# EXHIBIT A COMMERCIAL REGULATIONS

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# **INQUIRY LETTER**

SOLAR GAS TURBINE ( MARS 100) OVERHAULING, TECHNICAL SREVICE AND SUPPLY SET OF SPARE PARTS.

OVERHAULING, TECHNICAL SERVICE, OF SOLAR GAS TURBINES AND ALL ITS AUXILIARY AND OPERATING SYSTEMS. AND SUPPLY SET OF SPARE PARTS EXTERNAL INTERNAL TENDER.

#### Gentlemen;

The Syrian Gas Company hereafter referred as "COMPANY" hereby solicits your bid for Overhauling, technical service, for Gas turbines (MARS 100) and all its auxiliary and operating systems. And supply set of spare parts

The Work performed pursuant to this inquiry will involve, but not be limited to, Overhauling, repair, technical service, for Gas turbine( MARS 100) and all its auxiliary and operating systems, and supply set of spare parts as further described in this document

All Works shall be performed in accordance with the terms, conditions, plans, specifications, and other information and data contained or referenced in the Request for Quotation (RFQ) documents. These documents shall comprise:

EXHIBIT-A: COMMERCIAL REGULATIONS.

EXHIBIT-B: TECHNICAL SECTION (SCOPE OF WORK.)

EXHIBIT-C: Bidder's Pricing, method of payment

The work shall be performed with such diligence as is required to accomplish the milestones set forth in the (Typical Contract), and Contract Time Schedule. **BID SUBMISSION** 

Please, submit your bid in accordance with the Instructions to Bidder to:

SYRIAN GAS COMPANY

HOMS

HOMS - TARTOUS HIGHWAY , BOX. 4499

SYRIAN ARAB REPUBLIC

FAX.: 00963 31 2496640

You will be required to submit a statement of compliance indicating that you accept the Standard Terms and Conditions of Contract and Payment Conditions as set forth in the RFQ. This statement must be submitted in envelopes marked A.

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Please, direct all questions by fax or letter to the appropriate address indicated in the Instructions to

General Director

HOMS, (Homs - Tartous high way )-SYRIA

TEL; 00963 31( 2496101 until2496108)

FAX: 00963312496640

# 2.0 INSTRUCTIONS TO BIDDERS

- 2.1 Correspondences.
- 2.2 Ownership of RFQ/Confidentiality.
- 2.3 Errors and Omissions.
- 2.4 Language.
- 2.5 Bid Response Forms.
- 2.6 Basis of Bid.
- 2.7 Acceptance of Bids.
- 2.8 Authorized Signature.
- 2.9 Submission of Bid.
- 2.10 Company's Representative.
- 2.11 Terms and Conditions of RFQ.

Bidder shall comply with the following Instructions in preparing his bid for the WORK as described in the RFO.

#### 2.1 CORRESPONDENCES

All questions and/or clarifications concerning the RFQ shall be directed to the:

SYRIAN GAS COMPANY

HOMS

HOMS - TARTOUS HIGHWAY , BOX. 4499

SYRIAN ARAB REPUBLIC

FAX .: 00963 31 2496640

Attn.: GENERAL DIRECTOR

#### 2.2 OWNERSHIP OF RFO/CONFIDENTIALITY

The RFQ shall remain the property of **COMPANY**. The RFO shall be treated as confidential. Unless prior written approval is received from **COMPANY**, the RFO shall not be delivered. copied or disclosed to anyone other than those needing same in connection with the preparation of the Bid.

#### 2.3 ERRORS AND OMISSIONS

If Bidder finds an inconsistency, error, or omission in the RFQ, or be in doubt as to the meaning thereof, he shall at once notify **COMPANY**.

COMPANY requires Bidder to declare, guaranty and undertake to execute the WORK as required and specified in the RFQ. COMPANY also requires Bidder to undertake to correct all the violations and exceptions to the RFO Documents already known, or which may be identified later, noting that no additional financial commitment will be borne by COMPANY for the full Scope of Work specified in the RFO documents.

#### 2.4 LANGUAGE

Unless specifically provided otherwise in the RFQ, all information and data submitted by Bidder as part of his bid, and any subsequent correspondences between COMPANY and Bidder shall be in the English language.

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# 2.5 BID RESPONSE FORMS

Bidder shall prepare his bid by completing the bid Response Forms provided in Section 4.0 of the RFQ. Bidder shall submit his bid in accordance with the requirements of this instruction to Bidder article titled "2.9/ Submission of Bid".

Bidder shall retype the Bidder's Letter (Section 4.1) on Bidder's letterhead, and shall complete the relevant sections and shall sign and date the letter.

All commercial and technical information and data provided by Bidder shall be entered on or inserted after the forms provided in Section 4.2 and 4.3.

All sheets shall be titled, numbered, dated and signed by Bidder.

