

GOVERNMENT OF KHYBER PAKHTUNKHWA
IRRIGATION DEPARTMENT



REQUEST FOR PROPOSALS (RFP's)
FOR
CONSULTANCY SERVICES FOR THE PROJECT

“CONSULTANCY SERVICES FOR FEASIBILITY
STUDY, DETAIL DESIGN & CONSTRUCTION
SUPERVISION OF SOLAR POWERED LIFT
IRRIGATION SCHEMES IN KHYBER
PAKHTUNKHWA”
ADP No. 2275/210664

January 2022

TUBEWELLS IRRIGATION DIVISION PESHAWAR

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SECTION 1. NIT

**OFFICE OF THE EXECUTIVE ENGINEER
TUBE WELLS IRRIGATION DIVISION
PESHAWAR**

REQUEST FOR PROPOSALS

Technical and financial proposals are invited from National/International Engineering Consultancy Firms/Joint Venture, having experience in Solar Lift Irrigation projects and also having License/registration with Pakistan Engineering Council (PEC) in the relevant category & Khyber Pakhtunkhwa Revenue Authority in respect of the Consultancy services for the following work.


Name of work: - F/S and construction of solar lift irrigation schemes in Khyber Pakhtunkhwa.ADP No.2275/210664. During: (2021-2022)
Sub work: -Consultancy Services for Feasibility study, Detail Design &Construction Supervision of Solar Powered Lift Irrigation Schemes in Khyber Pakhtunkhwa

Terms & Conditions

1. The TOR for each assignment/Consultancy can be collected from the office of the undersigned, on any working day up to 18/01/2022 and downloaded from the website www.irrigation.gkp.pk www.kppra.gov.pk.
2. The ratio for the Technical & Financial weightage will be 80:20 and the proposals will be evaluated in with criteria of Khyber Pakhtunkhwa Public Procurement Rules for Goods, Works& Services 2014.
3. The interested Consulting Firms may obtain further details/information regarding the proposed Consultancy Services on any working day from the office of the undersigned.
4. Pre-Bid meeting will be held in the office of the undersigned on 11/01/2022 at 1100 hours.
5. The Technical Proposals shall be submitted in two (02) copies each and the one (01) copy each (in sealed cover) to reach the office of the undersigned, not later than closing of office hours on 18/01/2022.
6. The Competent Authority reserves the right to accept or reject any/all the technical/financial proposals after assigning cogent reason there-to.

Executive Engineer

Address: Tube Wells Irrigation Division Irrigation Department Warsak Road Peshawar. Tel:091-9222731

 ہمارا ایمان کریشن نری پاکستان	INF(P) 6718/2021	"Take Special Care of Special Persons"
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SECTION 2. BRIEF DESCRIPTION OF PROJECT

BRIEF DESCRIPTION OF PROJECT

- Pakistan is basically an agricultural country where more than 70% of the population depends upon agro based production which in turns depends upon an efficient Irrigation system.
- The province of Khyber Pakhtunkhwa being a unit of the country maintains a vast surface and other sub surface irrigation systems that covers most of its farmed land, however its water resources are under significant stress and as such the agriculture & agricultural practices depends on water supplies that are not always guaranteed. Groundwater supplies are also subject to pressure and high withdrawals.
- Mostly there are areas in Khyber Pakhtunkhwa province particularly lying along the right bank of mighty Indus River situated at a higher level (mostly rainfed) which cannot be brought under irrigation except by lifting it through pumping.
- This area comprising of small land patches which spreads over rugged mountainous regions along Indus River from Khairabad to Shakardara in Nowshera and Kohat Districts. This river stretch measuring to about 130km in length is situated along the West bank of river Indus and is the most, barren, poverty stricken and under developed. The land of villages along the mighty Indus in this stretch is totally rain dependent and very scarce. People of these areas feel greatly deprived when they see Mighty Indus flowing yards away from their lands, but they don't have access to a drop of water for irrigation.
- The land owners and beneficiaries of the area are quite poor and due to their poor conditions & lack of technical knowhow, they are unable to bring their lands under irrigation by any means at their own resources. The cost of electricity has become prohibitive for farmers as a whole and unbearable for farmers of barrani areas and those tilling marginal lands as such Solar powered lift irrigation schemes financed by government can be great stimulus for economic activity in the above-mentioned barren regions of Kohat and Nowshera.
- Since capital cost of solar power lift irrigation is beyond their paying capacity of these barrani area farmers, the Government of Khyber Pakhtunkhwa has considered to bring such barren areas under irrigation by lifting water from Indus river through solar lift Irrigation schemes with introduction of high efficiency irrigation system and included a project in the annual development program under water sector namely "F/S and construction of solar lift Irrigation schemes in Khyber Pakhtunkhwa" for a cost of Rs.300.00 million. The component of Project comprising of deriving water from river through solar powered pumping unit, its transportation through pipeline, water storage pond at an elevated point and other civil works is to be carried out by Irrigation department whereas agriculture department would take care for the component of delivery system through high efficiency methods of Irrigation.

