



**GOVERNMENT OF PAKISTAN
PLANNING COMMISSION
M/O PLANNING DEVELOPMENT & SPECIAL INITIATIVES
PROJECTS WING**

CONSULTANT REQUIRED

THIRD PARTY VALIDATION (TPV) FOR NEELUM JHELUM HYDRO POWER PROJECT

The Government of Pakistan, Planning Commission invites sealed Proposals from reputed Firms duly registered with Income Tax for Third Party Validation (TPV) of Neelum Jhelum Hydropower Project, AJK.

Bidding will be undertaken via single stage, two envelopes PPRA Rules, 2010.

The Detailed TORs and eligibility criteria is available on the website of Planning Commission and PPRA www.pc.gov.pk & www.ppra.gov.pk. The bidders may submit 2% deposit on call in the name of the undersigned. The Technical and Financial Proposals in separate envelopes must reach the office of the undersigned, not later than 22nd September, 2021, 1400Hrs. Bids will be opened on the same day at 1430Hrs.

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**GOVERNMENT OF PAKISTAN
PLANNING COMMISSION
M/O PLANNING DEVELOPMENT & SPECIAL INITIATIVES
(PROJECTS WING)**

**SUBJECT: HIRING OF SHORT TERM CONSULTANCY SERVICES FOR
THIRD PARTY VALIDATION (TPV) OF THE NEELUM
JEHLUM HYDROPOWER PROJECT (NJHPP) IN AJK**

I. BACKGROUND:

The CDWP in its meeting held on 2nd May, 2018 approved conditionally the subject project at a rationalized cost of Rs. 100 million along with amended TORs for Third Party Validation of 3rd and 4th revised PC-1 of NJHPP. It was decided that the cost of project will be met from NJHPP.

It is pertinent to note that ECNEC in its meeting held on 22nd May, 2018 while approving 4th revised PC-1 of Neelum Jehlum Hydropower Project also approved the TORs for Third Party Validation (TPV) by independent Consultants. The TPV will analyze the implementation approaches and would identify those bases, bottlenecks and barriers which caused delays in completion of this project and propose recommendation with clear fixing responsibility mainly from those implementing actors and course corrections in planning and execution of future similar projects.

Projects Wing, Ministry of Planning, Development & Special Initiative (PD&SI) intends to hire a qualified Consultant firm having capability and expertise as third party validation studies primarily in Power Sector Projects for Neelum Jhelum Hydropower project. The scope and extent of the validation Consultant is to conduct a study as third party validation firm to analyze the implementation processes of NJHP Dam project in AJK from different perspectives.

II. GOAL/AIMS OF M&E CONSULTANCY:

The aim of consultancy is to conduct a validation study as Third Party Validation (TPV) firm for the project i.e. Neelum Jhelum Hydropower project. The Consultancy firm will share its findings and recommendations of Neelum Jhelum Hydropower Dam project regarding its time and cost overrun and will evaluate the project to fix responsibility of delays in implementation to improve planning and implementation process in future projects.

III. SCOPE OF CONSULTANCY (FIRM):

The Consulting Firm will undertake detailed desk review of the Neelum Jhelum Hydropower Dam project, followed by field visits to observe, validate data/physical assets, and analyze the project implementation against the plans as per PC-I and achievement of the objectives against the Key Performance Indicators (KPIs) including project's inputs, processes and outputs. Specific ToRs for Consulting Firm approved by

ECNEC are as under:

- i. Prima facie, increase in cost is attributed to implementation of project without achieving financial close, which resulted into constraint cash flows and delays. However, in the 3rd Revised PC-1, this fact is not supported by sponsors with facts and figures. To assess, year-wise allocations, availability of funds and actual expenditure since its inception and its impact on the overall cost overrun of the may need to be examined by 3rd party consultants.
- ii. The unit construction cost of the project comes to US\$ 4.23 million per MW. Whereas, the estimated unit cost of other HPPs in the area i.e. Dasu (US\$2.25 million/MW), Bunji (US\$1.87 million/MW), Diamer Basha (US\$2.48 million/MW) Lower Palas (US\$1.66 Million/MW) etc. The high cost may need be examined by 3rd party consultants to give a detailed rationale of the higher cost of the project.
- iii. It reported that alleged violation of PPRA rules in procurement of TBM machines and other equipments had been done. The 3rd party consultants may examine the process to further ensure transparency in the procurement of all material of the project.
- iv. The decision/partial award by International Court of Arbitration regarding upholding of India's right to divert water and operate Kishanganga with full efficiency may have technical implications on the feasibility/design parameters of the project. The consultant needs to examine the detailed impact of the decision on the generation of the project and what strategy WAPDA has been developed in case of less generation of the project. A comprehensive analysis and recommendations by the consultants .
- v. The consultant needs to examine Appendix-C-1 of the revised PC-I wherein, it was mentioned that an amount of Rs.135.4 million has already been incurred on contingencies. While reviewing the details of Appendix-C of the PC-I, it had been observed that the establishment of environmental cell at a cost of Rs.1.6 million carrying out International Segregation Research Institute of Pakistan at a cost of Rs.18 million, Establishment of Girls High School at a cost of Rs.30 million etc have been met out of contingencies. The cost breakup of each item mentioned above has not been given in the PC-I observed very high. The consultant may examine that these items were not included in the 2nd Revised scope of project and therefore, incurred from the contingencies.
- vi. An amount of Rs.135 million has been incurred out of the total amount allocated in 2nd revised PC-I of Rs.4885 million. Since the 70% work has already been completed and the sponsors for the 3rd Revised PC-I, has increased the cost the cost to Rs. 8,263 Million. This shows an amount of Rs. 8128 Million is allocated for remaining 30% work. Sponsors have shown the inability to rationalize the cost estimates on the basis of actual amount incurred on the physical contingencies. The consultant may examine the aspect of the contingencies and its overall utilization plans with facts and figures.

- vii. The projected exchange loss of Rs.47.7 billion for remaining 30% work has been observed whereas; Rs.2468 million has been incurred on actual 70% physical work. It has been observed that the commercial contract made by Neelum Jhelum Hydropower Company (Pvt) Ltd has been executed which safeguards the interest of contractor specifically on foreign exchange escalation and loss. Consultants may examine the details of the competent authority by the approval of which such commercial contracts have been executed. Further, precedents quoted by the sponsors for such type of contracts also include Ghazi Brotha, Gomal-Zam Dam, Allai Khawar and Duber Khawar etc. The sponsors may also bring out that why these clauses which consistently are benefiting the contractors and in turn loss to the WAPDA have not been reviewed/improved. Specifically, analysis may be brought out why currency exchange rate has been fixed at Rs.60.35 and not kept floating.
- viii. While reviewing the contract clauses of Ghazi Brotha,"Clause 72.2 Currency Proportions" states that this clause can be mutually reviewed and amended. However, this clause has not been included in the Neelum Jhelum contract. The consultant may examine to bring out the flaws in details of commercial contract executed with the contractor. The consultants may examine this aspect and give their thought/views.
- ix. It is mentioned in the PC-I (Appendix-C-2) that an amount of Rs.24.68 billion and Rs.47.7 billion has been allocated for currency exchange loss (actual) and currency exchange loss (projected) respectively. However, the basis/details of the calculation of the said amount is missing in the PC-I. The consultants are requested to provide details/basis of the currency exchange loss.
- x. It is mentioned in the PC-I (Appendix C-3) in monthly progress report December, 2014 that an amount of Rs.3.06 billion was claimed by the Contractor however an amount of Rs.1.0 billion was approved by the Employer on the recommendations of Engineer. The consultants are requested to examine details of the increase in contractor's claim from Rs.1.5 billion to Rs.4.50 billion in the revised PC-I.
- xi. The sponsors has added additional cost under the head of Cost of Insurance Coverage for TBM (Rs.1,600 million) and cost of Additional Performance Guarantee (Rs.1,000 million). The consultants may examine this aspect and come up with their recommendations.
- xii. It is mentioned in the PC-I that the FEC component of the project cost will be arranged through IFIs (Rs.34763.68 million) & LCC through Foreign Relend Loan (Rs.78,637 million), CDL (Rs.59,700 million) & WAPDA Equity/ NJ Surcharge (Rs.50,725 million). The consultants may explain that why local currency component is not being met from the local banks instead of foreign relend loan. The consultants may examine this aspect and come up with their recommendations.
- xiii. The sponsors have envisaged Rs. 17 billion for escalation component in

the 2nd Revised PC-I and now have been increased to Rs.63 billion for the same component which is 254% increase in the original cost. Further, keeping in view the 70% completion of physical work, the actual escalation incurred during the said period is Rs. 29037.77 million which is around 61% increase with reference to estimate cost in the 2nd Revised PC-I. The abnormal increase in escalation of Rs.63 billion (254%). The consultants may examine and assess the cost and bring their recommendations.