Bidder shall provide complete and concise commercial and technical information and data relating to Bidder's offer to perform the work . Information and data provided on the various bids Response Forms should be such that **COMPANY** will obtain a clear understanding of the commercial and technical nature of Bidder's offer. **COMPANY** shall not be obligated to seek clarification from Bidder. In the event **COMPANY** discovers items of uncertainty in the Bid , then **COMPANY** will make its own presumption on the meaning(s) of such uncertain items(s).

# 2.6 BASIS OF BID

The Form of Contract, Exhibits and Attachments thereto included with the RFQ shall be used as the basis for bidding . Bidder shall in bid Response Form 4.1 / Bidder's Letter, confirm his acceptance of the contract terms and conditions.

All the technical terms and conditions and technical clarification correspondences as finally agreed between **COMPANY** and Bidder will supersede any other contract terms and conditions quoted by Bidder and will be included in the final agreed Contract.

# 2.7 ACCEPTANCE OF BIDS

**COMPANY** reserves the right to accept or reject any or all bids without giving reason for such action .

**COMPANY** reserves the right to invite the Bidders to discuss their bids in **COMPANY'S** HOMS Offices or on the site where the services are to be performed. Any Bidder accepting such an invitation will do so at his own cost . No such invitation for discussion will be deemed to be an award of Contract.

# 2.8 AUTHORIZED SIGNATURE

A person fully authorized to contractually bind the Bidder shall properly sign the bid documents submitted to **COMPANY**.

Upon request of **COMPANY** satisfactory evidence of the authority of the person signing on behalf of the Bidder, must be furnished .

Names and functions of persons signing shall also be typed under their signature.

# 2.9 SUBMISSION OF BID

The bid shall be delivered to **COMPANY** on or before the bid closing date and Time indicated in the Inquiry Letter at the following address :

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SYRIAN GAS COMPANY HOMS HOMS – TARTOUS HIGHWAY, BOX. 4499 SYRIAN ARAB REPUBLIC FAX.: 00963 31 2496640

# Attn. GENERAL DIRECTOR

The bid should be in three (2) separate envelopes as follows:

1st- - Envelope A:

- Bidder Qualifications: List of references,
- Company and Project Organization chart and key personnel resumes.
- List of similar projects in Syria and other countries performed by Bidder in the last five- (5) years,
- Company Financial status in the last five (5) years.
- Statement of Acceptance of SGC Standard Terms and Conditions of Contract and Invoicing/Payment Conditions.
- Bid Bond.
- Bidder's letter.
- Declaration required in financial and legal tender book
- BID RESPONSE FORMS:
- 4.1. Bidder's Letter.
- 4.2. Commercial/Technical Information
- 4.3. Bidders Schedule.

to be submitted as a bound text with clearly identifiable parts, numbered and indexed identical to the subdivisions of Section 4.0- Bid Response Forms of this RFQ.

2nd- - Envelope B:

1 - Bidder's pricing.

# Bidder shall provide prices ACCORDING TO EXHIBIT (C)

3<sup>th</sup>- Envelope shall contain the envelopes A.B.

Each envelope shall be marked with its correct letter (i.e., A, B) and shall bear the words: "BID ENCLOSED"

SOLAR GAS TURBINE OVERHAULING, TECHNICAL SREVICE, AND SUPPLY SPARE PARTS REQUEST FOR QUOTATION FILE NO:

# No pricing data shall appear on any material submitted in envelope A.

# 2.10 COMPANY' REPRESENTATIVE

**COMPANY** will be represented by its own staff, which will take care of the management and Company of this Contract

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# 2.11 TERMS AND CONDITIONS OF RFQ

Bidders shall submit their bids in accordance with the terms and conditions set forth in the RFQ Documents. Information, other than that formally provided by **COMPANY**, obtained by Bidder during preparation of his Bid, shall not be deemed to change or supplement the basic set forth in the RFQ Documents. If a Bidder does not comply with all the requirements of the RFQ Documents, **COMPANY** will not consider the Bid.

# 3. DESCRIPTION OF WORK

**COMPANY** wishes to acquire the provision of Overhauling, and Technical Service for SOLAR GAS TURBINE (MARS 100) AND ALL RELAITED FOR START-UP AND OPERATING SYSTEMS as specified in the EXHIBIT-B/ Technical section of this RFQ.

The WORK to be included in the CONTRACT embraces provision of Overhauling, and Technical Service for:

SOLAR GAS TURBINES (MARS 100) AND ALL RELATED FOR SART-UP AND OPERATING SYSTEMS and guarantee/warranty of the contract

The Contractor's scope includes the provision of Overhauling , and Technical Service for SOLAR GAS Turbines (MARS 100) AND ALL related to it Start-up and OPERATING SYSTEMS, as described in this RFQ tender book , and anything herein contained . The omission of any essential provision here from , cannot be construed to relieve Contractor from any duty or obligation , necessary to perform the complete contract scope of work in safe conditions as per RFQ requirement.

# 4- BID RESPONSE FORMS

This section details the information that shall be provided by Bidder and returned with his bid to **COMPANY**.