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- Besides other areas, following Patwar Circles of Nowshera and Kohat are located on the banks of river Indus, and most of the villages of these Patwar Circles will benefit from the SPLIS.

Proposed patwar Circles in Nowshera:

S No	Patwar Circle of Nowshera District along River Indus	Villages	Population	No of House Holds
1	Mundari PC	Hiasar Tang, Mundari, Dawargai Charpani	12758	1847
2	Jabi PC	Amanpura Kawa Jabbi Toha Gharibpura	6969	1092
3	Kahi PC	Kahi Shagai Mami Khel	31000	4117
4	Garu PC	Namal Sara Toya Lashara Totki Hardomisri Tang	7741	1006

Proposed Patwar Circles in Kohat:

S No	Patwar Circle of Nowshera District along River Indus	Villages	Population	No of House Holds
1	Shadipura PC	Shadipura Sen Alaf Khan Kot		
2	Chorlakki PC	Kamar Chorlakki	18592	2228
3	Khushal Garh PC	Khushal Garh Kasaba Qamar	4472	725
4	Parshai PC	Nakband, Ressi Banda, Toi Banda, Kander & Tilkan	21688	2704
5	Malgin PC	Malgin Gurgura	18243	2281
6	Shakardara No 2 PC	Rakhwan, Baddu, Jara Khel.	17950	2954
7	Dhand Guzaza No 1 PC	Dhand Guzaza		

- The proposed project would be a community-based Irrigation System for agriculture, livestock and drinking water and under the proposed project, construction of solar Lift Irrigation Schemes in the aforesaid different barren areas have been proposed for bringing the lands under Irrigation which have no other source of irrigation supplies.
- These Lift Irrigation Schemes after completion and successful operation would be handed over to the beneficiaries, who will be responsible for its future operation and maintenance.
- The land for the construction of these Lift Irrigation Scheme shall however be provided by

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the beneficiaries themselves free of cost.

- Provision for feasibility study, design and construction supervision has also been made in the instant PC-1 and after through feasibility, design subsequent feasible sites would be taken in hand for construction.

SECTION 3. INSTRUCTION TO CONSULTANTS

**Consultancy Services for Feasibility study, Detail Design & construction supervision of
Solar Powered Lift Irrigation Schemes (ADP: 2275/210664 dg 2021-22)**

