



## NOTICE INVITING TENDER



The Underground Coal Gasification Thar Project, Energy Department, Government of Sindh invites sealed tenders from reputed suppliers / firms registered with income tax / sales tax department for the provision of following items. Opening of Technical & Financial Bids will be held on specified dates & time at UCG Project Thar Site, Bhambnio Bheel, Islamkot Mithi District Tharparkar. Earnest money equivalent to 2% of the total cost in the shape of Bank Draft, Pay Order or Bank Guarantee in favour of MD, UCG Thar must accompany the tender.

Sr.#	Tender #	Description	Qty.	Tender Fee Rs.	Bid Security	Closing of Bids, Date & Time	Opening of Technical Bids, Date & Time	Opening of Financial Bids, Date & Time
01	UCG/116-02-16	Group- A Supply of Open Water Cooling Circulatory System for High Pressure Compressors.	(Details as per Tender Documents)	3000	2% of Bid Cost	15-03-2016 at 1500 Hours	15-03-2016 at 1600 Hours	16-03-2016 at 1600 Hours
		1000		2% of Bid Cost	15-03-2016 at 1600 Hours	15-03-2016 at 1700 Hours	16-03-2016 at 1700 Hours	

Tender documents will be issued during office hours from the date of hoisting till one day before the closing date of bid.

All bids may be quoted on FOR basis. Separate Bid for each Item may be submitted along with comprehensive detail as asked in Tender Documents. (special instruction sees in tender documents)

Tender documents containing detailed specification, terms and conditions can be purchased against payment of above mentioned amount in shape of Pay Order / Demand Draft in the name of Account Officer UCG, on written request from the undersigned. The UCG Thar project reserves the right to accept or reject any or all offers subject to the relevant provision of SPP Rules 2010. Tender documents can also be obtained through email by submitting scanned copy of Pay Order / Demand Draft, however its original should accompany the tender otherwise bid will not be considered. Tender documents can be downloaded from SPPRA website [www.pprasindh.gov.pk](http://www.pprasindh.gov.pk).

Tender must reach this office by the date and time specified in the "Schedule A & B" of the tender documents. This Project will not accept any excuse of delay occurring in post. Tender received after the fix date/time will NOT be entertained.

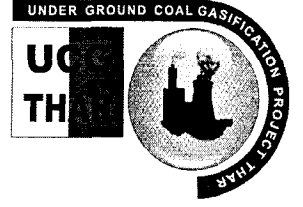
Alternately tender can be brought to the tender opening venue at Underground Coal Gasification Project Thar, Village Bhanbneo Bheel, District Tharparkar, Sindh one hour before opening time.

Procurement Officer

Underground Coal Gasification Project Thar  
Government of Sindh  
C/O Manager, National Bank of Pakistan, Islamkot Branch  
Mithi District Tharparkar  
Ph: 0232-923008 Cell: 0346-7988855, 0344-4655000  
Email: poucgthar@gmail.com



**UNDERGROUND COAL GASIFICATION  
PROJECT THAR**



**Tender Document**

**For the Supply of Open Water Cooling Circulatory System for High  
Pressure Compressors  
&  
Hiring of Machinery  
(Islamkot, Dist: Mithi, Sindh)**

**Tender No: UCG/116-02-16**

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**Invitation to Tender and General Instructions**

Dear Sir,

I invite you to tender for the supply of "Open Water Cooling Circulatory System for High Pressure Compressors" in accordance with the group-wise description of items at Schedule "A" & "Hiring of Machinery" at Schedule "B". Interested bidders may like to bid for more than one group, however separate envelope package (separate Technical offer and Financial offer for each group) must be submitted for each group mentioning Group number on the envelope e.g. Tender No.116-02-16 for (Group 'A'- "Open Water Cooling Circulatory System for High Pressure Compressors") (Group '-B' Hiring of Machinery)

Buyer has the right to purchase one set or 4 sets.

2. **Delivery of Tender: -**

- a) Quotation must be completed in all respects. Please attach brochures where necessary.  
b)

Only those quotations will be considered where:

- I) The bidders registered capital should be more than Pak Rupees 500 million.  
II) The last two years of audited balance sheet and profit statement should be attached with the technical bid.  
III) Certificates of satisfactory performance from multiple customers using "Open Water Cooling Circulatory System for High Pressure Compressors" provided by the bidder should be provided. At least two such certificates from overseas customers of satisfactory operation should also be provided.  
c) The price should be completed along with spares and open water cooling circulatory system. It should include supply, installation and commissioning. Earnest money equivalent to 2% of the total cost in the shape of Bank Draft or Pay Order or Bank Guarantee in favour of MD, UCG Thar must accompany the tender.  
d) The tender duly sealed will be addressed to: -

Procurement Officer

Underground Coal Gasification project Thar

C/O Manager, National Bank of Pakistan, Islamkot Branch, Islamkot Sindh

Tharparkar Sindh. Ph: # 0232-923008 Cell # 0346-7988855, 0344-4655000

Email: [poucgtar@gmail.com](mailto:poucgtar@gmail.com)

3. **Date and Time For Receipt of Tender:**

Your sealed tender must reach this office on the date and time specified in the "Schedule A / Tender Notice" at Underground Coal Gasification project Thar, C/O Manager, National Bank of Pakistan, Islamkot Branch, Islamkot, Tharparkar Sindh. Ph: # 0232-923008 Cell # 0346-7988855, 0344-4655000

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This Project will not accept any excuse of delay occurring in post. Tender received after the fixed date/time will NOT be entertained.

Alternately tender can be brought to the tender opening venue at Site of UCG Thar Project Block "V" Bhambnio Bheel Islamkot Dist: Mithi Sindh Pakistan, one hour before opening time.

Tender documents may also be obtained through email by submitting scanned copy of Bank Draft / Pay Order however its original should accompany the tender otherwise bid will not be considered.

4. Terms of Payment.

Within thirty working days with the successful bidder after receipt of stores.

As per agreement with the successful bidder.

5. Warranty.

All goods/stores offered would be brand new, from current production and will be governed as per warranty clause.

6. Validity of Offer.

The validity period of quotations must be indicated and should invariably be 90 days from the date of opening of commercial offer.

7. Photocopies of Documents.

Following information/copy of documents must be provided/attached with offer: -

- a) A copy of letter from the Bank showing firm's financial capability.
- b) Income tax No. to be mentioned on the offer and copy of Registration Certificate of Income Tax and Sales Tax issued by FBR Islamabad.
- c) Copy of original Principal/Agency Agreement.

8. Disqualification.

Offers will be rejected if: -

- a) Earnest money is not attached with the offer.
- b) Offers are found conditional or incomplete in any respect.
- c) Manufacturer's relevant brochures and technical details on major equipment are not attached in support of specifications.
- d) Received later than appointed/fixed date and time.
- e) The validity of the agency agreement is expired.
- f) Validity of offer is not quoted as required in it or made subject to confirmation later.

- g) Where the manufacture or his Principal has not provided a verifiable list (with addresses & phone numbers) of end users of using "Open Water Cooling Circulatory System for High Pressure Compressors" along with certificates of satisfactory performance from end users.

9. Rights Reserved.

UCG may reject all or any bid subject to relevant provisions of SPP Rules, 2010.

10. Application of Official Secret Acts.

All the matters connected with this enquiry and subsequent actions arising there

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from come within the scope of the official Secret Act, 1923. You are, therefore, requested to ensure complete secrecy regarding documents and stores concerned with the enquiry and to limit the number of your employees having access to this information.

11. Force Majeure.

As per international law.

12. Subletting.

Manufacture is not allowed to sublet wholly or part of the contract to any other firm/company without prior permission of the Purchaser. Firm found in breach of this clause will be dealt with as per purchaser's right and discretion.

