



UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION

VIENNA INTERNATIONAL CENTRE
PO BOX 300, A-1400, VIENNA, AUSTRIA

TELEPHONE: (+43 1) 26026-0

FAX: (+43 1) 26026-6815

<http://www.unido.org>

E-mail: unido@unido.org

A.Ahmed/K.P.

Date: 8 November 2017

Subject: Request for Proposal (RFP) No. 7000002685
Project No. 120601 - Low Carbon Low Emission Clean Energy Technology Transfer (LCET) Programme in Quarzazate, Morocco

Dear Sirs:

The UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION (UNIDO) and the GOVERNMENT OF JAPAN (hereinafter referred to as the "Government"), hereby invite you to submit a written proposal for the provision of a complete package of technical services and supply including but not limited to the:

- a) Design, engineering and supervisory services and provision of the technical documentation,
- b) Supply of the equipment, materials and spare parts,
- c) Making available the training services (including industrial safety) and technical supervision personnel,

required to design, supply, deliver and install a pilot Vanadium Flow Battery Technology as innovative Battery Energy Storage System for Renewables for Grid and Mini-Grid Solutions in Morocco (hereinafter referred to as the "Project Area") by applying the concept and approach defined in the Terms of Reference (Appendix 1) and related documents attached hereto.

1. CLOSING DATE

To ensure consideration, your complete, detailed proposal consisting of the **TWO SEPARATE SEALED ENVELOPES (ONE WITH TECHNICAL PROPOSAL AND THE OTHER WITH THE COMMERCIAL PROPOSAL)** should reach the address indicated in paragraph 3 of the Instructions for the Preparation and Submission of Proposals by 29. November 2017, close of business (5 p.m. Vienna time).

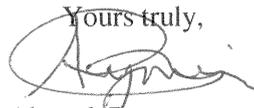
It is the **sole** responsibility of the supplier to ensure that the sealed envelope/package containing the proposal reaches the address and office indicated before the time and date stated above.

Proposals must be delivered to the designated address during UNIDO working hours from 9:00 a.m. to 5:00 p.m., Monday through Friday except for UNIDO holidays. Delivery to any UNIDO office other than that stated will be at the risk of supplier and will not constitute timely delivery. **Proposals received after the above-mentioned deadline will be invalidated.**

2. GENERAL

- a) This RFP is for the complete package of technical services and supply with necessary supervision, backstopping and training. It covers a total organizational responsibility as required by the Terms of Reference dated 8 November 2017, which are attached hereto as Appendix 1.
- b) The terms set forth in this RFP, including the contents of the Terms of Reference and UNIDO General Conditions will form a part of any contract should UNIDO accept your proposal. Any such contract will require compliance with all factual statements and representations made in the proposal, subject to any modifications to the proposal agreed to by UNIDO in the context of negotiations, should negotiations be entered into.
- c) Your proposal should be comprehensive and detailed. It must include information in sufficient scope to allow UNIDO to consider whether your company/organization has the necessary capability, experience, knowledge, expertise, finance strength, and the required capacity to perform the work specified satisfactorily. Your proposal shall clearly and concisely respond to all points set out in this RFP. Any proposal, which does not fully and comprehensively address this RFP, may be rejected.
- d) You should strictly adhere to all requirements of this RFP. No changes, substitutions or other alterations to the technical specifications of requirements stipulated in this RFP will be accepted unless approved in writing by UNIDO.
- e) **In order to be considered for the contract your company/organization must meet the qualification requirements and evaluation criteria specified in Appendix 2.**
- f) In this project, time is of the essence. Your ability to commence work and complete it strictly in accordance with the time frame contained in the Terms of Reference will be an important factor in awarding a contract.

We look forward to receiving your proposal.

Yours truly,


Aymen Ahmed, Procurement Officer
Procurement Services Division
Operational Support Services/PPS

Enclosures

Appendix 1: Terms of Reference dated 8 November 2017

Appendix 2: Instructions for Preparation of Breakdown of Financial Proposal

Appendix 3: Model Contract

Annex A: UNIDO General Conditions of Contract

Annex B: Facilities, Privileges and Immunities Section

Annex C: Instructions for the Dispatch of Reports

Annex D: Packing and Marking Instructions

Annex E: Drawings, Specifications and Manuals

Appendix 4: Financial Statement and Certification

Appendix 5: Bank Information Form

Appendix 6: Acknowledgement Form

1. Preparation and Submission of Proposal

Proposal shall be prepared and submitted in accordance with the instructions that follow under paragraphs 2-25 below.

2. Language of Proposal

Your proposal and all correspondence and documents relating to it shall be written in the English language.

3. Format and Signing of Proposal

- (a) Your proposal must be submitted in **TWO (2) SEPARATE SEALED ENVELOPES**, one of which shall contain the **Technical Proposal without price(s) and commercial terms, while the other shall contain the Commercial Proposal with price(s) and commercial terms**. The Technical and Commercial Proposals must be submitted in one (1) original and two (2) copies each, clearly marked "Original Proposal" and "Copy of Proposal". In the event of any discrepancy between them, the original shall govern.

Your proposal must be typed or written in indelible ink and signed by an official legally authorized to enter into contracts on behalf of your company/ organization.

The proposal shall not contain any interlineations, erasures or overwriting except as necessary to correct errors made by the supplier, in which case the person or persons signing the proposal shall initial such corrections.

- (b) Mailing Address

Your proposal must be submitted to the following address:

**United Nations Industrial Development Organization (UNIDO)
Procurement Services Division/OSS/PPS (Attention: Aymen Ahmed)
PO Box 300
A-1400 Vienna
AUSTRIA**

- (c) Preparation of the Proposal

Your proposal should consist of Technical and Commercial Parts and contain, but not necessarily be limited to, the following information:

TECHNICAL PROPOSAL (to be submitted in a separate sealed envelope without price information)

Technical Proposal should contain, but not necessarily be limited to, the following information:

- i) **A statement** of your company/organization's ability and readiness to execute an eventual contract in accordance with this RFP and its Annexes/Appendices. **Any deviation from the Terms of Reference (Appendix 1) or other documents contained in this request for proposal shall be clearly expressed;**

- (ii) **A statement** of your company/organization's capacity of operations including company description, structure and number of employees, practical experience in vanadium flow battery (VFB) system as an advanced battery energy storage system (BESS) in a constructed mini-grid as well as on grid environment to stabilize electricity (see Terms of Reference), **with relevant references to the requirements similar to those constituting the object of this RFP, size of the executed projects and scope of the performed work. In your proposal you should list at least three (3) current major client references with information regarding work and services provided and contact information (company name, phone number, facsimile number).**
- iii) **A statement** of your company/organization's operating standards and control systems (indicate if certificates of adherence to international quality standards such as ISO 9000 and ISO 9001 or similar are available and enclose copies thereof).
- iv) **An explanation** of your understanding of the work to be performed and the services to be provided and your overall operational plan for the execution of the work;
- v) **A statement** of your ability to start work promptly, including the date of availability of your staff, and the minimum notice required before starting the work;
- vi) **A statement** that you will assign to the project sufficient number of capable and experienced personnel from your own organization and that your organization's capacity, in terms of qualified manpower resources, is adequate to implement the project within the period of time indicated in the Terms of Reference, Appendix 1. All the staff you propose assigning to the work must have a good knowledge of English.
- vii) **The names, titles and assignments (functions) as well as the detailed curriculum vitae of the key staff assigned for this contract.** The CVs of the key staff should be completed in the most precise detail possible, with particular reference to practical experience of each of the proposed staff;
- viii) **Technical Specification** of each item of equipment proposed in your offer including individual main elements and components, systems and instrumentation and **list of spare parts** pertinent to each equipment and technological units (standard sets) sufficient for two years of operation;
- ix) **Catalogues, technical leaflets, manuals etc.** pertinent to relevant equipment including the main elements of systems and installations
- x) **The names and qualifications (including description of activities, number of personal employed, references to the clients and completed projects) of the proposed sub-contractor(s) and/or equipment manufacturers, if any, and the extent and nature of such sub-contracting and/or equipment supply;**
- xi) **Information on your services and training facilities, if any, in the country of the project, including spare parts depots, repair shops, training centers, etc**

- xii) **The Work Plan and Bar Chart** for the implementation of the contract showing:
 - Various activities or groups of activities,
 - The name/function and duration in workdays of assignment of each of your staff assign to the contract,
 - A work breakdown structure (WBS)
- xii) Any other information you may consider appropriate. However, unnecessarily elaborated brochures and other presentations beyond that sufficient to present complete and effective proposal are not encouraged.
- xiii) **A certified copy of the Financial Statements** for the last 3 years of business and information regarding all claims, arbitration and other pending legal action concerning your company/organization, including the amounts of any pending claims, arbitration and other pending legal action of claims.
- xiv) **A completed certified Supplier's Financial Statement** (the form is enclosed herewith for completion as Appendix No. 4). Certification shall be normally provided by your bank, insurance company or any other authority customarily providing such certification according to the laws of your country. **Please note that proposal submitted without certified Financial Statement runs the risk of being rejected.**

COMMERCIAL PROPOSAL (to be submitted in a separate sealed envelope)

Commercial Proposal should contain, but not necessarily be limited to, the following information:

- i) **Your best firm fixed price in United States of America Dollar (USD)** to complete the proposed work. **The proposals not expressed in USD will be converted to this currency, using the United Nations Rate of exchange prevailing on the date of opening and the resulting USD price will be used for price comparison and in the contract. Please note that prices for equipment, parts and supplies shall be quoted DAP (INCOTERMS 2010) Plant Site.**
- ii) **A detailed cost breakdown** of the firm, fixed price referred to in sub-paragraph i) above, highlighting the costs foreseen to perform the different activities, divided by main categories (e.g. personnel, travel and local costs, design and engineering, equipment, materials, spare parts, transportation, construction and erection, installation and commissioning, etc) in accordance with the instructions in Appendix 2 to this RFP. **Please indicate separately discounts, if any, which you may grant to UNIDO and the terms of such discounts.**
- iii) **Your cash-flow estimate** related to the execution of the work under the contract.
- iv) **A statement** that you have carefully reviewed the Model Contract and Annexes to it (Appendix 3) and are in agreement with its terms and conditions.
- v) **A statement** that you will provide all necessary insurances and performance guarantee as per the Model Contract, Appendix 4.

- vi) **A statement that your proposal is valid for a minimum period of six (6) months** counting from the date of the proposal. Once your proposal is accepted during this period, the price quoted in your proposal must remain unchanged for the entire period of the resulting contract unless otherwise specified in this RFP.
- vii) The company/organization shall complete, sign and stamp the **Bank Information Form** (hereinafter referred to as BIF) attached hereto as Appendix 5.

4. Statement of Confirmation

You are required to complete and sign the Statement of Confirmation, on page 11 of these instructions. The Statement of Confirmation shall be included in the envelope with the Technical Proposal.

5. Acknowledgment Copy of Status of Proposal

You are kindly requested to return the attached Appendix 6 Acknowledgment Copy duly signed by an authorized representative, to UNIDO via facsimile or e-mail advising whether or not your company/organization intends to submit a proposal prior to the designated closing date for receipt of proposals.

6. Retention of Proposals

Following submission of the Proposals and final evaluation, UNIDO will have the right to retain unsuccessful proposals. It is the supplier's responsibility to identify any information of a confidential or proprietary nature contained in its proposal, so that it may be handled accordingly. However, UNIDO cannot guarantee confidentiality.

7. Completeness of Proposal

You are expected to examine all instructions, forms, terms and specifications in this RFP. Your proposal must include information in sufficient scope and detail to allow UNIDO to consider whether your company/organization has the necessary capability, experience, knowledge, expertise, financial strength, and the required capacity to perform the work specified satisfactorily. Failure to furnish all information required by the RFP or submission of a proposal not substantially responsive to the RFP in every respect will be at the supplier's risk and may result in the rejection of its proposal.