This Bid shall be composed of clearly identifiable parts, bound, numbered and indexed identical to the subdivisions of this section. Each page shall be stamped, dated and signed by Bidder.

In the event of Contract award, this Section 4.0, including the completed pricing sheets submitted by Bidder with his bid, will be included in the executed Contract in Exhibit "C" – Invoicing and Payment.

#### Contents

- 4.1. Bidder's Letter
- 4.2. Commercial/Technical information:
  - 4.2.1. Associates.
  - 4.2.2. Subcontractors and Subletting.
  - 4.2.3. Organization chart.
  - 4.2.4. Resumes .
  - 42.5. Safety Plan.
  - 4.3. Bidder's Time Schedule.

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#### 4.1 BIDDER'S LETTER

SOLAR GAS TURBINE ( MARS 100) OVERHAULING, AND TECHNICAL SREVICE AND SUPPLY SET OF SPARE PARTS REQUEST FOR QUOTATION FILE NO.:

# Syrian Gas Company

Attn.: General Director

#### Gentlemen:

Subject to your acceptance, the undersigned offers to perform the work described in your Request for Quotation (RFQ), including all exhibits, appendices, specifications, attachments and data enclosed or referenced therein. Our offer is on a fixed price basis in accordance with the amounts, rates and prices, shown on EXH. C Bidder's Pricing, provided in envelope B and in accordance with this letter and the data information and schedule shown on Bid Response forms 4.2 & 4.3 provided in Envelope A.

Work could begin after contract coming into force according to the typical contract and general

We agree to work and fulfill the scope of work requirements, in accordance with the contract terms and conditions and Schedule shown in "Contract Time Schedule".

The Work will be performed with our personnel and equipment unless noted.

We have read and fully understand all requirements, all appendices, all Exhibits and all Attachments of the Contract, and we confirm we have no exceptions and we have no qualifications to the foregoing.

We affirm, should we be awarded the Contract, we will promptly execute the Contract when presented to us for signature.

We further affirm we are cognizant of the laws, regulations and customs of the Syrian Arab Republic and we are familiar with the application of it.

We confirm we are prepared and able to commence the diligent performance of the Contract in the Syrian Arab Republic on the date of execution of the Contract confirmed by COMPANY.

The pricing we have quoted in our bid takes full consideration of all costs and all risks involved in our fulfillment of all obligations and responsibilities set forth in the RFQ for performance by CONTRACTOR.

We confirm we shall have no recourse to **COMPANY** should changes in the business environment increase our costs so that our quoted prices no longer cover our costs, and Will be valid during the contract period and agreed extensions, we confirm that in this event we shall continue to perform the contract as required in the Contract.

Name:	Signature:	
Function:	Date:	

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## 4.2 COMMERCIAL/TECHNICAL INFORMATION

Bidder is requested to provide all information listed in this section with his bid. Bidder's offer to perform the WORK described in the Request for Quotation including the offer to perform the WORK in accordance with the commercial and technical information and data given on the succeeding forms as follows:

- 4.2.1. Associates.
- 4.2.2. Organization Chart
- 4.2.3. Resume
- 4.2.4. Safety Record
- 4.2.5. Bidder's Implementation Plan

Bidder shall enter applicable information and data on the forms provided and shall insert additional sheets, print cuts and brochures as necessary to adequately demonstrate the nature and extent of Bidder's offering.

The original and each copy of bid Response Form 4.1-Bidder's Letter, 4.2-Commercial/Technical information and 4.3-Bidder's Preliminary Time Schedule shall be placed in marked envelope A. No pricing data shall appear in any of the material submitted in the Envelope A.

#### 4.2.1 ASSOCIATES

If Bidder plans to execute the Work in an association with a partner, joint venture or other company, Bidder shall state for each such association:

- a) Name and address of associate:
- b) Nature of proposed relationship with associate.
- c) Percentage and nature of work to be performed by Bidder and by each associate. Bidder shall provide details on the provision of management, administrative, supervisory and inspection staff
- d) Details of work previously undertaken on the basis of such associations.
- e) Single focal point responsibility for the execution of the Work and communications between Bidder and COMPANY.

### 4.2.2 ORGANIZATION CHART

Bidder shall submit an organization chart depicting the lines of authority and responsibility for all non-manuals, non-clerical positions proposed for the performance of this contract. The chart shall be specifically prepared for this bid. The mere submission only of Bidder's corporate organization chart shall not satisfy the requirements of this Bid Response Form.

Bidder's Organization Chart shall clearly show management, safety, Company, procurement, inspection, scheduling, testing, operator, commissioning personnel. The chart shall indicate whether the positions are on-Site or off-Site and shall include positions to be filled by partner, joint venture, associate and sub-contractor personnel.

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The chart shall demonstrate a clear correlation between the other bid Response Forms, particularly the forms titled "Resumes". "Bidder's Manpower Projections" and "Sub-contracts and Sub-letting".