Faithfully Yours

Procurement Officer  
Underground Coal Gasification project  
Thar  
C/O Manager, National Bank of Pakistan,  
Islamkot Branch, Islamkot  
Tharparkar Sindh.  
Ph: # 0232-923008  
Cell # 0346-7988855,0344-4655000,  
Email: [poucgtar@gmail.com](mailto:poucgtar@gmail.com)

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## TECHNICAL PARAMETERS

### 1. Technical Specifications.

a) The "Open Water Cooling Circulatory System for High Pressure Compressors" should conform to specification/service requirements and technical data. Offer not conforming to required specifications will be rejected. The supplier shall further undertake to provide all the contracted stores/goods as per the specifications.

b) "Open Water Cooling Circulatory System for High Pressure Compressors" delivered would be brand new, from current production, conforming to purchaser specifications. Quality certification/inspection documents will be provided to the purchaser confirming the quality of the product being supplied under this contract.

2. Inspection/Testing of Store. Inspection/testing will be carried out by the concerned inspecting team/inspector as detailed by the purchaser in accordance with the laid down acceptance criteria, and whatever the expenditure regarding TA/DA boarding and lodging of officers will be borne by the supplier.

3. Change in Specification/Manufacturer/Model. No alteration in make/brand and quality of stores will be entertained after the tenders have been opened. Any change/improvement will require approval of technical authority designated by the buyer.

4. Technical Documentation. All publication, catalogues and technical/operational manuals will be supplied free of cost by the manufacturer at the request of purchaser unless otherwise stated in the contract. The manufacturer will provide a set of following documents free of cost for technical scrutiny of the offer (as applicable): -

- a) Technical literature of each item with brochure.
- b) Manufacturer's Specifications/Technical Data/Process Drawings of each item.
- c) Acceptance test procedure/criteria of each item.

## TECHNICAL REQUIREMENTS OF THE UCG

### General:

This document defines the process conditions and establishes the minimum technical requirement necessary for design, supply, erection, installation, testing and commissioning of cooling tower and its auxiliaries.

The manufacture shall furnish following information along with the offer;

1. Manufacturer and country of origin is required to be clearly mentioned by the contractor for each item.
2. The complete technical specification sheet as per Annexure-A,B & C.
3. Guarantee / Warrantee period.
4. Complete documents giving comprehensive technical details.

All the components must be of anti-corrosive nature.

All the components / Auxiliaries of cooling tower supplied shall be brand new and free from rust, scratches and other defects.

The manufacturer shall use his own tools and equipment required for erection and installation of cooling towers on RCC sump (built by UCG).

### CODE REQUIREMENTS:

Following codes and standards shall be followed by manufacturer for the material selection, fabrication, installation, commissioning and testing of cooling tower.

- i. CTI code for thermal performance of cooling tower (ATC-105)

ASTM D-695	Test Method for compressive Properties of Rigid Plastics
ASTM D-790	Test Method for Flexural Properties of Un-reinforced and Reinforced Plastics and Electrical Insulating Materials
ASTM D-883	Definition of Terms Relating to Plastics
ASTM D-2343	Test Method for Tensile Properties of Glass Fiber Strands, Yarn Strand Roving used in Reinforced Plastics
ASTM D-2583	Test Method for Indentation Hardness of Rigid Plastics by Means of Barcol Impressor
ASTM D-3846	Test Method for In-lane Shear Strength of Reinforced Plastics
ASTM D-3917	Specification for Dimensional Tolerance of Thermosetting Glass Reinforced Plastic Pultruded Shapes
ASTM D-4065	Practice of Determining and Reporting Dynamic Mechanic Properties of Plastics
ASTM D-4357	Specifications for Plastic Laminates made from Woven-Roving and Woven-yarn Glass Fabrics
ASTM D-4385	Practice for Classifying Visual Defects in Thermosetting Reinforced Plastic Pultruded Products
CTI Bulletin STD-137(94)	Fiberglass Pultruded Structural Products for use in Cooling Towers
SPI Washington, DC	Society of the Plastics Industry, Inc. - Recommendation Specifications for Materials used in Pultruded Structural Shapes
Factory Mutual Cooperation	Approval Guide for Materials of Construction

- ii. AWWA / ANSI B 16.5 or equivalent standard for Flanges / Valves.
- iii. OSHA Standard for Noise.

Following codes and standards must be followed for Fiber Reinforced Plastic.

- i. CTI STD-137
- ii. CTI STD-136
- iii. CTI ESG-152

#### The FRP Pultruded Structural profiles:

All the structural members must be FRP Pultruded profiles having different shapes to fulfill structural requirements. But the vertical members must not be less than 50mm x 50mm box section. To insure long life performance of the cooling tower structure the constructor should be ISO certified and registered with Pakistan engineering council in the relevant category with the applicable limits of the project cost. During Pultrusion the constructor should provide access to the production area and the relevant test labs during the production of structural members to be employed for cooling tower to the project owner/ engineer in-charge or representative of the UCG Thar to insure homogeneous quality as per following Reference Specifications.

ASTM D-570

Test Method for Water Absorption of Plastics

ASTM E-84

Test Method for Surface Burning Characteristic of Burning Materials (Flame Spread Rating)

ASTM D-638

Test Method for Tensile Properties of Plastics

For verification purpose third party lab certification should be allowed to the project owner.

The constructor shall make available at site Field Engineers and Technical Supervisors to insure the correct erection of the tower as per entire satisfactions of the owner.

#### 1.4 Tower Structure

The Tower structure shall be field erected from pultruded fiberglass structural members that are designed specifically for cooling tower application. The FRP members shall be protected from UV degradation by the use of surfacing veils and UV stabilizers incorporated in the resin system during Pultrusion.

#### 1.5 Tower Structure Design

The Tower structure shall be designed in accordance with applicable local or national building codes to withstand dead and live loads as per the following.

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- 1) **Wind Load:** Wind load is to be applied to tower walls and fan stack. Tower casing shall not be considered as sacrificial when calculating tower structure loads. As the wind velocity is variable but for design purpose it should be considered as 120 Km/hr.
- 2) **Seismic Factor:** While designing the building it will be taken as 0.15 g.
- 3) **Fill Support Dead Load:** Dry weight of fill material plus water hold up weight plus 15% additional allowance for fill clogging.
- 4) **Eliminator Dead and Live Load:** Dry weight of drift eliminators.

### Temperature vs. Strength Reduction

The strength of the composite members shall be de-rated for long term temperature exposure as per Tables on the following page. The maximum operating temperature exposure for design purposes is 60°C.

TABLE

Application Condition vs. "Average" Compression Strength Reduction, ASTM D695			
Temperature		Reduction Factor	
°F	°C	Poly	Vinyl
77	25	1.0	1.0
100	38	0.85	0.90
125	52	0.70	0.80
150	66	0.50	0.80
175	80	NR	0.75
200	93	NR	0.50

TABLE

Application Condition vs. "Average" Modulus of Elasticity reduction, ASTM D638 (also reference modulus of elasticity procedure written for this application)			
Temperature		Reduction Factor	
°F	°C	Poly	Vinyl
77	25	1.0	1.0
100	38	1.0	1.0
125	52	0.90	0.95
150	66	0.85	0.90
175	80	NR	0.88
200	93	NR	0.85

## Structural Properties and Service Factors

The following minimum service factors shall be used in all structural designs.

### 1) Dead Loads

- A) Bearing Service Factor: 4.0 when applied to a fastener group. Bearing failure is defined as 4% elongation of FRP hole for pinned or bolted joints.
- B) Shear Service Factor: 3.0 minimum
- C) Bending/Flexural Service Factor: 2.5 minimum
- D) Deflection Limits: L/D ratio of 180
- E) Deck Dead Load: L/D ratio of 360

### 2) Live Loads

- A) Bearing Service Factor: 2.5 when applied to a fastener group. Bearing failure is defined as 4% elongation of the fiberglass hole for pinned or bolted joints.
- B) Shear Service Factor: 2.0 minimum
- C) Bending/Flexural Service Factor: 2.0 minimum
- D) Deflection Limits: L/D ratio of 180
- E) Deck Live Load: L/D ratio of 240

## 1.6 Connection Design

The minimum service factor for dead loads that shall be allowed for a connection is 4.0. The service factor for connections with temporary loads due to wind, seismic, etc. may be reduced to 2.5. Either a mechanically bolted joint or combination of mechanical and adhesive (epoxy) joints may connect the union of two or more FRP components. Either joint is acceptable when properly designed and installed.