8. Correctness of the Proposal

Arithmetical errors will be rectified on the following basis:

If there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total price shall be corrected. If the supplier does not accept the correction of errors, its proposal will be rejected. If there is a discrepancy between words and figures the amount in words will prevail. UNIDO reserves the right to verify all information furnished by the supplier through any sources of its choice. Any inaccurate information given may lead to a rejection of the proposal.

9. Period of Contract Service, Work Plan and Bar Chart

The overall time period for the completion of the work is indicated in Appendix 1. **Your proposal must include a time schedule for the completion of the proposed work in the form of a detailed bar chart referred to in paragraph 3 c) xii) above.**

10. Briefing and De-briefing at UNIDO Headquarters

The Contractor's Team Leader may be required to visit UNIDO Headquarters for:

- Briefing prior to his departure to the Project Area;
- De-briefings, as considered appropriate by UNIDO and the Contractor.

Your proposed price should take into consideration all the above.

11. Reports

UNIDO will require the reports listed in paragraph 3.22 of the Model Contract, Appendix 3 and in paragraph 5 of the Terms of Reference, Appendix 1.

12. Responsibilities of UNIDO

The services and facilities which will be provided by UNIDO and/or the Government will tentatively be as set forth in Section 4 of the Model Contract, Appendix 3 and in the Terms of Reference, Appendix 1. They may be specified and amended during execution of the contract.

13. Withdrawal and Modification of Proposals

Proposals may be modified or withdrawn by suppliers in writing, prior to the closing date specified in the RFP. Proposals may not be modified or withdrawn after that time.

14. Evaluation Procedure/Acceptance of Proposals

All proposals that are submitted in response to this RFP will be reviewed and evaluated by UNIDO in a fair and impartial way in accordance with the provisions of the UNIDO Financial Rules and Procurement Procedures applying the qualification requirements and evaluation criteria specified in Appendix 2. While price is an important factor, however, it shall not be the primary consideration in evaluating responses to this RFP.

The envelopes containing Technical Proposals will be opened first and the Proposals will be evaluated against the qualification requirements and technical evaluation criteria set out in Appendix 2 to this RFP. After completion of the technical evaluation UNIDO will open and evaluate only those Commercial Proposals, which correspond to the Technical Proposals found substantively responsive to the RFP requirements. UNIDO will not open the sealed envelopes with the Commercial Proposals corresponding to the Technical Proposals that have been found not substantively responsive. These proposals will be discarded.

The contract shall be awarded based on the best value for money principles to the qualified supplier whose Technical Proposal has been found substantively responsive and whose Commercial Proposal is the lost cost to UNIDO. UNIDO will endeavor to advise you as promptly as possible concerning its decision.

UNIDO reserves the right to negotiate with the supplier who has submitted the lowest cost substantively responsive proposal, for the purpose of seeking revisions of such proposal to enhance its technical aspects and/or to reduce the price.

15. No Commitment

This RFP does not commit UNIDO to award a contract. UNIDO reserves the right to accept or reject any proposal(s), or annul this RFP and reject all proposals, at any time prior to award of contract, without thereby incurring any liability to the affected supplier(s) or any obligation to inform the affected supplier(s) of the grounds for UNIDO action.

UNIDO also reserves the right to negotiate and award only a portion of the requirement; to negotiate and award separate or multiple contracts for the elements covered by this RFP in any combination it may deem appropriate, in its sole discretion; to add new considerations,

information or requirements at any stage of the procurement process, including during negotiation with suppliers; and reject the proposal submitted by any supplier that has previously failed to perform properly or on time contracts of a similar nature, or of a supplier that, in the opinion of UNIDO, is not in a position or is not sufficiently qualified to perform the contract.

This RFP contains no contractual proposal of any kind; any proposal submitted will be regarded as a proposal by the supplier and not as an acceptance by the supplier of any proposal by UNIDO. No contractual relationship will exist except pursuant to a written contract document signed by the authorized official of UNIDO and by the successful supplier(s) chosen by UNIDO.

16. Contract Award

UNIDO will notify the successful supplier in writing by fax that its proposal has been accepted. Upon the successful supplier's confirmation of acceptance of the contract award and conclusion of the contract, UNIDO will notify each unsuccessful supplier. The notification to the unsuccessful suppliers will not contain any information concerning other suppliers and their prices, including that of the winning offer, due to the confidential and proprietary character of such information. Any queries of unsuccessful suppliers to this respect will not be entertained by UNIDO.

17. Signing of Contract

After the successful supplier's acceptance of the UNIDO contract award, UNIDO will send the supplier the contract documents incorporating all agreements between the parties. The successful supplier shall sign and date the contract and return it to the UNIDO no later than two (2) weeks of the receipt of the contract documents.

18. Contract Basic Terms and Conditions

Except as otherwise required by the circumstances of the case, the contract for the proposed services will be based upon the terms and conditions of the following Model Contract and Annexes, attached hereto as Appendix 4:

Model Contract

Annex A: UNIDO General Conditions of Contract

Annex B : Facilities, Privileges and Immunities Section

Annex C: Instructions for the Dispatch of Reports

Annex D: Packing and Marking Instructions

Annex E: Drawings, Specifications and Manuals

Annex F: UNIDO Terms of Reference dated 8 November 2017

Annex G: List of Equipment, Spare Parts and Materials*

Annex H: Timetable of Contract Work*

*) Not available now, but may be prepared before signature of the Contract if both parties find them necessary.

19. Payment

Payment will be normally made in accordance with Section 5 of the Model Contract, Appendix 3. The Financial Regulations and Rules of UNIDO preclude payment by Letters of Credit. Such provision in a proposal will be prejudicial to its evaluation by UNIDO. The normal terms of payment by UNIDO are 30 days upon satisfactory delivery of goods or performance of services and acceptance thereof by UNIDO, progress payments being allowed upon agreement of the Parties. Suppliers must therefore clearly specify in their proposals if they offer the payment terms different from those of UNIDO.

20. Marking of Envelope

As provided in paragraph 3 above, your proposal shall be submitted in two separate (2) sealed envelopes, one of which containing one (1) original and two copies of the Technical Proposal (without prices and commercial terms), the other containing one (1) original and two (2) copies of the Commercial Proposal (with prices and commercial terms).

The sealed envelope with a technical offer shall be marked:

Request for Proposal No: RFP No. 7000002685
UNIDO Project 120601
Low Carbon Low Emission Clean Energy Technology Transfer (LCET)
Programme in Quarzazate, Morocco
Technical Offer
Closing Date: 29. November 2017
Do not open before the Closing Date

The sealed envelope with a commercial offer shall be marked:

Request for Proposal No: RFP No. 7000002685
UNIDO Project 120601
Low Carbon Low Emission Clean Energy Technology Transfer (LCET)
Programme in Quarzazate, Morocco
Commercial Offer
Closing Date: 29. November 2017
Do not open before the Closing Date

IMPORTANT NOTE: PLEASE ENSURE THAT IN PREPARING YOUR OFFER THE INSTRUCTIONS IN PARAGRAPH 3 OF THIS RFP FOR SUBMISSION OF THE TECHNICAL (WITHOUT PRICES) AND COMMERCIAL PROPOSALS IN SEPARATE SEALED ENVELOPES BE STRICTLY FOLLOWED. IN CASE YOUR OFFER IS NOT SUBMITTED IN TWO SEPARATE ENVELOPES AND/OR YOUR TECHNICAL PROPOSAL CONTAINS PRICE INFORMATION YOUR OFFER WILL BE REJECTED.

21. Proprietary Information

It is understood that this RFP is confidential and proprietary to UNIDO, contains privileged information, part of which may be copyrighted, and is received by suppliers on the condition that no part thereof, or any information concerning it may be copied, exhibited, or furnished to others without the prior written consent of UNIDO, except that the supplier may exhibit the specifications to prospective sub-contractors for the sole purpose of obtaining proposals from them. Notwithstanding the other provisions of this RFP, suppliers will be bound by the contents of this paragraph whether or not their company submits a proposal or responds in any other way to this RFP.

22. Rejection of Proposals and Split Awards

UNIDO reserves the right to reject any and all proposals if they are, inter alia:

- Received after the deadline stipulated in the RFP;
- Not properly marked or addressed as required in the RFP;
- Delivered to another UNIDO office than the one required in the RFP;
- Transmitted by facsimile unless specifically indicated in the RFP;
- Unsolicited;
- Contains an alternate proposal;
- Or not otherwise in compliance with this RFP.

UNIDO also reserves the right to split an award between any suppliers in any combination, as it may deem appropriate. If the proposal is submitted on an "all or none" basis, it should clearly state as so in this RFP.

23. Request for Information

All questions, whether technical or contractual, should be directed in writing as follows:

- a) By letter:
To the address shown in paragraph 3) above
- b) By e-mail to:
Aymen Ahmed, Procurement Officer
E-mail: A.Ahmed@unido.org, CC: K.Panganiban@unido.org

UNIDO will respond in writing to any request for clarification of this RFP, which is received no later than two (2) weeks prior to the deadline for the submission of proposals. The clarifications requested beyond this date will not be entertained by UNIDO. Written copies of the response (including an explanation of the query but without identifying the source of inquiry) will be sent to all suppliers who have indicated their intent to offer by submitting a completed Acknowledgment Copy.

24. Costs of Preparation of the Proposal

This RFP does not commit UNIDO to pay any costs incurred in the preparation or submission of proposals, or costs incurred in making necessary studies for the preparation thereof, or to procure or contract for services or supplies. The suppliers shall bear all the costs associated with the preparation and submission of the proposals, and UNIDO will not in any case be responsible or liable for those costs, regardless of the conduct or outcome of this competitive exercise.

STATEMENT OF CONFIRMATION

On behalf of (insert name of company or institution): _____, I
Hereby attest and confirm that the company/organization:

- a) Possesses the legal status and capacity to enter into legally binding contracts with UNIDO for the supply of equipment, supplies, services or work.
- b) Is not insolvent, in receivership, bankrupt or being wound up, and not under administration by a Court or Judicial Officer, and that it is not subject to the suspension of its business or legal proceedings for any of the foregoing reasons.
- c) Has fulfilled all its obligations to pay taxes and social security contributions.
- d) Has not, and that its Directors and Officers have not, within the last five years been convicted of any criminal offence related to professional conduct or the making of false statements or misrepresentations as to their capacity or qualifications to enter into a procurement or supply contract.
- e) Pursues zero tolerance policy to all forms of corruption, including extortion and bribery.
- f) That UNIDO, in the event that any of the foregoing should occur at a later time, will be duly informed thereof, and in any event, will have the right to disqualify the company/institution from any further participation in its procurement proceedings.
- g) That UNIDO shall have the right to disqualify the company/institution from participation in any further procurement proceedings, if it offers, gives or agrees to give, directly or indirectly, to any current or former staff member of UNIDO a gratuity in any form, an offer of employment or any other thing of service or value, as an inducement with respect to an act or a decision of, or a procedure followed by UNIDO in connection with a procurement proceeding.