- xiv. The Engineering and Supervision cost has been increased from Rs. 8967 million to Rs. 16343 million which is 82% increase in cost. The sponsors in this regard has incurred Rs. 9009 million up to 31-12-2014. Further, at Appendix A Table-3, has furnished the detailed increase in cost for Engineering Services and Construction Supervision. The reasons for increase/justification in cost given for extended period (Rs. 1806 million), increase in salary due to statutory requirements (Rs. 1119 million) and estimated impact of FEC (Rs. 4451 million) especially the foreign exchange impact to the tune of Rs. 4451 million have already covered under currency exchange losses therefore consultants may examine these aspects and bring their recommendations.
- xv. It is observed that the detail of variations in the cost estimates of Civil Works and E&M Works are not clearly mentioned in the PC-I. The consultants to examine the BOQ price vs quantity variation.
- xvi. The sponsors have estimated Rs. 196 million for purchase/ recurring cost for vehicles and maintenance. Up-to-date actual expenditure when 70% of physical work is completed, are Rs. 33.46 million. The consultants may examine the cost for vehicle and maintenance etc.
- xvii. The consultant may bring out the reason that why the Foreign Exchange Loss was not estimated in accordance with the clauses of contract while preparing the estimates for 2nd revised PC-I.
- xviii. It is observed that the estimation up to 35% of foreign exchange loss has been calculated on overall basis. The consultant may furnish component wise comparison of Foreign Exchange Loss as a sample case to see the impact.
- xix. The cost estimates of the PC-I should be based on the audit report carried out up to 30-06-2015 rather than w.e.f Dec, 2014. The consultants may comment.
- xx. The consultants may examine the following observations and fix responsibility if any and come up with recommendations.
 - 1. 1st time tender was invited in February 2005 i.e. three years after the approval of PC-I. Had the process been initiated immediately after the approval of the PC-I, considerable time would have been saved.
 - 2. The mode of financing was also not feasible as there were three attempts for inviting proposals. On the third attempt and after approval of the change in mode of financing, the project was finally awarded to the lowest bidder in 2007.
 - 3. When the project was awarded, the PC-I, which had considered price levels of 2001, was already outdated in this project. The actual price, including Interest During Construction (IDC) escalation and land

acquisition etc. came to around Rs. 130 billion, which was 154% of the approved PC-I cost.

4. During this period (2002-2007), there were some design changes but a major shift in design had to be made in the aftermath of 2005 Earthquake. The change entailed a time delay and massive cost overrun and was not considered while awarding the Contract in 2007.
5. Two Tunnel Boring Machines (TBMs) were deployed in place of Drill and Blast method for excavation of most critical reach of 11.2 Km of twin tunnels (total length 22.4 Km). The total cost of the TBMs as included in the PC-I of 2012 is Rs. 19.5 Billion.
6. The actual cost overrun should be considered from Rs. 130 to 274 Billion instead of Rs. 84 to Rs. 274 Billion. However, this initial jump was considered at the time of award of the contract.
7. The Financial Close (FC) of the project was not achieved. Moreover, there was lack of total funding/ commitments particularly after design changes by the present Neelum Jehlum Consultants (NJC). Had the FC been in place at the time of award of the Contract, the overruns would have been responsibility of the Contractor.
8. After the design changes there is a lack of clarity on the CPM, timelines of progress and completion of the project.
9. The contract was awarded on pre-earthquake design even after 2 years of 2005 earthquake. The reasons according to WAPDA are at Annex-III of the Inquiry Report. The following points however be noted that :-
 - a. The major design change which forms a significant part of the additional cost is lining of tunnels. The need of this lining was gravely underestimated in the design provided by Norconsult. Similarly, many other design changes made by the present NJC (such as shallow Jhelum river crossing, change in the height and design of dam to pass PMF etc.) cannot be attributed to the 2005 earthquake. The detailed engineering design carried out by the Norconsult was defective. If the detailed engineering design by the Norwegian Consultant had been carried out carefully and professionally, a lot of energy and public money could have been saved.
 - b. The reason tendered by NJHPC that conducting any sort of study was difficult as most of the International and domestic technical/ skilled staff was unwilling to go to the site seems frivolous since no punitive action has been taken against any local staff refusing to perform his duty because of the earthquake. Studies are conducted in much more difficult and hostile terrains than those at NJHPP site throughout the world.

- c. Engaging consultants after award of the contract is tantamount to putting cart before the horse. Moreover, since the design was bound to be revised in the aftermath of the earthquake and the contract with the Norconsult had expired, the construction contract should not have been awarded. Awarding construction contract before finalizing the design cannot be supported.
- xxi. The consultants may examine the necessary remedial actions taken so far regarding the findings of inquiry committee mentioned at Para (v) above so that the inordinate delay due to cost and time overrun may be avoided in future mega projects. The consultants come up what are causes in delay and cost overrun in the execution of project.
- xxii. Any other matters / issues raised by the Committee during the 3rd party evaluation / forensic examination subject to the necessary approvals/ scope adjustments in case there is a cost impact.