When connecting hollow type structural members by the use of bolted joint, the service factor for bearing dead loads must be 4.0 minimum and 2.5 minimum for live loads. Bearing hole elongation of 4% or greater is considered failure when stress is applied to any joint.

On bolted joints of hollow tube members, 304 stainless washers are required to keep the connections tight as well as protect the FRP members from over tightening and cracking the FRP.

### 1) FRP Classification

Type II, III, IV pultruded shapes are acceptable with a synthetic polyester fiber-surfacing veil with a minimum effective thickness of 10.0 mils minimum to provide long term UV protection.

### 2) Resin Grade - Fire Retardant / Self Extinguishing

Grade 1 or Grade 3 are acceptable for the structure with a flame spread rating of 25 or less per ASTM E84 flame spread test. The resin must be high quality and chemical resistant. The resin shall be an isothalic polyester, vinyl ester or urethane type resin system.

### 3) Glass Fiber Reinforcing

The glass reinforcement may be continuous roving, continuous strand mats; woven or non-woven fabric, unidirectional fabric or a combination of these. The reinforcing shall be made from Type C or Type E glass fibers.

### 4) Additives

Additives to the resin mix may be used to improve performance characteristics of the final composite. Typical additives are UV inhibitors, antimony trioxide as an improved flame retardant and a minor percentage of fillers. Any mold release that is used must not reduce the long-term strength of any epoxy joint that may be used in the tower structure.

### 5) Workmanship

Fiberglass pultruded structural members shall be supplied in accordance with ASTM D-4385, "Visual Defects in Thermosetting Reinforced Plastic Pultruded Products", at acceptance level 3. All machined surfaces are to be resealed with a compatible resin to maintain corrosion resistance and minimize moisture migration.

## TECHNICAL SPECIFICATION:

Technical specification of the Cooling Tower & project data are given in Annexure-A, B & C.

### EQUIPMENT SELECTION CRITERIA:

The FRP pultruded structural shapes shall include not only continuous roving and woven roving materials to provide tensile and compressive strength but also external layers to provide long term UV added corrosion protection. The outer surface of all components shall be fabricated with 15-20 mil thick synthetic or polyester fiber surfacing veil (such as Nexus) that shall provide UV protection and weather ability. The second layer under the polymeric veil shall be a corrosion and moisture barrier with a minimum depth thickness of 30.0 mils.

#### Structure of Cells:

The cooling tower structure will be constructed on sump made of reinforced concrete and shall be designed with separating walls between each cell. The sump shall collect water and route it to pump suction.

The tower structure will be field erected from pultruded fiberglass structural members that are designed specifically for cooling tower application.

#### Partition Walls:

Each cell of the tower shall be isolated from the adjoining cells by full height partition of FRP sheet walls. The wall shall extend from the bottom of the fan deck to the bottom of the fill supports. The partition walls shall be constructed from contact molding or machine made from fire retardant and self extinguishing resin systems with a flame spread of 25 or less. The panels shall be light gray on color and weigh not less than 3 kg/m<sup>2</sup>.

#### Maintenance Provision:

There should be a platform outside the cooling tower above the PVC infill height with an access door to the inside of the cooling tower for routine inspection / maintenance purposes.

#### Tower Ladders & Fan Deck:

The cooling tower fan deck must be accessible from both ends of the tower structure by ladders. The fan deck shall be supported on pultruded FRP structural members covered with FRP deck panels. The panels shall be fire retardant and the

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top surface of the deck shall be non-skid for operator safety. The FRP fan deck shall be attached to structural members by 304 stainless steel fasteners.

**Air Inlet Louvers:**

The air inlet louvers shall be FRP profiles having minimum 2 mm thickness and supported with pultruded FRP members using stainless steel hardware.

**Fill Media:**

The fill media shall be film type fill designed specifically for cooling tower service and must be UV protected. The media modules shall be resistant to rot, fungi, bacteria, inorganic / organic acids and alkalis commonly found in cooling towers. The PVC material shall be prime rigid PVC conforming to Cooling Technology Institute code CTI-STD-136. The fill should be resistant to fill fouling. The fill material is to be designed for a maximum temperature of 60 °C without damage. On account of located in dusty atmosphere, the design of cooling tower shall be such that minimum dust goes / stays into the tower. The fill shall be closely spaced for maximum air-water contact. The fill should be suitably supported on Pultruded FRP gratings. Arrangements shall be made for uniform water distribution and circulation. Design of the fill shall be that minimum dust accumulates on it and fill shall be easily removable from structure for cleaning and replacement. Fill thickness shall not be less than 10 mil. For PVC bundling environment safe technology like thermal welding or the latest process of mechanical assembling should be adopted.

**Water Distribution:**

Hot water distribution system should be pressurized spray system. The pressurized distribution system shall feature a main fiberglass header with fiberglass or PVC branch lines fitted with spray nozzles mounted inside the tower over the fill.

**Drift Eliminators:**

Drift eliminators shall be of multi pass design in order to keep the drift losses to a minimum. The drift losses should not exceed 0.01% of the total water circulation.

**MECHANICAL COMPONENTS:**

It must be ruggedly designed for continuous operation under corrosive condition.

**FAN CYLINDER / STACK:**

Fan stacks must be of velocity recovery type made of FRP fire retardant and self extinguishing material. The height of the fan stack must be enough to avoid any air re-circulation.

**FAN BLADES:**

The fans shall be of adjustable pitch, multi blade, axial flow propeller type having aerodynamic profile and design. FRP made fan blades provide long life when handling saturated air at high velocities. The blade material shall be fiberglass reinforced epoxy vinyl ester. The fiberglass material must be of unidirectional type having alignment direction towards the length of the blade.

**FAN DRIVE SYSTEM:**

The fan drive must be direct coupled motor on fan hub.

**ELECTRICAL COMPONENTS:**

The cooling tower must be PLC controlled having variable frequency drive for the cooling tower fan motors with a common control panel showing all the parameters of the cooling tower i.e. water inlet temperature, outlet temperature etc. The system must be so designed that the fan must adjust its speed or shut down with reference to the temperature of the cooling water circuit. The control panel must be placed at a pre-specified location close to the cooling tower. All electrical components must

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be of renowned brand with warranty of after sales service and spare parts availability.

#### **D. Cooling Tower Sump & Pump Foundations**

To facilitate the cooling tower contractors working at site, the RCC sump & the pump foundations are in the scope of UCG. This will be constructed by the UCG by himself or by his nominated civil contractor. However design/drawing of the sump will be in the scope of cooling towers' manufacturer. Manufacturer should keep in notice that the available piece of land for the construction of this cooling tower is about 50 feet X 50 feet. To avoid mud collection in the sump, raised sump from ground level along with sedimentation section will be preferred.

#### **Cooling Water Circulation Pumps**

For cooling water circulation (CWC) overall flow rate is 900 M<sup>3</sup>/hour, approximately at 6 bar pressure. Six pumps having 150M<sup>3</sup>/Hr, flow rate of each pump will be installed by the contractor. Five pumps are for operation & one as standby. Pumps' water flow circuit should be appropriately designed for having single or multiple pumps at a time in operation; similarly for repair purpose isolation/non-return valves should be part of the cooling water flow lines. . The scope of contractor will be connecting CWC pumps with cooling tower water sump and then with the common header.

World over accepted renowned brand of pump & motor will be accepted. Designing of pumps' motors control circuit and selection of components must be based on latest electrical engineering concepts & availability to attain safe operation.