#### 4.2.3 RESUMES

Bidder shall submit a resume (curriculum vitae) for each candidate proposed for each key position in management, safety, Company, procurement, quality assurance and inspection.

Resumes shall include candidates to be supplied by partners, joint ventures, associates and sub-contractors and shall indicate whether the candidate is presently employed by bidder or any of the foregoing or whether the candidate is to be hired.

Each resume shall address the following:

- 1. Candidate's name
- 2. Proposed job title
- 3. Educational background, including languages
- 4. Work history (including names of employers, duration of employment, job title, nature of duties and responsibilities, and all presented in chronological order)
- 5. Date of candidate's availability.

The Proposed job title shown on each resume shall be readily identified on Bidders Bid Response Forms titled Organization Chart and "Manpower Projections", and be shown on bidder's proposed "Organization Charts" against the position taken.

#### 4.2.4 SAFETY RECORD

Bidder shall provide details of Bidder's construction safety record.

The record shall cover Bidder's international Projects and shall highlight Bidder's record in the Syrian Arab Republic .

Bidder shall provide details of his proposed on-site "safety regulation implementation plan".

#### 4.2.5 BIDDER'S IMPLEMENTATION PLAN

Bidder shall provide the information and data tabulated below regarding bidder's plans for implementing the OVERHAULING AND TECHNICAL SERVICING which are the subject of this Request For Quotation.

Bidder's submission shall at a minimum cover the topics listed.

Bidder shall sign and enter the date at the end of each section.

- a) Execution Plan
- b) Safety Plan.

#### a) EXECUTION PLAN

Bidder shall provide in a narrative format an overview of Bidder's plans for the execution of the work.

The information and data provided in the execution plan may in part duplicate and shall bear a strong correlation to the information and data provided in the other Bid Response forms.

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#### b) SAFETY PLAN

Bidder shall provide a description of bidder's proposals for safety management systems to achieve the project safety objectives , management systems to quality assure safety activities together with proposals for the implementation and enforcement of the Safety Regulations during the performance of on-Site activities

Bidder shall provide copy of bidder's safety manual with bidder's bid documents.

### 4.3 BIDDER SCHEDULE

# BIDDER'S PRELIMINARY SCHEDULE AND ORGANISATION

Bidder shall submit a preliminary Schedule for the performance of the Work , which will be used pending preparation and acceptance by COMPANY of the detailed Contract Implementation Schedule after award.

#### THE ORIGINAL OF

- Bidder's Schedule.
- Bidder's Letter and Bid Response Form 4.1
- Commercial / Technical Data

Shall be placed in envelope A, No pricing data shall appear in any of the material submitted in the envelope A.

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# EXHIBT -B TECHNICAL SECTION SCOPE OF WORK

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## TECHNICAL SECTION INCLUDES THE FOLLOWING:

- 1- General
- 2- Scope of work.
  - 2.1- Detailed scope of work
    - 2.1.1 —Overhauling of Gas Producer (GP)OF solar Mars 100.
    - 2.1.2 Overhauling of Power Turbine (PT)of solar Mars 100
    - 2.1.3 -Inspection and fixing of Complete turbine solar Mars 100
    - 2.1.4 -Installation of the overhauled equipment (Gas Producer and Power Turbine) on place at site in Al-Rayan station and start up
    - 2.1.5 -Planning and reporting
    - 2.1.6 -Performance test
- 3- Administration instruction.
  - 3.1 -WORK period on site
  - 3.2 –Quality
  - 3.3 -WORK INSTRUCTION
  - 3.4 -Company site work permits
  - 3.5 Variation to a Work
- 4- Work acceptance.
- 5-Warranty
- 6 additional Spare parts

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# 1- GENERAL:

- GENERAL EQUIPMENT DATA SHEET:
  - MARS100 TURBINE ENGINE
  - MODEL NUMBER: MMU001
  - ASSEMBLY NUMBER: 2-52181
  - SERIAL NUMBER: MM98288
  - Number of units: 1

Compressor:	
Type	Axial
Number of stage	15
Compression ratio	17,3:1
Speed (design)	10780 RPM
Combustion chamber:	
Туре	Annular
Ignition	Torch
Number of fuel injectors	21
Gas producer turbine:	
Туре	Reaction
Number of stage	2
Speed	11168 RPM
Power turbine:	
Туре	Reaction
Number of stage	2
Speed design	9100 RPM
Maximum speed	9500 RPM

- Rayan GCT Station
- The station in operation since 19/7/2000

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- Number of starts up-to 26/10/2023 : (609)
- Number of Operating Hour's from 1/11/2018 up-to 26/10/2023:(42314)

# 2- SCOPE OF WORK

**SUBJECT**: Tender For the provisions of Overhauling SOLARGAS TURBINE Mars100, Technical Service, inspect the whole turbine, startup it and supply set of spare parts and warranty of the contract.

The bidder is invited to submit a bid for the provision of overhauling the SOLARGAS TURBINEMARS100. and supply set of spare parts

During the terms of the contract, one gas producer, one power turbine will be overhauled and complete unit inspection and repair and install at site and supply set of spare parts during three hundred (300) days base contract period.

