



GOVERNMENT OF SINDH

CONTRACT AGREEMENT

Consulting Services for

FEASIBILITY STUDY, PREPARATION OF MODIFIED/REVISED PC-I,
DETAILED ENGINEERING DESIGN AND CONSTRUCTION SUPERVISION
OF
WATER CARRIER FROM NABISAR RESERVOIR
TO THAR COAL FIELD BLOCK-II

between

COAL & ENERGY DEVELOPMENT DEPARTMENT



SINDH COAL AUTHORITY

(Employer - The Procuring Agency)

and



A. A. ASSOCIATES
PLANNERS AND CONSULTING ENGINEERS
(The Consultant)

July 2012





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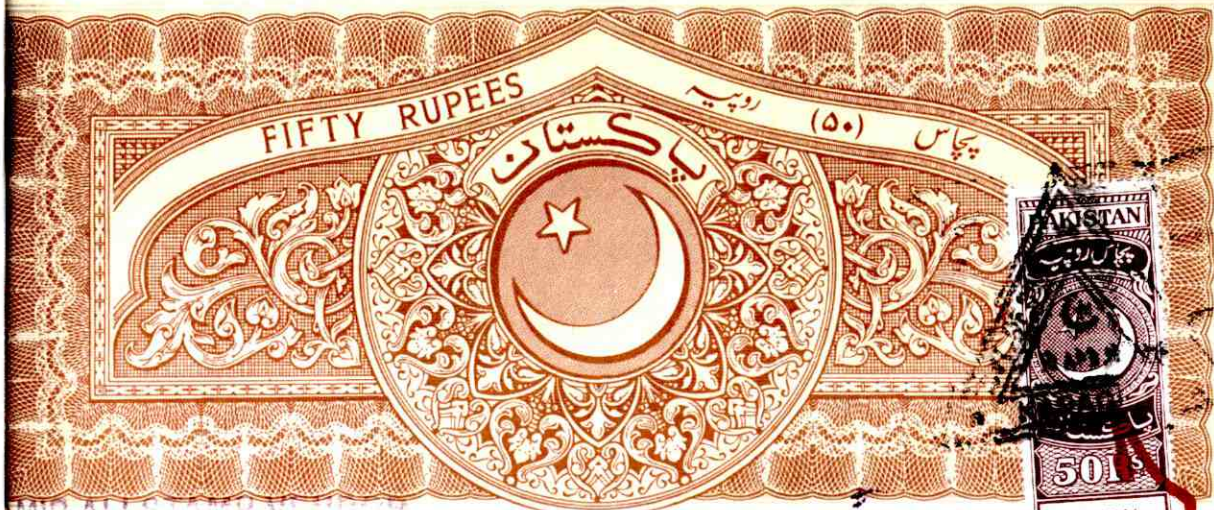
TABLE OF CONTENTS

	Description	Page No.
	Letter of Acceptance	
	Form of Contract	
II	GENERAL CONDITION OF CONTRACT	1
1.	General Provision	1
1.1	Definitions	1
1.2	Law Governing Contract	2
1.3	Language	2
1.4	Notices	2
1.5	Location	2
1.6	Authority of Member in Charge	2
1.7	Authority Representatives	2
1.8	Taxes and Duties	2
1.9	Fraud and Corruption	2
2.	COMMERCIAL, COMPLETION, MODIFICATION AND TERMINATION OF CONTRACT	3
2.1	Effectiveness of Contract	3
2.2	Commencement of Services	3
2.3	Expiration of Contract	3
2.4	Modification or Variation	3
2.5	Force Majeure	3
2.5.2	No Breach of Contract	3
2.5.3	Extension of Time	3
2.5.4	Payments	4
2.6	Termination	4
2.6.1	By the PA	4
2.6.2	By the Consultant	4
2.6.3	Payment upon Termination	5
3.	OBLIGATION OF THE CONSULTANT	5
3.1	General	5
3.1.1	Standard of Performance	5
3.2	Conflict of Interests	5
3.2.1	Consultants not be Benefit from Commissions, Discounts, etc	5
3.2.2	Consultant and Affiliates not to be Otherwise Interested in Project	5
3.2.3	Prohibition of Conflicting Activities	5
3.3	Confidentially	6
3.4	Insurance to be Taken out by the Consultant	
3.5	Consultant's Actions Requiring PA's Prior Approval	
3.6	Reporting Obligations	
3.7	Documents Prepared by the Consultant to be the Property of the PA	
3.8	Accounting Inspection and Auditing	



4.	CONSULTANT'S PERSONNEL	7
4.1	Description of Personnel	7
4.2	Removal and/or Replacement of Personnel	7
5.	OBLIGATION OF THE PA	7
5.1	Assistance and Exemption	7
5.2	Change in the Applicable Law Related to Taxes and Duties	7
5.3	Services and Facilities	8
6.	PAYMENTS TO THE CONSULTANT	8
6.1	Security	8
6.2	Lump-Sum Payment	8
6.3	Contract Price	8
6.4	Payment for Additional Services	8
6.5	Terms and Conditions of Payment	8
7.	GOOD FAITH	8
7.1	Good Faith	8
8.	SETTLEMENT OF DISPUTES	8
8.1	Amicable Settlement	8
8.2	Dispute Resolution	9
III	SPECIAL CONDITIONS OF CONTRACT	10
	Annex A – Terms of Reference	
	Annex B – Cost Estimate for Design and Construction Supervision	
	Annex C – Project Implementation Schedule	
	Annex D – Project Staff Schedule	
	Annex E – Minutes of Negotiation Committee Meeting	
	Appendix A – Integrity Pact	





5/455

19 APR 2012

13 APR 2012

MIR ALI SHER ASSOCIATES
 MALIK SHER ASSOCIATES
 KARACHI

**CONTRACT
 BETWEEN
 GOVERNMENT OF SINDH
 COAL & ENERGY DEVELOPMENT DEPARTMENT
 SINDH COAL AUTHORITY**

AND

A. A. ASSOCIATES

FOR

**CONSULTING SERVICES FOR
 FEASIBILITY STUDY, PREPARATION OF MODIFIED/REVISED PC-I,
 DETAILED ENGINEERING DESIGN AND CONSTRUCTION SUPERVISION OF
 WATER CARRIER FROM NABISAR RESERVOIR TO THAR COAL FIELD BLOCK-II**

THIS CONTRACT (hereinafter called the "Contract") is made on the 09th day of July, 2012, by and between **Government of Sindh, Coal and Energy Development Department / Sindh Coal Authority** (hereinafter called the "Procuring Agency -PA"), having its principal place of business at House No. 16, E-Street, behind Zamzama Park, DHA Phase V, Karachi, and **M/s. A. A. Associates** (hereinafter called the "Consultant"), having their principal offices located at 245-2-Y, Block-6, P.E.C.H.S., (Off- Shahr-e Faisal), Karachi-75400.

WHEREAS, the PA wishes to have the Consultant performing the services hereinafter referred to, and

WHEREAS, the Consultant is willing to perform these services,

NOW THEREFORE THE PARTIES hereby agree as follows:

1. Services

- (i) The Consultant shall perform the services specified in Annex A, "Terms of Reference and Scope of Services," which is made an integral part of this Contract ("the Services").
- (ii) The Consultant shall provide the reports as defined in article 8 of TOR attached as Annex A, and the personnel listed in Annex B, "Cost Estimate of Services, List of Personnel and Schedule of Rates" to perform the Services.



(iii) The following documents attached hereto shall be deemed to form an integral part of this Contract.

- a) The General Conditions of Contract
- b) The Special Conditions of Contract
- c) The following Annexures
 - Annex A: TOR / Scope of Services including Project Staffing Requirements, Project Deliverables / Reporting Requirements, Facilities during Construction Supervision Phase and Additional Services etc;
 - Annex B: Cost Estimates for Design and Construction Supervision Phases with list of Personnel and Rates
 - Annex C: Project Implementation Schedule
 - Annex D: Project Staff Schedule
 - Annex E: Minutes of Negotiation Committee Meeting

2. Term

The Consultant shall perform the Services during the period commencing [July, 2012] and continuing through [February, 2015] or any other period as may be subsequently agreed by the parties in writing.

3. Payment

A. Ceiling

For Services rendered pursuant to Annex A, the PA shall pay the Consultant an amount not to exceed [Rs. 87,485,099/-]. This amount has been established based on the understanding that it includes all of the Consultant's costs and profits as well as any tax obligation that may be imposed on the Consultant.

C. Payment Conditions

Payment shall be made in Pak Rupees no later than 30 days following submission by the Consultant of invoices in duplicate to the Coordinator designated in paragraph 4.

4. Project Administration

A. Coordinator

The PA designates Mr. Abdul Majeed Pathan, Director General (DG) Sindh Coal Authority (SCA) as PA's Coordinator, or any other official designated and authorized by DG Sindh Coal Authority (SCA); the Coordinator shall be responsible for the coordination of activities under the Contract, for receiving and approving invoices for payment, and for acceptance of the deliverables by the Consultant.

B. Timesheets

During the course of their work under this Contract the Consultant's employees providing services under this Contract may be required to complete timesheets or any other document used to identify time spent, as instructed by the Coordinator.

C. Records and Accounts

The Consultant shall keep accurate and systematic records and accounts in respect of the Services, which will clearly identify all charges and expenses. The PA reserves the right to audit, or to nominate a reputable accounting firm to audit, the Consultant's records relating to amounts claimed under this Contract during its term and any extension, and for a period of three months thereafter.






5. **Performance Standard** The Consultant undertakes to perform the Services with the highest standards of professional and ethical competence and integrity. The Consultant shall promptly replace any employees assigned under this Contract that the PA considers unsatisfactory.
6. **Confidentiality** The Consultants shall not, during the term of this Contract and within two years after its expiration, disclose any proprietary or confidential information relating to the Services, this Contract or the PA's business or operations without the prior written consent of the PA.
7. **Ownership of Material** Any studies, reports or other material, graphic, software or otherwise, prepared by the Consultant for the PA under the Contract shall belong to and remain the property of the PA. The Consultant may retain a copy of such documents and software.
8. **Consultant Not to be Engaged in Certain Activities** The Consultant agrees that, during the term of this Contract and after its termination, the Consultant and any entity affiliated with the Consultant, shall be disqualified from providing goods, works or services (other than the Services or any continuation thereof) for any project resulting from or closely related to the Services.
9. **Insurance** The Consultant will be responsible for taking out any appropriate insurance coverage for their personnel and equipments.
10. **Assignment** The Consultant shall not assign this Contract or Subcontract any portion thereof it without the PA's prior written consent.
11. **Law Governing Contract and Language** The Contract shall be governed by the laws of Islamic Republic of Pakistan or the Provincial Government and the language of the Contract shall be English.
12. **Dispute Resolution** Any dispute arising out of this Contract, which cannot be amicably settled between the parties, shall be referred to adjudication/arbitration in accordance with the Arbitration Act of 1940.

IN WITNESS WHEREOF, the parties hereto have caused this Contract to be signed in their respective names as of the day and year first above written

FOR AND BEHALF OF PA



FOR AND BEHALF OF CONSULTANT




 Signed by: **Abdul Majeed Pathan**
 Title: Director General,
 Sindh Coal Authority
 Coal and Energy Development Department
 Government of Sindh


 Signed by: **Abdul Nabi Pathan,**
 Title: Partner,
 A. A. Associates, Karachi
 245-2-Y, Block 6, P.E.C.H.S.
 (Off. Sharea Faisal) Karachi-75400



Witness:


 Hasan Ally Memon
 Chief Engineer, Sindh Coal Authority



 Agha Muhammad Abdul Qayoom
 Manager Admin & HR

318
Challan No.

National Bank of Pakistan

TR 6 (Treasury / Sub Treasury)
(Treasury Rule 92)
Challan of Cash paid into the _____ at _____ KARACHI
National Bank of Pakistan

To be filled by the remitter					To be filled in the Department Office of the Treasury	
By whom tendered	Name (or designation) and person on whose behalf money is paid	Full Particulars of the remittance and of authority (if any)	Amount		Head of Account	Order to the Bank
Name	A. A. Associates	ASST. SUPERINTENDENT OF STAMPS. KARACHI	Rs. 26,260/-	Ps. 00/-		
Signature			Total		Date	
National Bank of Pakistan Cash Branch			26,260/-		10 JUL 2008	
CASH RECEIVED			SPECIAL ADHESIVE STAMPS COMMERCIAL B-02702		027000-0271000	
(In words) Rupees			Twenty Six Thousand Two Hundred and Sixty		Correct - Receive and grant receipt	
Received payment (in words) Rupees			Rupees only		(Signature and full designation of the Officer ordering the money to be paid in)	
Treasurer			Accountant		Treasury Officer Agent	
Date			City		Office	

GENERAL CONDITIONS OF CONTRACT

1. GENERAL PROVISIONS

1.1 Definitions

Unless the context otherwise requires, the following terms whenever used in this Contract have the following meanings:

- (a) "Applicable Law" means the Sindh Public Procurement Act, there-under Rules 2010.
- (b) "Procuring Agency PA" means the implementing department which signs the contract.
- (c) "Consultant" means a professional who can study, design, organize, evaluate and manage projects or assess, evaluate and provide specialist advice or give technical assistance for making or drafting policies, institutional reforms and includes private entities, consulting firms, legal advisors, engineering firms, construction managers, management firms, procurement agents, inspection agents, auditors, international and multinational organizations, investment and merchant banks, universities, research institutions, government agencies, nongovernmental organizations, and individuals.
- (d) "Contract" means the Contract signed by the Parties and all the attached documents listed in its Clause 1 that is General Conditions (GC), the Special Conditions (SC), and the Appendices.
- (e) "Contract Price" means the price to be paid for the performance of the Services, in accordance with Clause 6;
- (f) "Effective Date" means the date on which this Contract comes into force and effect pursuant to Clause GC 2.1.
- (g) "Foreign Currency" means any currency other than the currency of the PA's country.
- (h) "GC" mean these General Conditions of Contract.
- (i) "Government" means the Government of Sindh.
- (j) "Local Currency" means Pak Rupees.
- (k) "Member" means any of the entities that make up the joint venture/consortium/association, and "Members" means all these entities.
- (l) "Party" means the PA or the Consultant, as the case may be, and "Parties" means both of them.



- (m) "Personnel" means persons hired by the Consultant or by any Sub-Consultants and assigned to the performance of the Services or any part thereof.
- (n) "SC" means the Special Conditions of Contract by which the GC may be amended or supplemented.
- (o) "Services" means the consulting services to be performed by the Consultant pursuant to this Contract, as described in the Terms of Reference.
- (p) "Sub-Consultants" means any person or entity to whom/which the Consultant subcontracts any part of the Services.
- (q) "In writing" means communicated in written form with proof of receipt.

1.2 Law Governing Contract

This Contract, its meaning and interpretation, and the relation between the Parties shall be governed by the applicable law.

1.3 Language

This Contract is executed in the language specified in the SC, which shall be the binding and controlling language for all matters relating to the meaning or interpretation of this Contract.

1.4 Notices

- 1.4.1 Any notice, request or consent required or permitted to be given or made pursuant to this Contract shall be in writing. Any such notice, request or consent shall be deemed to have been given or made when delivered in person to an authorized representative of the Party to whom the communication is addressed, or when sent to such Party at the address specified in the SC.
- 1.4.2 A Party may change its address for notice hereunder by giving the other Party notice in writing of such change to the address specified in the SC.

1.5 Location

The Services shall be performed at such locations as are specified in special condition of contract and, where the location of a particular task is not so specified, at such locations, whether in the Government's country or elsewhere, as the PA may approve.

1.6 Authority of Member in Charge

In case the Consultant consists of a joint venture/ consortium/ association of more than one individual firms, the Members hereby authorize the individual firms or specified in the SC to act on their behalf in exercising all the Consultant's rights and obligations towards the PA under this Contract, including without limitation the receiving of instructions and payments from the PA.

1.7 Authorized Representatives

Any action required or permitted to be taken, and any document required or permitted to be executed under this Contract by the PA or the Consultant may be taken or executed by the officials specified in the SC.



1.8 Taxes and Duties

The Consultant, Sub-Consultants, and their Personnel shall pay such direct or indirect taxes, duties, fees, and other impositions levied under the Applicable Law as specified in the SC, the amount of which is deemed to have been included in the Contract Price.