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1. I/T No.
2. Time and Date of Technical Bid Opening
3. Time and Date of Financial Bid Opening

UCG/116-02-16  
at 1600 hrs on 15- 03-2016  
at 1600 hrs on 16- 03-2016

**Schedule-A**

**SCHEDULE TO TENDER**

**TECHNICAL SPECIFICATION CHART OF COOLING TOWER TO BE**

**FULFILLED BY THE CONTRACTOR**

Cooling tower shall be PLC Controlled, variable frequency drive and induced draft counter flow type with film type fills.

Structure of the cooling tower shall be made of Reinforced Fiberglass Polyester and comprised of equal capacity cells connected to a common sump. Detailed specifications is given below. And as defined in Page No. 05-12 of this tender document. Some parameters are blank that must be provided by the manufacturer.

**A. Design Conditions:**

Sr #	Description of Stores	Unit	Qty	Unit Price	Total Price
	Cooling Tower Type: Induced Draft Counter Flow with Film Type Fills Thermal Design Code: CTI Standard 203 Water re-circulation rate: 150 m <sup>3</sup> /hr/Per Cell Inlet Hot Water Temp. (HWT): 35 °C to 45 °C Outlet Cold Water Temp. (CWT): 30 °C to 32 °C Design Wet Bulb Temp. (WBT): 29 °C Ambient Dry Bulb Temp. (DBT): 50 °C Water Type: RO sweet water TDS: 300 to 550 ppm PH: 7 to 8.5 Total Hardness: Not more than 150 ppm Drift Losses: As minimum as possible but not more than 0.01% of circulation water flow. Design Wind Velocity: 120 km/hr	Nos	01		
	<b>A. Physical Details</b> Nominal Cell Size (L x W): 48"x 32" No of Cells: 06 No of Fan Per Cell: 01 Height (Basin curb to Fan Deck): _____				
	<b>B. Structural Materials</b> Hardware: SS-304 Anchor Connectors: SS-304 Fan Drive Support: FRP / Hot Dipped Galvanized Steel Casing: FRP UV Stabilized Louvers: FRP Stabilized FRP Framework: FRP Stabilized FRP Partitions: FRP Stabilized FRP Fan Deck: FRP Stabilized FRP, velocity recovery type.				

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	<p><b>C. Fill</b>  Material: UV Stabilized PVC  Type: Film Type Fill (Low Clog), thermal or mechanically assembled /bundling.  Support Method: Pultruded FRP gratings.  Number of Tiers of Fill per Cell: _____  Tier Height: _____  Volume of Fill per Cell: _____</p> <p><b>D. Water Distribution</b>  Inlet Pipe Material of Construction: FRP  Support: On FRP Profiles  Lateral Distribution Materials: PVC / FRP  Nozzles Type: Non-Clog Splash Type PP Nozzles</p> <p><b>E. Fans</b>  Diameter: _____  No. of Blades per Fan: _____  Fan Speed: _____  Power per Fan: _____  Blade Material: Fiberglass Reinforced Epoxy  Hub Material: Hot Dipped Galvanized Steel or aluminum</p> <p><b>F. Drive Motor</b>  Nos: 1/CT  Kind: Induction Motor  Type: TEFC, IP55  Rated Power: _____  Number: 06 number</p>				
02	<p><b>Cooling Water Circulation Pumps</b>  Water re-circulation rate: 150 m<sup>3</sup>/hr/Pump  Make : KSB, Pedrollo, Graunfos or any European /China  Inlet &amp; Outlet Dia of Pump 4" / 4" (Four Inch)</p>	Nos	06		
03	Maintenance Spare Parts of Cooling Tower & Cooling Water Circulation Pumps (Sr# 01 & 02) be suggested by the manufacture duly priced.				

**G. Cooling Tower Sump & Pump Foundations**

To facilitate the cooling tower contractors working at site, the RCC sump & the pump foundations are in the scope of UCG. This will be constructed by the UCG by himself or by his nominated civil contractor. However design/drawing of the sump will be in the scope of cooling towers' manufacturer. Manufacturer should keep in notice that the available piece of land for the construction of this cooling tower is about 50 feet X 50 feet. To avoid mud collection in the sump, raised sump from ground level along with sedimentation section will be preferred.

**H. Cooling Water Circulation Pumps**

For cooling water circulation (CWC) overall flow rate is 900 M<sup>3</sup>/hour, approximately at 6 bar pressure. Six pumps having 150M<sup>3</sup>/Hr, flow rate of each pump will be installed & commissioned at Site by the contractor. Five pumps are for operation & one as standby. Pumps' water flow circuit should be appropriately designed for having single or multiple pumps at a time in operation; similarly for repair purpose isolation/non-return valves should be part of the cooling water flow lines. . The scope of contractor will be connecting CWC pumps with cooling tower water sump and then with the common header.

World over accepted renowned brand of pump & motor will be accepted. Designing of pumps' motors control circuit and selection of components must be based on latest electrical engineering concepts & availability to attain safe operation.

## Special Instructions

1. Delivery and installation Commissioning must not be more than 3 months from the date of issue of Letter of Intent.
2. Quotation will be submitted on FOR Basis UCG Site.
3. All handling charges at sea port and transportation changes will be born by the supplier. (Please keep in mind while preparation of Bid, UCG Site is about 450-470 Km away from Karachi sea port)
4. UCG Site Data is at Annexure - C.
5. Quoted Open water cooling circulatory system must be suitable for HAT (High Ambient Temperature) and desert conditions.
6. Unloading of the equipment at UCG Site is the responsibility of manufacturer.
7. Only Manufacturers of Cooling Tower can participate in tender.

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## DESCRIPTION OF PROJECT:

### Location of Project:

The works to be constructed under this contract will be located UCG Thar Project Block "V" Bhamnio Bheel Islam Kot Dist: Mithi Sindh Pakistan.

### Description and Extent of Work:

Construction of Cooling Tower comprising Designing, Manufacturing, Installation, Testing & Commissioning, complete in all respects in strict accordance with the specifications and requirements. Cooling tower design shall be counter flow type with film fill; structure of cooling tower will be pultruded fiber glass profiles recommended for this application.

The work to be carried out by the manufacturer shall comprise on the following;

1. Design of cooling tower with internals
2. Fabrication of cooling towers
3. Delivery at site
4. Installation commissioning of cooling towers
5. Drawings with complete dimensions of RCC sump of cooling towers will be provided by manufacturer.
6. Testing & Commissioning of complete system

### Construction Procedures:

The manufacturer shall plan and execute all works in such a manner as will not only protect the works but also the adjacent buildings and structures from damage due to his operations.

### Drawings to be furnished by the manufacturer:

The manufacturer shall submit the complete set of drawings along with the bid;

1. Layout & Pre Sum up foundation Drawings
2. Arrangement of fills and drift eliminators
3. Sections of pultruded profiles to be used for structure

After the award of the contract, supplier will furnish further drawings at each stage before the start of the work, such as;

1. Piping Layout
2. Wiring diagram of electrical Panels

### Supply of Electrical Power:

Electric power of 220/440 volts 3-phase will be made available to the manufacturer. One connection manufacturer shall be provided at pre-specified point of the site area. The manufacturer will provide his own tapings, cables and further connections as per his requirements for the use of electric power.

### Location of site workshop:

The UCG will provide ample space to contractor in order to setup a site workshop and store materials and tools. The location of store and workshop will be close to the site of installation of cooling tower.

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UCG SITE DATA

- Soil bearing capacity is approx. 0.75 - 1.5ton/Sq-Ft
- Recorded maximum rain fall approx. 441mm/year.
- Direction of prevailing wind SW.
- Average barometric pressure 14.7 Psi.
- Maximum wind velocity for designer 120km/hr. (April to August)
- Seismic factor 2 with ground acceleration of 0.15g.
- Occasional strong sandy winds blow in-between April to August.

