M will be adjusted on account of Rupee/Dollar exchange rate variation and US CPI. Quarterly adjustment for local inflation, foreign inflation and exchange rate variation will be made on 1st July, 1st October, 1st January & 1st April respectively on the basis of the latest available information with respect to CPI General (or alternative index as determined by the Authority), US CPI (notified by US bureau of labor statistics) and revised TT & OD Selling rate of US Dollar (notified by the National Bank of Pakistan). The mode of indexation will be as under:

a. Fixed O&M

$$F O\&M_{(REV)} = FO\&M_{(REF)} * CPI_{(REV)} / CPI_{(REF)}$$



$$F O\&M_{(I,REV)} = FO\&M_{(I,REF)} * USCPI_{(REV)} / USCPI_{(REF)} * ER_{(REV)} / ER_{(REF)}$$

Where:

$FO\&M_{(I,REV)}$ = The revised applicable Fixed O&M local component of tariff indexed with Pakistan CPI (General).

$FO\&M_{(I,REV)}$ = The revised applicable Fixed O&M foreign component of tariff indexed with US CPI and exchange rate variation.

$FO\&M_{(I,REF)}$ = The reference fixed O&M local component of tariff for the relevant period.

$FO\&M_{(I,REF)}$ = The reference fixed O&M foreign component of tariff for the relevant period.

$CPI_{(REV)}$ = The Revised Pakistan CPI (General) as notified by the Pakistan Bureau of Statistics for the relevant month.

$CPI_{(REF)}$ = The Reference Pakistan CPI (General) of June 2017 as notified by the Pakistan Bureau of Statistics.

$US\ CPI_{(REV)}$ = The Revised US Consumer Price Index (All Urban Consumers) notified by the Bureau of Labor Statistics.

$US\ CPI_{(REF)}$ = Reference US CPI (All Urban Consumers) notified by the Bureau of Labor Statistics for the month of June 2017.

$ER_{(REV)}$ = The revised TT and OD selling rate of US dollar as notified by the National Bank of Pakistan.

$ER_{(REF)}$ = The reference TT and OD selling rate of US dollar of 104.85

b. Variable O&M

$$VO\&M_{(I,REV)} = VO\&M_{(I,REF)} * CPI_{(REV)} / CPI_{(REF)}$$

$$VO\&M_{(I,REV)} = VO\&M_{(I,REF)} * USCPI_{(REV)} / USCPI_{(REF)} * ER_{(REV)} / ER_{(REF)}$$

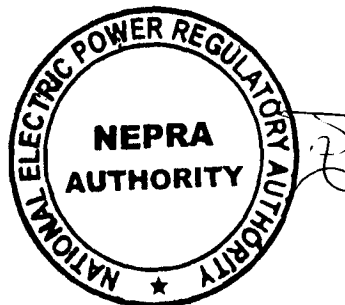
Where:

$VO\&M_{(I,REV)}$ = The revised applicable Variable O&M local component of indexed with Pakistan CPI (General).

$VO\&M_{(I,REV)}$ = The revised applicable Variable O&M foreign component of tariff indexed with US CPI and exchange rate variation.

$VO\&M_{(I,REF)}$ = The reference variable O&M local component of tariff for the relevant period.

$VO\&M_{(I,REF)}$ = The reference variable O&M foreign component of tariff for the relevant period.








- CPI_(REV) = The Revised Pakistan CPI (General) as notified by the Pakistan Bureau of Statistics for the relevant month.
- CPI_(REF) = The Reference Pakistan CPI (General) of June 2017 as notified by the Pakistan Bureau of Statistics.
- US CPI_(REV) = The Revised US Consumer Price Index (All Urban Consumers) notified by the Bureau of Labor Statistics.
- US CPI_(REF) = Reference US CPI (All Urban Consumers) notified by the Bureau of Labor Statistics for the month of June 2017.
- ER_(REV) = The revised TT and OD selling rate of US dollar as notified by the National Bank of Pakistan.
- ER_(REF) = The reference TT and OD selling rate of US dollar of 104.85

ii) Water Use Charges

Water Use Charge will be paid on units delivered basis and revised/ indexed as per government policy.

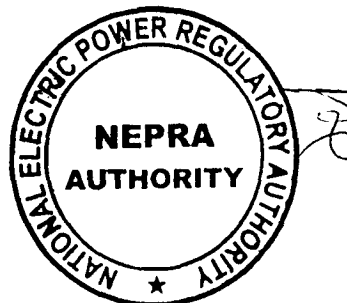
iii) Insurance

Insurance cost component of tariff, in case insurance is denominated in foreign currency, will be adjusted on account of PKR/US\$ exchange rate variation at COD and thereafter on an annual basis at actual subject to the maximum of 1% of the EPC cost on production of authentic documentary evidence by KHCL, according to the following formula:

$$Ins_{(REV)} = Ins_{(REF)} * ER_{(REV)} / ER_{(REF)}$$

Where;

- Ins_(REV) = Revised Insurance cost component of tariff adjusted with the exchange rate variation (PKR/US\$)
- Ins_(REF) = Reference insurance cost component of tariff for the relevant period.
- ER_(REV) = The revised TT & OD selling rate of US dollar as notified by the National Bank of Pakistan.
- ER_(REF) = The reference TT & OD selling rate of US dollar as notified by the National Bank of Pakistan.



iv) Adjustment for LIBOR variation

The interest part of fixed charge component will remain unchanged throughout the term except for the adjustment due to exchange rate variation and variation in 6 months LIBOR, while spread of 4.10% on LIBOR remaining the same, according to the following formula:

$$\Delta I = P_{(REV)} * (LIBOR_{(REV)} - 1.42239\%) / 2$$

Where;

ΔI = the variation in interest charges applicable corresponding to variation in six-month LIBOR. ΔI can be positive or negative depending upon whether $LIBOR_{(REV)} >$ or $<$ 1.42239%. The interest payment obligation will be enhanced or reduced to the extent of ΔI for each period under adjustment applicable on bi-annual basis.

$P_{(REV)}$ = the outstanding principal (as indicated in the attached debt service schedule to this order at Annex-II) on a semi-annual basis at the relevant calculations dates.

iv) Adjustment for KIBOR variation

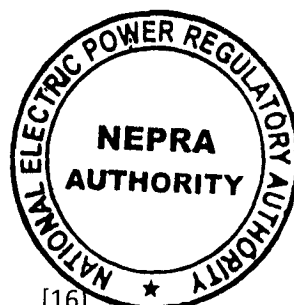
The interest part of fixed charge component will remain unchanged throughout the term except for the adjustment due to variation in 6 months KIBOR, while spread of 2.75% on KIBOR remaining the same, according to the following formula:

$$\Delta I = P_{(REV)} * (KIBOR_{(REV)} - 6.15\%) / 2$$

Where;

ΔI = the variation in interest charges applicable corresponding to variation in six-month KIBOR. ΔI can be positive or negative depending upon whether $KIBOR_{(REV)} >$ or $<$ 6.15%. The interest payment obligation will be enhanced or reduced to the extent of ΔI for each period under adjustment applicable on bi-annual basis.

$P_{(REV)}$ = the outstanding principal (as indicated in the attached debt service schedule to this order at Annex-II) on a semi-annual basis at the relevant calculations dates.





v) Return on Equity

Return on equity (ROE) as well as Return on Equity during Construction (ROEDC) component of tariff shall be adjusted for variation in PKR/US\$ exchange rate according to the following formula:

$$\begin{aligned} \text{ROE}_{(REV)} &= \text{ROE}_{(REF)} * \text{ER}_{(REV)}/\text{ER}_{(REF)} \\ \text{ROEDC}_{(REV)} &= \text{ROEDC}_{(REF)} * \text{ER}_{(REV)}/\text{ER}_{(REF)} \end{aligned}$$

Where;

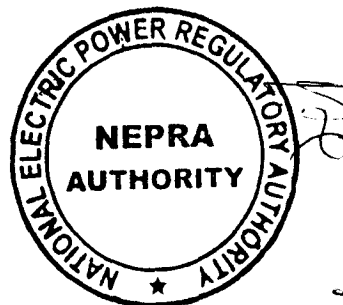
| | | |
|------------------------|---|--|
| $\text{ROE}_{(REV)}$ | = | Revised Return on Equity component of tariff expressed in Rs/kW/M adjusted with exchange rate variation. |
| $\text{ROEDC}_{(REV)}$ | = | Revised Return on Equity during Construction component of tariff in Rs/kW/M adjusted with exchange rate variation. |
| $\text{ROE}_{(REF)}$ | = | Reference Return on Equity component of tariff expressed in Rs/kW/M for the relevant period. |
| $\text{ROEDC}_{(REF)}$ | = | Reference Return on Equity during Construction component of tariff expressed in Rs/kW/M for the relevant period. |
| $\text{ER}_{(REV)}$ | = | Revised TT and OD selling rate of US dollar as notified by the National Bank of Pakistan. |
| $\text{ER}_{(REF)}$ | = | Reference TT and OD selling rate of US dollar. |

v) Sinosure Fee

Sinosure fee component will be adjusted based on the revised principle and interest foreign debt components.