The duration of contract is three hundred (300) day from the Date of commencement order.

CONTRACTOR Shall has full responsibility for transporting the gas turbine in safe and secure conditions from the work site at ALRYAN GAS STATION to the outside workshops and vice versa in addition to pay all expenses, duties and taxes result in this transport.

- CONTRACTOR Shall insurance on the gas turbine inside and outside Syria.

### Solar Gas Turbine MARS100 Overhauls:

- CONTRACTOR shall define Full load overhaul as a complete disassembly, inspection, Repair/overhaul and rebuild that will ensure performance to OEM standard and Parameters for mechanical configuration, vibration and power output according to as new condition.
- All overhauling activities shall be executed under full SGC supervision, and
   CONTRACTOR is obliged to get all necessary permissions for SGC staff access

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to the concerned workshops. The original Turbine Engine will be returned to the COMPANY(SGC).

After overhauling CONTRACTOR shall provide a Specialist Engineers to supervise and carry out: installation and commissioning of overhauled solar Gas Turbine, and prepare all related operating systems for startup.

#### 2.1 Detailed scope of work:

The overhaul scope of work will be contain but not limited to the following procedures which will be applied for solar turbine Mars 100.

The detailed scope of work will be based on requirements of this technical section.

- 2.1.1 Overhauling of gas producer of solar turbine MARS 100
- 2.1.2 Overhauling of power turbine of solar turbine MARS 100
- 2.1.3 Inspection and fixing of complete of solar turbine MARS100.
- 2.1.4 Installation of the overhauled equipment (gas producer and power turbine) of solar turbine MARS 100 on place at site in Al-Rayan Gas Station and start up.
- 2.1.5 Planning and reporting.
- 2.1.6 Performance test.

# 2.1.1 OVERHAULING of GAS PRODUCER OF SOLARTURBINE MARS(100)

The overhaul of gas producer scope of work shall contain but not limited to:

2.1.1.1 Remove and Pack the Gas producer in the Al –Rayan gas station site and make it ready for shipping.

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- 2.1.1.2 Transport the required equipment (Gas producer) from the Al-Rayan gas station site to the port and make all preparation work for transportation outside of country.
- 2.1.1.3 Transportation from Syrian port to work shop outside of country if the work shop is outside of country.
- 2.1.1.4 Receive gas producer in specified by contractor and company workshop outside of country, inspect for shipping damage and take photographs on receipt.
- 2.1.1.5 Tear down, inspect and segregate obvious scrap parts.
- 2.1.1.6 Clean all assemblies and components.
- 2.1.1.7 Visually and dimensionally inspect all parts as per manufacturer standards and procedures and perform non-destructive testing and evaluation on components that are subject to normal wear and/or stress.
- 2.1.1.8 Check all instrument devices/ probes and so on for proper and reliable performance.
- **2.1.1.9** Determine the actual engine condition detailing which parts can be reused, Repaired or ordered new.
- 2.1.1.10 Dynamically balance all rotating assemblies if necessary.
- 2.1.1.11 Reassemble unit replacing all parts as necessary to insure safe, efficient and reliable work of machine.
- 2.1.1.12 Conduct on the CONTRAQCTOR inspection cells a full performance test as new Gas Producer, according to manufacturer's Overhaul and test drawings, specification and procedures.
- 2.1.1.13 Issue engine condition report, detailing the result of the inspection at disassembly with photographs of major components and the result of the test after engine assembly certifying speed, Temperature, Vibration, Horsepower etc. signed by Contractor and SGC representatives.

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2.1.1.14 Prepare unit for shipment and ship it back to Syrian agreed port.Deliver the equipment from the port to the al -Rayan gas station.

# **2.1.2** OVERHAULING OF POWER TURBINE Of SOLAR TURBINE MARS (100)

The overhauling of power turbine scope of work shall contain but not limited to:

The overhaul of gas producer scope of work shall contain but not limited to:

- 2.1.2.1 Remove and Pack the power turbine in the Al –Rayan gas station site and make it ready for shipping.
- 2.1.2.2 Transport the required equipment (power turbine) from the Al-Rayan gas station site to the port and make all preparation work for transportation outside of country.
- 2.1.2.3 Transportation from Syrian port to work shop outside of country if the work shop is outside of country.
- 2.1.2.4 Receive power turbine in specified by contractor and company workshop outside of country, inspect for shipping damage and take photographs on receipt.
- 2.1.2.5 Tear down, inspect and segregate obvious scrap parts.
- 2.1.2.6 Clean all assemblies and components.
- 2.1.2.7 Visually and dimensionally inspect all parts as per manufacturer standards and procedures and perform non-destructive testing and evaluation on components that are subject to normal wear and/or stress.
- 2.1.2.8 Check all instrument devices/ probes and so on for proper and reliable performance.