AVERAGE MAXIMUM, MINIMUM TEMPERATURE & RELATIVE HUMIDITY AT SITE

Month	Avg. Min Temp	Avg. Max Temp	Range of Relative Humidity
Jan-Apr	5 °C	39 °C	56-68%
May-Aug	23 °C	45 °C	58-78%
Sep-Dec	16 °C	38 °C	62-70%

- AVERAGE WET BULB TEMPERATURE AT SITE

Month	Avg. Min Temp	Avg. Max Temp
Jan-Apr	09 °C	21 °C
May-Aug	25 °C	29 °C
Sep-Dec	14 °C	23 °C

SCHEDULE TO TENDER

- |   |                           |
|---|---------------------------|
| 1) I/T No.                                | <u>UCG/116-02-16</u>      |
| 2) Time and Date of Technical Bid         | at 1700 hrs on 15-03-2016 |
| 3) Time and Date of Financial Bid Opening | at 1700 hrs on 16-03-2016 |

Group "B" Hiring of Hydraulic/ Crawler Crane, Low Bed Trailer and Fork Lift Truck etc. on rental basis.

Sr. No.	Description	Specification	Unit	Quantity
1	Hydraulic Crane	30-50 Ton	No	1
2	Crawler Crane	30-50 Ton	No	1
3	Low Bed Trailer	40 Feet	No	1
4	Fork Lifter	3-5 Ton	No	1

Special Instructions

1. This is rate running tender for the year 2016. The above quantities are tentative, it can be increased or decreased and will be ordered as and when required basis
    - a) Work force/ machinery should be made available for work within 10 days' notice.
    - b) Quotation will be submitted on FOR Basis UCG Site.
    - c) Rate for monthly rent may be clear cut mentioned in Pak Rs. In words and figures.
    - d) The Unit Price shall include all applicable taxes.
    - e) The amount of mobilization/ demobilization in Pak Rs. For monthly rent.
    - f) Scope of work shall be mentioned separately of each item.
    - g) The working Hours will be 10 Hours daily.
    - h) Diesel will be provided, rest, maintenance will be responsibility of Supplier.
- (g) Supplier must be registered with Govt. and Annexure "D" Board of Revenue EST NO.

**1. Scope of Work:**

- 1.1 Shifting of vessels, equipment, piping, structural material including allied accessories (Approx. total weight 700 tons) from camp yard to plant site (distance about 600m).
- 2.1 Provision of the machinery & equipment on monthly rental basis for subject work given in Annexure A. The maintenance and oil change of machinery shall be the responsibility of the contractor/ firm.
- 2.2 The UCG site is located at a distance of 42 km away from Islamkot and about 400 km from Karachi.
- 2.3 The contractor/firm will provide the driver/operator with the each machinery which will be available 7/24 hrs. as and when required.

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- 2.4 The petrol/ diesel will be provided by the UCG Project as per actual. However the supplier will be responsible for providing the detail logs of fuel consumption of the machinery.
- 2.5 The machinery should be in good working condition dully approved by the Engineer Incharge. In case of disorder or disfunctioning of any machinery or equipment, the supplier will repair or replace the same immediately at his own expenses. The deduction will be made from the bill for the period of maintenance and replacement of machinery or equipment.
- 2.6 The UCG will provide only lodging facility to the work force accompany with machinery.
- 2.7 Food will be available in Mess on cash payment basis.

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## PART 1 - GENERAL TENDERING INSTRUCTIONS

- 1.1 The quotation shall be strictly in accordance with Underground Coal Gasification Project Thar's Tender Document.
- 1.2 Only those quotations will be considered where the bidder is either manufacturer of reputed brand or a sole agent of the reputed manufacturer. List of client with address where the equipment is installed with certificate from the company about working condition should be supplied with the technical bids. Incomplete quotation will be rejected.
- 1.3 Actual order quantity of items / categories can be decreased or increased.
- 1.4 The quoted prices should be in Pak. Rupees; otherwise your bid will automatically be rejected. Bidders have to quote their prices based on Underground Coal Gasification Project Thar's Tender Document conditions.  
All handling charges at sea port and transportation changes will be born by the supplier. (Please keep in mind while preparation of Bid, UCG Site is about 450-470 Km away from Karachi sea port)
- 1.5 Bidders when submitting their Bid should stamp by their official stamp all the pages of the received Tender Document.
- 1.6 Bidders have the right to request for clarification provided that any request is received at least five calendar days prior to the date of opening of bid.
- 1.7 Answers to questions seeking for clarification of technical matters will be sent to all Bidders without identifying the source of the query.
- 1.8 At any time prior to the deadline for the submission of Bids, Project may, for any reason, whether at its own initiative or in response to a clarification requested by a Bidder, modify the Bidding Documents by amendment.
- 1.9 The amendment will be forwarded in writing to all Bidders and will be binding on them. In order to grant Bidders sufficient time to take the amendment into account, PROJECT may, at its discretion, extend the deadline for the submission of Bids.
- 1.10 Bid closing date is as mentioned in schedule A / tender notice. Bids received after bid-closing date will be automatically rejected. Bids once submitted will have to stand valid during the validity period as stated in Article 1.14 of this General Tendering Instructions, Bidders are not allowed to modify or add anything to or to withdraw their Bid after Closing Date.

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1.11 Bidder should indicate his full acceptance of:

- Underground Coal Gasification Project Thar 's General Purchasing Terms
- Standard Conditions of the Contract
- Special Conditions of the Contract

Tender documents to be delivered to:

The tender duly sealed will be addressed to: -

Procurement Officer

Underground Coal Gasification project Thar

C/O Manager, National Bank of Pakistan, Islamkot Branch,  
Islamkot

Tharparkar Sindh. Ph: # 0232-923008 Cell # 0346-7988855, 0344-465500

Email: [poucgtar@gmail.com](mailto:poucgtar@gmail.com)

3. Date and Time For Receipt of Tender:

Your tender must reach this office one hours before the date and time specified in the "Schedule A / Tender Notice" at **Underground Coal Gasification project Thar, C/O Manager, National Bank of Pakistan, Islamkot Branch, Islamkot, Tharparkar Sindh. Ph: # 0232-923008 Cell # 0346-7988855, 0344-4655000**

Email: [poucgtar@gmail.com](mailto:poucgtar@gmail.com)

This Project will not accept any excuse of delay occurring in post. Tender received after the fixed date/ time will NOT be entertained.

Alternately tender can be brought to the tender opening venue at Site of UCG Thar Project Block "V" Bhamnio Bheel Islam Kot Dist: Mithi Sindh Pakistan, one hour before opening time.

1.12 The bid package must consist of **two sealed envelopes:**

First envelope marked: "UCG 116-02-16" -**TECHNICAL OFFER**" should contain:

- A copy of the first page of the received Tender Document
- Statement of acceptance of all tender terms of Underground coal gasification project Thar.
- The technical documentation and technical specifications with references, statements, literature, drawings, as appropriate. An un-priced financial offer shall be made part of the technical offer.
- A CD containing the contents of the **Technical Offer** envelope in electronic form.

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Second envelope marked: "UCG: 116-02-16- FINANCIAL OFFER" should contain:

- A financial offer
- 2% of total cost of the bid as earnest money in shape of Bank Draft / Pay Order / Bank Guarantee in favour of MD UCG Thar
- A price sheet as per Schedule "A" of Contract.
- Additional price information, if any, to be submitted on separate sheet.  
Itemized prices shall be quoted by bidder
- A CD containing the contents of the **Financial Offer envelope** in electronic form.

Note that: **No prices** to be shown in first envelope

- Second envelope should contain **prices only**, with no reservations
- Failing to submit two envelopes or omitting any of the requested information will lead automatically to the **rejection of the bid**.
- Envelopes shall be opened in the same sequence as request.
- The evaluation of any company shall not be continued in case they fail to meet the criteria of the envelope requirements.

1.13 **One offer only** will be accepted from each bidder.

1.14 The quotation must be **valid** for at least **90 days** after bid closing.

1.15 In case bidder does not want to participate, he is advised to inform: Underground Coal Gasification Project Thar by return mail referring to relevant Tender #

Letter should be addressed to:

Procurement Officer  
Underground Coal Gasification project Thar  
C/O Manager, National Bank of Pakistan, Islamkot Branch, Islamkot  
Tharparkar Sindh, Ph: # 0232-923008 Cell # 0346-7988855, 0344-4655000  
Email: [poucgtar@gmail.com](mailto:poucgtar@gmail.com)

1.16 In case Bidder is interested to participate in the referred Tender, it should send back by email -the attached Acknowledgement Letter to the Project within a fortnight from the receipt of the Tender Document.