IV. METHODOLOGY OF STUDY

Third Party Validation (TPV) Consultant shall assume full responsibility for this validation of all the works of Neelum Jhelum Hydropower Dam project as per following guidelines:

- i. The Consultant firm will review feasibility studies including EIA, Project Planning Reports, PC-I, Progress Reports, Procurements processes, Contract agreements of project, as per approved scope of work, causes of delay(s) and identify the causes with fixing responsibility along with suggested course correction to avoid any future time and cost overrun;
- ii. Submit Inception Report, covering the objectives, scope and methodology, issues, SWOT analysis, plans, resources deployed and anticipated outcomes.
- iii. The Consultant firm will undertake detailed field visits of the project to verify/validate the compliance of the approved project designs & specifications including current status of the projects, quality of work done with adherence to sound engineering practices and project management approaches.
- iv. The Consultant will draw comparison and analyses of the approved work plan/PC-I baseline with actual physical progress and identify the causes of delays & cost overrun.
- v. The consultant will undertake financial, economic and social analysis of the project along with comparison with approved PC-Is.
- vi. Submit validation reports of project.
- vii. The Consultant will carry out assessment of the implementation phases of project and will draw the lessons learnt by highlighting the slackness done during the implementation phase of the project with clearly fixing the responsibility and give recommendations for improvement in the planning and execution processes in future projects.

V. DELIVERABLES WITH REPORTING OBLIGATIONS AND PAYMENT SCHEDULE

INCEPTION REPORT: (2 weeks)

The Inception Report will provide the methodology and procedures to be adopted by the Consultant firm for achieving the goals of this study. The inception report shall also contain the methodology and milestones.

PRESENTATION & SUBMISSION OF DRAFT FINAL REPORT: (4 weeks)

Prior to the submission of the Final Report, a presentation on the outcomes of the report shall be presented to the senior management.

FINAL REPORT: (2 weeks)

The consultant firm will present a final comprehensive analytical report on execution of project, pictures, videos, analysis, overall analysis and executive summary, covering the TORs with policy recommendations.

VI. SELECTION CRITERIA FOR CONSULTANT/CONSULTING FIRM

The firm may have a team of following experts:

1. At least 5 No. Civil/Electrical Engineers with 20 years' experience OR MS degree in Civil and Electrical Engineering with specialization backed by 15 years' experience in Planning, Implementation and M&E of Power/Water Sector Development Projects. Prior Experience of Implementation/Impact Assessment Reports, Feasibility and Case Studies, especially in water/electrical and experience in a Leadership position in Public Sector Organization and International Organization will be an added up advantage.
2. At least 2 No. MA/MSc Economics/MBA/Statistics/Environmental Sciences /geology having 15 years' experience in Socio-economic, Environmental impact analysis, geotechnical and M&E in public sector.
3. 1 No. Financial Expert/Chartered Accountant to validate the cost of the project.
4. Proven track record of undertaken similar kind of Third Party Validation (TPV) studies in public sector.

VII. EVALUATION CRITERIA

Criteria 1. Expertise and Capability of Proposer (Expertise of organization submitting proposal)		Points obtainable
1	General Organizational Capability which is likely to affect performance (i.e. size of the organization, strength of management support)	20
2	The proposer is in sound financial condition based on the financial documentation and information furnished in their proposal which should not show any financial concerns, such as negative net worth, bankruptcy proceedings, insolvency, receivership, major litigation, liens, judgments or bad credit or payment history.	20
3	Methodology showing understanding of task	10
4	Proven track record of the firm undertaken similar kind of studies in public sector. <ul style="list-style-type: none">• Projects of Rs. 1 Billion and above = 5 marks (each)• Projects of Rs.500 Million to 1 Billion = 3 marks (each)• Projects of Rs.100 Million to 500 Million = 1 marks (each)	15
5	Composition of the team proposed to provide, and Curriculum vitae of the proposed team	35
Total Points		100

VIII. TERMS OF PAYMENT

Payments will be made to the account of the Firm according to the following schedule:

S. No.	Deliverables	Time schedule for report	% of total amount in lump sum
(i)	Upon submission of Inception Report	02 Weeks	20%
(ii)	Presentation & Submission of draft Report	04 Weeks	50%
(iii)	Upon approval of Final Report	02 Weeks	30%
Total Payment		08 Weeks	100%