Note: -

Adjustment on account of inflation, foreign exchange rate variation and LIBOR/KIBOR variation will be approved by the Authority within fifteen working days after receipt of KHCL's request for adjustment in tariff in accordance with the requisite indexation mechanism stipulated hereinabove.





V. Other Terms and Conditions of Tariff

Design & Manufacturing Standards:

Hydel Power Generation system shall be designed, manufactured and tested in accordance with the latest IEC standards or other equivalent standards. All plant and equipment shall be new and of standard quality.


Power Curve of the Hydel Power Complex:


The power curve of the Hydel Power plant shall be verified by the Power Purchaser, as part of the Commissioning tests according to the latest IEC standards and shall be used to measure the performance of the hydel generating units.

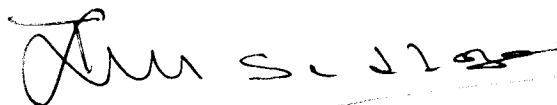
Emissions Trading/Carbon Credits:

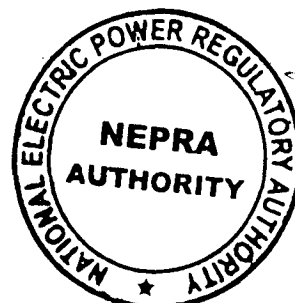
KHCL shall process and obtain emissions/carbon credits expeditiously and credit the proceeds to the Power Purchaser as per the policy issued by the Federal Government.

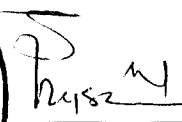
AUTHORITY


(Saif Ullah Chattha)
Member 8.10.2018


10/10/2018
(Rehmatullah Baloch)
Member


(Brig (R) Tariq Saddozai)
Chairman




11 x 18

One-Time Adjustment in Reference EPC Cost for Civil Works cost escalation

The cost of civil works will be adjusted due to variation in the prices/indices of a selected number of cost elements. The method is set out hereunder for adjusting the Contract Price for changes in costs for cement, fuel, reinforcement and labour obtained and utilized by the Contractor in Pakistan.

The changes in costs shall only be adjusted in local currency portion on the basis of "rise and fall" of the prices of the above specified materials and labour.

The formula by which the indexations are applied is given below:

$$P_n = V_n \times [(C_n - C_o)/C_o] + W_n \times [(S_n - S_o)/S_o] + Y_n \times [(F_n - F_o)/F_o] + Z_n \times [(L_n - L_o)/L_o]$$

$$T_{fn} = T_n + P_n$$

Where:

"P_n" is the adjustment factor to be applied to the estimated value of the work carried out in month "n"

"V_n", "W_n", "Y_n", and "Z_n" are the reference values for the relevant month "n" based on the coefficients representing the estimated proportion of each cost element – cement, reinforcing steel, fuel and labor respectively, in the works;

"L_o", "F_o", "C_o", and "S_o" are the base cost indices or reference prices corresponding to the above cost elements;

"L_n", "F_n", "C_n", and "S_n" are the cost indices or prices corresponding to the above cost elements in month "n";

T_{fn} is the Total Final Amount for the relevant month n, after adding the Escalated Amount (P_n to the Total Reference Amount (T_n) as given in Table 1.

T_n is the Total Reference Amount for the relevant month "n" from Construction Start Date.

The reference indices of the specified input cost items as agreed and incorporated in the EPC contract are as under:

| Cost Element | Reference Index | Remarks |
|-----------------------|-----------------|--|
| Labor (L) | 230.48 | Applicable index of "Construction Wage Rates" of Consumer Price Index Number by Major Groups and Selected Commodities of the published in Monthly Bulletin of Statistics of November 2016 by Pakistan Bureau of Statistics (PBS) |
| Fuel (F) | 144.34 | Applicable index of "Diesel Oil" of Index Numbers of Wholesale Prices by Commodities of published in Monthly Bulletin of Statistics of November 2016 by PBS |
| Cement (C) | 212.72 | Applicable index of "Cement" of Index Numbers of Wholesale Prices by Commodities of published in Monthly Bulletin of Statistics of November 2016 by PBS |
| Reinforcing Steel (S) | 120.20 | Applicable index of "Steel Bars & Sheets" of Index Numbers of Wholesale Prices by Commodities of published in Monthly Bulletin of Statistics of November 2016 by PBS |

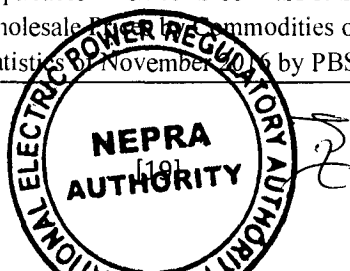
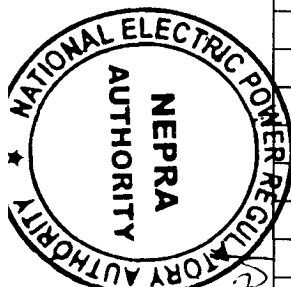
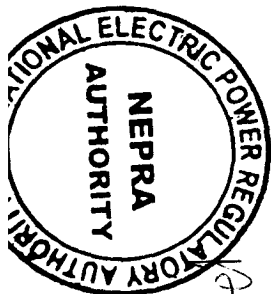