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- 2.1.2.9 Determine the actual engine condition detailing which parts can be reused, Repaired or ordered new.
- 2.1.2.10 Dynamically balance all rotating assemblies if necessary.
- 2.1.2.11 Reassemble unit replacing all parts as necessary to insure safe, efficient and reliable work of machine.
- 2.1.2.12 Conduct on the CONTRAQCTOR inspection cells a full performance test as new power turbine, according to manufacturer's Overhaul and test drawings, specification and procedures.
- 2.1.2.13 Issue engine condition report, detailing the result of the inspection at disassembly with photographs of major components and the result of the test after engine assembly certifying speed, Temperature, Vibration, Horsepower etc. signed by Contractor and SGC representatives.
- 2.1.2.14 Prepare unit for shipment and ship it back to Syrian agreed port.

  Deliver the equipment from the port to the al -Rayan gas station

#### **IMPORTANT NOTE:**

Contractor should be remove thermocouple manifold ASSY, and replace it with new thermocouple manifold ASSY according:

Item	Part number	Part name	Qty
1	128542-102	Probe assy	17
2	156110-252	Manifold assy	1
3	128456-100-925	Harness assy	1

**2.1.3** Inspection and fixing of Complete SOLAR GAS

TURBINEMARS100 at site. This inspection shall be performed to

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SOLARTURBINE Mars 100ready for startup after gas producer and Power Turbine are installed.

This scope must at least include:

- 2.1.3.1 Filters inspection and preparation
- 2.1.3.2 Inlet duct inspection and installation.
- 2.1.3.3 Gearbox inspection.
- 2.1.3.4 Gearbox and Gp coupling inspection.
- 2.1.3.5 Inspect, repair and install the bleed valves.....etc.
- 2.1.3.6 General inspection for all auxiliaries systems and repairing them when necessary:
  - -lube oil system,
  - -fuel system.
  - -starting system.
  - -drain system.
  - oil system.
  - gas metering valve.
  - -electrical control system.
  - ....etc).
- 2.1.3.7 Control system inspection and repairing them when necessary
- 2.1.4 Installation of the overhauled equipment (gas producer and power turbine) on place at site in al-rayan Gas Station and start up: After the equipment is transported back to the AL-RAYAN GAS STATION, the contract must start installation work for this equipment.

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After the equipment is transported back to the AL-RAYAN GAS STATION, the contractor must start installation work for this equipment. This installation must include all required calibration to meet the original manufacturer values.

# **2.1.5** Planning and reporting:

Contractor work planning and reporting requirements for the performance of the work shall be as directed by COMPANY, and CONTRACTOR shall provide all the necessary information and conform to all requirements of Company during the performance of the work.

Under request of the COMPANY before starting any activities CONTRACTOR representative shall attend a planning meeting with Company's representative to discuss the works that need to be carried out before and during the equipment installation activities and sign mutual work plan.

During equipment installation, the CONTRACTOR representative shall attend a daily progress meeting with COMPANY to discuss the work that has been carried out and any safety matters with COMPANY.

#### 2.1.5.1 Work Planning:

CONTRACTOR shall maintain a work log book. The work log book shall include details of executed works, unite status, and progress.

#### 2.1.5.2 Work Reporting:

Upon completion of any work, CONTRACTOR shall, submit an interim report to COMPANY. This report shall include details of the

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CONTRACTOR shall ensure that this report is accurate and fully reflects the services rendered, and that all information required in the report is supplied. The report shall be clean, legible and approved by Company's Representative. CONTRACTOR shall submit three (3) copies, of a fully monthly detailed Job report starting from the date of departure. The report shall be in English and shall contain but not limited to the following requirements:

- Equipment condition.
- Disassembly and Cleaning.
- Component Disassembly.
- Non-destructive Test in case of failed parts if any.
- Component Repairs if any.
- Product Upgrades.
- Rotor balancing if required.
- Product Reassemble.
- Product testing reports
- Values of adjustments and calibrations.
- Photographic records with technical comments of component.
- Remaining hours on the life limited components.
- Replaced parts certificates.

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#### **2.1.6** Performance test.

## **2.1.6.1** Reliability and Acceptance Test:

Contractor has to perform Gas Turbine Reliability and Acceptance Tests for (3) three continues operating days. During test, Contractor has to recheck the unite performance &parameters and fuel /oil leakage free.

In case the test run fails due to a defect in the new work and /or parts fitted, the test will be repeated after removing of the defect.

It is understood that the Gas Turbine test shall meet the original guaranteed figures at site rated condition and operating requirements.

# 2.1.6.2 Standard test requirement:

The required test for the serviced equipment shall be a full load performance test (as those for a new engine) to meet operating requirements and site rated condition

## 3- ADMINSTRATION INSTRUCTIONS

# 3.1 WORK period on site:

- 3.1.1 The normal COMPANY working period is from 08:00 to 16:00 hours, during seven-(7) days a week.
- 3.1.2 No CONTRACTOR personnel shall work more than sixteen (16) hours in one (1) continuous day.
- 3.1.3 CONTRACTOR'S personnel, test equipment and tools performing work under the contract shall commence mobilization to the respective work site not later than 08:30, O'clock.