Instructions to Consultants

Definitions

1. Three copies of the technical and one copy of financial proposals in bound form are required to be submitted. Proposal should be in a sealed envelope indicating original or copy on each enclosure, as appropriate.
2. The proposals shall be valid for a period of 180-days after the last date of submission, which is extendable on the expiry of above period through mutual agreement.
3. The technical and financial proposals of the consultants will be evaluated according to criteria for procurement of consultancy services of the Government of Khyber Pakhtunkhwa, applying weight-age formula of 80:20 for technical and financial proposals respectively.
4. Financial proposals of "Technically Qualified" consulting firms will be considered and opened by competent forum in presence of competing firms or their representatives.
5. Any observation on the TORs and LOI must be brought into the notice of the department before last date of submission of the proposals. No objection will be entertained after the submission of Technical and Financial proposals.
6. Consultants shall be responsible for payment of all taxes notified from time to time by Govt: in respect of personnel and other activities with no liability to the client.
7. Attested copies of the CVs of the proposed personnel having contact number and postal address along with availability certificate of the personnel for the Project shall be annexed in the technical proposal.
8. The consultants shall quote the fee keeping in view the Tor's and applicable fee for entire activity of design and construction supervision.
9. Payment for the personnel will be made as per actual approved rates duly agreed in the Standard Contract Agreement.
10. The contract agreement will be governed by laws and regulations of the Government of Khyber Pakhtunkhwa.
11. Security deposit and income tax/sales tax etc will be deducted as per prevailing Government rules notified from time to time.
12. The consultant shall establish Project Manager Office at Peshawar.
13. Consultants shall appear in all meetings called by the employer and also make presentations whenever required by the employer for which no TA/DA, boarding, lodging and claim for incidental charges etc, shall be entertain-able.
14. The consultant except with prior approval of the department shall not sublet the study or any part thereof.

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15. The consultants will provide undertaking to the effect that the key staff would not be employed on other projects during the currency of this agreement. Any violation will make the contract liable to termination.
16. If the consultants fail to complete any activity or part of activity, the client reserve the right to execute the same at the consultants risk & cost.
17. Input of the key & non key staff shall be kept as per requirement in office as well as at site with mutual consent of the Employer and Consultants.

SECTION 4. EVALUATION CRITERIA OF PROPOSALS

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EVALUATION CRITERIA OF PROPOSALS

Proposals of the consultancy firms will be evaluated as under

S.No	Description	Maximum Marks
A	Qualification & Experience of Technical Key Personnel	50
B	Experience of firm in undertaking Projects of Solar Tube wells i.e. similar nature & complexity	30
C	Work Plan/Manning Schedule & Methodology	20
	Total	100

Note:- Passing Marks in each category must be 50 % and overall 60%

Key Staff for evaluation and their minimum qualification from recognized institutions

S.No	Key Staff	Qualification	Relevant Experience (Years)
1	Project Manager/Team leader	Graduate in Civil/Electrical/Electronics Engineer	7
2	Electro /Mechanical Engineer (Solar Design Engineer)	Graduate in Mechanical/Electrical	5
3	Junior Engineer Civil	Graduate in Civil	5
4	Sociologist	Graduate in Sociology	5
6	Quantity Surveyor	Diploma in Survey	3
7	Surveyor	Diploma in Survey	3

A. Experience of Technical Key Personnel

S.No	Description	Marks	Criteria
1	Qualification	20	B.Sc. Eng.(i.e. 16 Years Education) shall carry 80%, MS or M. Phil 90%, and Ph. D shall carry 100%
2	Languages	05	Pashto=2 (R W S) Urdu=1.5 (R W S) English=1.5 (R W S)
3	Experience		
i.	General Experience	7.5	Experience after completion of 16 Years education (15 years of general experience will carry full marks while less than 5 years experience shall carry zero marks)
ii.	Relevant Experience	15	Experience of particular discipline (5 years of experience will carry full marks while less than 5 years experience shall carry zero marks)
iii.	Similar Projects	7.5	Full marks for 5 Projects while less than 3 projects shall carry zero marks)
4	Experience of Local Environment	05	Khyber Pakhtunkhwa=03 Pakistan=02
	Total	60	The 60 marks shall be adjusted to 50

iii. This proforma must be available on top of each CV in addition to the information to be provided as per standard format, otherwise will not be considered.

1	2	3	4	5	6		7	8	9
S#	Position	Proposed Personnel	Qualification	Knowledge of Languages	Experience		Working Environment / Location	Cell No	Duration with firm
					General	Relevant			

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B. EXPERIENCE OF FIRM.