Table -1

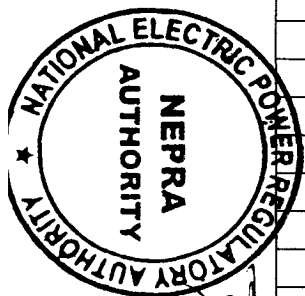
| Month after Notice | Amounts (PKR) | | | | | Coefficients | | | | |
|--------------------|------------------|----------------|----------------|----------------|----------------|--------------|-------|-------|------|--------|
| | Fixed | Labor (Z) | Steel (W) | Fuel (Y) | Cement (V) | Fixed | Labor | Steel | Fuel | Cement |
| | PKR | PKR | PKR | PKR | PKR | a | b | c | d | e |
| 1 | 331,068,507.86 | 77,249,318.50 | 66,213,701.57 | 44,142,467.71 | 33,106,850.79 | 0.6 | 0.14 | 0.12 | 0.08 | 0.06 |
| 2 | 428,701,453.73 | 100,030,339.20 | 85,740,290.75 | 57,160,193.83 | 42,870,145.37 | 0.6 | 0.14 | 0.12 | 0.08 | 0.06 |
| 3 | 563,752,292.24 | 131,542,201.52 | 112,750,458.45 | 75,166,972.30 | 56,375,229.22 | 0.6 | 0.14 | 0.12 | 0.08 | 0.06 |
| 4 | 987,456,257.27 | 230,406,460.03 | 197,491,251.45 | 131,660,834.30 | 98,745,625.73 | 0.6 | 0.14 | 0.12 | 0.08 | 0.06 |
| 5 | 772,750,650.60 | 180,308,485.14 | 154,550,130.12 | 103,033,420.08 | 77,275,065.06 | 0.6 | 0.14 | 0.12 | 0.08 | 0.06 |
| 6 | 812,707,426.34 | 189,631,732.81 | 162,541,485.27 | 108,360,990.18 | 81,270,742.63 | 0.6 | 0.14 | 0.12 | 0.08 | 0.06 |
| 7 | 844,215,040.38 | 196,983,509.42 | 168,843,008.08 | 112,562,005.38 | 84,421,504.04 | 0.6 | 0.14 | 0.12 | 0.08 | 0.06 |
| 8 | 746,594,644.69 | 174,205,417.09 | 149,318,928.94 | 99,545,952.63 | 74,659,464.47 | 0.6 | 0.14 | 0.12 | 0.08 | 0.06 |
| 9 | 703,758,191.48 | 164,210,244.68 | 140,751,638.30 | 93,834,425.53 | 70,375,819.15 | 0.6 | 0.14 | 0.12 | 0.08 | 0.06 |
| 10 | 907,821,143.97 | 211,824,933.59 | 181,564,228.79 | 121,042,819.20 | 90,782,114.40 | 0.6 | 0.14 | 0.12 | 0.08 | 0.06 |
| 11 | 917,822,680.04 | 214,158,625.34 | 183,564,536.01 | 122,376,357.34 | 91,782,268.00 | 0.6 | 0.14 | 0.12 | 0.08 | 0.06 |
| 12 | 1,062,734,018.14 | 247,971,270.90 | 212,546,803.63 | 141,697,869.09 | 106,273,401.81 | 0.6 | 0.14 | 0.12 | 0.08 | 0.06 |
| 13 | 921,407,248.08 | 214,995,024.55 | 184,281,449.62 | 122,854,299.74 | 92,140,724.81 | 0.6 | 0.14 | 0.12 | 0.08 | 0.06 |
| 14 | 709,095,539.55 | 165,455,625.90 | 141,819,107.91 | 94,546,071.94 | 70,909,553.96 | 0.6 | 0.14 | 0.12 | 0.08 | 0.06 |
| 15 | 633,323,173.31 | 147,775,407.10 | 126,664,634.66 | 84,443,089.77 | 63,332,317.33 | 0.6 | 0.14 | 0.12 | 0.08 | 0.06 |
| 16 | 944,233,126.16 | 220,321,062.77 | 188,846,625.23 | 125,897,750.15 | 94,423,312.62 | 0.6 | 0.14 | 0.12 | 0.08 | 0.06 |
| 17 | 551,295,272.34 | 128,635,563.55 | 110,259,054.47 | 73,506,036.31 | 55,129,527.23 | 0.6 | 0.14 | 0.12 | 0.08 | 0.06 |
| 18 | 502,575,645.47 | 117,267,650.61 | 100,515,129.09 | 67,010,086.06 | 50,257,564.55 | 0.6 | 0.14 | 0.12 | 0.08 | 0.06 |
| 19 | 500,926,773.71 | 116,882,913.87 | 100,185,354.74 | 66,790,236.49 | 50,092,677.37 | 0.6 | 0.14 | 0.12 | 0.08 | 0.06 |
| 20 | 508,016,636.58 | 118,537,215.20 | 101,603,327.32 | 67,735,551.54 | 50,801,663.66 | 0.6 | 0.14 | 0.12 | 0.08 | 0.06 |
| 21 | 431,995,261.87 | 100,798,894.44 | 86,399,052.37 | 57,599,368.25 | 43,199,526.19 | 0.6 | 0.14 | 0.12 | 0.08 | 0.06 |
| 22 | 555,946,528.92 | 129,720,856.75 | 111,189,305.78 | 74,126,203.86 | 55,594,652.89 | 0.6 | 0.14 | 0.12 | 0.08 | 0.06 |
| 23 | 633,638,819.80 | 147,849,057.95 | 126,727,763.96 | 84,485,175.97 | 63,363,881.98 | 0.6 | 0.14 | 0.12 | 0.08 | 0.06 |
| 24 | 536,262,833.64 | 125,127,994.51 | 107,252,566.73 | 71,501,711.15 | 53,626,283.36 | 0.6 | 0.14 | 0.12 | 0.08 | 0.06 |



| | | | | | | | | | | |
|----|------------------|----------------|----------------|----------------|----------------|-----|------|------|------|------|
| 25 | 957,594,585.20 | 223,438,736.55 | 191,518,917.04 | 127,679,278.03 | 95,759,458.52 | 0.6 | 0.14 | 0.12 | 0.08 | 0.06 |
| 26 | 852,955,207.76 | 199,022,881.81 | 170,591,041.55 | 113,727,361.04 | 85,295,520.78 | 0.6 | 0.14 | 0.12 | 0.08 | 0.06 |
| 27 | 819,426,999.23 | 191,199,633.15 | 163,885,399.85 | 109,256,933.23 | 81,942,699.92 | 0.6 | 0.14 | 0.12 | 0.08 | 0.06 |
| 28 | 747,949,502.97 | 174,521,550.69 | 149,589,900.59 | 99,726,600.40 | 74,794,950.30 | 0.6 | 0.14 | 0.12 | 0.08 | 0.06 |
| 29 | 749,512,871.28 | 174,886,336.63 | 149,902,574.26 | 99,935,049.50 | 74,951,287.13 | 0.6 | 0.14 | 0.12 | 0.08 | 0.06 |
| 30 | 658,083,084.21 | 153,552,719.65 | 131,616,616.84 | 87,744,411.23 | 65,808,308.42 | 0.6 | 0.14 | 0.12 | 0.08 | 0.06 |
| 31 | 578,307,135.65 | 134,938,331.65 | 115,661,427.13 | 77,107,618.09 | 57,830,713.57 | 0.6 | 0.14 | 0.12 | 0.08 | 0.06 |
| 32 | 559,767,322.65 | 130,612,375.28 | 111,953,464.53 | 74,635,643.02 | 55,976,732.26 | 0.6 | 0.14 | 0.12 | 0.08 | 0.06 |
| 33 | 560,607,191.70 | 130,808,344.73 | 112,121,438.34 | 74,747,625.56 | 56,060,719.17 | 0.6 | 0.14 | 0.12 | 0.08 | 0.06 |
| 34 | 946,491,551.48 | 220,848,028.68 | 189,298,310.30 | 126,198,873.53 | 94,649,155.15 | 0.6 | 0.14 | 0.12 | 0.08 | 0.06 |
| 35 | 909,165,916.42 | 212,138,713.83 | 181,833,183.28 | 121,222,122.19 | 90,916,591.64 | 0.6 | 0.14 | 0.12 | 0.08 | 0.06 |
| 36 | 928,628,752.19 | 216,680,042.18 | 185,725,750.44 | 123,817,166.96 | 92,862,875.22 | 0.6 | 0.14 | 0.12 | 0.08 | 0.06 |
| 37 | 1,162,080,592.35 | 271,152,138.22 | 232,416,118.47 | 154,944,078.98 | 116,208,059.24 | 0.6 | 0.14 | 0.12 | 0.08 | 0.06 |
| 38 | 717,340,347.84 | 167,379,414.50 | 143,468,069.57 | 95,645,379.71 | 71,734,034.78 | 0.6 | 0.14 | 0.12 | 0.08 | 0.06 |
| 39 | 566,084,412.30 | 132,086,362.87 | 113,216,882.46 | 75,477,921.64 | 56,608,441.23 | 0.6 | 0.14 | 0.12 | 0.08 | 0.06 |
| 40 | 643,968,574.21 | 150,259,333.98 | 128,793,714.84 | 85,862,476.56 | 64,396,857.42 | 0.6 | 0.14 | 0.12 | 0.08 | 0.06 |
| 41 | 583,287,240.21 | 136,100,356.05 | 116,657,448.04 | 77,771,632.03 | 58,328,724.02 | 0.6 | 0.14 | 0.12 | 0.08 | 0.06 |
| 42 | 584,381,769.91 | 136,355,746.31 | 116,876,353.98 | 77,917,569.32 | 58,438,176.99 | 0.6 | 0.14 | 0.12 | 0.08 | 0.06 |
| 43 | 663,617,834.22 | 154,844,161.32 | 132,723,566.84 | 88,482,377.90 | 66,361,783.42 | 0.6 | 0.14 | 0.12 | 0.08 | 0.06 |
| 44 | 590,214,371.79 | 137,716,686.75 | 118,042,874.36 | 78,695,249.57 | 59,021,437.18 | 0.6 | 0.14 | 0.12 | 0.08 | 0.06 |
| 45 | 672,581,618.82 | 156,935,711.06 | 134,516,323.76 | 89,677,549.18 | 67,258,161.88 | 0.6 | 0.14 | 0.12 | 0.08 | 0.06 |
| 46 | 664,598,019.88 | 155,072,871.31 | 132,919,603.98 | 88,613,069.32 | 66,459,801.99 | 0.6 | 0.14 | 0.12 | 0.08 | 0.06 |
| 47 | 674,378,832.21 | 157,355,060.85 | 134,875,766.44 | 89,917,177.63 | 67,437,883.22 | 0.6 | 0.14 | 0.12 | 0.08 | 0.06 |
| 48 | 713,334,868.03 | 166,444,802.54 | 142,666,973.61 | 95,111,315.74 | 71,333,486.80 | 0.6 | 0.14 | 0.12 | 0.08 | 0.06 |
| 49 | 878,054,372.66 | 204,879,353.62 | 175,610,874.53 | 117,073,916.36 | 87,805,437.27 | 0.6 | 0.14 | 0.12 | 0.08 | 0.06 |
| 50 | 481,155,799.70 | 112,269,686.60 | 96,231,159.94 | 64,154,106.63 | 48,115,579.97 | 0.6 | 0.14 | 0.12 | 0.08 | 0.06 |
| 51 | 477,685,007.48 | 111,459,835.08 | 95,537,001.50 | 63,691,334.33 | 47,768,500.75 | 0.6 | 0.14 | 0.12 | 0.08 | 0.06 |
| 52 | 540,785,368.00 | 126,183,252.53 | 108,157,073.60 | 72,104,715.73 | 54,078,536.80 | 0.6 | 0.14 | 0.12 | 0.08 | 0.06 |
| 53 | 422,296,216.77 | 98,535,783.91 | 84,459,243.35 | 56,306,162.24 | 42,229,621.68 | 0.6 | 0.14 | 0.12 | 0.08 | 0.06 |
| 54 | 285,160,622.36 | 66,537,478.55 | 57,032,124.47 | 38,021,416.31 | 28,516,062.24 | 0.6 | 0.14 | 0.12 | 0.08 | 0.06 |
| 55 | 305,033,218.55 | 71,174,417.66 | 61,006,643.71 | 40,671,095.81 | 30,503,321.85 | 0.6 | 0.14 | 0.12 | 0.08 | 0.06 |