1.9 Fraud and Corruption

If the PA determines that the Consultant and/or its Personnel, subcontractors, sub-consultants, services providers and suppliers has engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices, in competing for or in executing the Contract, then the PA may, after giving 14 days notice to the Consultant, terminate the Consultant's employment under the Contract, and may resort to other remedies including blacklisting/disqualification as provided in SPPR 2010.

Any personnel of the Consultant, who engages in corrupt, fraudulent, collusive, coercive, or obstructive practice during the execution of the Contract, shall be removed in accordance with Sub-Clause 4.2.

2. COMMENCEMENT, COMPLETION, MODIFICATION AND TERMINATION OF CONTRACT

2.1 Effectiveness of Contract

This Contract shall come into effect on the date the Contract is signed by both Parties and such other later date as may be stated in the SC. The date the Contract comes into effect is defined as the Effective Date.

2.2 Commencement of Services

The Consultant shall begin carrying out the Services not later than the number of days after the Effective Date specified in the SC.

2.3 Expiration of Contract

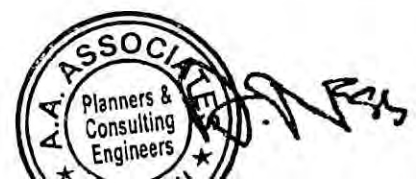
Unless terminated earlier pursuant to Clause GC 2.6 hereof, this Contract shall expire at the end of such time period after the Effective Date as specified in the SC.

2.4 Modifications or Variations

Any modification or variation of the terms and conditions of this Contract, including any modification or variation of the scope of the Services, may only be made by written agreement between the Parties. However, each Party shall give due consideration to any proposals for modification or variation made by the other Party.

2.5 Force Majeure

The failure on the part of the parties to perform their obligation under the contract will not be considered a default if such failure is the result of natural calamities, disasters and circumstances beyond the control of the parties.



2.5.2 No Breach of Contract

The failure of a Party to fulfill any of its obligations under the contract shall not be considered to be a breach of, or default under, this Contract insofar as such inability arises from an event of Force Majeure, provided that the Party affected by such an event (a) has taken all reasonable precautions, due care and reasonable alternative measures in order to carry out the terms and conditions of this Contract, and (b) has informed the other Party as soon as possible about the occurrence of such an event.

2.5.3 Extension of Time

Any period within which a Party shall, pursuant to this Contract, complete any action or task, shall be extended for a period equal to the time during which such Party was unable to perform such action as a result of Force Majeure.

2.5.4 Payments

During the period of their inability to perform the Services as a result of an event of Force Majeure, the Consultant shall be entitled to continue to be paid under the terms of this Contract, as well as to be reimbursed for additional costs reasonably and necessarily incurred by them during such period for the purposes of the Services and in reactivating the Service after the end of such period.

2.6 Termination

2.6.1 By the PA

The PA may terminate this Contract in case of the occurrence of any of the events specified in paragraphs (a) through (f) of this Clause GC 2.6.1. In such an occurrence the PA shall give a not less than thirty (30) days' written notice of termination to the Consultant, and sixty (60) days' in the case of the event referred to in (e).

- (a) If the Consultant does not remedy the failure in the performance of their obligations under the Contract, within thirty (30) days after being notified or within any further period as the PA may have subsequently approved in writing.
- (b) If the Consultant becomes insolvent or bankrupt.
- (c) If the Consultant, in the judgment of the PA has engaged in corrupt or fraudulent practices in competing for or in executing the Contract.
- (d) If, as the result of Force Majeure, the Consultant(s) are unable to perform a material portion of the Services for a period of not less than sixty (60) days.
- (e) If the PA, in its sole discretion and for any reason whatsoever, decides to terminate this Contract.
- (f) If the Consultant fails to comply with any final decision reached as a result of arbitration proceedings pursuant to Clause GC 8 hereof.



2.6.2 By the Consultant

The Consultants may terminate this Contract, by not less than thirty (30) days' written notice to the PA, such notice to be given after the occurrence of any of the events specified in paragraphs (a) through (c) of this Clause GC 2.6.2:

- a. If the PA fails to pay any money due to the Consultant pursuant to this Contract without consultants fault.
- b. Pursuant to Clause GC 7 hereof within forty-five (45) days after receiving written notice from the Consultant that such payment overdue.
- c. If, as the result of Force Majeure, the Consultant is unable perform a material portion of the Services for a period of not less than sixty (60) days.
- d. If the PA fails to comply with any final decision reached as result of arbitration pursuant to Clause GC 8 hereof.

2.6.3 Payment upon Termination

Upon termination of this Contract pursuant to Clauses GC 2.6.1 or GC 2.6.2, the PA shall make the following payments to the Consultant:

- (a) payment pursuant to Clause GC 6 for Services satisfactorily performed prior to the effective date of termination;
- (b) except in the case of termination pursuant to paragraphs (a) through and (f) of Clause GC 2.6.1, reimbursement of any reasonable cost incident to the prompt and orderly termination of the Contract, including the cost of the return travel of the Personnel and their eligible dependents.

3. OBLIGATIONS OF THE CONSULTANT

3.1 General

3.1.1 Standard of Performance

The Consultant shall perform the Services and carry out their obligations hereunder with all due diligence, efficiency and economy, in accordance with generally accepted professional standards and practices, and shall observe sound management practices, and employ appropriate technology and safe and effective equipment, machinery, materials and methods. The Consultant shall always act, in respect of any matter relating to this Contract or to the Services, as faithful advisers to the PA, and shall at all times support and safeguard the PA's legitimate interests in any dealings with Sub-Consultants or third Parties.



3.2 Conflict of Interests

The Consultant shall hold the PA's interests paramount, without any consideration for future work, and strictly avoid conflict with other assignments or their own corporate interests.

3.2.1 Consultants not to Benefit from Commissions, Discounts, etc.

The payment of the Consultant pursuant to Clause GC 6 shall constitute the Consultant's only payment in connection with this Contract or the Services, and the Consultant shall not accept for their own benefit any trade commission, discount, or similar payment in connection with activities pursuant to this Contract or to the Services or in the discharge of their obligations under the Contract, and the Consultant shall use their best efforts to ensure that the Personnel, any Sub-Consultants, and agents of either of them similarly shall not receive any such additional payment.

3.2.2 Consultant and Affiliates not to be Otherwise Interested in Project

The Consultant agrees that, during the term of this Contract and after its termination, the Consultant and any entity affiliated with the Consultant, as well as any Sub-Consultants and any entity affiliated with such Sub-Consultants, shall be disqualified from providing goods, works or services (other than consulting services) resulting from or directly related to the Consultant's Services for the preparation or implementation of the project.

3.2.3 Prohibition of Conflicting Activities

The Consultant shall not engage, and shall cause their Personnel as well as their Sub-Consultants and their Personnel not to engage, either directly or indirectly, in any business or professional activities which would conflict with the activities assigned to them under this Contract.

3.3 Confidentiality

Except with the prior written consent of the PA, the Consultant and the Personnel shall not at any time communicate to any person or entity any confidential information acquired in the course of the Services, nor shall the Consultant and the Personnel make public the recommendations formulated in the course of, or as a result of, the Services.

3.4 Insurance to be Taken Out by the Consultant

The Consultant (a) shall take out and maintain, and shall cause any Sub-Consultants to take out and maintain, at their (or the Sub-Consultants', as the case may be) own cost but on terms and conditions approved by the PA, insurance against the risks, and for the coverage, as shall be specified in the SC; and (b) at the PA's request, shall provide evidence to the PA showing that such insurance has been taken out and maintained and that the current premiums have been paid.



**3.5 Consultant's
Actions Requiring
PA's Prior
Approval**

The Consultant shall obtain the PA's prior approval in writing before taking any of the following actions:

- (a) entering into a subcontract for the performance of any part of the Services,
- (b) appointing such members of the Personnel not listed by name in Annexure B, and
- (c) any other action that may be specified in the SC.

**3.6 Reporting
Obligations**

- (a) The Consultant shall submit to the PA the reports and documents specified in hereto, in the form, in the numbers and within the time periods set forth in the said Appendix.
- (b) Final reports shall be delivered in CD ROM in addition to the hard copies specified in said Appendix.

**3.7 Documents
Prepared by the
Consultant to be the
Property of the PA**

- (a) All plans, drawings, specifications, designs, reports, other documents and software submitted by the Consultant under this Contract shall become and remain the property of the PA, and the Consultant shall, not later than upon termination or expiration of this Contract, deliver all such documents to the PA, together with a detailed inventory thereof.
- (b) The Consultant may retain a copy of such documents and software. Restrictions about the future use of these documents, if any, shall be specified in the SC.

**3.8 Accounting,
Inspection and
Auditing**

3.8.1 The Consultant shall keep, and shall cause its Sub-consultants to keep, accurate and systematic accounts and records in respect of the Contract, in accordance with internationally accepted accounting principles and in such form and detail as will clearly identify relevant time changes and costs.

3.8.2 The Consultant shall permit, and shall cause its Sub-consultants to permit, the PA and/or persons appointed by the PA to inspect its accounts and records relating to the performance of the Contract and the submission of the Proposal to provide the Services, and to have such accounts and records audited by auditors appointed by the PA if requested by the PA. The Consultant's attention is drawn to Clause 1.9.1 which provides, inter alia, that acts intended to materially impede the exercise of the PA's inspection and audit rights provided for under Clause 3.8 constitute a prohibited practice subject to contract termination (as well as to a determination of ineligibility pursuant to the PA's prevailing sanctions procedures.).



4. CONSULTANT'S PERSONNEL

4.1 Description of Personnel

The Consultant shall employ and provide such qualified and experienced Personnel and Sub-Consultants as are required to carry out the Services. The titles, agreed job descriptions, minimum qualifications, and estimated periods of engagement in the carrying out of the Services of the Consultant's Key Personnel are described in Annex B. The Key Personnel and Sub-Consultants listed by title as well as by name in Annex B are hereby approved by the PA.

4.2 Removal and/or Replacement of Personnel

- (a) Except as the PA may otherwise agree, no changes shall be made in the Key Personnel. If, for any reason beyond the reasonable control of the Consultant, such as retirement, death, medical incapacity, among others, it becomes necessary to replace any of the Key Personnel, the Consultant shall provide as a replacement a person of equivalent or better qualifications.
- (b) If the PA finds that any of the Personnel have (i) committed serious misconduct or have been charged with having committed a criminal action, or (ii) have reasonable cause to be dissatisfied with the performance of any of the Personnel, then the Consultant shall, at the PA's written request specifying the grounds thereof, provide as a replacement a person with qualifications and experience acceptable to the PA.
- (c) The Consultant shall have no claim for additional costs arising out of or incidental to any removal and/or replacement of Personnel.

5. Obligations of the PA

5.1 Assistance and Exemptions

The PA shall use its best efforts to ensure that the Government shall provide the Consultant such assistance and exemptions as specified in the SC.

5.2 Change in the Applicable Law Related to Taxes and Duties

If, after the date of this Contract, there is any change in the Applicable Law with respect to taxes and duties which increases or decreases the cost incurred by the Consultant in performing the Services, then the remuneration and reimbursable expenses otherwise payable to the Consultant under this Contract shall be increased or decreased accordingly by agreement between the Parties, and corresponding adjustments shall be made to the amounts referred to in Clauses GC 6.2 (a) or (b), as the case may be.

5.3 Services and Facilities

The PA shall make available free of charge to the Consultant the Services and Facilities listed under Annex A.



6. PAYMENTS TO THE CONSULTANT

6.1 Security

The consultant has to submit bid security and the performance security at the rate mention in SC.

6.2 Lump-Sum Payment

The total payment due to the Consultant shall not exceed the Contract Price which is an all inclusive fixed lump-sum covering all costs required to carry out the Services described in Annex A. Except as provided in Clause 5.2, the Contract Price may only be increased above the amounts stated in Clause 6.2 if the Parties have agreed to additional payments in accordance with Clause 2.4.

6.3 Contract Price

The price payable in Pak Rupees is set forth in the SC.

6.4 Payment for Additional Services

For the purpose of determining the remuneration due for additional services as may be agreed under Clause 2.4, a breakdown of the lump sum price is provided in Annex B.

6.5 Terms and Conditions of Payment

Payments will be made to the account of the Consultant and according to the payment schedule stated in the SC. Unless otherwise stated in the SC; the first payment shall be made against the provision by the Consultant of an advance payment guarantee for the same amount, and shall be valid for the period stated in the SC. Such guarantee shall be in the form set forth in Annexure --- hereto, or in such other form, as the PA shall have approved in writing. Any other payment shall be made after the conditions listed in the SC for such payment have been met, and the Consultant has submitted an invoice to the PA specifying the amount due.

7. GOOD FAITH

7.1 Good Faith

The Parties undertake to act in good faith with respect to each other's rights under this Contract and to adopt all reasonable measures to ensure the realization of the objectives of this Contract.

8. SETTLEMENT OF DISPUTES

8.1 Amicable Settlement

The Parties agree that the avoidance or early resolution of disputes is crucial for a smooth execution of the Contract and the success of the assignment. The Parties shall use their best efforts to settle amicably all disputes arising out of or in connection with this Contract or its interpretation.

8.2 Dispute Resolution

Any dispute between the Parties as to matters arising pursuant to this Contract that cannot be settled amicably within thirty (30) days after receipt by one Party of the other Party's request for such amicable settlement may be submitted by either Party for settlement in accordance with the provisions specified in the SC.



III. Special Conditions of Contract

Clauses in brackets { } are optional;

- Number of GC Clause** Amendments of, and Supplements to, Clauses in the General Conditions of Contract
- 1.1** Sindh Public Procurement Act and Sindh Public Procurement Rules 2010.
- 1.3** The language is English :
- 1.4** The addresses are:
- Procuring Agency : House No. 16, E-Street, behind Zamzama Park, DHA Phase V, Karachi
- Attention : Abdul Majeed Pathan, Director General (DG), Sindh Coal Authority (SCA)
- Facsimile : 021-99251038
- E-mail : dgsca@yahoo.com
- Consultant : 245-2-Y, Block-6, P.E.C.H.S., (Off-Shahrae Faisal), Karachi-75400.
- Attention : Abdul Nabi Pathan, Partner A. A. Associates
- Facsimile : 021-34545287
- E-mails : info@aa-associates.com
- 1.6** The Member in Charge is Mr. Abdul Nabi Pathan, Partner A. A. Associates.
- 1.7** The Authorized Representatives are:
- For the PA: Abdul Majeed Pathan, Director General,
- For the Consultant: Abdul Nabi Pathan A. A. Associates
- 1.8** As per RFP
- 2.2** The date for the commencement of Services shall be within seven (07) days of signing of the Contract.
- 2.3** The time period shall be 6 months for Design Phase, 21 months for Construction Supervision and 3 months for closing / finalization of construction contract.
- 3.4** The risks and the coverage shall be as follows:
- (a) Third Party liability insurance, with a minimum coverage of **PKR 200,000/- per occurrence**;
- (b) Professional liability insurance, with a minimum coverage of **Rs. 87,485,099/-**.
- (c) Employer's liability and workers' compensation insurance in respect of the Personnel of the Consultant and of any Sub-Consultants, in accordance with the relevant provisions of the Applicable Law, as well as, with respect to such Personnel, any such life, health, accident, travel or other insurance as may be appropriate; **PKR 600,000/- per occurrence in case of death and PKR 150,000/- in case of injury.**
- (d) insurance against loss of or damage to (i) equipment purchased in whole or in part with funds provided under this Contract, **Full Replacement Cost** (ii) any documents prepared by the Consultant in the performance of the Services, **Full cost to be incurred on the reproduction of any such document.**



3.7 (b) The Consultant shall not use these documents and software for purposes unrelated to this Contract without the prior written approval of the PA.

5.1 As per TOR / RFP

6.1 1% Bid Security submitted with financial proposal shall be returned back to the Consultant upon receipt of 5% Performance Security or shall be adjusted in the Performance Security.