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- 3.1.4 COMPANY reserves the right to request CONTRACTOR to continue the work at end of the normal working period to finish ongoing work.
- 3.1.5 Notwithstanding that, COMPANY shall supervise the work;
  CONTRACTOR shall provide competent persons having adequate knowledge of the work to be carried out (including the methods and techniques required, the hazards likely to be encountered and the methods to prevent accidents).
- 3.2 Quality:
- 3.2.1 All work performed to meet original manufacturer (solar turbine) quality.
- **3.2.2** All spare parts must be OEM new not renewed.
- 3.2.3 If there is no possibility to provide OEM parts the contractor must present to company evidence that proves the impossibility of providing it.
- 3.2.4 Only After approval of Syrian Gas Company, the contractor can renew the part by the specialized company in gas turbine manufacturing or replace it by non-original one but from the specialized manufacturer of gas turbines.
- 3.3 Work instruction:
- 3.3.1 Company shall make a required number of technicians available to work under contractor's key personnel supervision.
- 3.3.2 Prior to commencing the WORK under the CONTRACT at site, CONTRACTOR shall submit to the COMPANY REPRESENTATIVE an approved and signed work procedure. The procedure, shall include the following information;
  - **3.3.2.1**Description of Scope of WORK to be carried out.
  - 3.3.2.2 Number of technicians required to perform the work safely.
  - 3.3.2.3 WORK AREA and Work site/location where the Worksites be

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carried out.

- 3.3.2.4List and Specification (where applicable) of all material COMPANY requests CONTRACTOR to supply.
- 3.3.2.5 Requested start and completion dates, and where applicable start time.
- 3.3.3 Contractor's key personnel shall supervise and instruct the SGC technicians who participate in all maintenance work and all together (contractor and SGC technicians) shall perform the required works under maintenance department management supervision. It is contractor responsibility to make all his work sites accessible for company representative including all associated costs.

#### 3.4 Company site work permits

Prior to commencement of the WORK, CONTRACTOR shall obtain from COMPANY all necessary permits listed in Company Safety Rules and Regulations for CONTRACTORS, specifications, drawings and any other information essential for the complete performance of the WORK in accordance with the CONTRACT.

#### 3.5 Variation to a Work:

3.5.1 COMPANY may at any time instruct CONTRACTOR to perform a variation to an agreed Work, providing such requests are within the provisions of the contract scope of work.

# 4 -WORK ACCEPTANCE

4.1.1 CONTRACTOR shall give the permission to the technical team confirmed by the administration and consists at least from four qualified

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members to check up the maintaining works, in addition to the spare parts, (two times at least), the first time after dismantling and during overhauling, and the second time during the assembling and testing. The contractor shall bear all the travel costs. fully accommodation, life catered and transportation outside Syria including (suitable and comfortable place for stay, food for three meals and transportation)shall be at the contractor's account

- 4.1.2 Upon completion of the WORK, including all inspection and testing by CONTRACTOR, COMPANY shall be advised by the CONTRACTOR REPRESENTATIVE that the WORK is complete, WORK SITE restored and tidy and available for COMPANY inspection prior to acceptance of the WORK.
- **4.1.3** COMPANY REPRESENTATIVE shall inspect the WORK and WORK SITE and notify the CONTRACTOR REPRESENTATIVE of either:
  - 4.1.3.1 Acceptance of the WORK and WORK SITE, by signing the Work Instruction as" Work Complete"
  - 4.1.3.2 Rejection of the WORK, due to poor workmanship, defects, defaults or deficiencies, which shall be corrected to the full satisfaction of the COMPANY REPRESENTATIVE at no additional cost to the COMPANY.

# 5 – GUARANTEE AND WARRANTY OF WORK.

**5.1**.The CONTRACTOR shall guarantee that the WORK carried out under the CONTRACT is free from defects, errors, and failure in a workmanship

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- 5.2. The contractor shall warranty the normal work of overhauled gas turbine Mars100 for a period of twelve months or 8000 running hours which coming first.
- 5.3. In case of Equipment failure before the warranty periods mentioned in paragraph 5.2, the CONTRACTOR shall be Obligated to replace and/or repair the failed equipment free of charge, (including materials, freight and all labor cost) in case the failure accrues due to workmanship

# 6- ADDITIONAL SPARE PARTS:

The contractor shall provide the spare parts shown below:

GAS FUEL SYSTEM			
Part number	Part name	Qty	Ref.Des
186274-500	ACTUATER SHUTOFF VALVE	1	V2P931-1
186159-35	Throttle ACTUATOR	1	L344-1
186287-1	SOLENOID VALVE	1	L342-2
186286-1	SOLENOID VALVE	1	L342-1
186288-1	SOLENOID VALVE	1	L341-1
LUB OIL SYSTEM			
Part number	Part name	Qty	Ref .Des
120309-1	CONTROL VALVE	1	PCV901