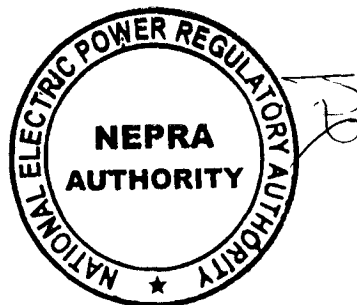
| | | | | | | | | | | |
|----|-------------------|-------------------|------------------|------------------|------------------|-----|------|------|------|------|
| 56 | 294,227,585.35 | 68,653,103.25 | 58,845,517.07 | 39,230,344.71 | 29,422,758.54 | 0.6 | 0.14 | 0.12 | 0.08 | 0.06 |
| 57 | 315,736,109.51 | 73,671,758.89 | 63,147,221.90 | 42,098,147.93 | 31,573,610.95 | 0.6 | 0.14 | 0.12 | 0.08 | 0.06 |
| 58 | 315,746,717.85 | 73,674,234.16 | 63,149,343.57 | 42,099,562.38 | 31,574,671.78 | 0.6 | 0.14 | 0.12 | 0.08 | 0.06 |
| 59 | 245,533,609.84 | 57,291,175.63 | 49,106,721.97 | 32,737,814.65 | 24,553,360.98 | 0.6 | 0.14 | 0.12 | 0.08 | 0.06 |
| 60 | 333,896,562.40 | 77,909,197.89 | 66,779,312.48 | 44,519,541.65 | 33,389,656.24 | 0.6 | 0.14 | 0.12 | 0.08 | 0.06 |
| 61 | 561,243,772.17 | 130,956,880.17 | 112,248,754.43 | 74,832,502.96 | 56,124,377.22 | 0.6 | 0.14 | 0.12 | 0.08 | 0.06 |
| 62 | 250,799,344.22 | 58,519,846.98 | 50,159,868.84 | 33,439,912.56 | 25,079,934.42 | 0.6 | 0.14 | 0.12 | 0.08 | 0.06 |
| 63 | 241,097,097.03 | 56,255,989.31 | 48,219,419.41 | 32,146,279.60 | 24,109,709.70 | 0.6 | 0.14 | 0.12 | 0.08 | 0.06 |
| 64 | 198,959,493.62 | 46,423,881.85 | 39,791,898.72 | 26,527,932.48 | 19,895,949.36 | 0.6 | 0.14 | 0.12 | 0.08 | 0.06 |
| 65 | 186,823,039.27 | 43,592,042.50 | 37,364,607.85 | 24,909,738.57 | 18,682,303.93 | 0.6 | 0.14 | 0.12 | 0.08 | 0.06 |
| 66 | 201,089,872.06 | 46,920,970.15 | 40,217,974.41 | 26,811,982.94 | 20,108,987.21 | 0.6 | 0.14 | 0.12 | 0.08 | 0.06 |
| 67 | 135,405,235.01 | 31,594,554.84 | 27,081,047.00 | 18,054,031.33 | 13,540,523.50 | 0.6 | 0.14 | 0.12 | 0.08 | 0.06 |
| 68 | 158,572,816.88 | 37,000,323.94 | 31,714,563.38 | 21,143,042.25 | 15,857,281.69 | 0.6 | 0.14 | 0.12 | 0.08 | 0.06 |
| 69 | 163,449,280.09 | 38,138,165.35 | 32,689,856.02 | 21,793,237.35 | 16,344,928.01 | 0.6 | 0.14 | 0.12 | 0.08 | 0.06 |
| 70 | 127,693,391.95 | 29,795,124.79 | 25,538,678.39 | 17,025,785.59 | 12,769,339.20 | 0.6 | 0.14 | 0.12 | 0.08 | 0.06 |
| 71 | 82,155,719.36 | 19,169,667.85 | 16,431,143.87 | 10,954,095.91 | 8,215,571.94 | 0.6 | 0.14 | 0.12 | 0.08 | 0.06 |
| 72 | 266,145,059.94 | 62,100,513.99 | 53,229,011.99 | 35,486,007.99 | 26,614,505.99 | 0.6 | 0.14 | 0.12 | 0.08 | 0.06 |
| 73 | 344,731,986.83 | 80,437,463.59 | 68,946,397.37 | 45,964,264.91 | 34,473,198.68 | 0.6 | 0.14 | 0.12 | 0.08 | 0.06 |
| 74 | 149,063,373.12 | 34,781,453.73 | 29,812,674.62 | 19,875,116.42 | 14,906,337.31 | 0.6 | 0.14 | 0.12 | 0.08 | 0.06 |
| 75 | 74,538,144.29 | 17,392,233.67 | 14,907,628.86 | 9,938,419.24 | 7,453,814.43 | 0.6 | 0.14 | 0.12 | 0.08 | 0.06 |
| 76 | 117,362,477.31 | 27,384,578.04 | 23,472,495.46 | 15,648,330.31 | 11,736,247.73 | 0.6 | 0.14 | 0.12 | 0.08 | 0.06 |
| 77 | 61,924,339.04 | 14,449,012.44 | 12,384,867.81 | 8,256,578.54 | 6,192,433.90 | 0.6 | 0.14 | 0.12 | 0.08 | 0.06 |
| 78 | 1,112,847,098.17 | 259,664,435.59 | 222,569,516.22 | 148,379,677.48 | 111,284,758.11 | 0.6 | 0.14 | 0.12 | 0.08 | 0.06 |
| | 43,341,670,499.51 | 10,113,056,562.56 | 8,668,334,196.48 | 5,778,889,464.32 | 4,334,167,098.25 | | | | | |



Adjustment in the cost of Tunnelling Works due to Geological Conditions

- a. Subject to the verification of the Re-opener Verifier, cost variation due to geological conditions related to underground tunnelling works will be allowed at Commercial Operation Date.