Name (print): _____

Signature: _____

Title/Position: _____

Place (City and Country): _____

Date: _____



UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION

TERMS OF REFERENCE

PROJECT SAP ID 120601

**TECHNICAL AND ECONOMIC TENDER SPECIFICATIONS FOR DESIGN, SUPPLY, DELIVERY AND
INSTALLATION OF A PILOT VANADIUM FLOW BATTERY TECHNOLOGY AS INNOVATIVE
BATTERY ENERGY STORAGE SYSTEM FOR RENEWABLES FOR GRID AND MINI-GRID
SOLUTIONS IN MOROCCO**

Contents

| | |
|---|----|
| I. General Background Information and aim of the Project..... | 3 |
| II. The Scope of Supply | 6 |
| A. Technical Requirements | 6 |
| B. Technology Requirements for Vanadium Flow Battery and Control System | 9 |
| C. Other Requirements..... | 13 |
| D. Content of the Bidder's Technical Proposal | 15 |
| E. Content of the Bidders' Financial Proposal | 16 |
| F. Licensing Agreement | 18 |
| III. GUARANTEE REQUIREMENTS | 19 |
| IV. REPRESENTATIVE IN THE COUNTRY | 21 |
| V. Delivery Period | 22 |
| Table 1. Delivery Timeframe | 22 |
| VI. CONTRACTOR'S RESPONSIBILITIES..... | 25 |
| Table 2. List and Tables of Technical Data and Specifications | 27 |
| Table 3. Table for Offer of Supply and Services | 30 |
| VII. Data Transmission | 32 |
| VIII. EVALUATION CRITERIA | 33 |

**TECHNICAL AND ECONOMIC TENDER SPECIFICATIONS FOR DESIGN, SUPPLY, DELIVERY AND
INSTALLATION OF A PILOT VANADIUM FLOW BATTERY TECHNOLOGY AS INNOVATIVE
BATTERY ENERGY STORAGE SYSTEM FOR RENEWABLES FOR GRID AND MINI-GRID
SOLUTIONS IN MOROCCO**

Project SAP ID 120601

I. General Background Information and aim of the Project

Morocco has been reliant on imported fossil fuel, importing roughly 95% of its energy needs and the government allocates roughly EUR 2.4 billion for oil imports in its annual budget. With a growing population, rising living standards and increasing power demand from cities and energy intensive industry, key priorities are to increase and diversify the energy supply, and manage public costs. The majority of Morocco's hydro resources have been exploited although some undeveloped resources remain Morocco has an abundance of renewable energy resources including excellent wind and solar regimes for electricity generation given resources, technology maturity, costs and market opportunities driven by increasing electricity demand. The government set a goal of reaching 52% of installed capacity (or 12,000 MW) from renewable energy (hydro, wind and solar) by 2030. Through the Moroccan Solar Plan (MSP), it aims to install 2,000 MW of solar capacity by 2020, contributing around 14% of the energy mix to the country's electricity supply. The plan calls for the construction of five solar complexes with an estimated investment of US\$ 9 billion.

Morocco is geographically blessed with some of the highest direct normal irradiation in the world. In recent years, it has been developing major solar energy based power plants, the most profound being the Ouarzazate Solar Power Station (OSPS), located in the Souss-Massa-Drâa. The entire OSPS is planned to produce 580MW of peak power and the first phase of the project, Noor 1 with output capacity of 160MW by concentrated solar power (CSP) installation has already been completed and is connected to the grid. Noor 2 and Noor 3 are under development for finalization in 2017-2018. OSPS is developed under the Moroccan Agency for Sustainable Energy (MASEN), a public limited company.

The solar energy potential is remarkable in Morocco as the country is endowed with excellent solar radiation of 3000 hours per year of annual sunshine equivalent to 5.3

kWh/m²/day. Thus, the Government developed a Solar Plan (2020) which is considered one of the world's largest and most ambitious solar energy plans. The plan includes the construction of five mega-scale solar power stations using modern solar thermal, photovoltaic and concentrated solar power mechanisms in Laayoune, Boujdour, Tarfaya, Ain Beni Mathar and Ouarzazate. The Ouarzazate Solar Power Station (OSPS), once finished, will be the world's largest concentrated solar power plant with a generation capacity of 580MW of electricity.

An inclusive project intervention is needed to support the successful deployment of the new green energy solution in Morocco and the surroundings. An approach will be to demonstrate an innovative energy and storage technology and energy supply system connected to the rural industry sector such as agro industry and energy supply services, while ensuring the national capacity for local manufacturing and investment opportunities for replication in a business model framework.

In May 2016 MASEN signed an agreement to develop a 1MW Concentrator Photo Voltaic (CPV) power plant completed in November 2016, at MASEN's R&D platform adjacent to the OSPS. The objective is to showcase an alternative solar power based innovative technology, for further industrial localization and dissemination in Morocco and for domestic as well as international markets. Commissioning took place during the Conference of the Parties (COP22) in Marrakech, Morocco in November 2016. The current design of the 1MW CPV system is for connections to the grid and bears no energy storage system.

The Government of Morocco is fully committed to achieve an increased share of renewable energy sources in its installed capacity and off-grid/decentralized supply by deploying innovative solutions based on renewable energy and energy storage application to increase rural electrification.

This project is in line with Morocco's adopted National Energy Strategy (NES) with corresponding targets for 2020 in 2009 and renewed in 2015/2016 with targets until 2030. The targets of reaching 42% installed renewable energy capacity by 2020 and 52% by 2030 prioritizing not only Morocco's renewable ambition out of concern for the climate or energy security, but also to achieve multiple development objectives such as long-lasting dividends

in terms of economic growth, job creation and skill development, through integrated solar and wind development projects along the renewables value chain. Furthermore, this project also contributes to the Industrial Acceleration Plan 2014-2020, in particular the industrial sector of renewable energy.

The goal of the project is to demonstrate an innovative VFB system as a part of a quality on grid and mini-grid based energy solution to stabilize renewable energy generated by CPV for rural development in Morocco and beyond through awareness raising, building/developing local capacity, showcasing a business-oriented system demonstration and identifying supply chain. Furthermore, by demonstrating the VFB linked to CPV system and being connected to the grid, it aims to showcase smoothing and stabilizing of electricity from renewable energy sources such as CPV that have variable and uncertain, intermittent outputs that need to be smoothed and stabilized for practical usage.

To install and showcase the VFB system as an innovative advanced battery energy storage system in a mini to small grid environment to compliment the installation of 1MW CPV system at OSPS. The VFB bank system will be installed to demonstrate stable charge and discharge of power in on grid and mini-grid environments (using manually operated change over).

Project Main Activities:

- VFB Bank installation at 1MW CPV site in Ouarzazate
- Design grid connection/mini-grid dual mode –to supply to captive/productive use
- Awareness building and Advocacy

II. The Scope of Supply

The scope of supply includes a proposal for demonstration of a vanadium flow battery (VFB) system as an advanced battery energy storage system (BESS) in a constructed mini-grid as well as on grid environment to stabilize electricity from the existing 1MW concentrated photovoltaic (CPV) installations in Ouarzazate, Morocco.

Scope of supply will also include the grid connection, the load as well as control system that will be consistent and compatible with those already installed at site.

The turnkey base installation in Morocco will meet the technology requirements defined in Section B below. The VFBs with supporting structure and control system are all to be operational/functional in environments and conditions stipulated in this ToR.

Site Description

A predetermined site for installation has been identified at the site in Ouarzazate City, Morocco, on the premises of the research facilities of MASEN that are located in the central region of Morocco. Prevailing conditions at the site should be considered in any bids, including environmental conditions, system and equipment locations, shading, accessibility, and potential for vandalism or theft of components. The site has acceptable physical access for installing VFBs and equipment.

Site visits by bidder are highly recommended and strongly encouraged, prior to bidding.

A. Technical Requirements

A turn-key installation consisting of a) the vanadium flow battery system with supporting structure and battery container, and components including low voltage switchgear and remodelling, low voltage distribution board and a technical room for enclosing the two, a circuit breaker for a mini-grid, CPV, VFB, load line and for auxiliary power line, power conditioning system, battery management system, personal computers for monitoring, cables, CPV inverter, b) control system to manage output/load (Turn Key Installation) c) a manual for and training on operation and maintenance (O&M). Commissioning of VFB system is to be offered by the Bidder. In these terms of reference (ToR), the VFB on grid and mini-grid system is defined as an advanced battery energy storage system. Output is to be

connected to mini grid and/or on grid connections at 380-415V in three phase four-line mode. Turn Key Installation will be designed and configured to maximize the performance of the CPVs connected to the VFB system while ensuring safety for operators under the given conditions. The battery system is to be charged from at least the three already installed CPV technologies, number to be determined with close consultation with the current CPV installation owners. The consumable parts of the system should be available in Morocco. It is recommended to identify all peripheral items in the Bidders' proposal.

Turn-Key Installation compatible with the current CPV installed at the site of Ouarzazate, and commissioning of the BESS based on grid and mini-grid system should be completed in the delivery timeframe outlined in the section below on Delivery Period (see Table 1 Delivery Timeframe). Brief work plan and timeframe of works to be performed are to be submitted in the proposal.

The Project entails a technology transfer to Morocco through a licensing agreement, as described in the section below on Licensing Arrangement.

The Bidder shall provide all detailed technical, civil, mechanical and electrical engineering designs and drawings of the BESS to be installed to store and supply electricity to the equipment. The Bidder shall also provide detailed facility specifications for each component of the Turn Key Installation at the project work site with necessary civil work. These specifications shall be in such detail as to ensure that technology, if installed according to these specifications, shall operate fully, properly and efficiently in achieving the electricity power output subscribed with required finishes and to the direction and approval of the UNIDO on-site supervisor, potential asset owner and project counterpart official.

Necessary works include but are not limited to those identified below:

- Fabrication, welding and installation of peripheral
- Site and land preparation works including levelling and concreting
- Transportation of machineries and construction materials to site and safe storage
- Foundation works including supporting structure for VFBs
- Installation of all electrical works
- Metal works including necessary fencings and gates.
- Configuration of the existing power system to incorporate mini-grid connection

The Bidder shall design, construct and test the operation of each procured item before transferring it to Morocco on a turnkey basis, taking fully into account environmental and social conditions of the identified site. The Bidder shall ship to the site, store safely and assemble each procured item, and provide facility equipment (utilities) directly linked to the system in accordance with delivery timeframe (Section V). The Bidder shall conduct output testing and provide certification of the operation of the Vanadium Flow Battery Technology for the 1MW Concentrator Photovoltaic system for on grid and mini-grid systems (commissioning) at the project site. The Bidder shall provide a certificate of output testing completion signed by a third party identified/specified by UNIDO (Section V for more detail).

The Bidder shall provide and conduct a training programme for managerial/supervising, operating and technical personnel in Morocco. Outline of training programme including field of training, description of trainer and trainee, number of days of training should be included in the bid. The Bidder shall also provide operating and maintenance instructions and manuals in English. The Bidder shall provide a certificate of training completion countersigned by the Bidder, UNIDO site-supervisor, trainee, potential asset owner, and project counterpart official. The Bidder shall also provide an acceptance certificate of the instructions and manuals countersigned by Bidder, UNIDO site-supervisor, and project counterpart official.

The Bidder shall conduct troubleshooting visits to the project sites, as needed and when requested by the operator, during the demonstration phase (up to two years after commissioning of the Vanadium Flow Battery Technology system). The Bidder shall also provide spares and parts of the major equipment as appropriate to ensure its uninterrupted electricity storage operation during the demonstration phase. The provided spares should allow the system to continue operating without the need to source additional parts. A list of spare parts and local availability of such is to be included in the bidding. The consumable and spare parts should be available in Morocco.

The Project includes closed and detailed monitoring and evaluation of the process during project implementation. The Bidder shall assist and provide technical guidance in the monitoring and evaluation component of the Project during VFB power storage system demonstration.

The Bidder shall have a reporting responsibility to UNIDO according to the schedule to be given in the contract document. The quality and quantity as well as the schedule of reporting will be described in the contract document.

The Bidders' representative, if invited, shall participate in PSC (Project Steering Committee) meetings of the project where the Bidder shall respond to inquiries by stakeholders.

Prior to submitting a proposal, the Bidder, at his/her own responsibility and expenses, is encouraged to visit and inspect the site and to satisfy himself/herself in all matters relating to: the nature of the work; materials necessary for the completion of the works; the completeness of work plan to achieve the requirement as per this ToR; the means of access to the site; and any other issues which could influence or affect the completion of the works.

The proposal shall contain a sample Site Safety Plan. UNIDO places a high priority on selecting and working with Contractors that can clearly demonstrate a commitment to the occupational safety of its workers. The Site Safety Plan must indicate that workers assigned to conduct rehabilitation works will have access to hardhats, safety goggles, safety shoes and other protective equipment. The Site Safety Plan must also indicate that the company will have a First Aid kit on site. The UNIDO onsite supervisor will confirm the presence of a First Aid kit on site.