6.3 The amount in Pak Rupees 87,485,099/-.

6.5 The accounts are:

- | | | | | |
|---------------------|--------------|----------------|------|-------------|
| 1. Soneri Bank Ltd. | 02011127005 | Shahrae Faisal | 0031 | SONEPKKASFK |
| 2. M.C.B. | 145-2 | Shahrae Faisal | 0893 | MUCBPKKA |
| 3. Citi Bank N.A. | 1-001083-097 | Shahrae Faisal | | CITIPKKX |

for local currency: Pak Rupees

Payments shall be made according to the following schedule:

A Design Phase

- Fifteen (15) percent of the design contract price shall be paid on the submission of inception report.
- Twenty Five (25) percent of the design contract price shall be paid upon submission of Site Survey & Investigation Report.
- Twenty (20) percent of the design contract price shall be paid upon submission of Draft Final Design Report.
- Twenty five (25) percent of the design contract price shall be paid upon submission of Tender Document.
- Fifteen (15) percent of the design contract price shall be paid upon submission of Final Report

B Construction Supervision Phase

Consultants' invoices shall be paid in every month as per the input (remuneration and out of pocket expenses) made during the month

8.2 Disputes shall be settled by Complaint Redressal Committee define in SPPRA 2010 or through arbitration Act of 1940 in accordance with the following provisions:
The Arbitration shall take place in Karachi.



Annex A

TOR / Scope of Services including Project Implementation
Schedule, Project Staffing Requirements, Project Deliverables
/ Reporting Requirements, Facilities during Construction
Supervision Phase and Additional Services etc



**TERMS OF REFERENCE [TOR] OF FEASIBILITY STUDY,
PREPARATION OF MODIFIED/REVISED PC-I, DETAILED ENGINEERING
DESIGN AND CONSTRUCTION SUPERVISION OF WATER CARRIER FROM
NABISAR RESERVOIR TO THAR COAL FIELD BLOCK 2**

1. GENERAL

The Government of Sindh, entrusted the task to Coal and Energy Development Department to provide infrastructure required to generate power / energy from Thar coal, which is a natural gift available in mass quantity in the Thar / desert area of District Tharparkar, Sindh Province.

The Coal and Energy Development Department, through Sindh Coal Authority (SCA) decided to engage eligible consultant for Feasibility Study, Preparation of Modified / Revised PC-I, Detailed Engineering Design and Construction Supervision of Water Carrier From Nabisar Reservoir to Thar Coal Field Block 2.

1.1 Objectives

To meet the requirement of power generation water is a prime requirement. The Government of Sindh through Irrigation & Power department is endeavouring to supply water through available irrigation network up to Nabisar Reservoir. The supply of water from Nabisar Reservoir to Thar coal field Block-2 to be used for power generation is the responsibility of Sindh Coal Authority (SCA). To meet the objectives consultancy services are required to carryout Feasibility Study, Preparation of modified / revised PC-I, Detailed Engineering Design and Construction Supervision of Water Carrier from Nabisar Reservoir to Thar Coal Field Block 2. The feasibility shall also include the study for provision of storage reservoir for minimum 15 days retention at suitable location. This storage reservoir shall be capable to maintain the water supply in case of breakdown of system.

At present the scheme shall be developed for supply of 35 cusecs of treated water from Nabisar Reservoir to Thar Coal Field Block-2. The amount of water is required for production of 1000~1200 MW of electricity on the basis of roughly calculated demand of 3~4 cusec for 100 MW power generations in first stage which shall be enhanced in future accordingly to meet the requirement of future power generation. Therefore provision for future extension of water supply system shall be provided and shall be given due consideration in the design of water supply system.

1.2 Topography and Area

Thar coalfield is a part of the Thar Desert of Pakistan and is the 9th largest desert of the world. It is bounded in the north, east and south by India, in the west by flood plains of the Indus River. The terrain is sandy and rough with sand dunes forming the topography. The relief in the area varies near sea level to more than 150 meters AMSL.

The aerial distance from Nabisar to Thar Coal Block II via Vijihar valley is about 100 Km. the natural slopes of the land is falling in west and south western direction, thus the proposed water carrier is required to run against the natural slope. The difference of elevation from Nabisar to Thar Coal Block II is about 300 ft.

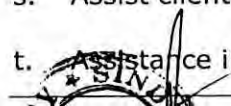
1.3 Scope of Services

The scope of consultancy services includes reconnaissance survey, alignment study, detailed topographic surveys, soil investigations, detailed engineering design and drawings, specifications, Engineer's Estimate, Taking-Off sheets, tender documents, environmental studies, preparation of modified/revised PC-I etc, and detail construction supervision.

The scope of work shall is outlined below (but not limited) to achieve the objectives of the assignment



- a. Carry out map / satellite picture study supplemented by area reconnaissance and study number of options of alignment of water carrier system comprising of rosining main and combination of cement concrete (CC) channel and rising mains, and present all options with merits and demerits after ground assessment of salient features of each alignment
- b. Recommend in inception report the most suitable option for approval by Client Sindh Coal Authority (SCA)
- c. Carryout topographic survey of the selected / approved alignment
- d. Carryout hydrological studies also taken into consideration flood flow patterns and design of protection works of the water carrier system
- e. Carryout soil investigation to determine the engineering properties of under laying strata to be used in engineering design.
- f. Prepare schematic of proposed scheme capable to meet the project requirements, comprising the project components including lifting of water from Nabisar Reservoir, transmission of water by gravity and by force or combination of both, emergency storage for 15 days retention, main and auxiliary pumping stations, electrical and mechanical works etc.
- g. Carryout design of CC channel and rising mains or combination of both in accordance with provisions of relevant design standards specifications
- h. Carryout design of main pumping station at Nabisar, auxiliary pumping stations as required with respect to terrain and other technical criteria in accordance with provisions of relevant code of practice for building, other relevant design standards and specifications
- i. Carryout design of rising mains in accordance with provisions of AWWA, other relevant design specifications and manufacturer's recommendations
- j. Carryout design of pumps and other mechanical works such as installation of chuck valves, surge release valves, air valves, below up valves etc in accordance with provisions of AWWA, and other relevant design specifications
- k. Carryout design of ancillary works such as retaining / protections works, design of erosion protection works and cross drainage works etc
- l. Design of other minor structures such as village bridges, foot bridges, aqueducts etc as required as per site requirement in case of C.C. channel
- m. Prepare cost estimates, carryout financial feasibility analysis and submit feasibility report, and prepare modified/revise PC-I on the basis of latest market rates supported by rate analysis
- n. Carryout Environment Impact Analysis (EIA) of the project and suggest mitigation means
- o. Carry out detailed engineering design and drawings
- p. Identification of sources of construction materials in the project area
- q. Prepare and submit tender documents, tender drawings, construction drawings and cost estimates (soft and hard copies)
- r. Preparation of land acquisition and utility / infrastructure folder
- s. Assist client at pre-construction stage
- t. Assistance in design modification during construction phase



For managing the tasks of planning and design, feasibility study, investigations, the work will be completed into stages defined as under

A. Stage – 1 Alignment Study

- a. Preliminary Reconnaissance Survey
- b. Alignment Study
- c. Preparation of schematics and layout Plans of water carrier

B. Stage – 2 Field Survey and Study

- a. Detailed Topographic Survey
- b. Geotechnical Survey / Soil Investigations
- c. Hydrology and Hydraulics

C. Stage – 3 Feasibility Study

- a. Preliminary Engineering Design of project components such as C.C. channel rising main pumping stations and E&M work etc.
- b. Feasibility Study
- c. Cost Estimates
- d. PC-I and Project Presentation
- e. Land Acquisition and utility folder
- f. Environmental Impact Assessment

D. Stage – 4 Detailed Design

- a. Detailed Engineering Design of project components such as C.C. channel rising main pumping stations and E&M work etc.
- b. Tender documents & BOQ
- c. Engineers Estimates

E. Stage – 5 Pre-Construction Assistance

- a. Pre-qualification of Construction Contractors
- b. Prequalification Evaluation
- c. Bid evaluation & Award of Contract (assistance)

F. Stage – 6 Construction Supervision

2. STAGE – 1 ALIGNMENT STUDY

2.1 PRELIMINARY RECONNAISSANCE SURVEY

A reconnaissance survey of the area shall be carried out to identify the most suitable and viable alignment. Reconnaissance survey shall be carried out with the help of GPS. Terrain type soil conditions, catchments hydrology, length and geometry of water carrier (which may comprise of channel and rising mains) and other important features related to specific site conditions. After carrying out detailed reconnaissance of the area, Consultants shall identify viable options and all critical locations, which are likely to become future bottlenecks.

2.2 ALIGNMENT STUDY (ALTERNATE OPTIONS)

For all critical locations identified through reconnaissance survey, Consultant shall recommend number of viable alignments based on the sound engineering practice with as much as possible accurate costing and clear recommendations for final Alignment. All options / alignment studied shall be presented to Client in the design / Alignment Study Report along with rough cost. Final solution shall be approved by SCA to proceed further with detailed engineering design.



2.3 PREPARATION OF ALIGNMENT LAYOUT PLANS

The consultant shall prepare the layout plans / alignments with due consideration to terrain type soil conditions, catchments hydrology, length and geometry of water carrier and other important features related to specific site conditions. The consultant shall present in form of drawings on SOP sheets, satellite imagery and other support drawing necessary for selection of most viable alignment.

A presentation shall be made to client (if required) presenting the studied options and recommended option with cost and all other information that should be necessary for decision making.

3. STAGE – 2 FIELD SURVEY AND STUDY

3.1 DETAILED TOPOGRAPHIC SURVEY

Objective of the topographic survey is to depict the existing ground features which include all natural and manmade features that exist on the ground and utilities etc. the consultant shall record enough data that can be converted into a realistic digital terrain model. The location of all buildings, utilities, irrigation / drainage structures, side roads of 20m corridor (10m on either side of centre line of the proposed alignment of water carrier shall be picked up and recorded on survey sheet. Longitudinal section and centre line of the proposed water carrier should be indicated on the Survey of Pakistan (SOP) sheets. The curves, location of the major and minor cross drainage structures, roads etc. shall also be indicated. All electric, telephone poles, underground cable (Power/telephone), gas, water and sewerage line should be indicated. The extent of the survey shall be adjusted as per the site conditions irrespective of corridor with where it is considered necessary.

3.1.1 DETAIL OF SERVICES

- a) Establishment of permanent control stations at safe and stable locations within ROW at approximately 1Km interval or as required as per site conditions. The station shall be a concrete marker of approved design.
- b) Establishment of horizontal control through EDM traversing in the form of closed loop traverse with Survey of Pakistan bench mark.
- c) Establishment of vertical control through BM leveling and check leveling using automatic instrument with Survey of Pakistan bench mark.
- d) Topographical Survey of minimum strip width of 20m i.e. 10 meters on either side of the centre line of the proposed water carrier. Centre line of proposed water carrier has to be picked up and marked on SOP topographic sheets. Width of corridor may be adjusted by the consultant keeping in view the site conditions and requirement of design.
- e) This survey shall include random spot elevations and survey of all the manmade and natural physical features located within the ROW (20m).
- f) The transmission lines crossing the proposed alignment of water carrier shall be surveyed up to the nearest pole on pylon location and clearance of the lowest conductor with reference to the ground measured and provided on the survey sheet.
- g) In built up areas, survey shall extend up to the property line on both sides of the water carrier irrespective of the ROW limits.

- h) For drain, canal or nullah crossings the proposed alignment, minimum of 5 cross sections shall be surveyed in the upstream direction and the same number in the downstream direction. The interval between two consecutive cross sections shall be 100m. The skew angle between proposed alignment and the alignment of drain or stream shall be marked on the drawing.
- i) Cross sections at 50m interval in straight reaches and at 25m interval in curved reaches plus at change of slope shall be taken.
- j) In the case of open drain or water course or road running parallel to the proposed alignment of water carrier, the cross sections survey (Levels) shall be modified accordingly to completely depict the site situation.
- k) Trees (1 foot diameter and above) located within the ROW of water carrier shall be counted and information about their number shall be provided.
- l) The topographic survey data shall be plotted at a suitable scale and Vertical profile at specified scale. This data shall be AutoCAD compatible.

Survey shall be carried out through EDM tachy method using Total Station. The field survey data shall be computer processed and computer aided mapping carried out. The final contour map shall be made available in softcopy (on CD Rom) and had copy format. The DTM (Digital Terrain Model) thus produced shall be available for computer aided design. Consultant may suggest the use of satellite imageries at specific locations.

3.1.2 REFERENCE DATUM

Survey shall be based on SOP grid. Where SOP survey control station is NOT available, assumed reference datum or established by GPS may be used and the same clearly shown in the topo survey sheets of the site area.

3.2 SOIL INVESTIGATION GEOTECHNICAL SURVEY / SOIL INVESTIGATIONS

The Consultant shall carry out the essential soil/geotechnical investigations along the proposed alignment of water carrier. Necessary laboratory testing will be carried out to assess the engineering properties of the soil strata for detailed design of component of works. Soil samples will be collected at selected sites as per ASTM/AASHTO procedures and laboratory testing shall be conducted by reputed laboratories subject to the approval of client. The result of the sub soil investigation shall be submitted in the form of report for the approval of competent authority.

3.2.2 MATERIAL SURVEY AND TESTING

- a) Location of the quarries pertaining to aggregates, granular and borrow material shall be properly documented. Distances of the quarries from the start and end point of the project shall also be provided.
- b) The results of survey shall be presented in the form of report.
- c) Detailed report on borrow area shall include all testing results necessarily required in light of scope and program of soil investigation works approved by the competent authority.

3.3 HYDROLOGY AND HYDRAULICS STUDY

The consultant shall carryout hydrological study and design the flood protection measures for water carrier. Meteorological data shall be collected by the consultant and with the help of Survey of



Pakistan (SOP) topographic sheets the consultant shall determine the flood runoff and shall design the flood protection measures for the safety of water carrier.

4 STAGE – 3 FEASIBILITY STUDY

4.1 PRELIMINARY ENGINEERING DESIGN

The consultant shall carryout preliminary engineering design of the approved alignment of water carrier / system comprising of Cement Concrete (CC) Channel, rising mains and accessories, pumping stations, pumping machinery, motors, electrical panels etc. The water carrier shall be designed from Nabisar reservoir to Thar coal field Block-2. The consultant shall study to locate or identify the highest area along the proposed alignment in order to be used as forebay / reservoir from where the water can be conveyance through gravity.

The size of proposed reservoir shall be decided to ensure the supply for 15 day in case of break down of pumping machinery.

Pumping shall be required to lift the water from elevation approximately from 26 feet to 260 feet. Therefore the consultant shall design the rising main including main and booster pumping stations as required. The consultant shall prepare the conceptual and schematic plans of complete water conveyance scheme for conveyance of 35 cusec of water for approval by the SCA.

4.1.1 DESIGN CRITERIA

The consultant shall determine the permissible working pressure of piping system. The design of proposed water carrier / rising main shall based on following factors

Internal diameter of rising main	Design capacity of 35 cusecs
Pipe length	Shall be determined from site survey
The maximum safe velocity	Shall based on the system operating conditions.
Loss of Head due to friction	friction losses shall be determined through appropriate formulae such as Darcy Weisbach, Hazen William, Colebrooke White etc. appropriate friction coefficient shall be taken taken into account based on the physical properties of pipe materials and in light with the manufacturer's recommendations
Suction head	Suction head shall be determined from site survey data
Delivery head	Delivery head shall be determined from site survey data
Difference of elevation	Difference of elevation shall be determined from site survey data
Other losses	Other losses such entrance, exit, bends etc shall also be calculated
Total Head Losses	Total head losses shall be sum of the above applicable heads
Hydrostatic Strength	The relationship between Bursting Pressure (BP) and Hydraulic Working Pressure (WP) shall be establish as recommended by manufactureer



Selection of Pipe Diameter	Pipe diameter shall be selected from the various combinations of diameter and velocity for design discharge and the balance would have to be achieved between short term and long term planning or construction and O&M cost
Class of pipe	Class and material of pipe shall be selected in relation to Hydraulic working pressure and other site conditions of laying and operating conditions based on AWWA or P.S 428 standards
Surge and Water Hammer	Allowance for surge and water hammer shall be made in pressure rating, however possibility of excessive surge and water hammer shall be checked and if require protective devices shall be installed in the system
Barring of Fittings (thrust blocks)	Fittings such as bends, tees, sockets, reducers, valves etc exposed to sheer strain due to internal water pressure shall be anchored with the provision concrete thrust blocks
Valves	Valves used in pump station piping system will include: gate valves, globe and angle valves, cone valves, butterfly valves, ball valves, check valves, and relief valves. Globe, ball, cone, and butterfly valves will be best suited as control valves for modulating the flow to provide desired pressure or flow rate. Check valves will not be used in vertical piping.