- b. The cost of the Tunnelling Work shall be allowed to vary depending on the category of rock encountered during construction of tunnels. The increase or decrease in the cost shall be subject to the baseline conditions given in Table 1 of this Annex.



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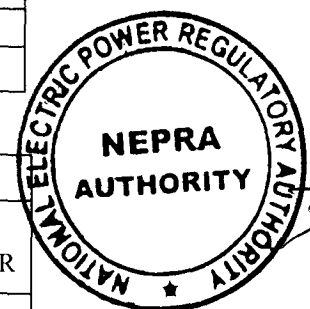
Table - 1

| Hydraulic Tunnel - Classification of Underground Conditions | | | | |
|---|----------------|--------------------|-----------------------------|--------------------------|
| No. | Q-value | Length Assumed (m) | Unit Rate PKR/ meter Length | Cost of Construction PKR |
| 1 | Q>10 | 1044.18 | 818495.42 | 854660474.89 |
| 2 | 10>Q>4 | 1392.25 | 878177.38 | 1222639290.47 |
| 3 | 4>Q>1 | 6961.23 | 910801.09 | 6340297676.51 |
| 4 | 1>Q>0.1 | 11486.03 | 987790.65 | 11345795842.18 |
| 5 | 0.1 > Q > 0.01 | 12182.16 | 1442543.73 | 17573292695.36 |
| 6 | Q < 0.01 | 1740.31 | 2885873.61 | 5022308936.80 |
| Total | | 34806.16 | | 42358994916.21 |

| Surge Chamber - Classification of Underground Conditions | | | | |
|--|----------------|--------------------|-----------------------------|--------------------------|
| No. | Q-value | Length Assumed (m) | Unit Rate PKR/ meter Length | Cost of Construction PKR |
| 1 | Q>10 | | 3698908.76 | |
| 2 | 10>Q>4 | | 3813308.00 | |
| 3 | 4>Q>1 | 156.60 | 3931245.36 | 615633023.10 |
| 4 | 1>Q>0.1 | 130.50 | 4345060.66 | 567030416.01 |
| 5 | 0.1 > Q > 0.01 | 208.80 | 6599669.18 | 1378010925.56 |
| 6 | Q < 0.01 | 26.10 | 7718987.64 | 201465577.36 |
| Total | | 522.00 | | 2762139942.03 |

| Penstock- Classification of Underground Conditions | | | | |
|--|----------------|--------------------|-----------------------------|--------------------------|
| No. | Q-value | Length Assumed (m) | Unit Rate PKR/ meter Length | Cost of Construction PKR |
| 1 | Q>10 | 40.72 | 711893.02 | 28990561.90 |
| 2 | 10>Q>4 | 61.08 | 733910.33 | 44830765.83 |
| 3 | 4>Q > 1 | 407.23 | 756608.59 | 308115229.06 |
| 4 | 1>Q>0.1 | 610.85 | 822977.76 | 502714321.10 |
| 5 | 0.1 > Q > 0.01 | 712.66 | 934663.00 | 666093196.97 |
| 6 | Q < 0.01 | 203.62 | 1211287.79 | 246637574.38 |
| Total | | 2036.16 | | 1797381649.25 |

| 1#Adit - Classification of Underground Conditions | | | | |
|---|----------------|--------------------|-----------------------------|--------------------------|
| No. | Q-value | Length Assumed (m) | Unit Rate PKR/ meter Length | Cost of Construction PKR |
| 1 | Q>10 | | 326218.11 | |
| 2 | 10>Q>4 | | 336307.33 | |
| 3 | 4>Q> 1 | 66.60 | 346708.59 | 23090792.06 |
| 4 | 1>Q>0.1 | 83.25 | 383204.23 | 31901752.18 |
| 5 | 0.1 > Q > 0.01 | 149.85 | 1545257.83 | 231556885.12 |
| 6 | Q < 0.01 | 33.30 | 1962916.70 | 65365126.10 |
| Total | | 333.00 | | 351914555.46 |

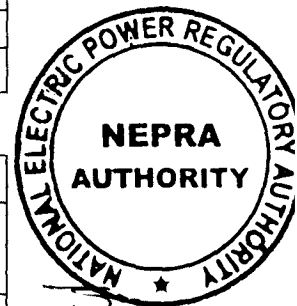


| 2#Adit - Classification of Underground Conditions | | | | |
|---|-------------|--------------------|-----------------------------|--------------------------|
| No. | G-value | Length Assumed (m) | Unit Rate PKR/ meter Length | Cost of Construction PKR |
| 1 | Q>10 | 34.32 | 275229.02 | 9445859.97 |
| 2 | 10>Q>4 | 68.64 | 304200.50 | 20880322.04 |
| 3 | 4>Q>1 | 377.52 | 377105.80 | 142364983.16 |
| 4 | 1>Q>0.1 | 320.32 | 416801.15 | 133509744.97 |
| 5 | 0.1 >Q>0.01 | 251.68 | 1671235.20 | 420616474.23 |
| 6 | Q <0.01 | 91.52 | 2128751.39 | 194823327.55 |
| Total | | 1144.00 | | 921640711.93 |

| 3#Adit- Classification of Underground Conditions | | | | |
|--|-------------|--------------------|-----------------------------|--------------------------|
| No. | Q-value | Length Assumed (m) | Unit Rate PKR/ meter Length | Cost of Construction PKR |
| 1 | Q>10 | 42.92 | 279024.49 | 11975731.27 |
| 2 | 10>Q>4 | 64.38 | 308395.49 | 19854501.85 |
| 3 | 4>Q> 1 | 300.44 | 383249.06 | 115143348.97 |
| 4 | 1>Q>0.1 | 268.25 | 423591.07 | 113628304.91 |
| 5 | 0.1 >Q>0.01 | 321.90 | 1261424.03 | 406052396.50 |
| 6 | Q <0.01 | 75.11 | 2165903.05 | 162680977.80 |
| Total | | 1073.00 | | 829335261.29 |

| 4#Adit - Classification of Underground Conditions | | | | |
|---|-------------|--------------------|-----------------------------|--------------------------|
| No. | Q-value | Length Assumed (m) | Unit Rate PKR/ meter Length | Cost of Construction PKR |
| 1 | Q >10 | 53.91 | 290020.63 | 15635012.14 |
| 2 | 10>Q>4 | 65.89 | 320549.12 | 21120981.31 |
| 3 | 4>Q> 1 | 149.75 | 398538.94 | 59681206.30 |
| 4 | 1>Q>0.1 | 119.80 | 440490.41 | 52770750.83 |
| 5 | 0.1 >Q>0.01 | 179.70 | 1313477.26 | 236031863.98 |
| 6 | Q <0.01 | 29.95 | 2255336.65 | 67547332.67 |
| | | 599.00 | | 452787147.24 |

| 5#Adit - Classification of Underground Conditions | | | | |
|---|-------------|--------------------|-----------------------------|--------------------------|
| No. | Q-value | Length Assumed (m) | Unit Rate PKR/ meter Length | Cost of Construction PKR |
| 1 | Q>10 | | 331529.09 | |
| 2 | 10>Q>4 | | 366426.89 | |
| 3 | 4>Q> 1 | 107.10 | 466070.69 | 49916170.67 |
| 4 | 1>Q>0.1 | 91.80 | 515130.76 | 47289003.79 |
| 5 | 0.1 >Q>0.01 | 91.80 | 2204831.78 | 202403557.40 |
| 6 | Q <0.01 | 15.30 | 2744681.29 | 41993623.81 |
| Total | | 306.00 | | 341602355.68 |