B. Technology Requirements for Vanadium Flow Battery and Control System

The **Vanadium Flow Battery technology** must meet the following key criteria:

1. Vanadium Flow Battery technology shall meet the requirements of IEEE and IEC or equivalent Standards for Electric Energy Storage Equipment and Systems for Electric Power Systems Applications and will carry a warranty of at least 20 years of operation at, at least, 50% of initial performance .
2. Evacuations/Connections:
 - CPVs, load and VFB should be constructed in an on grid and mini-grid islanding operation.
 - Grid line to mini grid is branched from existing Low Voltage (LV) Switchgear.
 - Auxiliary Power line for VFB is given a through different line from the main grid line.

- A new LV Switchgear (LV Switchgear 2) and a new LV Distribution Board (LV Distribution Board 2) will be established. A new house (Technical Room 2) will be also established for enclosing LV Switchgear 2 and LV Distribution Board 2.
- Circuit Breaker (CB) for Mini Grid Line CB for CPV Line, CB for VFB Line, CB for Load Line are installed in LV Switchgear 2.
- CB for Auxiliary Power Line are installed in LV Distribution Board 2.
- It is needed to disconnect AC side wirings of three PCSs. ELCB for three CPVs move from LV Switchgear to LV Switchgear 2.
- Grid connection point of LV Switchgear 2 and LV Distribution Board 2 is possible to receive power.
- The maximum value of VFB auxiliary power is under 25kVA.

3. Load:

- The load connection point is prepared in LV Switchgear 2 by Bidder in consultation with UNIDO supervisor.
- The load capacity for the mini-grid is at least 20kVA.
- The load should be steady load with little fluctuation, and can be stopped at any time.
- Resistive load. (not inductive load)
- The load can be operated with contact signal.

4. The technology can be connected to a single control panel with an inverter/power conditioning system and feed electricity to a three phase/four line 380-415 V bus.

5. The technology is to be provided by Japanese goods and service provider(s)¹.

6. The technology is fully compliant to any standard requirements existing for CPV module power unit of 1MW. It will also comply with any additional standards stipulated by the local requirements.

7. The technology will be free of any environmentally damaging material including lubricants and other consumable items that may be used during installation and

¹ The definition of “Japanese goods and service providers” provided by the project document is the goods and service provided by :

- juridical company who has completed legal registration in Japan or
- foreign subsidiary whose Japanese equity ratio invested is more than 10% or
- foreign sub-sub-sidiary which foreign subsidiaries with Japanese equity ratio invested more than 50%

operation. Potential hazardous material must be checked for local compliance prior to installation.

8. The technology should be commercially available for technology transfer. This means that the technology has already been successfully operated at a full scale in a commercial or other institutional setting in Japan and/or outside of Japan, and is available for transfer to Morocco. Only directly applicable technologies with considerable experience will be considered.
9. The technology should be demonstrably safe. A “demonstrably safe” technology is one that achieves the highest possible level of occupational safety and has a history of safe operation, with no cases of death or injury or incidents that threatened life or injury resulting from the use of the technology.
10. Vanadium Flow Batteries will be used for the purpose of an advanced battery energy storage system and must be capable of sustained operation in extreme heat conditions with outside temperature between 50 degrees Celsius -10 degrees Celsius, and must deliver at least ten (10) years of service while maintaining at least 50 percent of their initial rated capacity.
11. Inverter, battery charge controllers and cables should have the capacity to provide output of up to 125 KVA.
 - Islanding operation is carried out with more than three CPV tracker systems with total peak production capacity of at least 90kW, the load and VFB.
 - Smoothing operation is carried out with more than three CPVs by switching to grid connection for demonstration.
 - Switching between islanding operation and smoothing operation is carried out manually.
 - When islanding operation and smoothing operation is switched, the load will be blackout for a few minutes.
 - In the case of islanding operation
 - When VFB reached Discharge Finish, the control for stopping power supply to the load is carried out.
 - When VFB reached Charge Finish, the control for stopping CPV power generation is carried out.

12. Allowable depth of discharge (DOD) of battery system will be fully disclosed and will be consistent with the specification of the inverter low battery transfer voltage.
13. Battery enclosures to be designed so as to minimize large temperature variations of the battery. Enclosures should mitigate any risks of immature corrosion, fire, vandalism, theft and personal injury. Enclosure to be easily accessible to maintenance and service personnel.
14. Battery charge controller must be used between the CPV array and battery bank. All charge controllers must have appropriate listing from certified recognized laboratory. Any type of charge algorithms is acceptable, either series or shunt type switching is acceptable, and the regulation switching elements must be solid-state. The charge regulation set points must be specified, and be consistent with the type and size of battery used.
15. Battery charge voltage temperature compensation must be provided as part of the charge controller and inverter/charger circuits, either on board or via an external probe, and the temperature compensation coefficients must be appropriate for the type of battery used.
16. Storage system capacity to be provided in the bid is a rated capacity of 125kW/4hrs x 1-unit FEU/TEU containerized.
17. Battery type to be offered in the bid are to be Vanadium Flow Battery that is a flow battery in principle using the flow of vanadium electrolyte separated by an ion exchange membrane.
18. Battery system will be installed with battery charge controller to protect the battery from overcharge and over-discharge, with appropriate control set points for the type of battery system.
19. Specifications and sources of batteries and controllers needed for replacement must be clearly identified, set appropriately, and documented in the System Manual.
20. Control system to be designed and installed to manage the output and load of the 1MW CPV installation based on grid and mini-grid system to stabilize and maximize its operation.
21. Detailed survey of load (productive and household uses of end-users) is to be carried out for design and configuration of a control system.

22. Clear monitoring devices including meters of output, load, and loggers are to be part of the control system.

C. Other Requirements

1. All work shall meet the standards specified herein and shall conform to, approved and accepted standards for the industry and comply with all applicable safety codes in Morocco.
2. Specifications are provided to establish minimum technical standards.
3. The design and selection of materials for work shall be appropriate for the environmental conditions of 50 degrees centigrade ambient temperature, high solar exposure of MASEN Ouarzazate R&D platform.
4. All materials should be the best quality available within the market.
5. All materials must be approved by UNIDO.
6. Where required, all equipment must be installed and commissioned in accordance with all documented guidelines, i.e. manufactures' manuals: (i) Conditions of Use, (ii) Installation and operational manuals, and (iii) All applicable safety codes.
7. During and at implementation of work, debris shall not be allowed to spread unnecessarily into adjacent areas or to accumulate in the work area itself. All such debris, excess and discarded materials shall be cleaned up and removed at the completion of the job and/or at the end of each work day. Final payment will be dependent on the removal of all construction debris, demolition debris and rubbish with proper disposal off-site.
8. UNIDO and the Government of Morocco (GOM) project counterpart officials may inspect the sites at various points in the installation to ensure that work is being conducted in accordance with the Contract.
9. The Contractor shall establish and maintain an effective quality control plan for the technology. The quality control system/plan shall consist of diagrams, drawings, operation and maintenance procedures.
10. The Contractor is required to provide a supervisor fluent in English and French or Arabic to supervise all installation works. This supervisor is required to be present, on site, during all working hours and will also be responsible for compiling daily construction reports (with photos).

11. The Contractor shall confirm to start work at the site no later than one month after signing the contract.
12. Prior to commencement of the work, the Contractor and any subcontractors, whose presence is necessary or requested, shall meet in conference with UNIDO's onsite supervisor to discuss and develop a mutual understanding relative to the details of the administration and execution of this contract. This will include but not be limited to the following:
 - Official asset hand-over certificate countersigned by UNIDO onsite supervisor, asset owner, project counterpart official, and the Contractor (receiving the site)
 - Updated project schedule to reflect the start date
 - List of project supervisor and foremen with full contact details
 - Site specific safety plan
 - Establish daily progress reporting system
 - Security requirements and other risks
 - Other aspects of this project that warrant clarification and understanding
13. The Contractor's site supervisor will be held responsible for the quality of work on the job. The site supervisor is the individual with the responsibility for the overall management of the project on behalf of the Contractor.
14. The Contractor shall guarantee the quality and completeness of all his/her work, supplies and services specified in this ToR.
15. Mechanical, electrical, performance and safety guarantees for the machinery and equipment supplied, and processes/technologies transferred should be provided for two years after commissioning (after obtaining the acceptance certificate, for installed and commissioned installations).
16. The Contractor is responsible for the correction of Defective Materials and Workmanship for two years after the date of commissioning and receipt of the signed project completion letter (including acceptance certificate.)
17. Any Work found to be defective or non-conforming to the Contract, shall be corrected by the Contractor as soon as practicable after receipt of written notice from UNIDO.

D. Content of the Bidder's Technical Proposal

The technical proposal must be submitted in English and separately from the financial proposal. A response is required for every item requested below. If data are not available or if the information requested is not relevant or applicable to the proposed technology, the Bidder should state so and provide an explanation. The submission of marketing brochures that do not provide relevant technical information is not encouraged. The Bidder must state categorically whether or not their offer is exact to the tender specifications and if not, the Bidder should indicate any deviations.

In the Technical Proposal, the Bidder shall provide all relevant technical details of the technology, its operation and maintenance. The data should include the following:

1. General description:

- (a) Description of the proposed Turn Key Installation components, including descriptions of relevant mechanical items and parts.
- (b) Detailed description of operation and maintenance procedures
- (c) Detailed training programme for managerial/supervising, operating and technical personnel in Morocco.
- (d) Offered systems have to fulfil the requirements of the Moroccan legislation and industrial standards as required.

2. System specifications including:

- (a) Range of electricity output capacity of the installation based on combinations of discharge and net head as a matrix.
- (b) Typical operating parameters (general performance parameters based on IEC standard 61724 etc.)
- (c) Total physical size (dimensions) of the system.

3. Component specifications and overall layout of mini-grid to the productive asset base

- (a) Description and specifications of the technology, including single line diagram to productive and household uses if any.
- (b) Representative drawing(s) showing the overall layout and general configuration(s) of the system of Turn Key Installation and VFB technology for 1MW CPV system installation for on grid and mini-grid system.

- (c) General facility specifications for Turn-Key Installation with 1 MW CPV installation on mini-grid system already installed at site.
 - (d) Specifications of peripheral items if any.
 - (e) Requirements on site specification such as plot of land for placement of Turn-Key Installation, additional cabling, access roads, demands on transport media, etc.
4. Standard operating procedures and general maintenance requirements related to the use of the technology.
 5. List of previous installations and projects, and descriptions of the Bidders' relevant history/proven track record of related projects /qualifications to perform work as per this ToR in Japan and the region of the project site.
 6. The Bidders' confirmation and commitment to complete all the works within the timeline indicated in the Terms of Reference.
 7. List of Personnel with their qualifications, estimated man/hours for key activities. (Bidders must provide the curriculum vitae of key staff members including the site supervisor and foremen that clearly demonstrate more than 5 years of direct and relevant experience working on similar types of projects in Japan and outside of the country, e.g. in Africa).
 8. Brief work procedure and work plan, including proposed timeline with clear milestones) of project.

Table 2 at the end of this document is a list of technical data and specifications required by the Bidder for their technical offer (Item #1-3 of above.) If there is not enough space, information could be attached on one or more separate sheets. If certain data are not available or applicable to the technology, the Bidder should include an explanation. Do not attach marketing literature unless it directly relates to a question.

E. Content of the Bidders' Financial Proposal

The financial proposal must be submitted in English and separately from the technical proposal. A response is required for every item requested below. The price quotes shall be specified in United States dollars, free of any tax (such as VAT) or duty. The financial proposal should clearly provide costs of each procured item under the Turn-Key Installation.

It should also include output testing, and commissioning of the VFB technology for 1 MW CPV installation for on grid and mini-grid system.