4.1.2 STRUCTURAL DESIGN OF PUMPING STATIONS

The consultant shall carry out the architectural and structural design of pumping stations in accordance with the functional requirements of pumping station considering Electrical and Mechanical requirements, rising main and their general arrangement, relevant building codes and standards and seismic consideration etc.

4.1.3 DESIGN OF PUMPS

The consultant shall size the pump to handle individually and in combination the estimated minimum hourly rate at some future date. To make an accurate determination of the head requirements, a system head curve must be derived depicting calculated losses through the system for various pumping rates. The pump discharge head will be the required pressure needed at the point of discharge plus the pumping station and pump discharge and suction piping head loss.

The consultant shall determine Net Positive Suction Head (NPSH) to confirm the pump characteristics curves which may indicate the required NPSH or alternatively the allowable suction lifts at various flow rates. The consultant shall recommend the most suitable type of pump to meet the project requirements and shall submit the design calculations and manufacturer's data, characteristics curves etc for approval of client SCA.

4.1.4 POWER FOR PUMPING

As most pumps are driven at constant speed and the major power source is the induction motors. Motors will be selected with sufficient capacity to drive the pumps under service required without exceeding 85 percent of the specified rating. Motors will be in accordance with NEMA MG1. The consultant shall recommend the most suitable type of pump drivers / motors to meet the project requirements and shall submit the design calculations and manufacturer's data, etc for approval of competent authority.



4.1.5 MAIN AND BOOSTER (AUXILIARY) PUMPING STATIONS

The location of main and auxiliary pumping station shall be selected with reference to the pressure requirements of the water conveyance system. The building of pumping stations shall be so designed to accommodate the pumping machinery and additional units as needed. A pumping station usually represents one of the major and most costly components of a water conveyance system, therefore pump station reliability will be considered. The number of pumps will depend upon present and future needs. The consultant shall present an economic analysis to determine the number of pumps to be installed. Whenever two or more pumps are cost-effective to meet the demand, additional pump capacity or pumps must be installed so that demand can be met with the largest pump out of service.

4.1.6 DESIGN STANDARDS & CRITERIA

Following design standard shall be followed

For Channel Design	AWWA, Requirements of I&P department, Standard Engineering Practice, etc
For Design of rising mains & Pumps	AWWA, manufacturer's specifications
For Material & Testing	ASTM, AWWA
For Structural Design pumping stations	Uniform Building Codes (UBC), ACI, AWWA
For Structural loads	Uniform Building Codes (UBC)
For Seismic Design	Uniform Building Codes (UBC)

a. Structures

- A.C.I. Code of Practice (1995 Edition).
- National Building Code of Pakistan.

b. Structural Loads

- Uniform Building Codes (UBC)

Seismic Design

- Uniform Building Code (UBC).
- Seismic Zone Map of Pakistan.

c. Drainage

- Highway Drainage Guidelines by AASHTO (1992 Edition).
- Drainage Manual by United States Department of the Interior Bureau of Reclamation

d. Materials & testing

- American Society for Testing of Materials ASTM

e. Construction

- Standard Specifications for Buildings. UBC and ACI
- Standard Specifications for E&M works

4.2 FEASIBILITY STUDY

Based on topographic Survey, soil and materials survey investigation, preliminary design, cost estimates, the technical specifications, social & environmental impact and economic analysis, Consultant shall prepare and submit to client a detailed feasibility report encompassing all the information under proper heading and sections. The Consultant shall carry out economic analysis and financial analysis of the project to arrive at the benefit/cost ratio and other economic indicators using approved criteria.



Feasibility Report shall contain comprehensive information about technical and economic feasibility of the project.

4.3 COST ESTIMATES

The consultant shall prepare the Engineer's Estimate of the project based on the detailed design drawings and final Bill of Quantities, using Schedule of Rates CSR, rate analysis shall be provided based upon market price for non schedule items of works.

4.4 PC-I

The Consultants shall prepare modified/revised PC-I for project including economic analysis on prescribed proforma of PC-I by Planning Commission.

4.5 EQUIPMENT AND MACHINERY

A detailed report on equipment which will be required during construction of the project shall be furnished.

4.6 LAND ACQUISITION & UTILITY INFRASTRUCTURE REPORT

The Consultant shall identify land and property falling in the Right of way (ROW) to be acquired. The Consultants shall submit ROW plans showing the alignment to facilitate timely action for acquisition of land to define the right of way.

4.7 ENVIRONMENTAL IMPACT ASSESSMENT STUDY

Environmental Impact Assessment (EIA) shall be carried out in accordance with EPA guidelines. Following are the legal requirements of Government of Pakistan to be met by the consultant the address the EIA reporting.

- 1) The legal requirements in Pakistan for environmental assessment for new projects under the Environment Protection Agency (EPA).
- 2) Pakistan EPA guidelines and procedures for Environmental Assessment of new projects
- 3) The Pakistan National Environmental Quality standards (NEQS) for gasses liquid and vehicles emission
- 4) The need for an EIA as part of Government of Pakistan project planning approval process

The consultant shall perform the (not limited to) following services

- The consultant shall assemble, evaluate and present base line data on the relevant Environmental characteristics of the project area.
- The consultant shall provide the methodology for preparing the essential environmental data.
- The consultant shall collect and analyze the Physical Environmental data such as meteorology and climate, geology and soil, seismology, air and water quality, noise, topography and drainage pattern, hydrology, surface and ground water regime, land use etc.
- The consultant shall collect and analyze the Ecological Environmental data such as forest/flora/vegetation profile, crop and horticultural activities of project area, fauna/wild life and local live stock species, birds' fish, reptile insects, endangered wild life species etc.
- The consultant shall collect and analyze the social and cultural resources data such as settlement patterns, political and administrative setup, population and communities, socioeconomic conditions, protective and sensitive areas, archeological and cultural sites, health and facilities, educational facilities, industrial commercial activities, physical and cultural heritage, utilities and links of communication, tourism facilities etc.



The consultant with the help of sectoral guideline and in consultation with project design team shall scope of EIA. The Consultant shall identify any negative, positive, direct, indirect, short term and long term impacts of the project during pre-construction / design, construction and operational phases. The Consultant must recommend the appropriate mitigation and rehabilitation measure for the Environmental damage and other impacts identified for the project and how they would be implemented with regard to coordination between design construction and environmental issues.

The Consultant shall carry out air, noise and water quality test as required after establishing the scope of EIA study.

During field survey the Consultant will arrange formal public consultation sessions to identify main stack holders their categories, their views on the existing condition of project and their views about the acceptability of the project.

The Consultant shall prepare the Environmental Management Plan (EMP) to identify and prepare and implementation schedule and supervision program with associated cost and contracting procedure for the execution of Environmental Mitigation for preconstruction / design, construction and implementation phases as per the standards set by EPA, ADB and other relevant agencies.

The Consultant shall prepare the Environmental Monitoring Plan to identify the critical issues required monitoring to ensure compliance to mitigation and environmental management plan and to measure the and monitor the environmental impacts during construction and operations.

5 STAGE - 4 DETAILED DESIGN

5.1 DETAILED ENGINEERING DESIGN

After approval of Preliminary design the consultant shall prepare the detailed design of the project. The consultant shall prepare the necessary drawing and report and submit to the client in required number of copies.

5.2 DESIGN REPORT

Consultant shall prepare a Design Report consisting of the final alignment, design rising main and allied pumping machinery and equipment, Design of inspection road, design of cross drainage structures; containing all relevant tables, calculations, computer analysis (with proper explanation of the computer programs and analysis used in the calculations), interpretation of the computer results, conclusions, references etc, all compiled and complete with sketches relevant to the preparation of construction drawings properly cross referenced between the drawings and the calculation sheets.

5.3 SUITABLE CONTRACT PACKAGES

The consultant shall distribute the works in suitable construction packages in order to effectively control and for timely completion of the project. The tender documents shall be prepared separately for each contract package.

5.4 TENDER DOCUMENTS & BOQ

Tender Documents shall comprise of the following:-



5.4.1 VOLUME-I

- Instruction of Bidders
- Conditions of Contract (Part-I) (General Conditions)
- Conditions of Contract (Part-II), (Conditions of Particular Application).
- Conditions of Contract (Part-III), (Supplementary Conditions)
- Forms and Appendices

5.4.2 VOLUME-II

- General Specifications.

5.4.3 VOLUME-III

- Particular Specifications, Special Provisions and Bills of Quantities.

5.4.4 VOLUME-IV

- Drawings as per the following detail:
 - Cover Sheet.
 - Key plan: Province and Project site Indicated.
 - Location Plan
 - Structural Plans and Design Drawings for structures.
 - Horizontal and Vertical Alignment sheets (1:1000, horizontal 1:100 vertical) for proposed alignment.
 - Typical Cross-sections.
 - Miscellaneous Details/ Ancillary Works
 - Detail drawing folders of Utilities/Infrastructure for Land Acquisition and removal of all utilities/ infrastructure etc., having all the requisite information.
 - Drawings related to Environmental Mitigation Measures.

5.4.5 TECHNICAL SPECIFICATIONS

The consultants shall prepare particular specification for the project for specified items not covered in the General Specifications.

5.4.6 BILL OF QUANTITIES

Consultant shall prepare Bill of Quantities to be calculated to accuracy of $\pm 10\%$ encompassing all the items of work, properly cross referenced to the Technical Specifications. Standard format of Bill of Quantities shall be adopted based on General Specifications. The Consultant shall prepare taking off sheets of the quantities and submit to client along with BOQ.

5.4.7 CONSTRUCTION DRAWINGS

The Consultant shall prepare construction drawings (Contract Plans) in a clear, concise and uniform manner in Digital Format using AutoCAD and shall submit final copy of complete drawing after approval to client in PDF format.

6 STAGE – 5 PRE-CONSTRUCTION ASSISTANCE

6.1 PRE-QUALIFICATION OF CONSTRUCTION CONTRACTORS

The consultant shall prepare the documents for pre-qualification of construction contracts. The pre-qualification documents shall be finalized keeping in view the general requirements of SPPRA and specific project requirements. The document so produced shall assess the construction contractor for

Eligibility including necessary and statutory registrations
Work experience of similar nature



- ✓ Technical competence
- ✓ Financial standing
- ✓ Availability of resources required for anticipated quantum of works
- ✓ History of litigation and arbitration

6.2 PREQUALIFICATION EVALUATION

The consultant shall assess the applications received from prospective bidders in response of pre-qualification. Prequalification evaluation report shall be prepared and submitted to Employer to facilitate the finalization of short listing of construction contractor.

6.3 BID EVALUATION & AWARD OF CONTRACT (ASSISTANCE)

After receiving the bid / tenders from the short listed construction contractor, the consultant shall assess the tenders / bids and shall prepare bid evaluation report to facilitate the award of construction contract.

7 STAGE – 6 CONSTRUCTION SUPERVISION

7.1 OBJECTIVES

The overall objectives of the construction supervision are.

- a. Ensure that high quality construction is achieved in time within budget and that all work is carried out in full compliance with the approved engineering designs, technical specification agreed work schedule and within the terms and conditions of all other contract documents and sound engineering practices and
- b. Demonstrate the efficacy of contract administration and supervision by independent external agencies and introduction of modern Contract Administration practices.
- c. The consultant will be responsible for providing qualified professional and supporting staff, and all necessary services required for the efficient cost effective and timely execution of the consultancy services.

Depending on the construction packaging development under earlier phases of project implementation, the scope of construction supervision and post-construction services may consist of one or more construction packages under different construction contracts. The supervision Consultant, however, shall supervise the works of all construction contracts under one consultancy services package:

The objectives of the consultancy services under this phase are:

- a. Proper management of civil work contracts as the Engineer including field measurements and quality assurance work.
- b. Comprehensive supervision of project implementation activities carried out by the contractors to ensure complete compliance with the drawings, technical specifications and various stipulations contained in the Contract Documents.
- c. Efficient construction supervision by personnel who are experienced in the modern methods of construction supervision and contract management.
- d. Ensure high standards of quality assurance in the supervision / execution of work.
- e. Ensure completion of the works within the stipulated period and/or identify ahead of time impediments to this effect.

The main features of Contract Management Framework (CMF) envisaged for the execution of the proposed construction of works are:



- a. For administration of the contract under the project, the SCA will be the Employer. The Employer will have a Project Management Unit (PMU) and project implementation unit (PIU), which are the in-charge of the works. The PMU shall be headed by the Chief Engineer Sindh Coal Authority who is assisted by appropriate professional and support staff. The chief Engineer Sindh Coal Authority will act for and on behalf of Employer.
- b. The Consultant shall nominate a Representative who shall be called the Team Leader and will act the "Engineer". The Engineer shall have a team of experienced professional and support staff for the execution of the Consultancy Services under the Contract.
- c. The supervision Consultant will make the necessary measurements and control the quality of works. While the supervision Consultant shall make all Engineering decisions required during the implementation of the Contract, he shall seek prior approval of the Employer with regard to the following.
 - i. Any variations or deviations with financial implications.
 - ii. Variation in work quantities for fixation of rates.
 - iii. Sanction of additional items, sums or costs and variations of rates and prices.
 - iv. Approval the subletting of and part of works.
 - v. Stopping and/or termination of the Contract for Works.
 - vi. Change in specification and deviation from approved drawings.
 - vii. Any other as required per Conditions of Contract.

The scope Consulting Services for construction supervision phase shall include but not necessarily be limited to the following.

7.2 SCOPE OF SERVICES

The scope of construction supervision and post construction services may consist of one or more construction packages. The supervisory consultant however shall supervise the works of all construction contracts under one consultancy services package.

The Consultant shall nominate a representative who shall be called a Team Leader and will act as "The Engineer" The Engineer / Team Leader shall have the team of experienced professionals and support staff for the execution of resident supervisory consultancy contract

7.3 PROJECT MANAGEMENT STRATEGY

The Office of the Team Leader and Contract Engineer will be located at the Karachi. The office(s) of the Resident Engineer (RE) and his Staff will be established at site of works to effectively handle the project and staff deployment. The Consultant's Team Leader office will provide technical and Contractual support to RE and his field supervisory staff for resolution of matters for smooth and coordinated flow of project.

The day-to-day supervision of the contract packages will be the responsibility of the Engineer's Representatives, i.e., the Resident Engineers, supported by field staff for certifying quality of works.

7.4 SPECIFIC TASKS

Resident Engineer through his staff will implement the civil works contracts to ensure that works are constructed in accordance with its provisions. The consultant responsibilities will include;

- i). Give the Notice to Commence Works.
- ii). Assure submission an advice on the adequacy of the Contractors' insurance policies, performance bonds, and advance payment guarantees.



- iii). Review and approve the Contractors work programs and progress schedules ensuring that the contractors have incorporated / followed the most effective and expeditious methodology of carrying out the work; and advise the Contractors in setting up a computerized project control system for reporting physical and financial progress as well as the forecasts and closely monitor the construction progress on regular basis to determine whether it is proceeding in accordance with the approved work program.
- iv). Provide advance advice to the Employer (SCA) concerning the Schedule of handing over sites, and possible delays due to lack of possession with a view to assure that the Contractors are given Possession of Site in accordance with agreed work program.
- v). Assess minimum construction equipment, plant and machinery requirements, by type and specification, and monitor, keep and regularly update a list of the Contractors' equipment, plant and machinery in order to keep a check on the Contractors' mobilization.
- vi). Inspect and evaluate the Contractors' establishments including in particular the laboratory facilities to ensure compliance with the terms and conditions of the Contracts Agreement.
- vii). Assure the receipt of and maintain as permanent records of all warranties required under terms and conditions of the Contract Agreement for the materials including their source and equipment accepted and incorporated in the project.
- viii). Without relieving the Contractors of their obligations under the Contract, check and approve the Contractors' Working Drawings, Method Statements and Temporary Works Proposals. These shall be reviewed and approved by the Consultants and expeditiously issue supplementary drawings, site instructions, variation orders, to ensure that the works are executed in accordance with the contracts.
- ix). Without relieving the Contractors of their obligations under the Contract, review and approve the traffic management and safety plan, and ensure compliance such that the works are carried out at all times in a safe and secure manner and damage or injury to persons or property is avoided.
- x). Assure that the Contractors have all necessary data for setting out, check the Contractors setting out including staking of right of way limits, center line and grade and confirm permanent monuments in the construction area.
- xi). Inspect quarries and borrow pits and crushing plants, and order tests of materials and ensure adherence to specifications, and approve the sources of materials.
- xii). Without relieving the Contractors of their obligations under the Contract, monitor the Contractors' laboratory testing, evaluate the Portland cement concrete and bituminous mixture designs prepared by the Contractors, and recommend improvements (if any) to ensure the desired performance, and accord approval thereof.
- xiii). Assure quality of works during the constructions, continuously inspect the soils and the materials, construction operations and the work with regard to workmanship and compliance with the specifications; and carry out independent testing in the field and / or in the laboratory, and approve or disapprove and certify the works that confirm with the specifications and maintain permanent records of all the tests made.
- xiv). Give notice to the Contractors of any defects and deficiencies, and issue instructions for the removal and substitution of the improper works, where provided under the contract. If required, order suspension of the works and / or recommend to Employer (SCA) other resource available under the Contract.