1.17 Each envelope should be **clearly marked** with the bidder's company name.

1.18 In the first envelope the **mailing address and telex and/or fax number** of the bidder should be clearly seen.

1.19 Services offered must be clearly stated and availability of each service must be mentioned keeping in view our schedule stated under Introduction above. This information should be clearly stated and documented in the Technical Offer envelope.

1.20 Bidder must submit earnest money in second envelope. This earnest money (in the shape of bank guarantee/ Bank draft / pay order) must be equal to 2% of total value of work.

1.21 The earnest money shall be returned to its owner if his bid is rejected or the bidder has not awarded the Contract. The earnest money must be valid for 90 days after receiving of bid.

## **PART 2 - ADDITIONAL TENDERING INSTRUCTIONS**

2.1 The equipment specifications contained in Schedule represent the **minimum requirement** which UCG Project Thar considers necessary to accomplish concerned job.

2.2 All items listed in Schedule and later on should be addressed in the **same order and detail** as specified.

2.3 If additional information or details are needed, please contact:

**Mr. Muhammad Shamim Bhatti**

Underground coal gasification project Thar Pakistan's.

Tel: +232-923007, Cell: +0300 8541449

**Mr. Muhammad Ismail Boohar**

Underground coal gasification project Thar Pakistan's

Cell# 0345-3188475

**Mr. Zafarullah**

Underground coal gasification project Thar Pakistan's

Cell# 0346-8940621

E-mails : [poucgtar@gmail.com](mailto:poucgtar@gmail.com)

**Note:** Every request should have a "subject" line that clearly indicates the tender reference number.

*Jalir*



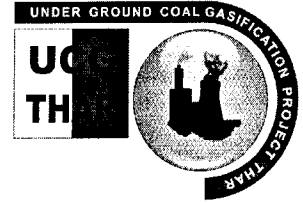
## PART 3 - GENERAL PURCHASING TERMS

- 3.1 **Payment Terms:** As per agreement with the successful bidder
- 3.2 **Delay Penalty:** As per clause 15 of the contract.
- 3.3 PROJECT reserves the right to accept other than the lowest Bid, **to split the Contract between multiple CONTRACTORS** and to accept or reject any Bid in whole or in part, or to reject all Bids **subject to relevant provisions of SPP Rules, 2010** and if no Bids are accepted, to abandon the work or to have the work performed in such manner as the Issuer may elect, in this later case all Bids received will be sent back as received to the Bidders.
- 3.4 PROJECT shall not be liable for any costs and/or expenses incurred by the Bidder in the preparation and delivery of the Tender.
- 3.5 The Tender, any supporting documentation and the Contract shall be in the English language.
- 3.6 **Pricing:** PROJECT shall make no advance payment to the successful Bidder.
- 3.7 Delivery period must not be more than 03 months from the date of placement of firm order.
- 3.9 In case of a conflict in two clauses, the contents of General Tendering instructions will be final.

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# UNDERGROUND COAL GASIFICATION PROJECT THAR



## CONTRACT

*UCG Thar Project Block "V" Bhambnio Bheel Islamkot Dist: Mithi Sindh Pakistan*

### , PROCUREMENT DIVISION

CONTRACT No. UCG-116-02-16 Dated \_\_\_\_\_, 2016

An agreement made on the \_\_\_\_ day of \_\_\_\_\_ Two thousand and fifteen. Between the UCG (hereinafter called the 'PURCHASER') of the one part and Messrs \_\_\_\_\_ herein after called the "SUPPLIER" of the other part.

Whereby it is agreed that the Purchaser shall purchase and the Supplier shall sell the equipment described in the schedule at the price mentioned therein subject to the special conditions covered in the contract and the international law.

1. Name of Project: UNDERGROUND COAL GASIFICATION THAR PROJECT
2. Description of Equipment As per Schedule attached at Schedule "A" & "B"
3. Consignee: UCG Thar
4. Details of Item: \_\_\_\_\_

**Technical Specifications:** Complete technical specifications of the items are attached at Schedule "A".

**Details:** Details of stores as per schedule "A" & "B".

5. Total FOR Value:

5.1

- i) Grand Total FOR \_\_\_\_\_

6. Terms of Payment:

- 6.1 80 % payment will be released against shipping after inspection.
- 6.2 2% will be retained as performance guarantee to be released after one year of satisfactory operation, and issuance of accepting certificate.

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- 6.3 18 % payment to be released after installation & commissioning
7. Time of Delivery: Within Three Months after receipt of confirm Purchase Order
8. Principal/ Manufacturer:
9. Sole Distributors/ Agent: M/s. \_\_\_\_\_
10. Country of Origin: \_\_\_\_\_
11. Installation/Acceptance: M/s. \_\_\_\_\_ shall arrange free installation of the equipment. The consignee shall provide electrical connections, switchboards, panels, electric wiring and other related services.
12. Training: The seller will provide free training to the staff of UCG.
13. Operating Manual/ Brochure: Operation Manual, Maintenance Manual and Spare Parts List in English language shall be supplied with the equipment.
14. Warranty/Guarantee: As per Annex "A"
- 14.1 One Year from the date of installation and commissioning of equipment along with parts.
- 14.2 The "manufacturer" undertakes free after sales service for the entire warranty period from the date of installation of the equipment with free supply of parts.
- 14.3 On expiry of warranty period the "Supplier" undertakes to supply spare parts back up for up to ten (10) years at International market price whenever required.
- 14.4 Firm will maintain a sizeable inventory of parts free of cost during warranty period for emergency repairs. (List will be provided by the manufacturer)
15. Imposition of Liquidated Damages: The supplier is liable to pay the stipulated liquidated damages for the period of delay @ 2% per month of the total value of the contract. This will be levied for the period exceeding the original delivery period subject to provision that the total liquidated damages thus levied will not exceed 10% of the contract value.
16. Force Majeure: The supplier does not undertake any responsibilities of delivery of stores according to delivery schedule in case of labour unrest, civil commotion, strike, riots, war, and act of God at the manufacturer's end. This shall not include non-availability of raw material for the manufacture of stores or of availability of export permit for the export of the contracted stores from the country of its origin.
17. Packing/Marking Instructions:
- 17.1 As per packing worthy of international standards so as to ensure that the consignment is free from loss or damage on arrival at the ultimate destination. Any loss occurred paid due to wrong marking, shall be made good by the supplier and all the expenses incurred by UCG as a result of wrong packing shall be recovered from the supplier.
- 17.2 In case of damage of stores due to improper packing, the supplier will be responsible for replacement of the equipment/stores, free of charge.

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- 17.3 Packages will be marked as per following details:-
- a. Gross weight (KGs), dimensions and consignment number (Top side)
  - b. Consignee Name, name of destination, Numbering of Packages and Contract No and date.
18. **Inspection:** At consignee's end jointly by representative of M/s \_\_\_\_\_ and UCG, and all expenditure of boarding and lodging and TA/DA of officers will be borne by the supplier.
- 18.1 Inspecting Authority: Designated rep. of MD UCG
- 18.2 Place of Inspection: Country of Origin
19. **Short Shipment:** Short shipment, if any, will be the responsibility of the "Supplier".
20. **Performance / Bank Guarantee Clause:** To ensure satisfactory performance and correct supply of stores, the firm will furnish 2 % of the total value of the contract unconditional Bank Guarantee immediately on the signing of the contract, endorsed in favour of MD UCG which will remain valid for One year from the date of installation and commissioning.
21. **Modification / Amendments to Contract:** This contract may be modified / amended to include fresh clause (s) to the mutual agreement by the supplier and the purchaser. Such modification shall form an integral part of the contract.
22. **Insurance:**
- 22.1 The supplier will arrange Insurance cover of the equipment upto the consignee's end.
23. **Failure and Termination:** If the supplier fails to deliver the stores or any consignment within the period prescribed, then on the expiry of 30 days after such period the purchaser shall be entitled to take either of the following actions:-
- 23.1 To cancel the contract.
- 23.2 To purchase elsewhere store not delivered totally or partially at the risk and expense of the manufacturer. The supplier shall also be liable for any loss, which the purchaser may sustain on this account but shall not be entitled to any gain on re-purchase made against the contract.
24. **Purchaser's Right:** The purchaser reserves the right of deletion, addition and cancellation of the contract, in part or full without assigning any reason whatsoever and without financial repercussion on either side within 30 days after the issuance of contract. Such information will be passed to the seller by the purchaser through the fastest possible means i.e. Telephone, Fax, Telex, Cable, Telegram, E-mail etc.