In the separate Financial Envelope, the Bidder shall provide information regarding costs and delivery timeframes, as follows:

1. Labour costs for preparing the technical documentation of the equipment including equipment specifications, general arrangement drawings, sub-assembly drawings, and detailed drawings; for each drawing and related engineering work, the estimated time in hours should be provided.
2. Detailed cost breakdown of manufacturing the equipment, with timelines.
3. Detailed cost breakdown of testing the equipment on site or at the Bidder's site, with timelines.
4. Cost of freight to transport the equipment to the project site including clearances at the border of Morocco. All equipment has to be delivered to project site including unloading.
5. Detailed cost breakdown of construction, civil work and installation of the technology at the project site, with timeframes.
6. Detailed cost breakdown of output testing and certification of operations (commissioning) of the technology at the project site, with timelines.
7. Detailed cost breakdown of other expenses, including troubleshooting, and spares and parts of procured items as appropriate to ensure uninterrupted operation during the demonstration phase of two years.
8. Detailed cost breakdown for a training programme involving managerial/supervising, operating, and technical personnel in Morocco, with timeframes.
9. Detailed cost breakdown for monitoring and evaluation of the process.
10. Detailed cost breakdown related to participation by one representative in at least two PSC meetings and public-private partnership meetings in Morocco.

Table 3 at the end of this document is a template for financial data required of the Bidder for their financial offer. If there is not enough space, tables could be expanded and information could be attached in one or more separate sheets. If certain items are not relevant to the technology, the Bidder should include an explanation.

F. Licensing Agreement

The licensing agreement shall be made between the operating entity² of installed energy system, which is identified at the project development stage and which shall be agreed at the PSC meeting and the contractor after the system installed has achieved the required results and quality of outputs. The license will cover the country of Morocco and it would cover only the installed system.

The present practice is to transfer ownership to UNIDO, which will then be responsible for further ownership transfers and contractual arrangements with a designated public entity and/or the operating entity for providing services under agreed conditions. Hence, the ownership of the technology units will be transferred to UNIDO, consistent with UNIDO rules and regulations, during the project realization and after successful installation, commissioning and when the units are fully operational and giving the required results. Upon commissioning for the demonstration phase of the VFB system by the contractor, respective ownership and responsibility for any of the delivered elements and other System components, if any, shall pass to MASEN.

As noted, the operating entity would continue operations beyond the project life. With regards to the VFB technology for 1MW CPV installation for on grid and mini-grid system, the issue of the ownership after the demonstration phase has to be agreed upon. A solution regarding ownership after the demonstration phase will be prepared in the first year of the successful operation and the required results of the project and will be a matter of approval by the GOM based on recommendation of the Project Steering Committee.

The licensing agreement should consider, *inter alia*,

- Terms and condition for the license (geographical coverage);
- Ownership of the technology assets during the UNIDO project intervention;
- Ownership of the technology after the UNIDO project intervention;
- Modalities and transaction costs for transferring the license in case of deployment of the technology to a third party.

The bidder shall state any reservations or conditions with regard to the licence in the proposal.

² Defined as a legal entity to be determined that will be responsible for operation and management of the installed BESS. It may or may not be the owner of the installed assets.

III. GUARANTEE REQUIREMENTS

The contractor should apply the best available technology in each procured item. The contractor should guarantee technological, mechanical and electrical performance in accordance with international practice and standards. The safety guarantee should also be in accordance with international practice and standards.

The contractor should warrant that each part delivered will conform to the specifications in all respects including, but not limited to, physical characteristics, operating characteristics, space requirements, power requirements, maintenance characteristics, compatibility, and the like, as may be agreed to in writing by the parties.

The contractor should provide a minimum two-year guarantee that the parameters related to the performance of the technology mentioned in Section B will be of high quality and that these parameters will be met during the commissioning, trial runs/start-up and steady state operations.

1. The contractor should guarantee the quality of all the work specified in the section above on the Scope of Supply. The contractor should guarantee that the equipment to be supplied shall be new and up-to-date, without any defectiveness in or arising from workmanship or materials, without incorrect operation, and that the technical guarantee will apply for 24 months (two years) starting from the date of the certificate of commissioning countersigned after the successful output testing. (VFB technology warranty term requirements are described separately in the "Technical Requirement" section of this ToR.) The contractor shall immediately repair or replace at own expenses and as soon as practicable any defective goods within the warranty period. It implies that the contractor shall make the most important spare parts readily available in the demonstration period as part of its responsibility. Also the contractor will do its best at most to have basic spare parts available for an additional period of two years once the warranty is expired.

The contractor's responsibility shall be valid until the expiry of the guarantee period. The contractor is required to intervene and rectify each operating defect, defectiveness or irregularity that are due to misuse of equipment, accidents, negligence of standard operating procedures (SOPs), faulty reinstallation or any damages, as well as the ones

caused by imperfect manufacturing or material faults of the equipment. Anything beyond the contractor's guarantee will be at cost of the host counterpart.

The contractor should guarantee that its supply and services would be provided in the agreed quantities and quality and according to the international standards within the agreed timeframes and contract costs. The prerequisite for this, however, is that the operating entity fulfils in full measure its responsibility in line with the timeframes of the project.

Furthermore, the contractor has to inform UNIDO as well as the other parties of the project, if equipment, work, components and materials supplied under the responsibility of the operating entity do not fulfil the safety standards or if the training of the staff did not reach the standards required for the safe operation of the Turn-Key Installation and/or VFB technology for 1MW CPV installation for on grid and mini-grid system.

The contractor's liability will be limited to the capital amount. There will be a distinction between the technical provider's liability and the operator's liability. Technical provider's liability is on all the equipment supplied by the technology contractor of the project and is valid for three years of the project (one year of the demonstration phase and two years beyond immediately after the demonstration phase). The operator's liability is on all the remaining items not supplied by the contractor.

IV. REPRESENTATIVE IN THE COUNTRY

The contractor should have a representative in the country or region, who will be in charge of the technical support during installation and after. The technical qualifications, proficiency in the local language, and complete contact information of this representative must be included in the cover page of the offer. A written confirmation of availability shall be provided.

The contractor's representative, if invited, shall participate in PSC meetings of the project. The contractor shall respond to inquiries of the public and private partners, and its representative should attend the meetings of the public and private partners, if invited.

The table below lists the deliverables and timeframe from the date the contract is signed. The contractor shall prepare equipment for dispatch to the project site destination in adequate packaging and will prepare and submit a list of goods sent to the project site location listing the serial numbers when available.

V. Delivery Period

Table 1. Delivery Timeframe

| ID | ACTIVITY | P-Month | | | | | | | | | | | | |
|----|---|---------|---|---|---|---|---|---|---|---|----|----|----|--|
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | |
| | Procurement process under "Geographical Limitation of Competitive Bidding in accordance with the UNIDO Procurement Manual etc." | ■ | | | | | | | | | | | | |
| | Contract finalization of Procurement contract based on Turn Key Installation | ■ | | | | | | | | | | | | |
| | Detailed Design and confirmation of Specification of equipments for procurement | ■ | | | | | | | | | | | | |
| | Facilitating of finalization of permits and other compliance | ■ | ■ | | | | ■ | | | | | | | |
| | Project Report for installation | ■ | ■ | | | | | | | | | | | |
| | Equipment manufacturing (in Japan) | | ■ | ■ | ■ | ■ | ■ | ■ | | | | | | |
| | Shipment & custom clearance | | | | | | ■ | ■ | | | | | | |
| | Pre-installation preparation (labor, assembly procedures and due work on site) | | | | | | | ■ | ■ | | | | | |
| | Foundation Work | | | | | | | | ■ | | | | | |
| | Installation Work | | | | | | | | | ■ | | | | |
| | Commissioning | | | | | | | | | ■ | ■ | | | |
| | Completion Inspection | | | | | | | | | | ■ | | | |
| | Training (Operation and Maintenance) | | | | | | | | | | ■ | | | |
| | Technical Assessment Report | | | | | | | | | | | ■ | | |
| | 2 year guarantee/spare parts | | | | | | | | | | | | ■ | |

Deliverables

The contractor shall provide the following deliverables with defined deadlines:

1. A project report that includes summary of detailed survey of pre-selected installation sites and specification of equipment to be supplied in English;
2. A locally adapted functional Turn-Key Installation connected and integrated to 1MW CPV mini-grid system already installed, connected to the productive assets (and household appliances if applicable.)
3. After the commissioning of the VFB for 1MW CPV installation for on grid and mini-grid system, it will be connected to a mini grid to demonstrate usage the advanced battery energy storage system at a rated capacity of 125kW/4hrs.
4. Additional cabling will be provided (3 phase/4 line 415V). Factory acceptance and quality assurance certificate countersigned by the Bidder and sub-contractors in case that the equipment is manufactured outside of Japan prior to installation;
5. Operation and maintenance support for three years including scheduled site visit.
6. Supply of spare part for basic service and maintenance.
7. Certificate of installation and acceptance of civil work countersigned prior to the third party output testing;
8. Certificate of training acceptance for local system operators countersigned prior to commissioning;
9. Certificate of Output Testing by third party prior to commissioning for the unit;
10. Commissioning Certificate after the successful third-party output testing;
11. A technical assessment report in English summarizing the results of system installation into the mini-grid for productive uses ONE MONTH after the unit installation.
12. An operation and maintenance manual of the demonstrated VFB for 1MW CPV installation for on grid and mini-grid system for Morocco condition in English on DELIVERY OF EQUIPMENT TO SITE.
13. Acceptance certificate of the instructions and manuals countersigned
14. Technical training to support 5 key system operators in the project site for the VFB for 1MW CPV installation for on grid and mini-grid system on completion of installation

15. Certificate of training completion countersigned

Reporting

The contractor shall submit the following deliverables to the UNIDO programme/ project manager to summarize activities conducted and results achieved:

1. The design and blue print of the complete system and a final work plan including chart.
2. Progress Report of each milestone in English: Detailing the activities carried out during the reporting period including submission of revised project document and technical assessment report.
3. Report of completion of installation for each unit.
4. Final Project Report in English: Detailing all the activities carried out under the contract.

All documents will be provided to UNIDO with 1 electronic copy, consisting of the following electronic files:

- PDF file
- Original work files (WORD, POWER POINT, EXCEL, etc.).
- Photographs of before and after the installation of the VFB system.

The electronic copy can be provided via e-mail, if the nature and size of the files make it possible. Otherwise, the electronic copy will be provided in a CD or DVD copy. All deliverables and related documents will be provided in English.

All written material submitted to UNIDO should be of such quality that no additional technical editing is required.

VI. CONTRACTOR'S RESPONSIBILITIES

The Contractor shall provide complete and detailed facility specifications, including space and all infrastructure needs, and shall provide all necessary advice and assistance in the preparation of the site. Agreements between the contractor/operator and hosting entity shall be made prior to the date of delivery to ensure that the premises are ready and available to house the technology according to the detailed facility specifications provided by the contractor and that all delivery and installation areas are suitable.

The contractor shall be responsible for the shipping, erection, installation of Turn-Key Installation and commissioning of the VFB for 1MW CPV installation for on grid and mini-grid system at the project site and for making it fully operational.

After installing Turn-Key Installation that is compatible with CPV mini grid system already installed at site, the contractor shall provide a notification in writing that the system is ready for output testing by third party. Output testing is intended to ensure that the technology operates in accordance with the technical specifications, is adequate to perform as warranted by the contractor, and substantiates a satisfactory level of performance reliability prior to its acceptance. Detailed output test protocols and acceptable parameters will be approved beforehand by the contracting parties. Output testing will be conducted at the project site and the test results will be made available for review by relevant agencies of the GOM, representatives of the public interest and UNIDO. In the event the technology does not meet the specifications or a satisfactory level of performance during the initial output testing, the contractor may continue output testing on a day-to-day basis until the specifications and standards of performance are met by own expenses. If after 60 calendar days from the start of output testing the technology still has not met the specifications and acceptable levels of performance, the contractor may be declared to be in breach of the contract, the contract terminated, and liquidated damages may apply; or the contractor may be allowed to provide a replacement at no additional cost; or the contractor may be allowed to continue the output testing for an additional thirty (30) calendar days. In such a situation, the contractor can offer, and, if accepted, to continue the output testing for an additional thirty (30) days at his/her own cost. In all cases, three sides agreement should be signed by UNIDO, the operating entity and the contractor.