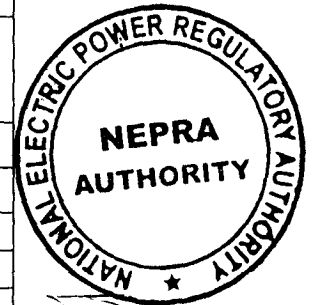


| 5-1#Adit - Classification of Underground Conditions | | | | |
|---|------------|--------------------|-----------------------------|--------------------------|
| No. | Q-value | Length Assumed (m) | Unit Rate PKR/ meter Length | Cost of Construction PKR |
| 1 | Q>10 | | 331529.09 | |
| 2 | 10>Q>4 | | 366426.89 | |
| 3 | 4>Q>1 | 18.55 | 466070.69 | 864561126 |
| 4 | 1>Q>0.1 | 15.90 | 515130.76 | 8190579.09 |
| 5 | 0.1>Q>0.01 | 15.90 | 2204831.78 | 35056825.30 |
| 6 | Q<0.01 | 2.65 | 2744681.29 | 7273405.43 |
| Total | | 53.00 | | 59166421.08 |

| 6#Adit - Classification of Underground Conditions | | | | |
|---|------------|--------------------|-----------------------------|--------------------------|
| No. | Q-value | Length Assumed (m) | Unit Rate PKR/ meter Length | Cost of Construction PKR |
| 1 | Q>10 | | 445549.86 | |
| 2 | 10>Q>4 | | 459329.76 | |
| 3 | 4>Q>1 | 93.10 | 473535.83 | 44086185.93 |
| 4 | 1>Q>0.1 | 79.80 | 523381.71 | 41765860.36 |
| 5 | 0.1>Q>0.01 | 79.80 | 2451250.49 | 195609788.91 |
| 6 | Q<0.01 | 13.30 | 3031995.09 | 40325534.74 |
| Total | | 266.00 | | 321787369.94 |

| 6-1#Adit - Classification of Underground Conditions | | | | |
|---|------------|--------------------|-----------------------------|--------------------------|
| No. | Q-value | Length Assumed (m) | Unit Rate PKR/ meter Length | Cost of Construction PKR |
| 1 | Q>10 | | 445549.86 | |
| 2 | 10>Q>4 | | 459329.76 | |
| 3 | 4>Q>1 | 40.95 | 473535.83 | 19391292.31 |
| 4 | 1>Q>0.1 | 35.10 | 523381.71 | 18370697.98 |
| 5 | 0.1>Q>0.01 | 35.10 | 2451250.49 | 86038892.12 |
| 6 | Q<0.01 | 5.85 | 3031995.09 | 17737171.30 |
| Total | | 117.00 | | 141538053.69 |

| 7#Adit - Classification of Underground Conditions | | | | |
|---|------------|--------------------|-----------------------------|--------------------------|
| No. | Q-value | Length Assumed (m) | Unit Rate PKR/ meter Length | Cost of Construction PKR |
| 1 | Q>10 | | 302434.51 | |
| 2 | 10>Q>4 | | 311788.15 | |
| 3 | 4>Q>1 | 40.65 | 321431.08 | 13066173.54 |
| 4 | 1>Q>0.1 | 40.65 | 355265.93 | 14441560.22 |
| 5 | 0.1>Q>0.01 | 176.15 | 1089893.36 | 191984716.13 |
| 6 | Q<0.01 | 13.55 | 1870736.28 | 25348476.63 |
| Total | | 271.00 | | 244840926.52 |

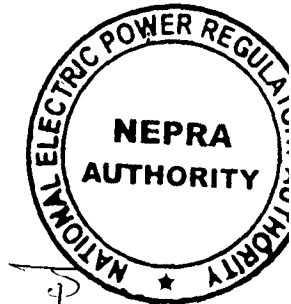


| 8#Adit - Classification of Underground Conditions | | | | |
|---|------------|--------------------|-----------------------------|--------------------------|
| No. | Q-value | Length Assumed (m) | Unit Rate PKR/ meter Length | Cost of Construction PKR |
| 1 | Q>10 | | 349932.44 | |
| 2 | 10>Q>4 | | 360755.09 | |
| 3 | 4>Q>1 | 121.85 | 371912.47 | 45317534.30 |
| 4 | 1>Q>0.1 | 121.85 | 411061.15 | 50087801.07 |
| 5 | 0.1>Q>0.01 | 219.33 | 1251014.53 | 274385016.46 |
| 6 | Q <0.01 | 24.37 | 2127569.85 | 51848877.24 |
| Total | | 487.40 | | 421639229.07 |

| 8-1#Adit - Classification of Underground Conditions | | | | |
|---|------------|--------------------|-----------------------------|--------------------------|
| No. | Q-value | Length Assumed (m) | Unit Rate PKR/ meter Length | Cost of Construction PKR |
| 1 | Q>10 | | 349744.54 | |
| 2 | 10>Q>4 | | 360561.38 | |
| 3 | 4>Q>1 | 36.03 | 371712.77 | 13390952.42 |
| 4 | 1>Q>0.1 | 36.03 | 410840.43 | 14800526.36 |
| 5 | 0.1>Q>0.01 | 64.85 | 1251039.96 | 81123686.34 |
| 6 | Q <0.01 | 7.21 | 2125916.53 | 15317228.61 |
| Total | | 144.10 | | 124632393.73 |

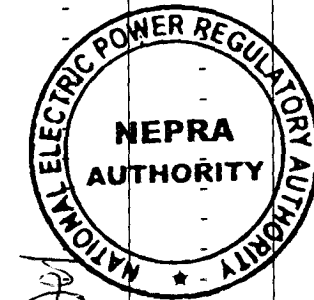
| Tailrace - Classification of Underground Conditions | | | | |
|---|------------|--------------------|-----------------------------|--------------------------|
| No. | Q-value | Length Assumed (m) | Unit Rate PKR/ meter Length | Cost of Construction PKR |
| 1 | Q>10 | | 1463034.70 | |
| 2 | 10>Q>4 | | 1508283.20 | |
| 3 | 4>Q>1 | 14.80 | 1554931.13 | 23013993.91 |
| 4 | 1>Q>0.1 | 59.20 | 1657229.24 | 98112289.83 |
| 5 | 0.1>Q>0.01 | 162.80 | 1981888.30 | 322644958.02 |
| 6 | Q <0.01 | 59.20 | 2592747.23 | 153490635.92 |
| Total | | 296.00 | | 597261877.69 |

| Diversion tunnel - Classification of Underground Conditions | | | | |
|---|------------|--------------------|-----------------------------|--------------------------|
| No. | Q-value | Length Assumed (m) | Unit Rate PKR/ meter Length | Cost of Construction PKR |
| 1 | Q>10 | | 1439558.64 | |
| 2 | 10>Q>4 | | 1484081.07 | |
| 3 | 4>Q>1 | 83.25 | 1529980.49 | 127370875.49 |
| 4 | 1>Q>0.1 | 86.58 | 1664189.30 | 144085509.67 |
| 5 | 0.1>Q>0.01 | 153.18 | 2181712.02 | 334194647.85 |
| 6 | Q <0.01 | 9.99 | 2910550.36 | 29076398.11 |
| Total | | 333.00 | | 634727431.13 |