25. **No Demand Certificate:** The supplier will submit 'NO DEMAND CERTIFICATE' on the completion of contract.
26. **Secrecy:** The foreign suppliers / contractors undertaking alongwith the local firm / agent that any information about the sale / purchase of stores under their contract shall not be communicated to any person other than the manufacturers of stores who too shall maintain strict secrecy and under no circumstance any information shall be given to any person or agency not authorised by MD UCG. The foreign supplier's contractors should note that the contract is governed by the laws of Pakistan.
27. **Arbitration:** The contracting parties shall endeavor to resolve all their difference / disputes if any arising out of this contract. The matter in dispute or difference shall be referred to the decision of the MD UCG. His decision thereon shall be final and binding on the parties. The venue of arbitration shall be the place to be notified by the arbitrator at his discretion.
28. **Undertaking**
- 28.1 M/s \_\_\_\_\_ when signed contract No.UCG-116-02-16 unconditionally guarantee the full and proper performance of this contract and hereby under take to accept all liabilities to compensate the "Purchaser" for Acts / Defaults of our Principals.
- 28.2 We undertake that manufacturing date of our products / stores will not be more than three months old by the date of delivery.

**SIGNATURE**

**SUPPLIER**

**PURCHASER**

M/s \_\_\_\_\_

M/s. UCG, ISLAMABAD

Designation \_\_\_\_\_

Designation: Managing Director

Name \_\_\_\_\_

Name: Dr. Muhammad Shabbir,  
H.I., S.I.

Date : \_\_\_\_\_

Date: \_\_\_\_\_

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## WARRANTY/GUARANTEE CERTIFICATE

The Managing Director  
UCG

Islamabad

From : M/s \_\_\_\_\_

Order No. \_\_\_\_\_ Dated \_\_\_\_\_

1. We hereby guarantee that the goods supplied against the above contract are in all respects in accordance with the relevant specifications and terms of the order and that material used whether or not of our manufacture are in accordance with the latest approved standards and are of good workmanship/quality. We shall replace free of cost every article or part thereof which before use or in use shall be found defective or not within the limits and tolerance of specifications / requirements or in any way not in accordance with the terms of the tender.
2. In case of our failure to replace the defective stores free of cost within the period specified by the purchaser, we will pay the relevant cost including all other expenses incurred by you.
3. The manufacturer also undertakes to make good the deficiency in supply, if any.
4. This warranty will remain valid for (12) twelve month after the date of commissioning/receipt of generators. During the guarantee period the spare required will be supplied by the successful bidder free of cost. One year additional maintenance will be provided free of cost, cost of parts for additional year will be borne by the client.

Signature: \_\_\_\_\_

Relationship with the firm: Director

Date and seal of the firm: \_\_\_\_\_

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Guarantee # \_\_\_\_\_  
Original date of issue \_\_\_\_\_  
Amount in figure \_\_\_\_\_  
Date of expiry \_\_\_\_\_  
Account M/S \_\_\_\_\_

MD, Underground Coal Gasification Project Thar,  
Government of Sindh, Liaison office,  
House No. 28, Street No.03, E-11/4,  
Islamabad.

### BANK GUARANTEE

In consideration of M/s-----with address----- (hereinafter called the bidder) have requested us to furnish bank guarantee in your favour for the sum of Rs..... against Tender no. UCG-- due on----- for the supply of ----- (hereinafter called the Bid)

And whereas we (----- Bank Name-----) office at----- (Branch name in full address) hereby agree to execute a Bank Guarantee in your favour and undertake.

To make an unconditional payment of Rs..... To you upon your written demand, stating any failure or default on its part or any of its obligation, commitments, liabilities or responsibilities as per tender, until the expiry of the validity of the guarantee but in no even later than-----date----- which is the expiry date of this guarantee.

Any claim arising out of this guarantee must be lodged in writing with this bank within the period this guarantee is valid and or before the date of its expiry i.e. ----- after this date this guarantee will be considered null and void and should be returned to us for cancellation.

This guarantee is not transferable or assignable.

This guarantee is to be governed and construed in accordance with the Laws of the Islamic Republic of Pakistan.

Notwithstanding anything contained hereinbefore our liability hereunder shall in no event exceed in aggregate the sum of Rs.----- . All claims must be lodged with us in writing during working hours upto the expiry date i.e. ----- and that the bank shall stand discharged and released of all its obligations under the guarantee after the expiry date and shall be liable for any claim lodged with the bank thereafter irrespective of whether or not the original instrument or guarantee is returned to us fully discharged.

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**GOVERNMENT OF SINDH  
ENERGY DEPARTMENT**

**NOTIFICATION**

SO (COORD)/C&EDD/5-8/2014:- In pursuance of Rule 7 of the Sindh Public Procurement Rules, 2011 the Govt. of Sindh is pleased to constitute following "Procurement Committee" for Underground Coal Gasification Project, Tharparkar, along with its ToRs, as per detail below:

(i)	Chief Engineer, UCG Thar Project, Islamkot.	Chairman
(ii)	Senior Engineer, UCG Thar Project, Islamkot.	Member
(iii)	In-charge Site, Sindh Coal Authority, Mithi or his representative.	Member
(iv)	Representative of Secretary, Finance Department i.e. District Account Officer, Mithi.	Member
(v)	Procurement Officer, UCG Project Thar, Islamkot.	Member/Secretary

**Terms of Reference**

- Preparing Bid Documents.
- Carrying out Technical & Financial Evaluation of the bids.
- Preparing Evaluation Report as provided in Rule 45.
- Making recommendations for the award of contracts to the competent authority.
- Perform any other function ancillary and incidental to the above.
- The Committee may co-opt one or more non-member participants of the nature of item (s) tendered.

SECRETARY TO GOVERNMENT OF SINDH

No.SO (COORD)/C&EDD/5-8/2014

Karachi, dated: September 15, 2014

Copy forwarded for information to:

1. The ACS (Dev), P&D Dept, Government of Sindh
2. The Secretary, Finance Department, Sindh
3. The Managing Director, SPPRA, Karachi.
4. The Director General, Sindh Coal Authority.
5. The Managing Director, UCG Thar Projects, Islamabad.
6. The Site In charge/ Director, (UCG) UCG Thar Projects, Islamkot
7. The Committee member (Alt)
8. The P.S. to Secretary, ED, Government of Sindh.
9. Related files (SPPRA & Project)

(SHARIQ RAZAN)  
SECTION OFFICER (COORD)





**GOVERNMENT OF SINDH  
ENERGY DEPARTMENT**

**NOTIFICATION**

**SO (COORD)/ED(Coal)/5-8/2016:-** In pursuance of Rule 31 & 32 of the Sindh Public Procurement Rules 2010 (Amended 2013), the Govt. of Sindh is pleased to constitute a complaint redressal committee (CRC) for Underground Coal Gasification Project at Thar coalfield with the following composition and ToRs:

- |  |                  |
|--|------------------|
| (i) Managing Director, UCG Thar Project, Islamkot                                | Chairman         |
| (ii) AG Sindh (through representative), Karachi                                  | Member           |
| (iii) Chief Engineer, UCG Thar Project, Islamkot                                 | Member           |
| (iv) Mr. Amanullaha Junejo, Geologist, Islamkot<br>(An independent professional) | Member           |
| (v) Principle Engineer, UCG Thar Project, Tharparkar                             | Member/Secretary |

**Terms of Reference**

- To examine complaint (s) of bidder (s) with regard to all procurements of UCG Project (goods and services).
- To take decision in light of SPPRA Rules 2010 (Amended 2013)

**(AGHA WASIF ABBAS)**  
SECRETARY TO GOVERNMENT OF SINDH

**No.SO (COORD)/ED(Coal)/5-8/2016**  
Copy forwarded for information to:

**Karachi, dated: January 1, 2016**

1. The ACS (Dev), P&D Deptt., Government of Sindh, Karachi.
2. The Accountant General, Sindh, Karachi.
3. The Secretary, Finance Department, Karachi.
4. The Managing Director, SPPRA, Karachi.
5. The Managing Director, UCG Thar Project, Islamabad.
6. The DS (Staff) to CS Sindh, Karachi.
7. The Committee member (All) *The Chief Engineer, UCG Thar Project.*
8. The P.S. to Secretary, ED, Karachi.
9. Office Order file.