- xv). Attend and make the measurement and computation of quantities of the completed works, or any work which is about to be covered or put out of view before permanent work is placed thereon, and maintain permanent records of all such measurements, and keep the measurement books and records in safe custody.
- xvi). Monitor and appraise progress of the works, and maintain a day by day project diary which shall record all events pertaining to the administration of the contract, requests from and orders given to the Contractors, and any other information which may be at a later date be of assistance in resolving queries which may arise concerning execution of works.
- xvii). Issue monthly - consolidated progress reports on a format to be agreed with Employer (SCA) including payment estimates and comments on the Contractor's work program, and advice SCA, PIU of any problems or potential problems which might arise and cause delay in implementation and recommend corrective action (s) to be taken.
- xviii). Check the Contractor's periodic statement of the estimated value of work completed and certify that these statements clearly and accurately describe the value of work executed either based on the value of completed activities in the/on the value of the quantities of the items in the "Bill of Quantities".
- xix). Issue the interim payment certificates to SCA/PIU for payment to the Contractors on the basis of the "Measured Work Items", as the case may be, having regard to any contractual provisions for advance payment, variation of price. The Completion of the works or parts thereof and process final payments to the Contractors.
- xx). Maintaining consolidated projects accounts, and preparing of financial statements and withdrawal applications for submission to the Employer (SCA) / PIU;
- xxi). Assist with interpretation of the Contract Documents, explain and or reconcile any ambiguities and or discrepancies in the Contract Documents, and apply various provisions of the Contract documents; and provide SCA/PIU all relevant documentation needed for settling disputes (if any) with the Contractors, processing claims and make recommendations to SCA/PIU for resolving the Contractors' escalation claims, contract time extensions, variation orders, subletting, quantification of claims, rate and price fixing etc.
- xxii). Advise Employer (SCA) on need for effective liaison with local authorities, police, landowners, utility owners, the public and other organizations affected by the Works in order to minimize or avoid unnecessary delays or disputes.
- xxiii). Jointly inspect with Employer (SCA) the completed work of supervision of safety works, and assist in formal taking over, and review and approve or prepare "as built" drawings and plans (as the case may be) and provide report (s) testifying to the satisfactory completion of the contracts.
- xxiv). Inspect the completed works periodically during the defect liability period within the term covering the Consultant's Agreement, prepare list of deficiencies (if any).
- xxv). Assist Employer (SCA) in settling any Audit Paras and Objections raised, and prepare replies related to the project, and provide the entire relevant documents / papers / letters etc. to support the replies until two years after completion of project and payment of final bill.
- xxvi). Establish a comprehensive system of maintaining site records including site correspondence, survey data, inspection records, test data, site diaries, records of meetings, financial records, progress records etc.



- xxvii). Provide any other specialist services requested by Employer (SCA) under conditions to be mutually agreed.
- xxviii). The consultant shall instruct confirmatory borings and lab test at the desired locations of foundations work to reconfirm the design provisions or where there is inadequate provision made in design in the opinion of the supervisory consultant. If necessary, the supervisory consultant can ask or get relevant design data adopted in the original design for review from the design consultant.
- xxix). Providing the Employer (SCA) with complete records and reports, and approving the contractor's as built drawings for the works;

7.5 PROJECT STAFFING REQUIREMENTS

The Consultant is expected to provide the following personnel for the time periods for different assignments (Design and Construction Phases) as indicated in head 10 below. The staff and man-months shown below for Design Phase only is indicative and subject to variation by agreement with Sindh Coal Authority / Coal and Energy Development Department. However for construction supervision, the staff and the man-months shown below are fixed. The consultants are required to prepare their bids based on the man-months indication below.

Design Phase:

- i. Team Leader
- ii. Water Supply Engineer
- iii. Contract Engineer
- iv. Hydrology / Hydraulic Design Engineer
- v. Structural Design Engineer
- vi. Environmentalist
- vii. Electrical Engineer
- viii. Mechanical Engineer
- ix. Field Surveyor
- x. CAD Operator
- xi. Quantity Surveyor
- xii. Computer Operator

Construction Phase:

S.No.	Position	Qty	Man-Month
KEY STAFF			
1.	Team Leader	1	(21 + 3 = 24)
2.	Resident Engineer	1	21 + 3 = 24
3.	Contract Engineer	1	13
4.	Assistant Resident Engineer (Structure)	1	18
5.	Assistant Resident Engineer (Water Carrier)		21
6.	Material Engineer	1	21
7.	Quantity Surveyor	2	2(21+3)
8.	Field Surveyor	3	63
9.	Electrical Engineer	1	8
10.	Mechanical Engineer	1	



11.	Site Inspector (Structure)	1	36
12.	Site Inspector (Water Carrier)	1	42
13.	Site Inspector (Electrical)	1	8
14.	Site Inspector (Mechanical)	1	8
15.	Lab Technician	4	84
Total			317
SUPPORT STAFF			
16.	Secretary / Office Administrative	1	21
17.	Computer Operator	2	2(21+3)
18.	Support Staff (Peon / Messenger)	2	2(21+3)

7.6 EXTENSION FOR SELECTED STAFF

Following staff of the Consultants shall be allowed to continue performing services for a period of three (03) months after completion of the project to finalize the accounts and other outstanding issues of the project.

	<u>Description</u>	<u>Man-months</u>
(1)	Team Leader/ the Engineer	03
(2)	Contract Engineer	03
(3)	Resident Engineer	03
(4)	Quantity Surveyor	03
(5)	Secretary / Office Administrator	03
(6)	Computer Operator and Other Support Staff (Office Boy / Helper)	03

7.7 CLOSING OF PROJECT

The consultant will ensure project wrap up final meeting with the client where following documents will be handed over to client

1. As built drawings prepared by the contractor and approved and checked by the consultants
2. Project accounts
3. Completion report

8 DELIVERABLES

The Consultant shall prepare the following documents for the project and submit to the Employer within the period specified:

Design Phase

- | | |
|---|--------------------------------------|
| a) Inception Report | 3 copies |
| b) Site Survey and Investigation Report | 3 copies |
| c) Draft Final Design Report | 3 copies |
| d) Final Design Report | 3 copies |
| e) PC-I | 10 copies |
| f) Tender Documents | 20 sets (for each contract package) |
| g) Engineer's Estimate | 5 copies (for each contract package) |

Pre-Construction Phase



- a) Pre-Qualification Document
(for pre-qualification of construction contractors) 20 copies
- b) Pre-Qualification Evaluation Report 3 copies
- c) Bid Evaluation Report 3 copies

Construction Supervision Phase

1. X-sections (every 25 meters) submitted by the contractor, checked and approved by the consultant / The Engineer
2. As-built Drawings as submitted by the Contractor, after review and approval showing remedial works proposed.
3. Prepare and submit list of all other equipment, laboratory equipment, survey equipment, furniture, vehicles, completed assets inventory and other items provided by the contractor under the contract, which is property of employer
4. Prepare and submit Project Completion Report giving all details of the project in chronological order and methodology for inspection of roads and structures including bridges during defect liability period.
5. All other interim reports mentioned in preceding sections

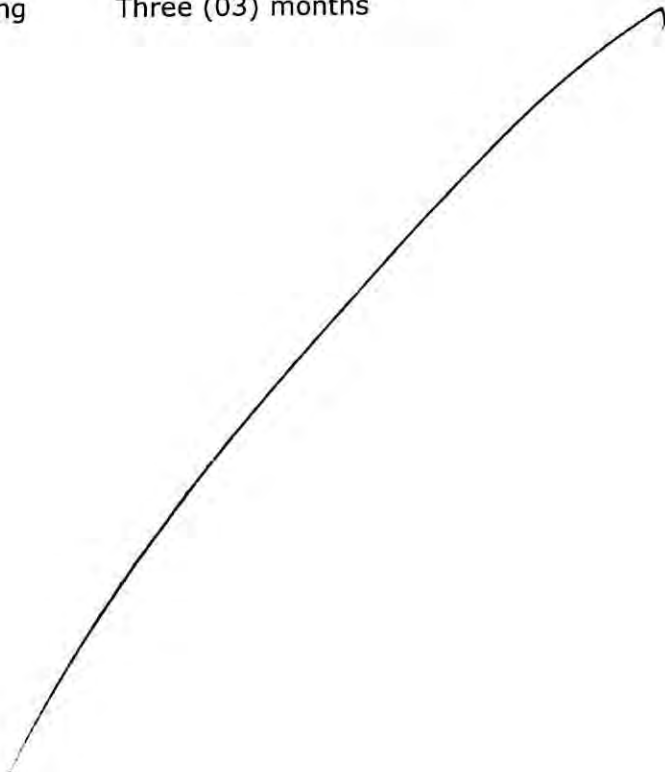
9 TIME OF START

The services shall be commenced immediately after the signing of the contract agreement or when client instructs the consultants to begin carrying out the services.

10 TIME FOR COMPLETION

The services specified in the for design and supervision phase shall be

Design Phase	Six (06) months
Construction Supervision	Twenty one (21) months
Project Closing and wrapping	Three (03) months



11 (a) FACILITIES DURING SUPERVISION CONSTRUCTION PHASE

The Client will provide the following inputs and facilities.

- i) The Administrative facilities in performing the services.
- ii) Documents related to the project available in the Department / Authority.
- iii) The Consultant's Team leader (The Engineer) and Contract / Procurement Engineer, Design Team and their support staff will be stationed at Karachi and their office, accommodation / housing, furnishing equipment and running cost of utilities including transportation with POL and maintenance will be financed under the Consultancy Contract Agreement.
- iv) The rental cost for site office and accommodations / housing for construction supervision residential staff will be financed through Consultancy Contract Agreement.
 - (a) The RE and his senior staff office and accommodations for project shall be located at suitable location in consultation with the client, shall be provided through Consultancy Contract agreement.
 - (b) Sub office and accommodation for lower staff shall be located as per requirements at suitable location in consultation with the client, shall also be provided through Consultancy Contract Agreement.
- v) The furnishing, equipment and running cost of utilities for Consultants supervision staff site office and housing / accommodations will be financed through Consultancy Contract Agreement.
- vi) Transportation of the Consultants supervision staff with POL and maintenance will be financed through Consultancy Contract Agreement.
- vii) Material testing laboratorie(s) including furnishing, equipment, maintenance and utilities will be provided through Civil Work Contract.
- viii) Survey Equipments including maintenance will be provided through Civil Work Contract.

(b) ADDITIONAL SERVICES

If required to do so by the Employer, the Consultant shall provide additional services which include the following, as appropriate:

- i) Advise the Employer with respect to carrying out the work following an appeal to arbitration or litigation to the works.
- ii) Services other than these and other than minor extras which do not materially affect the scope of the Consultant's agreement will be authorized by the Employer at rates and under conditions to be mutually agreed.





GOVERNMENT OF SINDH SINDH COAL AUTHORITY

No. SCA-23 (1) 2011 - 12
Karachi Dated, May 18, 2012

1. ✓ A.A. Associates
2. Techno Consultant International
3. National Development Consultants (Pvt.) Ltd.-NDC
4. MM Pakistan
5. National Engineering Services Pakistan (Pvt.) Ltd.-NESPAK
6. EA Consulting Pvt. Ltd. in association with Resources Management Associates

Project: FEASIBILITY STUDY, PREPARATION OF MODIFIED/REVISED PC-I,
DETAILED ENGINEERING DESIGN AND CONSTRUCTION
SUPERVISION OF WATER CARRIER FROM NABISAR RESERVOIR
TO THAR COAL FIELD BLOCK 2

Subject: Replies to the Queries (Clarification No. 1)

Please find enclosed herewith replies to the queries raised by various consultants as Clarification No. 1.

Please confirm receipt of this letter in writing.

Yours Sincerely

Abdul Majeed Pathan
Director General
Sindh Coal Authority,
House # 16, E - Street,
Behind Zamzama Park DHA, Phase-V,
Karachi.
Phone # 021- 99251507
Facsimile # 021 - 99251038



Enclosed: Clarification No.1 (2 Pages)

Copy forward with compliment to:

1. The Secretary to Government of Sindh, Coal & Energy Development Department for favour of information
2. Addtl. Secretary, Coal & Energy Development Department / Chairman of the Consultants Selection Committee for favour of information.
3. Chief Engineer, Sindh Coal Authority



CLARIFICATION NO. 1

S. NO.

QUERIES FROM CONSULTANT

REPLIES

1) On page # 62/63 construction phase key staff is shown as 317, whereas calculations shows other figure. Please clarify the exact number of key personnel so as to avoid confusion.

To resolve the ambiguity table of the man-month for construction phases is revised as under.

S.No.	Position	Qty	Man-Month
KEY STAFF			
01.	Team Leader	1	(21+3)* = 24
02.	Resident Engineer	1	(21+3)* = 24
03.	Contract Engineer	1	(10+3)* = 13
04.	Assistant Resident Engineer (Structure)	1	18
05.	Assistant Resident Engineer (Water Carrier)	1	21
06.	Material Engineer	1	21
07.	Quantity Surveyor	2	(21+3)* + (21) = 45
08.	Field Surveyor	3	(3 x 21) = 63
09.	Electrical Engineer	1	8
10.	Mechanical Engineer	1	8
11	Site Inspector (Structure)	2	(2 x 18) = 36
12.	Site Inspector (Water Carrier)	2	(2 x 21) = 42
13.	Site Inspector (Electrical)	1	8
14.	Site Inspector (Mechanical)	1	8
15.	Lab Technician	4	(4 x 21) = 84
		Total	423

SUPPORT STAFF

16.	Secretary / Office Administration	1	(21+3)* = 24
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17. Computer Operator	2	$(21+3)* + 21 = 45$
18. Support Staff (Peon / Messenger)	2	$2 (21 + 3)* = 48$

* Three (03) man-months after completion of project to finalize the accounts and other issues of project closing are added for selected staff as per requirement of article 7.6 of TOR.

No such figures of man-months are mentioned on referred page of RFP document. However the clarification given in serial No. (i) above, regarding proposed man-months for construction phase and project closing phase as required in article 7.6 of TOR, resolves the ambiguity.

ii) Post construction period:

Page No. 62/63 shows months as under:
 (i) Quantity Surveyor 2 x 3
 (ii) Computer operator 2 x 3
 (iii) Support staff 2 x 3
 Please make it clear, so that proposal may be submitted accordingly.

iii) Page no. 18, clause 16.1. sub clause (iii). It is not clear as 3 of the key personnel experience and qualifications are not identified.

- (i) Structural design Engineer
- (ii) Geotechnical Engineer
- (iii) Hydrologist

The requirement of experience and qualification of remaining key personnel are given as under.