When the results of output testing show conformity to the specifications and an acceptable level of performance, and upon approval of the test results and certification by the GOM and UNIDO, the contractor can certify in writing the operation of the technology at project site and the technology operation can then be handed over to the operating entity in an agreed timeframe.

The contractor shall provide assistance and training to managerial/supervising, operating, and technical personnel in Morocco. The contractor shall provide an instruction manual that shall include detailed instructions for machine operation, process controls, basic maintenance and troubleshooting and component replacement. The manual should be written in English and translated to the local language if required. Two copies of the manual in English should be provided to UNIDO.

Table 2. List and Tables of Technical Data and Specifications

General Descriptions

| | | | Required Specification (Reference) |
|---|-------------------|-----------------------|--|
| | | | |
| TECHNICAL SPECIFICATION SHEET | | | |
| 1: Battery System: Batteries and their Power Controller System | | | |
| 1 | Quantity | | 1 set |
| 2 | Manufacturer | | (to be specified) |
| 3 | Model | | (to be specified) |
| 4 | Country of Origin | | Japan |
| 5 | Specifications | | |
| | | Type | flow of vanadium electrolyte separated by an ion exchange membrane |
| | | Capacity | 125kW/4hrs or more |
| | | Nominal Voltage | (to be specified) |
| | | Expect Life Time | Unlimited cycle with normal exchanging of consumerable parts |
| | | Operating Temperature | -5~50°C |
| 3: Battery Management system with its monitoring components | | | |
| 1 | BMS | | |
| | Quantity | | 1 set |
| | Manufacturer | | (to be specified) |
| | Model | | (to be specified) |
| | Country of Origin | | (to be specified) |
| | Specifications | | |
| 2 | Pyranometer | | |
| | | Target | Inclined plane solar radiation |
| | | Sensibility | ISO 9060 Second class or equivalent |

| | | | |
|--|-------------------------------|---------------------------------|---|
| | | External Signal Interface | 0-10mV |
| | | Maximum Operating Temperature | +80°C |
| | | | |
| 3 | Thermometer with box | | |
| | | Type | Outdoor use |
| | | Sensibility of Sensor | Pt 100Ω, JIS Class A |
| | | Maximum Operating Temperature | +60°C |
| | | Equipment | Natural ventilate shelter |
| | | Characteristic | Resistant to static electricity, heat and ultraviolet, low heat conduction |
| 3 | PC and communication cablings | | |
| | | | |
| 3: VFB container and its supporting structure | | | |
| 1 | Quantity | | 1 lot |
| 2 | Main Components | | Cell stacks, tanks, pumps and heat exchanger unit |
| 3 | Manufacturer | | (to be specified) |
| 4 | Model | | (to be specified) |
| 5 | Country of Origin | | (to be specified) |
| 6 | Specifications | | |
| | | Type | To mount on concreted ground |
| | | Maximum withstand wind velocity | 36 m/s or more |
| | | Other | Foundation has leakage container built surrounding the mount |
| 4: Technical room | | | |
| 1 | Components | | LV Switchgear + LV Distribution Board + Electrical Equipment |
| 2 | Manufacturer | | (to be specified) |

| | | | |
|---|-------------------|--|-------------------|
| 3 | Model | | (to be specified) |
| 4 | Country of Origin | | (to be specified) |
| 5 | Specifications | | |
| | | | |

Table 3. Table for Offer of Supply and Services

Note: Expand the number of rows of the table as needed. All prices should be shown in *US dollars*. Under Compliance, the Bidder should note if the item does not meet the required specifications or other parameters in the tender specifications and indicate the Bidder’s alternative specifications or parameters in the column. Under delivery timeframe, the Bidder should specify delivery time (in *days*) from the date the contract is signed.

Specification of Supply

| UNIDO REQUIREMENTS | | TO BE COMPLETED BY THE BIDDER | | | | |
|--------------------|--|-------------------------------|------------|------------------|------------|--------------------|
| Item | Name and required parameters | Quantity | Unit price | Total item price | Compliance | Delivery Timeframe |
| | | | USD | USD | Yes/No | # of days |
| | I.) Technical Services, incl. | | | | | |
| 1 | | | | | | |
| 2 | | | | | | |
| ... | | | | | | |
| | Sub-total: | | | | | |
| | | | | | | |
| | II.) Equipment, parts, supplies | | | | | |
| 1 | | | | | | |
| 2 | | | | | | |
| ... | | | | | | |

| | | | | | | |
|--|--|--|--|--|--|--|
| | Sub-total: | | | | | |
| | | | | | | |
| | III.) Installation, commissioning | | | | | |
| | | | | | | |
| | IV.) Cost of transportation & Insurance | | | | | |
| | V.) Training for system operation | | | | | |
| | Total price: | | | | | |

| | |
|---|--------------------|
| Conformance With Tender Specifications | |
| Is your financial offer in exact conformity with the tender specifications? | <i>(Yes or No)</i> |
| If not, indicate there are deviations: | |

VII. Data Transmission

Upon execution of this Agreement, MASEN and the Contractor shall together determine a method and scope for transmission of the System's performance data under UNIDO supervision, i.e. any data on the electricity generation, electrical characterization, and performance of the VFB recorded during the operation of the System (the "**Performance Data**") to MASEN.

All Performance Data gained during the term of the Project shall be co-owned by UNIDO, MASEN and the technology provider ("the Parties"). The Parties shall all agree. All Performance Data shall be considered as Confidential Information. However, the Parties shall be authorized to use the Performance Data for its own analysis and internal benchmarking purposes and may share Performance Data with their Affiliates. Disclosure of Performance Data to any third party (for external benchmarking purposes, and/or other publications) by the Contractor requires prior written approval by MASEN, and any approval request shall contain sufficient information on the communication/publication project and the purpose and potential upside of such publication.

MASEN may use the Performance Data in any of its publications also vis-à-vis third parties, however, as long as the Project is still ongoing and no Project related publications have been published by the Contractor, any such Performance Data disclosure by MASEN shall be in an anonymous form, i.e. without reference to the Project, unless the Contractor approves such reference in writing prior to its use.

VIII. EVALUATION CRITERIA

The following criteria will be used to evaluate incoming proposals:

1. Experience in prior technical feasibility study for commercial VFB technology as battery energy storage systems in Morocco;
2. Existence of commercial VFB technology demonstrations and transfer in developing countries;
3. Experience in collaboration with local institutions both in Japan and outside Japan on VFB, on grid and mini-grid system technology;
4. Sufficient storage capacity of commercial VFB technology with supporting structure and control system;
5. Supply of commercial VFB technology that has a technical feature to showcase rated capacity of 125kW/4hrs x 1 unit FEU/TEU containerized;
6. Knowledge of designing a BESS with on grid and mini-grid mode compatible system based power system;
7. Existence of manufacturing strategy for further cost reduction and technology dissemination including localization of assembly and manufacturing;

The proposals will be evaluated as follows: Technical and techno-economical evaluation is carried out by technical experts of UNIDO. Counterpart government institution is also consulted and invited for evaluation of the proposals. The summary evaluation, including recommendation for the Procurement Committee, is cleared by the peer review committee.

INSTRUCTIONS FOR PREPARATION OF BREAKDOWN OF FINANCIAL PROPOSAL

- A.** This form is a UNIDO standardized document, which Suppliers must complete and submit to UNIDO in connection with all Offers submitted for proposed Contracts for Services.
- B.** Where a particular cost element is not appropriate for the proposed contract, please indicate “Not applicable” or “NA” on the form.
- C.** In addition to the cost breakdown on this form, the Supplier, in good faith, should submit with this form any additional data, supporting schedules and substantiation, which are reasonably necessary for the conduct of an appropriate review of the proposed contract costs. Failure to furnish the information requested on this form may render an Offer non-responsive.
- D.** If a cost is included in a particular item, do not duplicate the cost or any portion thereof in another item on the form.
- E.** Unless otherwise advised, all costs on the form should be stated in equivalent United States Dollars.
- F.** Explanation and Supplementary Instructions for use of the Cost Analysis Form by item.

1. Professional Services

State the names and position titles of the staff who will be utilized on the contract, the number of months each will perform and the total cost being charged for each per work-month, *separately* for the Project Area (work to be performed in the area covered by the project and/or outside the contractor’s office) and Home Office (work performed in the contractor’s office). Costs such as contractor’s overheads, fringe benefits, and fee or profit, should be included in the total cost per work-month. Also reflect the basis upon which a work-month is calculated e.g. on the basis of a “calendar” month or on the basis of a “work” month consisting of work days, Monday-Friday or Monday-Saturday; state clearly the time/work/cost relationship.

2. Travel

Show the following with respect to each trip in connection with the execution of the work, including trips of the technical specialists between the field stations and the demonstration sites:

- a) Round or one way trip;
- b) Origin and destinations;
- c) Mode of transportation (air, train, car, etc.);
- d) Cost per trip including airfare amounts. Air travel shall be shown at the economy class rates.

INSTRUCTIONS FOR PREPARATION OF BREAKDOWN OF FINANCIAL PROPOSAL

3. **Transportation**

Show the costs of local transportation of the international experts to the test sites, of transportation of equipment and supplies, etc.

4. **Reports**

Show the costs of preparing and publishing the reports required in the contract.

5. **Other Direct Costs**

Enumerate separately per each cost item all other direct costs, such as office space, laboratory analyses, communication, visas, etc., unless you have included them in your work-month costs.

6. **Equipment, Materials and Supplies**

If equipment is part of the requirements, provide detailed specification of equipment, materials and supplies (in each category), which will be purchased for use under the contract and the unit and total prices.

7. **Subcontracts**

Indicate the type of work which will be subcontracted, if any, and whom you intend to subcontract with. Indicate the name of subcontractors and provide a detailed cost breakdown per each sub-contract.

8. **Grand Total and Sub-totals**

State the Sub-totals for each cost group and the total of all costs you propose in order to accomplish the contract. Indicate separately discounts, if any, which you may grant to UNIDO and the terms of such discounts.