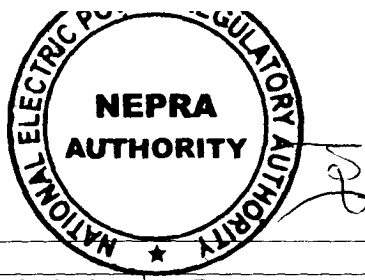


**1124 MW KOHALA HPP
REFERENCE TARIFF**

| Year | Variable O&M Local | Variable O&M Foreign | Water Use Charge | Fixed O&M Local | Fixed O&M Foreign | Insurance | Sinosure Fee | Return on Equity (ROE) | ROE During Construction | Debt Servicing (Local) | Debt Servicing (Foreign) | Total Tariff |
|-------------------------|--------------------|----------------------|------------------|-----------------|-------------------|-----------------|----------------|------------------------|-------------------------|------------------------|--------------------------|---------------|
| | Rs./kWh | Rs./kWh | Rs./kWh | Rs./kW/M | Rs./kW/M | Rs./kW/M | Rs./kW/M | Rs./kW/M | Rs./kW/M | Rs./kW/M | Rs./kW/M | Rs./kWh |
| 1 | 0.1121 | 0.0480 | 0.4250 | 98.7982 | 148.1973 | 105.5339 | 76.7669 | 803.7326 | 544.6875 | 158.3077 | 1,499.5079 | 9.4927 |
| 2 | 0.1121 | 0.0480 | 0.4250 | 98.7982 | 148.1973 | 105.5339 | 71.6917 | 803.7326 | 544.6875 | 158.3077 | 1,499.5079 | 9.4795 |
| 3 | 0.1121 | 0.0480 | 0.4250 | 98.7982 | 148.1973 | 105.5339 | 66.3323 | 803.7326 | 544.6875 | 158.3077 | 1,499.5079 | 9.4656 |
| 4 | 0.1121 | 0.0480 | 0.4250 | 98.7982 | 148.1973 | 105.5339 | 60.6729 | 803.7326 | 544.6875 | 158.3077 | 1,499.5079 | 9.4509 |
| 5 | 0.1121 | 0.0480 | 0.4250 | 98.7982 | 148.1973 | 105.5339 | 54.6967 | 803.7326 | 544.6875 | 158.3077 | 1,499.5079 | 9.4354 |
| 6 | 0.1121 | 0.0480 | 0.4250 | 98.7982 | 148.1973 | 105.5339 | 48.3858 | 803.7326 | 544.6875 | 158.3077 | 1,499.5079 | 9.4191 |
| 7 | 0.1121 | 0.0480 | 0.4250 | 98.7982 | 148.1973 | 105.5339 | 41.7216 | 803.7326 | 544.6875 | 158.3077 | 1,499.5079 | 9.4018 |
| 8 | 0.1121 | 0.0480 | 0.4250 | 98.7982 | 148.1973 | 105.5339 | 34.6844 | 803.7326 | 544.6875 | 158.3077 | 1,499.5079 | 9.3836 |
| 9 | 0.1121 | 0.0480 | 0.4250 | 98.7982 | 148.1973 | 105.5339 | 27.2531 | 803.7326 | 544.6875 | 158.3077 | 1,499.5079 | 9.3643 |
| 10 | 0.1121 | 0.0480 | 0.4250 | 98.7982 | 148.1973 | 105.5339 | 19.4058 | 803.7326 | 544.6875 | 158.3077 | 1,499.5079 | 9.3439 |
| 11 | 0.1121 | 0.0480 | 0.4250 | 98.7982 | 148.1973 | 105.5339 | 11.1191 | 803.7326 | 544.6875 | 158.3077 | 1,499.5079 | 9.3225 |
| 12 | 0.1121 | 0.0480 | 0.4250 | 98.7982 | 148.1973 | 105.5339 | 2.3685 | 803.7326 | 544.6875 | 158.3077 | 1,499.5079 | 9.2998 |
| 13 | 0.1121 | 0.0480 | 0.4250 | 98.7982 | 148.1973 | 105.5339 | - | 854.3489 | 544.6875 | - | - | 5.1266 |
| 14 | 0.1121 | 0.0480 | 0.4250 | 98.7982 | 148.1973 | 105.5339 | - | 854.3489 | 544.6875 | - | - | 5.1266 |
| 15 | 0.1121 | 0.0480 | 0.4250 | 98.7982 | 148.1973 | 105.5339 | - | 854.3489 | 544.6875 | - | - | 5.1266 |
| 16 | 0.1121 | 0.0480 | 0.4250 | 98.7982 | 148.1973 | 105.5339 | - | 854.3489 | 544.6875 | - | - | 5.1266 |
| 17 | 0.1121 | 0.0480 | 0.4250 | 98.7982 | 148.1973 | 105.5339 | - | 854.3489 | 544.6875 | - | - | 5.1266 |
| 18 | 0.1121 | 0.0480 | 0.4250 | 98.7982 | 148.1973 | 105.5339 | - | 854.3489 | 544.6875 | - | - | 5.1266 |
| 19 | 0.1121 | 0.0480 | 0.4250 | 98.7982 | 148.1973 | 105.5339 | - | 854.3489 | 544.6875 | - | - | 5.1266 |
| 20 | 0.1121 | 0.0480 | 0.4250 | 98.7982 | 148.1973 | 105.5339 | - | 854.3489 | 544.6875 | - | - | 5.1266 |
| 21 | 0.1121 | 0.0480 | 0.4250 | 98.7982 | 148.1973 | 105.5339 | - | 854.3489 | 544.6875 | - | - | 5.1266 |
| 22 | 0.1121 | 0.0480 | 0.4250 | 98.7982 | 148.1973 | 105.5339 | - | 854.3489 | 544.6875 | - | - | 5.1266 |
| 23 | 0.1121 | 0.0480 | 0.4250 | 98.7982 | 148.1973 | 105.5339 | - | 854.3489 | 544.6875 | - | - | 5.1266 |
| 24 | 0.1121 | 0.0480 | 0.4250 | 98.7982 | 148.1973 | 105.5339 | - | 854.3489 | 544.6875 | - | - | 5.1266 |
| 25 | 0.1121 | 0.0480 | 0.4250 | 98.7982 | 148.1973 | 105.5339 | - | 854.3489 | 544.6875 | - | - | 5.1266 |
| 26 | 0.1121 | 0.0480 | 0.4250 | 98.7982 | 148.1973 | 105.5339 | - | 854.3489 | 544.6875 | - | - | 5.1266 |
| 27 | 0.1121 | 0.0480 | 0.4250 | 98.7982 | 148.1973 | 105.5339 | - | 854.3489 | 544.6875 | - | - | 5.1266 |
| 28 | 0.1121 | 0.0480 | 0.4250 | 98.7982 | 148.1973 | 105.5339 | - | 854.3489 | 544.6875 | - | - | 5.1266 |
| 29 | 0.1121 | 0.0480 | 0.4250 | 98.7982 | 148.1973 | 105.5339 | - | 854.3489 | 544.6875 | - | - | 5.1266 |
| 30 | 0.1121 | 0.0480 | 0.4250 | 98.7982 | 148.1973 | 105.5339 | - | 854.3489 | 544.6875 | - | - | 5.1266 |
| Levelized Tariff | 0.1121 | 0.0480 | 0.4250 | 98.7982 | 148.1973 | 105.5339 | 36.3715 | 817.7639 | 544.6875 | 114.4234 | 1,083.8313 | 8.2345 |



* WHT on dividends and SROE have an estimated additional impact of Rs. 0.2622/kWh and Rs. 0.1482/kWh respectively on the levelized tariff.