Sr.No	Positions	Experience (Year)		Minimum Qualification
		Overall	Specific	
1	Structural Design Engineer	15	8	Qualified Civil Engineer holding Bachelor Degree or higher in relevant field
2	Geotechnical Engineer	15	10	Qualified Civil Engineer holding Bachelor Degree or higher in relevant field
3	Hydrologist	10	5	Qualified Civil Engineer holding Bachelor Degree or higher in relevant field

2. Data sheet: clause 1.4 sub clause (iv) to (vi) page 16 shows that the client will provide the following inputs/facilities through consultancy contract agreement where as common practice to provide the above facilities by client through Civil Works Contract. It is suggested that the same may be decided locking to the cost constraint

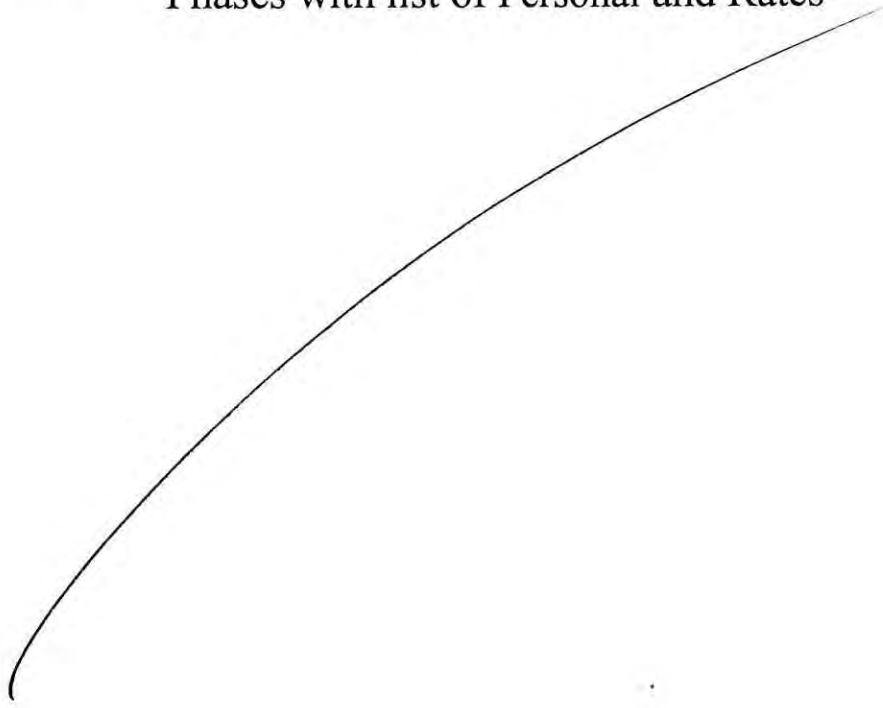
Proposal must be submitted as per RFP/data sheet clause 1.4 sub clause (iv) to (vi) page 16.



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Annex B

Cost Estimates for Design and Construction Supervision
Phases with list of Personal and Rates



CONSULTANCY SERVICES FOR FEASIBILITY STUDY, PREPARATION OF MODIFIED/REVISED PC-I, DETAILED ENGINEERING DESIGN AND CONSTRUCTION SUPERVISION OF WATER CARRIER FROM NABISAR RESERVOIR TO THAR COAL FIELD BLOCK-2

**FORM FIN - 2. GRAND SUMMARY OF COSTS
(DESIGN AND CONSTRUCTION SUPERVISION SERVICES)**

Sr. No.	Item	Costs	
		Foreign Currency	Local Currency (Pak Rupees)
1	Total Cost of Financial Proposal (DESIGN SERVICES)	NA	21,345,200
2	Total Cost of Financial Proposal (CONSTRUCTION SUPERVISION SERVICES)	NA	66,139,899
Grand Total (Design + Construction Supervision Services)			87,485,099



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DESIGN SERVICES



CONSULTANCY SERVICES FOR FEASIBILITY STUDY, PREPARATION OF MODIFIED/REVISED PC-I, DETAILED ENGINEERING DESIGN AND CONSTRUCTION SUPERVISION OF WATER CARRIER FROM NABISAR RESERVOIR TO THAR COAL FIELD BLOCK-2

**FORM FIN - 2. SUMMARY OF COSTS
(DESIGN SERVICES)**

Sr. No.	Item	Costs	
		Foreign Currency	Local Currency (Pak Rupees)
1	Total Cost of Financial Proposal	NA	21,345,200



FORM FIN - 3. BREAKDOWN OF COSTS BY ACTIVITY

Group of Activities (Design Services)	Description:		Local Currency (Pak Rupees)
Cost Component	Foreign Currency		
Remuneration	NA	10,529,200	
Reimbursable Expenses	NA	10,816,000	
Subtotal	NA	21,345,200	



MULTI-PHASE FEASIBILITY STUDY, PREPARATION OF MODIFIED/REVISED PC-1, DETAILED ENGINEERING DESIGN AND CONSTRUCTION SUPERVISION OF WATER CARRIER FROM NABISAR RESERVOIR TO THAR COAL FIELD BLOCK-2

FORM FIN - 4. BREAKDOWN OF REMUNERATION

Breakdown of Activities (Phase): (DESIGN SERVICES)

Employee Name	Position	Staff-months Rate	Input (Staff-months)	Foreign Currency	Local Currency (Pak Rupees)
Design Staff					
Abdul Nabi Pathan	Team Leader	326,646	3.00	NA	979,938
Yunus Sheikh	Water Supply Engineer	260,410	6.00	NA	1,562,460
Fazeel Ahmed	Contract Engineer	261,316	1.00	NA	261,316
Mahmood Yousuf	Hydrology / Hydraulic Design Engineer	260,410	4.00	NA	1,041,640
Muhammad Ibrahim	Structural design Engineer	260,410	6.00	NA	1,562,460
Akbar Ali Khatian	Environmentalist	260,410	3.00	NA	781,230
Asadullah	Electrical Engineer	217,008	3.00	NA	651,024
Yousuf Hassan	Mechanical Engineer	217,008	3.00	NA	651,024
Mahfooz + To be Named	Field Surveyor (3 Nos)	86,803	10.00	NA	868,030
Iqbal + Mr. Anees + Mr. Mujeeb + Mr.	CAD Operator (4 nos)	86,803	20.00	NA	1,736,060
Khurram Fahad Khan	Quantity Surveyor	86,803	2.00	NA	173,606
Imran Ahmed Khan	Computer Operator	43,402	6.00	NA	260,412
				Total Costs	10,529,200



CONSULTANCY SERVICES FOR FEASIBILITY STUDY, PREPARATION OF MODIFIED/REVISED PC-I, DETAILED ENGINEERING DESIGN AND CONSTRUCTION SUPERVISION OF WATER CARRIER FROM NABISAR RESERVOIR TO THAR COAL FIELD BLOCK-2

FORM FIN - 5. BREAKDOWN OF REIMBURSABLE EXPENSES

Group of Activities (DESIGN SERVICES)

No	Description	Unit	Unit Cost	Quantity	Foreign Currency	Local Currency (Pak Rupees)
1	Per diem allowances	Day			NA	---
2	International flights	Trip			NA	---
3	Miscellaneous travel expenses	Trip	---	---	NA	---
4	Communication costs between [Design Office Karachi] and [Client's HQ Karachi]	Month	30,000	6.00	NA	180,000
5	Drafting, reproduction of reports	Month	40,000	6.00	NA	240,000
6	Equipment, instruments, materials, supplies, etc.				NA	---
7	Shipment of personal effects	Trip			NA	---
8	Use of computers, software	Month	4,000	24.00	NA	96,000
9	Laboratory tests	LS			NA	---
10	Geotechnical Investigation	LS			NA	2,500,000
11	Local transportation costs (Vehicle for team leader i/c POL)	Month	0	0.00	NA	-
12	Office rent, clerical assistance				NA	---
13	Training of the PA's personnel				NA	---
14	Any other Expenses not covered under above (provide list)					
	i. Topographic Survey					6,500,000
	ii. EIA Study and Survey					1,300,000
Total Costs						10,816,000



CONSTRUCTION SUPERVISION SERVICES



CONSULTANCY SERVICES FOR FEASIBILITY STUDY, PREPARATION OF MODIFIED/REVISED PC-1, DETAILED ENGINEERING DESIGN AND CONSTRUCTION SUPERVISION OF WATER CARRIER FROM NABISAR RESERVOIR TO THAR COAL FIELD BLOCK-2

**FORM FIN - 2. SUMMARY OF COSTS
(CONSTRUCTION SUPERVISION SERVICES)**

Sr. No.	Item	Costs	
		Foreign Currency	Local Currency (Pak Rupees)
1	Total Cost of Financial Proposal	NA	66,139,899



FORM FIN - 3. BREAKDOWN OF COSTS BY ACTIVITY

Group of Activities (Construction Supervision Services)	Description:	Foreign Currency	Local Currency (Pak Rupees)
Remuneration	FEASIBILITY STUDY, PREPARATION OF MODIFIED/REVISED PC-I, DETAILED ENGINEERING DESIGN AND CONSTRUCTION SUPERVISION OF WATER CARRIER FROM NABISAR RESERVOIR TO THAR COAL FIELD BLOCK-2	NA	51,909,899
Reimbursable Expenses		NA	14,230,000
Subtotal		NA	66,139,899



CONSULTANCY SERVICES FOR FEASIBILITY STUDY, PREPARATION OF MODIFIED/REVISED PC-1, DETAILED ENGINEERING DESIGN AND CONSTRUCTION SUPERVISION OF WATER CARRIER FROM NABISAR RESERVOIR TO THAR COAL FIELD BLOCK-2

FORM FIN - 4. BREAKDOWN OF REMUNERATION

Group of Activities (Phase): (CONSTRUCTION SUPERVISION SERVICES)

Name	Position	Staff-months Rate	Input (Staff-months)	Foreign Currency	Local Currency (Pak Rupees)
Foreign Staff					
NA	NA	[Home]	NA	NA	NA
NA	NA	[Field]	NA	NA	NA
NA	NA		NA	NA	NA
NA	NA		NA	NA	NA
Local Staff					
Mr. Abdul Nabi Pathan	Team Leader	326,646	*(21 + 3)=24	NA	7,839,504
Mr. Irshad Ali Kailhoro	Resident Engineer	199,989	*(21 + 3)=24	NA	4,799,736
Mr. Fazeel Ahmed	Contract Engineer	217,764	*(10+3)=13	NA	2,830,932
Mr. Muhammad Ashraf	Assistant Resident Engineer (Structure)	154,537	18.00	NA	2,781,666
Mr. Karan Elahi Buloo	Assistant Resident Engineer (Water Carrier)	154,537	21.00	NA	3,245,277
Mr. Syed Muhammad Javaid	Material Engineer	154,537	21.00	NA	3,245,277
Mr. Barkat Ali Qureshi	Quantity Surveyor	98,176	*(21+3)+21=45	NA	4,417,920
Mr. Hassan Khan + Mr. Muhammad Farooq + Mr. Najeel Ahmed	Field Surveyor	72,723	*(21+3) x 3 =63	NA	4,581,549
Mr. Asadullah	Electrical Engineer	181,808	8.00	NA	1,454,464
Mr. Yousuf Hassan	Mechanical Engineer	181,808	8.00	NA	1,454,464
Mr. Faisal Nazar + Mr. Bashir	Site Inspector (Structure)	69,087	*(2 x 18)=36	NA	2,487,132
Mr. Perviaz + Mr. Irshad Ahmed	Site Inspector (Water Carrier)	69,087	*(2 x 21)=42	NA	2,901,654
To Be Named	Site Inspector (Electrical)	69,087	8.00	NA	552,696
To Be Named	Site Inspector (Mechanical)	69,087	8.00	NA	552,696
To Be Named	Lab Technician	54,542	*(4 x 21)=84	NA	4,581,528
Support Staff					
To Be Named	Secretary / Office Administration	54,542	*(21 + 3)=24	NA	1,309,008
To Be Named	Computer Operator	45,452	*(21 + 3) + 21=45	NA	2,045,340
To Be Named	Support Staff (Peon / Messenger)	17,272	*(21+3) x 2=48	NA	829,056
Total Costs					51,909,899



CONSULTANCY SERVICES FOR FEASIBILITY STUDY, PREPARATION OF MODIFIED/REVISED PC-I, DETAILED ENGINEERING DESIGN AND CONSTRUCTION SUPERVISION OF WATER CARRIER FROM NABISAR RESERVOIR TO THAR COAL FIELD BLOCK-2

FORM FIN - 5. BREAKDOWN OF REIMBURSABLE EXPENSES

Group of Activities (CONSTRUCTION SUPERVISION SERVICES)

No	Description	Unit	Unit Cost	Quantity	Foreign Currency	Local Currency (Pak Rupees)
1	Per diem allowances	Day	---		NA	---
2	International flights	Trip			NA	
3	Miscellaneous travel expenses	Trip	---	---	NA	350,000
4	Communication costs between [Design Office Karachi] and [Client's HQ Karachi]	Month	15,000	24.00	NA	360,000
5	Drafting, reproduction of reports	Month	15,000	24.00	NA	360,000
6	Equipment, instruments, materials, supplies, etc.				NA	200,000
7	Shipment of personal effects	Trip			NA	
8	Use of computers, software	Month	5,000	24.00	NA	120,000
9	Establishment of Field office i/c furnishing	LS			NA	200,000
10	Establishment of Residential accommodation i/c furnishing	LS			NA	400,000
11	Local transportation costs (Vehicle i/c POL)	Month	100,000	(24 x 4)	NA	9,600,000
12	Office rent, clerical assistance	Month	50,000	24.00	NA	1,200,000
13	Training of the PA's personnel				NA	
14	Any other Expenses not covered under above (provide list) (a) Office running expenses and utilities	Month	60,000	24.00	NA	1,440,000
Total Costs						14,230,000



Annex C

Project Implementation Schedule



FEASIBILITY STUDY, PREPARATION OF MODIFIED/REVISED PC-I, DETAILED ENGINEERING DESIGN AND CONSTRUCTION SUPERVISION OF WATER CARRIER FROM NABISAR RESERVOIR TO THAR COAL FIELD BLOCK-2

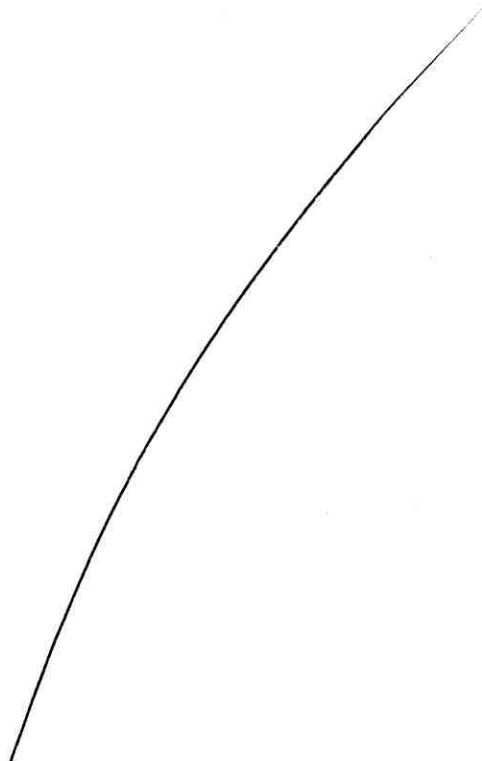
FORM TECH - 8. WORK SCHEDULE

Task No	ACTIVITY	TIME LINE [MONTHS / WEEKS]						TIME LINE [MONTHS]																								DPL
		1	2	3	4	5	6	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
DESIGN SERVICES																																
101	SURVEY & INVESTIGATIONS																															
102	Reconnaissance Survey site visits																															
103	Topographic Survey																															
104	Soil / Geotechnical Investigations																															
105	Material survey and Testing																															
106	Existing Road and Structures Condition Survey																															
107	Traffic Survey																															
108	Non Destructive Testing (NDT) to ascertain condition of existing cross drainage structure																															
109	STUDY & ANALYSIS																															
110	Traffic Study																															
111	Hydrology / Hydraulic Study																															
112	Highway Safety Audit																															
113	ENGINEERING DESIGN																															
114	Geometric Design (Plan profile drawings)																															
115	Pavement Structural Design																															
116	Cross Drainage Structural Design																															
117	Erosion protection works																															
118	PREPARATION OF DOCUMENTS / DRAWINGS																															
119	Inception Report																															
120	Surveys and Investigation Report																															
121	Draft Final Design																															
122	PC-I & Economic Analysis																															
123	Tender Documents and BOQS																															
124	Engineers Estimates																															
125	Construction Drawings																															
126	PRE-CONSTRUCTION ASSISTANCE																															
127	Pre-qualification of Construction Contractors																															
128	Prequalification Evaluation	2 weeks after receipt of Applications																														
129	Bid evaluation & Award of Contract (assistance)	within 2 weeks After receiving bids																														
CONSTRUCTION SUPERVISION SERVICES																																
201	Acts as the Engineer / Engineer's Representative																															
202	Handover of Sites, Issue of Drawings																															
203	Check & Ensure Conformity of Contracts / Securities																															
204	Check Contractors' Work Programmes, Personnel and Construction Methods																															
205	Inspect Contractors' Plant, Equipment and Facilities																															
206	Check Contractors' Working Drawings																															
207	Inspection of Quarries, Borrow Pits and Crusher Plants																															
208	Check and Verify Setting-Out																															
209	Inspection of Safety Measures and Traffic Management																															
210	Check Contractors' Testing / Carry-out Independent Testing																															
211	Review Test Results/Certificates for Construction Materials																															
212	Review Bituminous & Concrete Mix Design																															
213	Order Special Tests / Replacement of Substandard Works/Materials																															
214	Supervision of the Works																															
215	Conduct Inspections																															
216	Monitor Mobilization / Progress of Works																															
217	Interpret Contract Documents																															
218	Issue Updated / Additional Drawings																															
219	Measure Quantities / Certification																															
220	Interim Claims for Payment																															
221	Maintain a Daily Site Diary																															
222	Prepare Monthly Progress Reports																															
223	Inspect the Works on Completion																															
224	Finalize As-Built Drawings and Test Records																															
225	Maintain Records of Measurements / Test																															
226	Evaluate Claims, Price Escalation and Requests for Time Extensions																															
227	Assist Employer in Coordination / Meetings																															
228	Project Performance Monitoring																															
229	Any other Services																															
230	Prepare Reports,																															
POST CONSTRUCTION STAGE																																
301	Inspect Works During Defects Liability Periods																															
302	Certify Completion of Defects Liability Period																															