INSTRUCTIONS FOR PREPARATION OF BREAKDOWN OF FINANCIAL PROPOSAL

| <u>BREAKDOWN OF THE OFFERED PRICE</u> | | | | |
|--|----------|-------------|------------|------------------------------------|
| | | | | |
| | | | | Total <currency as per RFP> |
| <u>1. Professional Services</u> | | | | |
| <i>A. Project Area (work performed in the area of the project)</i> | | | | |
| | | | | |
| Name | Function | Man-months | Cost per | |
| | | | Work-month | |
| | | | | |
| | | | | |
| Sub-total 1A: | | | | |
| <i>B. Home Office (work performed in the contractor's offices)</i> | | | | |
| | | | | |
| Name | Function | Work-months | Cost per | |
| | | | Work-month | |
| | | | | |
| | | | | |
| Sub-total 1B: | | | | |
| <u>Sub-total 1:</u> | | | | |
| | | | | |
| <u>2. Subsistence</u> | | | | |
| <i>A. Project Area</i> | | Work-days | Cost per | |
| | | | Work-day | |
| | | | | |
| | | | | |
| <i>B. Briefing & debriefing</i> | | Work-days | Cost per | |
| | | | Work-day | |
| | | | | |
| | | | | |
| <i>C. Other (specify)</i> | | Work-days | Cost per | |
| | | | Work-day | |
| <u>Sub-total 2:</u> | | | | |
| | | | | |
| <u>3. Travel & Transportation</u> | | | | |
| Specify number of trips, their routing and cost per trip | | | | |
| in the Attachment | | | | |
| | | | | |
| <u>Sub-total 3:</u> | | | | |
| | | | | |
| <u>4. Reports</u> | | | | |
| | | | | |

INSTRUCTIONS FOR PREPARATION OF BREAKDOWN OF FINANCIAL PROPOSAL

| | | | | |
|---|--|--|--|--|
| Sub-total 4: | | | | |
| | | | | |
| 5. Other Direct Costs | | | | |
| Specify cost per each item | | | | |
| | | | | |
| Sub-total 5: | | | | |
| | | | | |
| 6. Equipment, Materials & Supplies | | | | |
| Specify unit price for each Equipment item in the Attachment | | | | |
| Specify unit price per each Materials & Supplies item in the Attachment | | | | |
| | | | | |
| Sub-total 6: | | | | |
| | | | | |
| 7. Subcontracts | | | | |
| Provide breakdown of price of each sub-contract in the Attachment | | | | |
| | | | | |
| Sub-total 7: | | | | |
| | | | | |
| 8. Grand Total Items 1-7 Contract Price | | | | |
| | | | | |
| 9. Discount (if granted) | | | | |

MODEL
TURN-KEY/SEMI TURN KEY

CONTRACT NO.

between

**THE UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION
(UNIDO)**

and

UNIDO Project Number:

This Contract comprises this cover page, a table of contents and () pages of text and () Annexes (A through).

PPS/OSS/PRO

UNIDO

TABLE OF CONTENTS

| | |
|--|-------|
| Preamble | Pages |
| Section 1.00 Definitions | Pages |
| Section 2.00 Aim of the Contract | Page |
| Paragraph 2.01 Synopsis | Page |
| Section 3.00 Responsibilities of the Contractor | Pages |
| Paragraph 3.01 Statement of Work and Supply | Pages |
| Paragraph 3.02 Commencement and Completion of the Work | Page |
| Paragraph 3.03 Testing of the Equipment before Shipment | Page |
| Paragraph 3.04 Spare Parts for the Equipment Commissioning and Operation; Special Maintenance Tools; Consumable Materials | Pages |
| Paragraph 3.05 Packing, Shipping and Insurance of the Equipment and Technical Documentation | Pages |
| Paragraph 3.06 Review of the Plant Site Conditions | Pages |
| Paragraph 3.07 Contractor's Technical Personnel | Pages |
| Paragraph 3.08 Performance Warranty | Page |
| Paragraph 3.09 Performance Tests | Pages |
| Paragraph 3.10 Failure to Achieve Performance Warranty/ Remedial Measures/Compensation | Page |
| Paragraph 3.11 Mechanical Warranty | Pages |
| Paragraph 3.12 Correction of Defective Work | Page |
| Paragraph 3.13 Modifications to the Equipment | Page |
| Paragraph 3.14 Delays and Extension of Time | Page |
| Paragraph 3.15 Permits, Fees and Notices | Pages |
| Paragraph 3.16 Protection of Persons and Property | Pages |
| Paragraph 3.17 Patent Rights | Pages |
| Paragraph 3.18 Other Facilities and Services to be provided by the Contractor | Page |
| Paragraph 3.19 Standards of Work | Page |
| Paragraph 3.20 Relationship between the Contractor's Team Leader and the UNIDO Representative | Page |
| Paragraph 3.21 Briefing and Debriefing | Page |
| Paragraph 3.22 Reports | Pages |
| Paragraph 3.23 Clearance of Site on Completion | Page |
| Paragraph 3.24 UNIDO's Site Engineer | Page |
| Section 4.00 Responsibilities of Government/Project Counterpart | Pages |
| Paragraph 4.01 Responsibilities of Government/ Project Counterpart | Pages |
| Paragraph 4.02 Responsibilities of the UNIDO Representative | Page |
| Section 5.00 Contract Price and Terms of Payment | Pages |
| Paragraph 5.01 Contract Price | Page |
| Paragraph 5.02 Contract Ceiling | Page |
| Paragraph 5.03 Exclusion of Escalation | Page |
| Paragraph 5.04 Currency of Payment | Page |
| Paragraph 5.05 Progress Payments | Page |
| Paragraph 5.06 Performance Bank Guarantee | Page |

| | |
|--|-------|
| Paragraph 5.07 Withholding of Payments | Pages |
| Paragraph 5.08 Submission of Invoices | Page |
| Paragraph 5.09 Mode of Payment | Page |
| Section 6.00 Penalties | Page |
| Section 7.00 Contractor's Claims and Remedies | Page |
| Section 8.00 Confidentiality | Pages |
| Paragraph 8.01 Confidential and Proprietary Information | Pages |
| Paragraph 8.02 Liability for Disclosure | Page |
| Paragraph 8.03 Exclusions | Pages |
| Section 9.00 Insurance | Pages |
| Paragraph 9.01 Insurance of the Plant | Page |
| Paragraph 9.02 Liability Insurance | Page |
| Paragraph 9.03 Certificates of Insurance | Page |
| Paragraph 9.04 Responsibility for Amounts not Recovered | Page |
| Paragraph 9.05 Remedy of Contractor's Failure to Insure | Page |
| Section 10.00 General Provisions | Pages |
| Paragraph 10.01 Entry into Effect of the Contract | Page |
| Paragraph 10.02 General Conditions of Contract | Page |
| Paragraph 10.03 Notices | Page |
| Paragraph 10.04 Transmission of Notices, Invoices Reports and other Documents | Page |
| Paragraph 10.05 Covenant against Contingent fees | Page |
| Paragraph 10.06 Default by Contractor | Page |
| Paragraph 10.07 Temporary Suspension of Work | Page |
| Paragraph 10.08 Protests | Page |
| Paragraph 10.09 Transfer of Rights and Responsibilities from the UNIDO to the Government/ Project Counterpart | Page |
| Paragraph 10.10 Contract Amendments | Page |
| Paragraph 10.11 Contractual Relationship | Page |
| Signatures and Dates | Page |

List of Annexes:

- Annex A : UNIDO General Conditions of Contract
- Annex B : Facilities, Privileges and Immunities Section
- Annex C : Instructions to Contractors for the Dispatch of Reports
- Annex D : Packing and Marking of Shipments
- Annex E : Drawings, Specifications and Manuals
- Annex F : Performance Bank Guarantee
- Annex G : UNIDO Terms of Reference

UNIDO Contract No:
Project No:

CONTRACT

between

THE UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION

and

for the

PROVISION OF SERVICES AND SUPPLY OF EQUIPMENT, MATERIALS AND PARTS

related to

<name of the project>

in the

<country of the project>

THIS CONTRACT is made between the UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION (hereinafter referred to as "UNIDO"), having its headquarters located at Wagramer Strasse 5, A-1220 Vienna, Austria, and *<name of the Contractor>* (hereinafter referred to as "the Contractor", and together with UNIDO hereinafter collectively referred to as "the Parties"), having its principal office located at *<address of the Contractor>*.

WHEREAS, UNIDO, in response to a request from the GOVERNMENT of the (hereinafter referred to as "the Government"), has agreed to assist the Government in carrying out the project entitled "*<full name of the project>*" (hereinafter referred to as "the Project") in the *<name of the country of the project and project area>* (hereinafter referred to as "the Project Area");

WHEREAS, UNIDO is the Project Executing Agency appointed by the *<name of the Donor, when applicable>*, the Donor of Funds for the Project (hereinafter referred to as "the Donor"), to implement and manage the Project;

WHEREAS, in this connexion, UNIDO, acting in agreement with the Donor and the Government, desires to engage the Contractor to provide all the requisite machinery, equipment, components and tools together with the spare parts, materials, engineering drawings and technical specifications as well as the training services and certain technical supervision personnel required for the construction, erection, installation, testing, commissioning and initial operation, in the Project Area, of a *<name of the plant>* (hereinafter referred to as "the Plant"), at *<location>* (hereinafter referred to as "the Plant Site");

WHEREAS, the Contractor represents that he possesses the required technical knowledge, personnel and facilities for the purpose and that he is ready, willing and able to construct, erect, install, test, commission and operate the Plant referred to hereinabove;

WHEREAS, the recipient of the technical assistance under the Project is *<name and address of the Project Counterpart>* (hereinafter referred to as "the Project Counterpart");

WHEREAS, references in this Contract to the Government shall be deemed to include the Project Counterpart;

NOW, THEREFORE, the Parties hereto mutually agree as follows:

1.00 DEFINITIONS

1.01 In the Contract (as hereafter defined) the following words and expressions shall have the meanings hereby assigned to them:

- a) (i)** "Contract" means this Contract, UNIDO's General Conditions of Contract (Annex A), Privileges and Immunities Section (Annex B), Instructions to Contractors for the Dispatch of Reports (Annex C), Packing and Marking of Shipments (Annex D), Drawings, Specifications and Manuals (Annex E), Performance Bank Guarantee (Annex F), UNIDO Terms of Reference dated *<date>* (Annex G), the Contractor's Proposal of *<date>*, which the Contractor submitted in reply to UNIDO's Request for Proposal No. *<number>* dated *<date>*, and such further documents as may be expressly incorporated in the Contract by the Parties.

- (ii) "Terms of Reference" means detailed specification of the Work under the Contract and any modification thereof or addition thereto agreed upon by UNIDO and the Contractor, attached as Annex G.
 - (iii) "Technical Documentation" means all technical and technological documentation, engineering drawings and specifications, calculations, samples, patterns, models, operation and maintenance manuals and other technical information of a like nature submitted by the Contractor in accordance with the requirements of the Contract and approved by UNIDO.
 - (iv) "Contractor's Proposal" means the Contractor's proposal to UNIDO for the execution and completion of the Work and the remedying of any defects therein in accordance with the provisions of the Contract, as submitted in reply to UNIDO's Request for Proposal No. <number> dated <date> and accepted by UNIDO.
- b)**
- (i) "Work" means all the work to be executed in accordance with the Contract, including design, engineering, manufacturing, supply of equipment, parts and materials, construction, installation, erection, commissioning, testing, initial operation, labour, services, facilities, to be provided, supplied or performed by Contractor and/or any of its subcontractors or suppliers of any tier in accordance with the requirements to build and commission the Plant and remedy any defects therein and to fulfill the Contractor's obligations under the Contract.
 - (ii) "Plant" means the <name and brief description of the Plant> to be constructed at the Plant Site as described in the Terms of Reference.
 - (iii) "Equipment" means all equipment, components, machinery, tools, raw and other materials, spare parts, appliances and things of whatsoever nature required to be supplied by the Contractor for construction, erection, installation, testing, commissioning and initial operation of the Plant pursuant to the Contract.
 - (iv) "Plant Site" means the place(s) where the Plant is located, including the Plant, and any other places as may be specifically designated in the Contract as forming part of the Plant Site.

- (v) "Training" or "On-the-Job Training" means training (including industrial safety) by the Contractor of the Project Counterpart's staff/workers and other local staff at the Plant Site in accordance with the Contract.

- (vi) "Key Technical Personnel" means Contractor's personnel, including a Team Leader and other supervisory personnel listed in paragraph 3.07 of the Contract, assigned by the Contractor for the execution of the Work including, but not limited to, the supervision of the construction, erection, installation, testing, commissioning and initial operation of the Plant at the Plant Site pursuant to the Contract.

- (vii) "Site Engineer" means a qualified engineer employed by UNIDO to supervise the execution of the Work at the Plant Site. The Site Engineer shall in general carry out such duties as are required for the satisfactory execution of the Contract.
(This paragraph (vii) will be included when the Project foresees appointment of a Site Engineer)

- c) (i) "Acceptance of the Work" means the date of acceptance by UNIDO of Contractor's Final Report enclosing a Certificate of Acceptance of the Work, referred to in paragraph 3.22 e) of the Contract.