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186286-2	SOLENOID VALVE	1	L310
120713-19	TEMPERATURE REGULATOR	1	TCV901-1
190298-18	PRESSURE SWITCH	1	S322-2
190083-4	DIFFERNTIAL PRESSURE GAGE	1	PDI903
1000607-	LUBE OIL FILTER ASSY	Qty	Ref .Des
52181 186560-6	FILTER- ELEMENT	10	FS901-1
1018692- 52181	SERVO SYSTEM	Qty	Ref .Des
186280-500	FILTER -KIT ELEMENT	5	FS903
	DRIVER GAGE PANEL		1
Part number	Part name	Qty	Ref.Des
1013117-1	DIFFERENTIAL PRESSURE TRANSMITTER	1	TPD358
1013115-14	PRESSURE TRANSMITTER	1	TP349
1013115-11	PRESSURE TRANSMITTER	1	TP380
190497-11	DIFFERENTIAL PRESSURE SWITCH	1	S397-1
190298-18	PRESSURE SWITCH	1	S341-1
190298-49	PRESSURE SWITCH	1	S386-1
190298-25	PRESSURE SWITCH	1	S386-2

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190298-23	PRESSURE SWITCH	1	S322-3
190298-13	PRESSURE SWITCH	1	S322-5
	ELECTRICAL SYSTEM		
Part number	Part name	Qty	Ref.Des
172809-5	BACKUP OVERSPEED MONITOR	1	Z353
1014213-5	FAST MILLIVOLT INPUT MODULE	1	ZZ2005
1014213-5	FAST MILLIVOLT INPUT MODULE	1	ZZ2006
	VIBRATION SYSTEM		
Part number	Part name	Qty	Ref .Des
967943C3	PROXIMITOR	6	ZV351X
962155C2	PROXIMITOR	4	ZV352X
915609C3	PROXIMITOR	4	ZV3531X
	BLEED VALVE ASSY		
Part number	Part name	Qty	Ref .Des
18159-35	ACTUATOR	1	L338
4	POWER TURBINE ASSY		1
Part number	Part name	Qty	Ref.Des
916180C2	SPEED SENSOR	3	G353-1

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ENCLOSURE FILTER ASSY			
Part number	Part name	Qty	Ref .Des
70-30140-3	DIFFERENTIAL PRESSURE SWITCH	1	70-30140-3
ENGINE COMPRESSOR COMMON PART			
Part number	Part name	Qty	Ref.Des
190775-2	ACTUATOR	1	CYL339-1
190775-2	ACTUATOR	1	CYL339-2
186159-36	ACTUATOR	1	L339

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# EXHIBIT - C

1-The bidder adhere to submit his financial offer according to (table 1 and its percentages).

	Table (1)		
item	Work description	Price	%
1	Disassembling turbine, Transport and shipping to outside Syria		3
2	cleaning and disassembling and inspection turbine in workshop outside Syria		2
3	repairing or replacing the damage parts of turbine in workshop outside Syria		5
4	mounting, assembling, testing and balancing turbine in workshop outside Syria, and returning with required additional spare parts to Syria (al-Rayan station)		35
5	service executed at work site (al- Rayan station) (fixing turbine and checking all parts of unit auxiliary systems and preparing them to start up)	F	15
6	Operation and testing		40
	Total		100

- 2- The company pays the financial dues to the contractor in currency local (Syrian pound) According to a bulletin of average foreign exchange rates against and pound Syrian the issued by the Central Bank of Syria on the maturity date, as following:
  - (3%) of the contract value, for shipping which to be overhauling (solar gas turbine mars 100) To overhauling workshops outside Syria, and to be paid after submitting the certified document which proving that shipment process is complete and the turbine is arrived at workshops without any damage.
  - (2%) of the contract value for cleaning and disassembling and inspection the equipment which to be overhauling (solar gas turbine mar s 100) in contractor workshop outside Syria, to paid after submitting the certified document by the administration with submitting a report by the representatives of the administration supervising the carried out in the overhauling workshop.

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- (5%) of the contract value, for repairing or replacing the damage parts, to be paid the certified document by the administration with to paid after submitting submitting a report by the representatives of the administration supervising the carried out in the overhauling workshop.
- (35%) of the contract value to be paid upon mounting, assembling, testing and balancing the overhauling equipment ( solar gas turbine mars 100), and returning with required additional spare parts to the( al -rayan station) after submitting the certified shipping documents and certified test report by contractor and by representatives of the administration supervising the carried out in the overhauling workshop and certified by the administration
- (15%) of the contract value, for service executed at work site (al-rayan station) ( checking all parts of unit auxiliary systems and repairing them when necessary and preparing them to start up ), to paid after certified documents by administration and minute approved the administrations representatives at worksite
- (40%) of the contract value to paid after 72 hours continues operation of solar gas turbine mars 100 and issuing provisional acceptance report duly legalized by administration .

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