Annex D

Project Staff Schedule



Annex E

Minutes of Negotiation Committee Meeting



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**GOVERNMENT OF SINDH
COAL & ENERGY DEVELOPMENT DEPARTMENT**



SINDH COAL AUTHORITY

**MINUTES OF THE
CONTRACT NEGOTIATION MEETING**

**BETWEEN NEGOTIATING TEAM OF
COAL & ENERGY DEVELOPMENT DEPARTMENT / SINDH COAL AUTHORITY**

AND CONSULTING FIRM

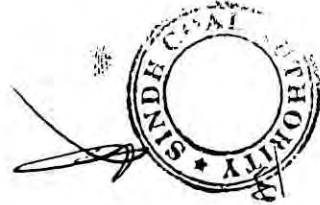


M/S. A. A. ASSOCIATES

HELD ON 2nd JULY 2012 AT 15:00 HRS AT KARACHI

**FOR THE SELECTION OF CONSULTANTS FOR
FEASIBILITY STUDY, PREPARATION OF MODIFIED / REVISED PC-1 DETAILED ENGINEERING DESIGN AND
CONSTRUCTION SUPERVISION FOR**

**“CONTRACT WATER CARRIER FROM NABISAR RESERVIOR
TO THAR COAL FIELD BLOCK – II”**



MINUTES OF THE

**CONTRACT NEGOTIATION MEETING BETWEEN NEGOTIATING TEAM OF COAL & ENERGY DEVELOPMENT
DEPARTMENT / SINDH COAL AUTHORITY AND CONSULTING FIRM M/S. AA ASSOCIATES
HELD ON 2ND JULY, 2012 AT 1500 HRS AT KARACHI**

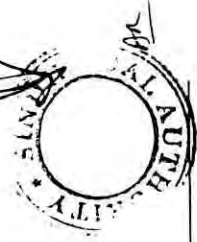
for

**THE SELECTION OF CONSULTANTS FOR FEASIBILITY STUDY, PREPARATION OF MODIFIED / REVISED PC-I,
DETAILED ENGINEERING DESIGN AND CONSTRUCTION SUPERVISION FOR "CONTRACT – WATER CARRIER FROM
NABISAR TO THAR COALFIELD AREA BLOCK-II"**

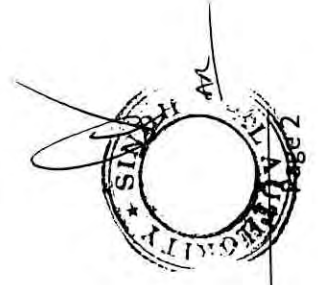
The meeting of the negotiation team of the Coal & Energy Development Department / Sindh Coal Authority & the consulting firm M/s. AA Associates for the consultancy services of the subject contract i.e. "Water Carrier from Nabisar to Thar Coalfield Area Block-II" was held with recitation from "Holy Quran" in the office of Director General Sindh Coal Authority Karachi. The list of the participants is annexed.

The agenda of the meeting was already provided to the consulting firm by the Procurement Agency (PA) vide letter of invitation for contract negotiation.

It was decided by the participants to proceed item-wise as per the agenda. The decisions taken in the meeting are tabulated as under:

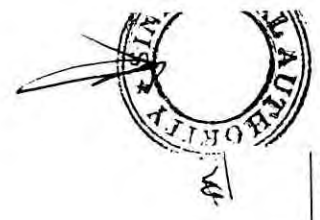


Reference of Agenda #	Item of Agenda	Viewpoint of PA/Client	Viewpoint of Consultant	Decision
Item # 1	<p>Opening remarks:</p> <p>a) Welcome by the Chairperson</p> <p>b) Introduction by the Participants</p> <p>c) Outline protocol for the proceedings</p>	<p>-</p> <p>Introduction made</p> <p>-</p>	<p>-</p> <p>Introduction made</p> <p>-</p>	<p>The Chairperson welcomed the participants from both sides.</p> <p>-</p> <p>The Chairperson briefed and outlined about proceedings of the meeting and emphasized that the same will be carried out item wise as per the agenda already provided to the participants.</p>



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Reference of Agenda #	Item of Agenda	Viewpoint of PA/Client	Viewpoint of Consultant	Decision
Item # 2	<p>Submission of</p> <p>a) Written authorization for the negotiating team of the consultants</p> <p>b) Certificate of incorporation or establishment of the firm / company.</p> <p>c) Valid Pakistan Engineering Council registration certificate of the firm.</p>	-	-	<p>The consultants submitted written authorization in favour of Mr. Abdul Nabi Pathan (Partner), M/s. AA Associates for negotiating the contract with C&EDD/SCA Team.</p> <p>The consultant's team submitted the requisite certificate of incorporation of the firm.</p> <p>The consultant's team submitted the requisite certificate of the Pakistan Engineering Council valid upto 31st December, 2014</p>



Reference of Agenda #	Item of Agenda	Viewpoint of PA/Client	Viewpoint of Consultant	Decision
Item # 3	Review of Scope of work, TOR, Approach / Methodology and reporting requirements	<p>a) The PA has given the TOR / Scope of the assignment in the RFP document. Consultants team is required to review and offer comments, if any, on it and also give brief about their approach/ methodology</p>	<p>The consultants submitted that they have already mentioned in the technical proposal that they have no comments on the ToR and they fully understand the objectives of the assignment, comprehends the scope of the services laid down in the ToR and therefore formed the team of experts comprising the associates with consultants on specialized projects and from the permanent staff. They further informed that the proposed team of the professionals has taken the various similar assignments that provide the complete in sight of the project, the constraints that could be faced, etc. and they are fully aware of the project area and the project, its goals and the scope.</p>	<p>After listening the view point of the consultants, it was agreed that the consultant will carry out their assignment strictly as the scope of the work mentioned in the ToR/RFP documents.</p>

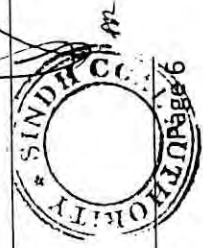
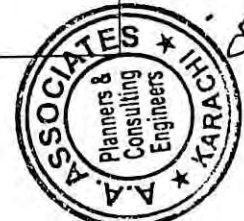


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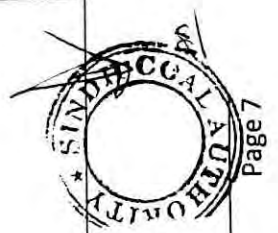
Reference of Agenda #	Item of Agenda	Viewpoint of PA/Client	Viewpoint of Consultant	Decision
		<p>b) Tentative reporting schedule has not been proposed in the technical proposal, which should be done now.</p>	<p>b) Inception report will be submitted within 15 days after the receipt of the "Letter of Award" from the PA and the tentative reporting schedule will be incorporated in the inception report.</p>	<p>b) Agreed</p>



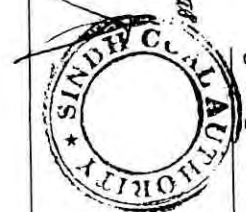
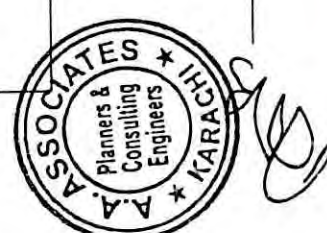
Reference of Agenda #	Item of Agenda	Viewpoint of PA/Client	Viewpoint of Consultant	Decision
Item # 4	Review of work plan and personnel schedule and formation of contract packages.	<p>a) The PA is of the view that suitable contract packages be formed within the main contract so that the project be completed within the shortest possible time in order to meet the timelines given by the investors. The work plan is to be prepared accordingly.</p> <p>b) Personnel schedule proposed in the technical proposal by the consultants has been reviewed and agreed.</p>	<p>a) The consultants agreed with the point of view of the PA and further submitted that the contract packages should be more than one and that the number and configuration should be decided during the course of the project when the design and cost is evolved.</p> <p>b) Read and agreed</p>	<p>a) Mutually agreed.</p> <p>Mutually agreed.</p>



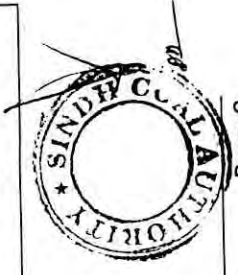
Reference of Agenda #	Item of Agenda	Viewpoint of PA/Client	Viewpoint of Consultant	Decision
Item # 5	Consultant's Personnel	<p>a) As per Clause-21.1.1 of the RFP Document, the PA requires assurance / confirmation from the consultants that the professional staff proposed in the technical proposal will be actually available.</p> <p>b) Consultants are required to introduce the participants of the meeting with their team of proposed professionals.</p>	<p>a) Consultants assured/ confirmed the availability of the professional staff proposed in their technical proposal.</p> <p>b) The consultants introduced the participants of the meeting with their key persons.</p>	Agreed



Reference of Agenda #	Item of Agenda	Viewpoint of PA/Client	Viewpoint of Consultant	Decision
Item # 6	Counterpart Staff and facilities	As per TOR	Agreed as per TOR	Mutually agreed as per TOR
Item # 7	Equipments	As per TOR	Agreed as per TOR	Mutually agreed as per TOR



Reference of Agenda #	Item of Agenda	Viewpoint of PA/Client	Viewpoint of Consultant	Decision
Item # 6	Counterpart Staff and facilities	As per TOR	Agreed as per TOR	Mutually agreed as per TOR
Item # 7	Equipments	As per TOR	Agreed as per TOR	Mutually agreed as per TOR



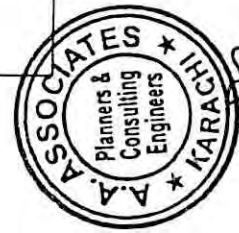
Reference of Agenda #	Item of Agenda	Viewpoint of PA/Client	Viewpoint of Consultant	Decision
Item # 6	Counterpart Staff and facilities	As per TOR	Agreed as per TOR	Mutually agreed as per TOR
Item # 7	Equipments	As per TOR	Agreed as per TOR	Mutually agreed as per TOR



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Reference of Agenda #	Item of Agenda	Viewpoint of PA/Client	Viewpoint of Consultant	Decision
Item # 6	Counterpart Staff and facilities	As per TOR	Agreed as per TOR	Mutually agreed as per TOR
Item # 7	Equipments	As per TOR	Agreed as per TOR	Mutually agreed as per TOR



Reference of Agenda #	Item of Agenda	Viewpoint of PA/Client	Viewpoint of Consultant	Decision
Item # 8	Office Accommodation & administrative support	<p>a) As per ToR / RFP</p> <p>b) The PA wishes that his staff may visit the Consultants head office / Team Leader (The Engineer) office during the course of project implementation to interact and / or examine project related documents and status of the activities as required, by coordinating with the authorized representatives of the consultants</p>	<p>Agreed as per ToR / RFP</p> <p>Agreed</p>	<p>Mutually agreed as per ToR/RFP</p> <p>Agreed</p>
Item # 9	Review of contract and financial terms and conditions	<p>The PA has prepared the Draft Contract Agreement and financial terms & conditions based on SPPRA Rules, 2010 and the same have been provided to the consulting firms in the RFP Documents. PA invites consultant for review and discussions on the same.</p>	<p>The consultants submitted the draft contract for review of the PA</p>	<p>It was decided that the contract agreement be finalized jointly by PA & the consultants at an earliest.</p>



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Reference of Agenda #	Item of Agenda	Viewpoint of PA/Client	Viewpoint of Consultant	Decision
Item # 10	Clarification of Consultant's Tax Liabilities	As per para-13.1 of the data sheet and clause-1.8 of general conditions of contract, the consultants are liable to pay all direct or indirect taxes, duties, fees, stamp duty, service charges and other impositions levied under the applicable law, the amount of which is deemed to have been included in the consultancy contract price.	Agreed	Agreed as per para-13.1 of the data sheet / RFP and the consultant shall pay all direct or indirect taxes, duties, fees, stamp duty, service charges and other impositions levied under the applicable law, the amount of which is deemed to have been included in the consultancy contract price.
Item # 11	Commencement of Services	PA wishes that the commencement of the services within 07 days of contract signing and award of the contract. Accordingly, the consultants shall mobilize their teams within the above mentioned period.	Agreed	Agreed.



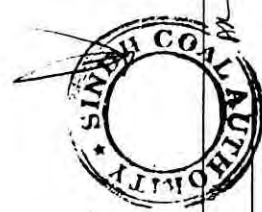
Reference of Agenda #	Item of Agenda	Viewpoint of PA/Client	Viewpoint of Consultant	Decision
(i)	Miscellaneous, if any, with the permission of the chair. ESCALATION	Sindh Coal Authority / Coal & Energy Development Department is of the view that the estimated consultancy budget / cost shown in the Data Sheet of the RFP Document is for the entire contract period mentioned in the TOR and the consultants have offered their rates looking to the aspects of future escalation etc, during contract period. Hence, no escalation will be allowed during the original contract period of 30 months including 3-months for project closing. However, the escalation may be considered after the expiry of original contract period subject to condition that the extension in the period of consultancy contract is granted on the genuine grounds and not on the fault by the consultants.	Agreed	<p>No any escalation / increase in remunerations of the Construction Supervision Staff and other reimbursable expenditure will be allowed during the currency of the original contract period of 30 months including 3-months for project closing.</p> <p>However, that escalation will be considered as per Government declared annual inflation after the expiry of the original contract period subject to conditions that the extension in the period of Consultancy Contract is granted on genuine grounds and not on the fault by the Consultants.</p>



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Reference of Agenda #	Item of Agenda	Viewpoint of PA/Client	Viewpoint of Consultant	Decision
(ii)	PERFORMANCE SECURITY (5% of the contract cost in form of Pay Order / Demand draft or bank guarantee)	<p>The PA is of the view that, as per Clause-39 of SPPRA Rules, 2010, the PA shall in all procurement of goods, works and services carried out through open competitive bidding require security in the form of Pay Order / Demand Draft and or Bank Guarantee, an amount sufficient to protect the PA in case of breach of contract by the contractor or supplier or consultants, provided that the amount shall not be more than 10% of the contract price. Accordingly, this clause has been included in:</p> <p>I) Para 22.2 of data sheet and instructions to consultants contained in the RFP Document.</p> <p>II) Para 6.1 of General Conditions and Special Conditions of contract requiring the successful consultant to submit performance security in the form of Pay Order / Demand Draft or Bank Guarantee of 5% of contract cost</p>	Agreed	It was decided that the Consultants will submit Performance Security in the form of Pay Order / Demand Draft or Bank Guarantee in the amount of 5% of the Contract cost for the period as mentioned in SPPRA rules 2010.



Reference of Agenda #	Item of Agenda	Viewpoint of PA/Client	Viewpoint of Consultant	Decision
		<p>All the above documents are as per the SPPRA Rules and have been downloaded from SPPRA website.</p> <p>The above paras are included in the RFP Documents and the consulting firms have submitted their proposals having consideration of these conditions.</p>		

For and on Behalf of the PA

A.P.

Name: Dr. Abdul Rauf Siddiqui
 Additional Secretary,
 Coal & Energy Development Department /
 Chairman, of the PA's Negotiating Team

Witness:

M. J. Pathan

Name: Abdul Majeed Pathan
 Director General
 Sindh Coal Authority



For and on Behalf of the Consultants

A.A. Associates

Name : Abdul Nabi Pathan
 Partner, AA Associates
 Karachi

Witness:

Mehnood Yousuf

Name : Mehnood Yousuf
 Hydraulic Design Engineer
 AA Associates, Karachi.