**(SHARIQ RAZA)**  
SECTION OFFICER (COORD)

Underground Coal Gasification Project Thar Government of Sindh  
ANNUAL PROCUREMENT PLAN (Revised)  
(WORKS, GOODS & SERVICES)

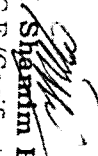
Sr. No	Description Of Procurement	Quantity (Where Applicable)	Estimated Unit Cost (where applicable) Million	Estimated total cost in Million Rupees	Funds allocated (1200.00 Million)	Source of funds (ADY/ Non ADY)	Proposed procurement method	Year 2015-16				Remarks
								Timing of procurements				
								1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	
1	Pre fab Structure	-	-	5.00	5.00	ADP	Tender	✓	✓	✓	✓	
2	Submersible Pump	10 Nos.	2.0	1.00	1.00	✓	✓	✓	✓	✓	✓	
3	High Pressure Compressors and Their Spare Parts	-	-	6.00	6.00	✓	✓	✓	✓	✓	✓	
4	Diesel and Petrol	60842 Gallon	60842 / Gallon	30.00	30.00	✓	from state owned enterprise	✓	✓	✓	✓	
5	Workshop Consumable	-	-	10	10	✓	open tender	✓	✓	✓	✓	
6	Workshop Machinery	-	-	250	250	✓	✓	✓	✓	✓	✓	
7	Pipes/Valves/Fittings/ FRP/ Blank/Slot Pipes	-	-	3.00	3.00	✓	✓	✓	✓	✓	✓	
8	Welding Equipments	-	-	20.00	20.00	✓	✓	✓	✓	✓	✓	
9	Electrical Items	-	-	9.00	9.00	✓	✓	✓	✓	✓	✓	
10	Vehicles Repairing Spares Parts	-	-	1.6	1.6	✓	✓	✓	✓	✓	✓	
11	Flow Meters	-	-	52.7	52.7	✓	✓	✓	✓	✓	✓	
12	Drilling Consumable Spare Parts	-	-	6.3	6.3	✓	✓	✓	✓	✓	✓	
13	Geology Consumable Equipments	-	-	2.8	2.8	✓	✓	✓	✓	✓	✓	
14	Syn Gas Generators	8	44.7	200.8	200.8	✓	✓	✓	✓	✓	✓	
15	R/O Plant	1	5.0	5.0	5.0	✓	✓	✓	✓	✓	✓	
16	Contingency Services	-	-	42.0	42.0	✓	✓	✓	✓	✓	✓	
17	Gen. Items Such as Office Equipments/Computers Hardware, Software/ Office Stationary/Furniture Fixture/LPG Gas & other Misc.	-	-	3.0	3.0	✓	Open Tender	✓	✓	✓	✓	

*CPM*

Sr. No	Description Of Procurement	Quantity (Where Applicable)	Estimated Unit Cost (where applicable) Million	Estimated total cost in Million Rupees	Funds allocated (20000 Million)	Source of funds (ADP/ Non ADP)	Proposed procurement method	Timing of procurements				Remarks
								1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	
18	Civil Materials (Sand/Crusher/Cement/Steel/Bricks)	-	-	100	100	✓	✓	✓	✓	✓	✓	
19	Explosion Proof Exd Cable Glands 1" NPT	10	-			✓	✓	-	-	✓	✓	
20	Explosion Proof Exd Cable Glands ¾" NPT	115	-			✓	✓	-	-	✓	✓	
21	Explosion Proof Exd Reducer 1" to M20 (male to female)	45	-			✓	✓	-	-	✓	✓	
22	Explosion Proof Exd Stopping Plug 1" NPT	40	-			✓	✓	-	-	✓	✓	
23	Explosion Proof Exd Nipples 1" NPT	120	-			✓	✓	-	-	✓	✓	
24	Lighting DB/Comprising of incoming 3 Pole MCB - 32A Amp, LV Distribution Boards 4000 Amps	1	-	18.00	18.00	✓	✓	-	-	✓	✓	
25	Outgoings 2 pole MCB 16 Amp	9	-			✓	✓	-	-	✓	✓	
26	Steel Body with indication lights for outdoor applications.	2	-			✓	✓	-	-	✓	✓	
27	Explosion Proof Exd Flexible Conduit 1" NPT with Stainless Steel external brand.	10	-			✓	✓	-	-	✓	✓	
28	MIS Chequered Sheet 8' x 4' x 3mm	60 Nos.	-			✓	✓	-	-	✓	✓	
29	Angle Iron 1-1/2 x 1-1/2" x 3/16"	2000 Kg	-			✓	✓	-	-	✓	✓	
30	Angle Iron 2" x 2" x ¼"	1500 Kg	-			✓	✓	-	-	✓	✓	
31	C-Channel 4" x 2" x ¼"	1500 Kg	-	12	12	✓	✓	-	-	✓	✓	
32	C-Channel 3" x 1-1/2" x ¼"	1500 Kg	-			✓	✓	-	-	✓	✓	
33	Membrane Elements: Qty = 04 Size = 8 x 40 Brand: Hydranautics/Filintec/General Electric or equivalent. Material: Thin Films composite (TFC) Salt Rejection: 99.5 - 99.7% Permeate Flow: 10500 - 12500 (GPD) Origin: Imported	04 Nos	-	0.9	0.9	✓	✓	-	-	✓	✓	

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Sr. No	Description Of Procurement	Quantity (Where Applicable)	Estimated Unit Cost (where applicable) Million	Estimated total cost in Million Ruppes	Funds allocated (1200/00 Millions)	Source of funds (ADP/ Non ADP)	Proposed procurement method	Timing of procurements				Remarks
								1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	
34	Providing and Fixing of Aluminum Windows with Glass of 5 mm thickness at 1.8 meter height Size of Window 3 m x 1.5 m (03 Sash) Section 3 inch Thickness 1.6 mm Color: White Powder Coating Make: Lucky or Equivalent as approved by Engineer Incharge	20 Nos.	-	0.9	0.9	✓	✓	-	-	✓	✓	
35	Providing and Fixing of Aluminum Ventilator with Glass of 5 mm thickness at 4.7 meter height Size of Window 3 m x 0.9 m (03 Sash) Section 3 inch Thickness 1.6 mm Color: White Powder Coating Make: Lucky or Equivalent as approved by Engineer Incharge	20 Nos.	-	0.9	0.9	✓	✓	-	-	✓	✓	
36	Laboratory Glass Ware	-	-	3	3	✓	✓	-	-	✓	✓	
37	Mud Chemical	-	-	2	2	✓	✓	-	-	✓	✓	
38	Oxygen Sewing Machine	-	-	415	415	✓	✓	-	-	✓	✓	
				Total Cost in Million = 1200.00								

  
**( M. Shantim Bhatti )**  
 C.E (Gasification )  
 UCG Project Thar