S.No	Description	Maximum Marks
1	Relevant/Specific Experience of Firm (Design and Supervision of Solar Tube wells completed in last 10 Years)	18 Marks i. 60% marks for one Project having cost of 75 million, 75% for 2 Projects and 100% for 4 Projects or more.
2	Relevant/Specific Experience of Firm (In progress Solar Tube well projects in hand)	12 Marks i. 60% marks for one Project having cost of 75 million, 75% for 2 Projects and 100% for 4 Projects or more.

Note: -

- Cost of the project less than Rs. 75.00 Million upto Rs. 20.00 Million would receive proportionate weight-age and less than Rs. 20.0 Million shall not be considered.
- Award & completion documents must be available in support of projects claimed as experience.
- Experience certificate shall be attested.

C. APPROACH & METHODOLOGY AND MANNING SCHEDULE (20 MARKS)

The approach and methodology should cover the understanding of the assignment, methodology of execution as per ToRs and industry best practices. The Manning schedule should be clear, explicit and understandable based on realistic series of activities including legends and other requirement.

UNDERTAKING

It is hereby certified that the above are true statements based on facts and we take full responsibility for the correctness and accuracy of the information supplied herein to the best of our knowledge and belief. This is also to certify that the owner/partners/directors working solely for the consulting engineering profession. This is further to certify that we are independent consulting engineer and have no interest in any construction and conflicting commercial industrial and business activities which are likely to influence our professional independence and neutrality. We also undertake to fully abide by KPPRA act/rules & the Pakistan Engineering Council (Conduct and Practice of Consulting Engineers) Byelaws 1986 & registered with Khyber Pakhtunkhwa Revenue Authority.

SECTION 5: TERMS OF REFERENCES (TORS)

Consultancy Services for Feasibility study, Detail Design & construction supervision of Solar Powered Lift Irrigation Schemes (ADP: 2275/210664 dg 2021-22)

TERMS OF REFERENCE FOR ASSIGNMENT:

Feasibility study, Detail Design & construction supervision of Solar Powered Lift Irrigation Schemes of the potential identified sites and any other site identified during the execution phase.

1. Social feasibility including ascertaining willingness of the beneficiary for provision of free of cost land for installation of the SPLIS and HEIS.
2. Ascertaining of soil fitness for agriculture and recommendations on crop patterns
3. Recommendations on site specific HEIS for individual potential site
4. Formulation of farmers' organization for each scheme and their training on the operation and maintenance and on wiliness of the farmers to pay for water charges for the purpose of paying O&M charges.
5. Recommendation on the technical feasibility of the site for installation SPLIS
6. Measurement of Culture-able Command Area.
7. Submit site of the survey for sump well, rising main, intake of delivery tank.
8. Measurement of discharge availability to be lifted from source River/Sum well/Tube well required for the given CCA as per item-1 above.
9. Design of pumping set right from the horse power to number of Solar Panels along with all accessories with specifications.
10. Preparation of detail Estimate for Technical Sanction including Design Drawings, and rate analysis for non-schedule items.
11. Review of feasibility study and removal of discrepancies (if any).
12. To review and carry out contour survey of the intake location at contour interval of 10ft in hilly area and 5ft in the plain.
13. To establish network of control points along the proposed site as per direction of the engineer incharge.
14. To conduct the cross sectional and long sectional survey of the proposed scheme alignment at suitable intervals.
15. To conduct/review detail topographic survey as required for the detail design of scheme its allied structures.
16. To ascertain the available and discharge calculation of water in the source/stream/river for the proposed scheme.
17. To carry out detail designing of intake, canal system and allied structure and its matching with the site conditions.
18. To carry out detail design estimation of all the relevant structures.

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19. Preparation and submission of draft design report, specification, construction drawings and documents.
20. Preparation and submission of final design report, specifications, drawings and documents after approval of draft report.
21. Preparation of tender's documents.
22. Construction supervision of the feasible sites after approval and tenders.
23. Preparation and submission of final design report of required number.