1124 MW KOHALA HPP
Debt Servicing Schedule

| Period | Local Debt | | | | | Annual Principal Repayment Rs./kW/M | Annual Interest Rs./kW/M | Annual Debt Servicing Rs./kW/M |
|--------|-----------------------|-----------------------|---------------------|---------------------|--------------------------|-------------------------------------|--------------------------|--------------------------------|
| | Principal Million PKR | Repayment Million PKR | Mark-Up Million PKR | Balance Million PKR | Debt Service Million PKR | | | |
| | 15,397.75 | 371.75 | 685.20 | 15,026.00 | 1,056.9508 | | | |
| | 15,026.00 | 388.29 | 668.66 | 14,637.70 | 1,056.9508 | | | |
| 1 | 15,397.75 | 760.04 | 1,353.86 | 14,637.70 | 2,113.9016 | 56.9189 | 101.3888 | 158.3077 |
| | 14,637.70 | 405.57 | 651.38 | 14,232.13 | 1,056.9508 | | | |
| | 14,232.13 | 423.62 | 633.33 | 13,808.51 | 1,056.9508 | | | |
| 2 | 14,637.70 | 829.19 | 1,284.71 | 13,808.51 | 2,113.9016 | 62.0974 | 96.2103 | 158.3077 |
| | 13,808.51 | 442.47 | 614.48 | 13,366.04 | 1,056.9508 | | | |
| | 13,366.04 | 462.16 | 594.79 | 12,903.88 | 1,056.9508 | | | |
| 3 | 13,808.51 | 904.63 | 1,209.27 | 12,903.88 | 2,113.9016 | 67.7470 | 90.5607 | 158.3077 |
| | 12,903.88 | 482.73 | 574.22 | 12,421.15 | 1,056.9508 | | | |
| | 12,421.15 | 504.21 | 552.74 | 11,916.94 | 1,056.9508 | | | |
| 4 | 12,903.88 | 986.94 | 1,126.96 | 11,916.94 | 2,113.9016 | 73.9107 | 84.3970 | 158.3077 |
| | 11,916.94 | 526.65 | 530.30 | 11,390.29 | 1,056.9508 | | | |
| | 11,390.29 | 550.08 | 506.87 | 10,840.21 | 1,056.9508 | | | |
| 5 | 11,916.94 | 1,076.73 | 1,037.17 | 10,840.21 | 2,113.9016 | 80.6351 | 77.6726 | 158.3077 |
| | 10,840.21 | 574.56 | 482.39 | 10,265.65 | 1,056.9508 | | | |
| | 10,265.65 | 600.13 | 456.82 | 9,665.52 | 1,056.9508 | | | |
| 6 | 10,840.21 | 1,174.69 | 939.21 | 9,665.52 | 2,113.9016 | 87.9713 | 70.3364 | 158.3077 |
| | 9,665.52 | 626.84 | 430.12 | 9,038.68 | 1,056.9508 | | | |
| | 9,038.68 | 654.73 | 402.22 | 8,383.95 | 1,056.9508 | | | |
| 7 | 9,665.52 | 1,281.56 | 832.34 | 8,383.95 | 2,113.9016 | 95.9749 | 62.3328 | 158.3077 |
| | 8,383.95 | 683.86 | 373.09 | 7,700.09 | 1,056.9508 | | | |
| | 7,700.09 | 714.30 | 342.65 | 6,985.79 | 1,056.9508 | | | |
| 8 | 8,383.95 | 1,398.16 | 715.74 | 6,985.79 | 2,113.9016 | 104.7068 | 53.6009 | 158.3077 |
| | 6,985.79 | 746.08 | 310.87 | 6,239.71 | 1,056.9508 | | | |
| | 6,239.71 | 779.28 | 277.67 | 5,460.42 | 1,056.9508 | | | |
| 9 | 6,985.79 | 1,525.37 | 588.53 | 5,460.42 | 2,113.9016 | 114.2330 | 44.0747 | 158.3077 |
| | 5,460.42 | 813.96 | 242.99 | 4,646.46 | 1,056.9508 | | | |
| | 4,646.46 | 850.18 | 206.77 | 3,796.28 | 1,056.9508 | | | |
| 10 | 5,460.42 | 1,664.15 | 449.76 | 3,796.28 | 2,113.9016 | 124.6259 | 33.6817 | 158.3077 |
| | 3,796.28 | 888.02 | 168.93 | 2,908.26 | 1,056.9508 | | | |
| | 2,908.26 | 927.53 | 129.42 | 1,980.73 | 1,056.9508 | | | |
| 11 | 3,796.28 | 1,815.55 | 298.35 | 1,980.73 | 2,113.9016 | 135.9644 | 22.3432 | 158.3077 |
| | 1,980.73 | 968.81 | 88.14 | 1,011.92 | 1,056.9508 | | | |
| | 1,011.92 | 1,011.92 | 45.03 | 0.00 | 1,056.9508 | | | |
| 12 | 1,980.73 | 1,980.73 | 133.17 | 0.00 | 2,113.9016 | 148.3345 | 9.9732 | 158.3077 |

**1124 MW KOHALA HPP
Debt Servicing Schedule**

| Period | Foreign Debt | | | | | Annual Principal Repayment Rs./kW/M | Annual Interest Rs./kW/M | Annual Debt Servicing Rs./kW/M |
|--------|------------------------|------------------------|----------------------|----------------------|---------------------------|-------------------------------------|--------------------------|--------------------------------|
| | Principal Million US\$ | Repayment Million US\$ | Mark-Up Million US\$ | Balance Million US\$ | Debt Service Million US\$ | | | |
| | 1,659.4798 | 49.6631 | 45.8215 | 1,609.8168 | 95.4845 | | | |
| | 1,609.8168 | 51.0344 | 44.4502 | 1,558.7824 | 95.4845 | | | |
| 1 | 1,659.4798 | 100.6974 | 90.2717 | 1,558.7824 | 190.9691 | 790.6861 | 708.8218 | 1,499.5079 |
| | 1,558.7824 | 52.4435 | 43.0410 | 1,506.3389 | 95.4845 | | | |
| | 1,506.3389 | 53.8916 | 41.5930 | 1,452.4473 | 95.4845 | | | |
| 2 | 1,558.7824 | 106.3351 | 84.6340 | 1,452.4473 | 190.9691 | 834.9537 | 664.5542 | 1,499.5079 |
| | 1,452.4473 | 55.3796 | 40.1049 | 1,397.0676 | 95.4845 | | | |
| | 1,397.0676 | 56.9088 | 38.5758 | 1,340.1588 | 95.4845 | | | |
| 3 | 1,452.4473 | 112.2884 | 78.6807 | 1,340.1588 | 190.9691 | 881.6997 | 617.8082 | 1,499.5079 |
| | 1,340.1588 | 58.4801 | 37.0044 | 1,281.6787 | 95.4845 | | | |
| | 1,281.6787 | 60.0949 | 35.3896 | 1,221.5838 | 95.4845 | | | |
| 4 | 1,340.1588 | 118.5750 | 72.3940 | 1,221.5838 | 190.9691 | 931.0628 | 568.4451 | 1,499.5079 |
| | 1,221.5838 | 61.7542 | 33.7303 | 1,159.8296 | 95.4845 | | | |
| | 1,159.8296 | 63.4594 | 32.0252 | 1,096.3702 | 95.4845 | | | |
| 5 | 1,221.5838 | 125.2136 | 65.7555 | 1,096.3702 | 190.9691 | 983.1896 | 516.3183 | 1,499.5079 |
| | 1,096.3702 | 65.2116 | 30.2729 | 1,031.1585 | 95.4845 | | | |
| | 1,031.1585 | 67.0122 | 28.4723 | 964.1463 | 95.4845 | | | |
| | 1,096.3702 | 132.2239 | 58.7452 | 964.1463 | 190.9691 | 1,038.2348 | 461.2732 | 1,499.5079 |
| | 964.1463 | 68.8626 | 26.6220 | 895.2837 | 95.4845 | | | |
| | 895.2837 | 70.7640 | 24.7205 | 824.5197 | 95.4845 | | | |
| | 964.1463 | 139.6266 | 51.3425 | 824.5197 | 190.9691 | 1,096.3617 | 403.1462 | 1,499.5079 |
| | 824.5197 | 72.7180 | 22.7666 | 751.8017 | 95.4845 | | | |
| | 751.8017 | 74.7258 | 20.7587 | 677.0759 | 95.4845 | | | |
| | 824.5197 | 147.4438 | 43.5253 | 677.0759 | 190.9691 | 1,157.7430 | 341.7650 | 1,499.5079 |
| | 677.0759 | 76.7892 | 18.6954 | 600.2867 | 95.4845 | | | |
| | 600.2867 | 78.9095 | 16.5751 | 521.3773 | 95.4845 | | | |
| 9 | 677.0759 | 155.6986 | 35.2705 | 521.3773 | 190.9691 | 1,222.5607 | 276.9472 | 1,499.5079 |
| | 521.3773 | 81.0883 | 14.3962 | 440.2890 | 95.4845 | | | |
| | 440.2890 | 83.3273 | 12.1572 | 356.9617 | 95.4845 | | | |
| 10 | 521.3773 | 164.4156 | 26.5535 | 356.9617 | 190.9691 | 1,291.0074 | 208.5005 | 1,499.5079 |
| | 356.9617 | 85.6281 | 9.8564 | 271.3335 | 95.4845 | | | |
| | 271.3335 | 87.9925 | 7.4920 | 183.3410 | 95.4845 | | | |
| 11 | 356.9617 | 173.6206 | 17.3485 | 183.3410 | 190.9691 | 1,363.2862 | 136.2218 | 1,499.5079 |
| | 183.3410 | 90.4221 | 5.0624 | 92.9189 | 95.4845 | | | |
| | 92.9189 | 92.9189 | 2.5657 | 0.0000 | 95.4845 | | | |
| 12 | 183.3410 | 183.3410 | 7.6281 | 0.0000 | 190.9691 | 1,439.6116 | 59.8964 | 1,499.5079 |