LIST OF PARTICIPANTS

1. DR. ABDUL RAUF SIDDIQI
ADD: SECRETARY
COAL & ENERGY DEVELOPMENT DEPARTMENT/CHAIRMAN PA'S
NEGOTIATING TEAM.
2. MR. ABDUL MAJEED PATHAN
DIRECTOR GENERAL
SINDH COAL AUTHORITY.
- ENGR. HASSAN ALLY MEMON
CHIEF ENGINEER
SINDH COAL AUTHORITY.
3. MR. HUSSAIN BUX SHAIKH
SUPERINTENDING ENGINEER
SINDH COAL AUTHORITY.
4. MR. MOHAMMAD FAHEEM KHAN
DIVISIONAL ACCOUNTS OFFICER
SINDH COAL AUTHORITY.
5. MR. ABDUL NABI PATHAN
PARTNER
M/S. AA ASSOCIATES.



A. R.

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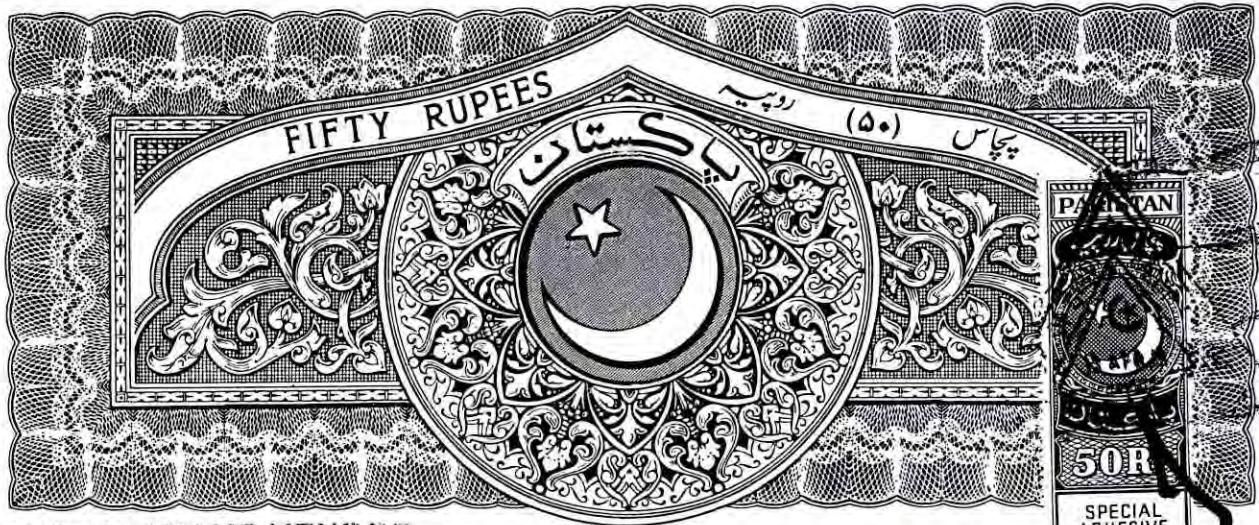


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Appendix A

Integrity Pact





AAMIR ALI STAMP VENDOR
Licence No. 44, Seat No. 15, City Court Karachi. 19 APR 2012

S. No. 51454 DATE
ISSUED TO
TITLE MALIK SHER AFSAR
PERIOD HG-7014 ADV.
VAL (AMOUNT)
STAMP VENDOR'S SIGNATURE

Appendix A

13 APR 2012

(INTEGRITY PACT)

**DECLARATION OF FEES, COMMISSION AND BROKERAGE ETC.
PAYABLE BY THE SUPPLIERS OF GOODS, SERVICES & WORKS IN
CONTRACTS WORTH RS. 10.00 MILLION OR MORE**

Contract No. _____

Dated: _____

Contract Value: Rs. 87,485,099/-

Contract Title: **Consulting Services for Feasibility Study, Preparation of Modified/Revised PC-I, Detailed Engineering Design and Construction Supervision of Water Carrier from Nabisar Reservoir to Thar Coal Field Block-II.**

A. A. Associates hereby declares that it has not obtained or induced the procurement of any contract, right, interest, privilege or other obligation or benefit from Government of Sindh (GoS) or any administrative subdivision or agency thereof or any other entity owned or controlled by GoS through any corrupt business practice.

Without limiting the generality of the foregoing, A. A. Associates represents and warrants that it has fully declared the brokerage, commission, fees etc. paid or payable to anyone and not given or agreed to give and shall not give or agree to give to anyone within or outside Pakistan either directly or indirectly through any natural or juridical person, including its affiliate, agent, associate, broker, consultant, director, promoter, shareholder, sponsor or subsidiary, any commission, gratification, bribe, finder's fee or kickback, whether described as consultation fee or otherwise, with the object of obtaining or inducing the procurement of a contract, right, interest, privilege or other obligation or benefit in whatsoever form from GoS, except that which has been expressly declared pursuant hereto.

A. A. Associates certifies that it has made and will make full disclosure of all agreements and arrangements with all persons in respect of or related to the transaction with GoS and has not taken any action or will not take any action to circumvent the above declaration, representation or warranty.



A. A. Associates accepts full responsibility and strict liability for making any false declaration, not making full disclosure, misrepresenting facts or taking any action likely to defeat the purpose of this declaration, representation and warranty. It agrees that any contract, right, interest, privilege or other obligation or benefit obtained or procured as aforesaid shall, without prejudice to any other rights and remedies available to GoS under any law, contract or other instrument, be voidable at the option of GoS.

Notwithstanding any rights and remedies exercised by GoS in this regard, **A. A. Associates** agrees to indemnify GoS for any loss or damage incurred by it on account of its corrupt business practices and further pay compensation to GoS in an amount equivalent to ten times the sum of any commission, gratification, bribe, finder's fee or kickback given by **A. A. Associates** as aforesaid for the purpose of obtaining or inducing the procurement of any contract, right, interest, privilege or other obligation or benefit in whatsoever form from GoS.

Name of Buyer: **Sindh Coal Authority**

Name of Seller/Supplier: **A. A. Associates**

Signature:

Abdul Majeed Pathan,
Director General (DG) (SCA)

[Seal]



Signature:

Abdul Nabi Pathan,
Partner

[Seal]





GOVERNMENT OF SINDH SINDH COAL AUTHORITY

House # 16, "E" Street, Behind Zamzama Park
Phase-V, Defence Housing Authority
Karachi

SUMMARY OF EVALUATION FOR TECHNICAL & FINANCIAL PROPOSALS

NAME OF ASSIGNMENT

**CONSULTANCY SERVICES FOR FEASIBILITY STUDY,
PREPARATION OF MODIFIED / REVISED PC-1, DETAILED ENGINEERING DESIGN
AND CONSTRUCTION SUPERVISION OF
WATER CARRIER FROM NABISAR RESERVOIR TO THAR COAL FIELD BLOCK - 2.**

- 1.0 Evaluation of Technical and Financial Proposals has been completed by the Consultant Selection Committee (CSC) for the contract cited above. M/s A. A. Associates have been evaluated as rank # 1; while M/s EA Consulting Pvt. Ltd. in association with Resources Management Associates have been evaluated as rank # 2, M/s Techno Consult International have been evaluated as rank # 3, M/s M. M. Pakistan (Pvt.) Ltd. Have been evaluated as rank # 4 and National Engineering Services Pakistan (Pvt.) Ltd. NESPAK have been evaluated as rank # 5. Detailed Evaluation Report is attached as Annexure-A.
- 2.0 Since M/s A. A. Associates, have been evaluated as rank # 1 in combined evaluation (Technical & Financial), the Consultant Selection Committee (CSC) therefore recommends to award the subject Contract to M/s. A. A. Associates in accordance with SPPRA Rules 2010.
- 3.0 It is, therefore, submitted that the recommendations of the Consultants Selection Committee(CSC) regarding evaluation of Technical & financial Proposals and award of the Contract to the first ranked consulting firm i.e. M/s. A. A. Associates may be approved so that the Letter of Acceptance (LOA) be issued to the Consultant firm (ranked # 1) as per para 2 above in order to proceed further as per RFP / SPPRA 2010 for framing the Contract Agreement and fulfilling the codal requirements and start the Assignments.

Member Consultants Selection Committee
(Hussain Bin Shahid SE, SCA)

Member Consultants Selection Committee

Beshwari Ahmed Channa
Member Consultants Selection Committee
Chief (Inv) P.D.D

Member Consultants Selection Committee

Member Consultants Selection Committee

Member Consultants Selection Committee

(Hassan Ali Nawaz)
CE, SCA

Chairman / Convener
Consultants Selection Committee
(Dr. Abdul Mueez Siddiqui)
Addl. Secretary

ARIF HUSSAIN LEGHARI
Deputy Dir (II) SCA



GOVERNMENT OF SINDH SINDH COAL AUTHORITY

House # 16, "E" Street, Behind Zamzama Park
Phase-V, Defence Housing Authority
Karachi

REPORT ON EVALUATION FOR TECHNICAL & FINANCIAL PROPOSALS

NAME OF ASSIGNMENT

**CONSULTANCY SERVICES FOR FEASIBILITY STUDY,
PREPARATION OF MODIFIED / REVISED PC-1, DETAILED ENGINEERING DESIGN
AND CONSTRUCTION SUPERVISION OF
WATER CARRIER FROM NABISAR RESERVOIR TO THAR COAL FIELD BLOCK - 2.**

1.0 EVALUATION CRITERIA

The method of Evaluation is based on Quality cum Cost Based Selection (QCBS) with 80% weightage for Technical Proposal and 20% weightage for Financial Proposal (80:20) in accordance with rules specified by the Sindh Public Procurement Regulatory Authority (SPPRA) 2010 for engineering consultancy services.

2.0 SUBMISSION OF PROPOSALS

Following six short listed consulting firms / groups submitted their Technical and Financial Proposals in response to SCA letter of Invitation.

Sr. No.	Name of Firms
1.	National Engineering Services Pakistan (Pvt.) Ltd. NESPAK
2.	EA Consulting Pvt. Ltd. in association with Resource Management Associates.
3.	National Development Consultant (Pvt) Ltd.
4.	Techno Consult International
5.	M. M. Pakistan (Pvt.) Ltd.
6.	A. A. Associates.

3.0 EVALUATION OF TECHNICAL PROPOSAL

The Consultant Selection Committee (CSC), constituted by Government of Sindh, evaluated the Technical Proposals received from the consulting firms / groups on the basis of criteria given in the Request for Proposal (RFP). As a result of Technical evaluation, the scoring and status of the consulting firms/groups is as follows.

Sr. No.	Name of Firm	Marks Obtained	Technical Ranking	Status
1.	National Engineering Services Pakistan (Pvt.) Ltd. NESPAK	75.13	6	Qualified
2.	EA Consulting Pvt. Ltd. in association with Resource Management Associates.	87.13	1	Qualified
3.	National Development Consultant (Pvt) Ltd.	81.29	5	Qualified
4.	Techno Consult International	82.18	3	Qualified
5.	M. M. Pakistan (Pvt.) Ltd.	82.01	4	Qualified
6.	A. A. Associates	86.95	2	Qualified

4.0 According to the RFP, minimum technical score required to qualify is 75% points. All six consulting firms/groups have scored more than 75% points and stand technically qualified; they are EA Consulting Pvt. Ltd. in association with Resource Management Associates (87.13 points ranked # 1); A. A. Associates (86.95 points, ranked # 2); Techno Consult International (82.18 points ranked # 3); M. M. Pakistan (Pvt.) Ltd. (82.01 points, ranked # 4); National Development Consultant (Pvt) Ltd. (81.29 points ranked # 5); National Engineering Services Pakistan (Pvt.) Ltd. NESPAK, (75.13 points ranked # 6)

5.0 EVALUATION OF FINANCIAL PROPOSAL

Six technically qualified firms i.e. EA Consulting Pvt. Ltd. in association with Resource Management Associates (87.13 points ranked # 1); A. A. Associates (86.95 points, ranked #2) Techno Consult International (82.18 points ranked # 3); M. M. Pakistan (Pvt.) Ltd. (82.01 points, ranked 4); National Development Consultant (Pvt) Ltd. (81.29 points ranked 5) and National Engineering Services Pakistan (Pvt.) Ltd. NESPAK, (75.13 points ranked # 6) were invited for opening of their respective Financial Proposals on 15.06.2012 after obtaining the approval from the Competent Authority. Financial Proposals of these consulting firms were opened in presence of Consultant Selection Committee (CSC) members and the representatives of the consulting firms.

Prices quoted by the consulting firms are as under:

Sr. No.	Name of Firm	Quoted Price (PKR)
1	National Engineering Services Pakistan (Pvt.) Ltd. NESPAK	97,459,550
2	EA Consulting Pvt. Ltd. in association with Resource Management Associates.	95,088,000
3	National Development Consultant (Pvt) Ltd.	Bid Security, required as per Clause 7.2 of Datasheet of RFP Document, not provided hence quoted price not announced and not entertained.
4	Techno Consult International	77,950,025
5	M. M. Pakistan (Pvt.) Ltd.	79,667,698
6	A. A. Associates	87,485,125

The financial proposal of the five consulting firms except National Development Consultant Pvt Ltd (NDC) were evaluated for input proposed as per RFP and arithmetical checks. Evaluated / corrected figures of Financial Proposals are as under:

Sr. No.	Name of Firm	Evaluated / Corrected Price (PKR)
1	National Engineering Services Pakistan (Pvt.) Ltd. NESPAK	103,867,525
2	EA Consulting Pvt. Ltd. in association with Resource Management Associates.	95,088,000
3	Techno Consult International	77,950,025
4	M. M. Pakistan (Pvt.) Ltd.	79,667,698
5	A. A. Associates	87,485,099

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In accordance with requirements of SPPRA Rules 2010 combined (Technical & Financial) ranking of five consulting firms is as under:

Sr. No.	Name of Firm	Technical Score	Evaluated Financial Bid	Financial Score SF=100AF/Fm	Weightage % age		Final (Combined) Score	Ranking Status
		St.	F.	Sf	T: 80% Tech	P: 20% Fin		
1	National Engineering Services Pakistan (Pvt.) Ltd. NESPAK	75.13	103,867,525	75.05	60.104	15.01	75.114	5
2	EA Consulting Pvt. Ltd. in association with Resource Management Associates.	87.13	95,088,000	81.98	69.704	16.40	86.10	2
3	Techno Consult International	82.18	77,950,025	100	65.744	20	85.74	3
4	M. M. Pakistan (Pvt.) Ltd.	82.01	79,667,698	97.84	65.608	19.57	85.18	4
5	A. A. Associates	86.95	87,485,099	89.10	69.56	17.82	87.38	1
F	Evaluated Financial Bid							
Fm	Lowest Evaluated Financial Bid							
St	Technical Score							
Sf	Financial Score							
T	Weightage given to Technical Proposal							
P	Weightage given to Financial Proposal							

Hence as a result of combined evaluation M/s A. A. Associates stands No.1 while M/s EA Consulting Pvt. Ltd. in association with Resources Management Associates stands No. 2, Techno Consult International stands No. 3, M. M. Pakistan (Pvt.) Ltd. Stands No. 4 and National Engineering Services Pakistan (Pvt.) Ltd. NESPAK stands No.5.

[Signature] 19/6/12
 Member Consultant Selection Committee
 (Hussain Bilal Shahid, SE-SCA)

[Signature]
 Member Consultant Selection Committee
 A. Majeed Paks...
 D.G (SCA)

[Signature]
 Member Consultant Selection Committee
 Chief (Jud) PDD

[Signature]
 Member Consultant Selection Committee
 (Muzaffar Ali (ex-parte))
 DS (DEW)

[Signature] 19/6/12
 Member Consultant Selection Committee
 Waqar Ahmad Qureshi
 SEN Irrigation Dept.

[Signature]
 Member Consultant Selection Committee
 ARIF HUSSAIN LEGHARI
 Deputy Director (Hydrology)

[Signature]
 (Hussain Athiyah...)
 CE, SCA

[Signature]
 Chairman / Convener
 Consultant Selection Committee
 (Dr. Abdul Rauf Siddiqi)
 A.S. Secretary