Reporting Requirement

1. Submission of Design and Estimate for each individual scheme. = 3 Copies
2. Submission of Input personnel and other items on given format. = 3 Copies

MODE OF PAYMENT (FEASIBILITY STUDY, DETAIL DESIGN) (50% OF THE ESTIMATE COST)

1. On submission of inception report for each individual scheme. = 30%
2. On approval of draft feasibility / design report of each individual scheme. = 30%
3. On completion report. = 40%

MODE OF PAYMENT (CONSTRUCTION SUPERVISION) (50% OF THE ESTIMATE COST)

- I. Payment will be made to the consultants as per actual physical & personnel inputs regardless of the approval/award of submitted proposals.
- II. No other expenses as Remunerations or Direct cost will be paid to the consultants by the client.
- III. 10% of each running payment shall be withheld by the employer as security deposit which shall be released on satisfactory completion of services and submission of all reports/documents stipulated in TOR and admittance thereof by the employer.

Note:

The mode of payment indicated is tentative subject to alteration and is not to be considered as the cost of any activity but it is progressive payment for the facilitation of the consultants.

SECTION 5: PROFESSIONALS/ KEY PERSONNEL REQUIREMENTS

Consultancy Services for Feasibility study, Detail Design & construction supervision of Solar Powered Lift Irrigation Schemes (ADP: 2275/210664 dg 2021-22)

PROFESSIONALS/ KEY PERSONNEL REQUIREMENTS

Consultant Bid Cost will be sum of Key Personnel's & Logistic requirement as per below details. Payment of survey, other investigation & vehicle (Running & maintenance) will be made as per actual inputs.

FEASIBILITY STUDY, DETAIL DESIGN & CONSTRUCTION SUPERVISION (12 Months)

Abstract of cost

S.No	Description	Cost
1	DIRECT COST	
2	INDIRECT COST	
	Total =	
	Total in Million =	

ESTIMATES

A. Direct Cost Salary Cost/Remuneration				
S.No	Position	Man Months	Monthly (Rates.)	Amount Rs.
	A. (Key Staff)			
1	Project Manager/Team leader	12		
2	Electro/Mechanical Engineer (Solar Design Engineer)	12		
3	Junior Engineer Civil	6		
4	Sociologist	3		
	Sub Total of (A)			
	B. (Non-Key / Support Staff)			
1	Quantity Surveyor	12		
2	Field Inspector (2 No)	24		
3	Surveyor (1 No)	12		
4	Survey Helper (2 No)	24		
5	Computer Operator / Office Assistant	12		
6	Naib Qasid / Office Boy / Chowkidar	24		
	Sub Total of (B)			
	G Total of (A+B)			
	G Total in Million			

**Consultancy Services for Feasibility study, Detail Design & construction supervision of
Solar Powered Lift Irrigation Schemes (ADP: 2275/210664 dg 2021-22)**

B. Indirect Cost Non-Salary Cost/Reimbursables					
S.No	Item Description	Quantity	Unit	Rate (Rs.)	Amount Rs.
A. Machinery and equipment					
1	Telephone with Internet	12	Month		
2	Desktop Computer	1	No		
3	Printer (B & W) Laser	1	No		
	Sub Total of (A)				
B. Furniture & Fixtures					
1	Office Table	3	No		
2	Office Revolving Chair	3	No		
3	Visitors Chairs	12	No		
4	Side Rack Wooden	3	No		
5	Steel Almerah	3	No		
6	Computer Table With Chair	1	No		
	Sub Total of (B)				
C. Commodities & Services					
1	Project Office i/c Utility Charges	12	Month		
2	Supplies Stationary & repair of equipment's	12	Month		
3	Rental / Running charges of vehicles	12	Month		
	Sub Total of (C)				
	G Total of (A+B+C)				
	G Total in Million				
	Grand Total of (Direct Cost + Indirect Cost) in Million.				