- (ii) "DDU (INCOTERMS 2000)" means Delivery Duty Unpaid as ascribed to it by INCOTERMS 2000.

The Parties agree that words and abbreviations, not specifically defined hereinabove, but which have well-known technical or trade meanings, are used in the Contract in accordance with such recognized meanings.

2.00 AIM OF THE CONTRACT

2.01 Synopsis

The aim of the Contract is to design, manufacture, deliver, construct, erect, install, test, commission and operate the Plant for the initial period of (hereinafter referred to as "the Initial Period").

3.00 RESPONSIBILITIES OF THE CONTRACTOR

3.01 Statement of Work and Supply

Given the aim of this Contract, the Contractor shall, on the terms and conditions hereinafter set forth:

- a) supply the Technical Documentation necessary to construct, erect, install, test, commission, operate and repair the Plant. The Technical Documentation shall be in the English language.
- b) manufacture and deliver DDU the Plant Site (INCOTERMS 2000), the Equipment and Technical Documentation, as per the Terms of Reference (Annex G hereto), and the Contractor's Proposal.
- c) provide the services at the Plant Site of his Technical Personnel for:
 - construction and erection of the Plant;
 - installation of the Equipment to be supplied in accordance with the Contract;
 - testing, commissioning and initial operation of the Plant, and
 - On-the-Job Training of the staff/workers of the Project Counterpart and other local personnel. On-the-Job Training shall be primarily related to operation, maintenance and repair of the Plant.

In this connexion, the Contractor's scope of work and supply shall be as generally detailed in, but not necessarily limited to:

- 1) the Terms of Reference, which are attached hereto as Annexe G and
- 2) the Contractor's Proposal.

Contractor's general responsibility includes all items necessary for the proper execution and completion of the Work. The Contractor shall carefully study the Contract as well as the risks, contingencies and other circumstances, which may influence or affect the execution of this Contract. Where the Contractor observes errors, inconsistencies, omissions or ambiguities, he shall immediately in writing refer same to UNIDO for UNIDO's written interpretation or correction. If the Contractor fails to so notify UNIDO before signing the Contract, the Contractor shall be deemed to have waived any claim relating to said error, discrepancy,

omission or ambiguity, shall be deemed to have estimated the most expensive material or method of execution of the Work, and shall bear an appropriate amount attributable to the costs of correction.

While the Annexes and the Contractor's Proposal form integral parts of the Contract, if there are discrepancies or conflicts between or among the Contract and its Annexes, then the document to prevail shall be given precedence in the following order:

- (1) Contract
- (2) Annexes A, B, C, D, E, F
- (3) Terms of Reference (Annex G)
- (4) Contractor's Proposal

3.02 Commencement and Completion of the Work

- a) The Contractor shall commence the Work under the Contract no later than *<month & year>*.
- b) The Contractor shall provide the technical specifications and documentation necessary for the preparation of the Plant Site, including the plans for the installation and the technical specifications of the Equipment foundations, within *<number of months>* from the date of commencement of the Work under the Contract.
- c) The Contractor shall deliver the Equipment to the Plant Site in the month of .
- d) All the Work under the Contract shall be completed by the Contractor and performance warranted under paragraph 3.08 shall be reached in the Performance Tests conducted under paragraph 3.09 no later than *<month and year>*.

3.03 Testing of the Equipment before Shipment

- a) During the manufacture and assembly of the Equipment at the Contractor's or his sub-contractors' and/or suppliers' premises or works, UNIDO shall have, at all reasonable times, the right to examine the same at such premises and to call for such tests of the materials and workmanship which, in the Parties' opinion, are usual and typical for the type of the Equipment concerned. The

cost of all such tests as described above shall be borne by the Contractor. Any other tests required by UNIDO shall be to the account of UNIDO. The cost of UNIDO's personnel in this connexion shall be to the account of UNIDO.

- b) If UNIDO so requests, the Contractor shall present sufficient documentary evidence that the materials used in the manufacture of the Equipment meet the specifications requirements. Test certificates shall be submitted for special construction materials only. With respect to large castings and forgings, the Contractor shall, where necessary and usual, carry out at his own cost x-ray, laser and/or ultrasonic tests.
- c) UNIDO shall have the right to be present at tests carried out or arranged by the Contractor. If called for by UNIDO, samples and specimens shall become UNIDO's property. The Contractor shall notify UNIDO of the progress of the manufacture of the Equipment so that such inspections or tests can be carried out as may be required to ascertain that the materials and/or workmanship are in conformity with the requirements of this Contract.
- d) UNIDO shall, by giving notice to the Contractor setting out any objections which it may have in respect of any Equipment inspected and/or tested, have the right to reject any such Equipment which is not in accordance with the relevant specifications. In this event, the Contractor shall make good such defective Equipment at his own cost and expense.

3.04 Spare Parts for the Equipment Commissioning and Operation; Special Maintenance Tools; Consumable Materials

a) Commissioning Spares

The Contractor shall supply with the Equipment a sufficient quantity of spares for operation of the Equipment within the period of commissioning of the Plant.

b) Normal Wear and Maintenance Spare Parts

- (i) The Contractor shall supply with the Equipment a quantity of normal wear and maintenance spare parts for two years of operation as per the requirements of the Terms of Reference (Annex G).
- (ii) The Contractor shall, before shipment of the Equipment, submit the drawings of wear and spare parts of the Contractor's proprietary equipment and the descriptions/catalogues of wear and spare parts not manufactured by him.

(iii) The Contractor also undertakes that normal wear and spare parts, if required, shall continue to be available to the Project Counterpart during the life of the Equipment at reasonable prices and terms.

c) **Special Maintenance Tools**

The Contractor shall submit, before shipment of the Equipment, an itemized list of special operation and maintenance tools which may be required for the operation and maintenance of the Equipment. The Contractor also undertakes that operation and maintenance tools as may be required for the operation and maintenance of the Equipment shall be available to the Project Counterpart during the life of the Equipment at reasonable prices and terms.

d) **Consumables**

The Contractor shall inform UNIDO of the specifications, including equivalent brand names, and quantities of all consumable materials, such as lubricants, flushing oils, hydraulic fluids and chemicals which, based on his experience, are required as initial filling during commissioning and Performance Tests and for normal yearly operation. This information shall be provided in time to enable the Project Counterpart to plan timely procurement of these materials. UNIDO may, at its option, ask the Contractor to supply such materials as are required for the Equipment commissioning and Performance Tests and the Contractor shall undertake to supply the same at reasonable prices and terms.

3.05 Packing, Shipping and Insurance of the Equipment and Technical Documentation

a) The Contractor shall pack and mark the Equipment and the Technical Documentation before shipment in accordance with Annex D hereto.

b) Bills of Lading/Way Bills evidencing the shipment of the Equipment and/or Technical Documentation shall quote the shipping markings, designation of contents and dimensions in metric units, itemized net weight of the contents and total gross weight of each package and shall show as consignee the Resident Representative of the United Nations Development Programme, (or UNIDO Representative, where applicable and specifically indicated by UNIDO) in *<name of the country>* .

c) The Contractor shall, in respect of each despatch/shipment of the Equipment and/or Technical Documentation, submit the following Shipping Documents:

- (i) clean on-board ocean bill of lading/way bill under sub-paragraph 3.05 b) above;
- (ii) insurance policy covering DDU the Plant Site (INCOTERMS 2000) referred to under sub-paragraph 3.05 e) below;
- (iii) certificate of origin;
- (iv) commercial invoice and
- (v) packing list.

Two (2) sets of shipping documents (including one original set) shall be submitted to UNIDO, Vienna, and two (2) sets (including one original set) to the said Resident Representative of the United Nations Development Programme (or UNIDO Representative, where applicable and specifically indicated by UNIDO) at least three (3) weeks in advance of the arrival of the Equipment at the point of entry into the Project Area.

- d) The Contractor shall insure the Equipment and Technical Documentation during their shipment and transit to the Plant Site and thereafter until the packing crates are opened in the presence of the Contractor's representative(s), against all risks of loss or damage from any cause. Such insurance shall be with a reputable insurance company acceptable to UNIDO and shall be in the names of the Contractor and UNIDO in their respective rights and interests. Any insurance moneys payable shall be paid to UNIDO who shall apply the same according to this Contract and the Parties' respective rights hereunder. The insurance shall cover the full price of the Equipment and Technical Documentation Delivery Duty Unpaid the Plant Site plus ten percent (10%) and shall be in the currency of the Contract Price.
- e) The Contractor shall, regarding customs clearance of the Equipment and/or Technical Documentation in the Project Area, liaise with the said UNDP Representative (or UNIDO Representative, where applicable and specifically indicated by UNIDO), who is responsible, in conjunction with the Government, for obtaining such clearance. The Contractor shall be responsible for payment of all demurrage, storage and other charges resulting from the delay in customs clearance of the Equipment at the Project Area, caused by the Contractor's failure to comply with the requirements of sub-paragraph 3.05 c) concerning timely submission and completeness of the shipping documents.

- f) The Contractor shall be responsible for costs, fees and charges in respect of the export and transit of the Equipment and Technical Documentation, but not for customs duties, taxes or license fees in the Project Area, which are the responsibility of the Project Counterpart. The Contractor shall also obtain, at his own risk and expense, any export license or other governmental authorization(s) necessary for the export of the Equipment and Technical Documentation.
- g) Storage of the Equipment and Technical Documentation on arrival at the Plant Site is the responsibility of the Project Counterpart in accordance with paragraph 4.01 herein below and paragraph *<paragraph number>* of the Terms of Reference (Annex G).
- h) In the event of loss of or damage to any of the Equipment and/or Technical Documentation during shipment or during transit or storage, or in the event of the Equipment and/or Technical Documentation being found, upon the opening of the packing crates at the Plant Site (in the presence of the Contractor's representative(s)), to be otherwise defective, unusable or ineffective for the purpose for which it(they) was(were) supplied, the Contractor shall promptly replace or repair such Equipment and/or Technical Documentation, by whatever means of transport or personnel services as are most suitable and reasonable in the circumstance. In the case of loss or damage which is covered by the insurance under sub-paragraph (e) above, the amount paid by the insurance company shall be made available by UNIDO towards the cost of replacement and/or repair.

3.06 Review of the Plant Site Conditions

The Contractor shall visit the Plant Site and ascertain all conditions and information pertaining to his Work prior to executing the Contract. By executing the Contract, the Contractor represents that he has examined the Plant Site, determined its physical characteristics and correlated his personal observations with the requirements of the Contract, including but not limited to:

- (i) the condition of all structures and obstructions thereon, both natural and man-made, and the surface water conditions of the Plant Site;
- (ii) the nature, location, and character of the general area in which the Plant Site is located, including its climatic conditions, available labour and equipment supply;

- (iii) the quantity and quality of all materials, supplies, tools, equipment labour, and professional services necessary to complete the Work in the manner required by the Contract;
- (iv) all pertinent national laws, rules, ordinances, and regulations; and
- (v) all the risks, contingencies and other circumstances, which may influence or affect the execution of this Contract.

No claim on the part of the Contractor arising from the non-fulfilment of the above shall be entertained.

3.07 Contractor's Technical Personnel

- a) The Contractor shall, through the Key Technical Personnel to be provided under sub-paragraph 3.01 c), be responsible for supervising the construction and erection of the Plant pursuant to the Contract, including installation of the Equipment, testing and commissioning of the Plant, as well as its initial operation after its start-up for the Initial Period and On-the-Job Training of the staff/workers of the Project Counterpart and other local personnel.

- b) **Names and Project Function of the Contractor's Key Technical Personnel**

The Key Technical Personnel to be provided by the Contractor shall be as follows:

| <u>Name</u> | <u>Project Function</u> |
|-------------|-------------------------|
|-------------|-------------------------|

- c) **Replacement of the Contractor's Key Technical Personnel**

The Contractor's Key Technical Personnel named in sub-paragraph 3.07 b) hereinbefore are considered essential for the work to be performed under this Contract, accordingly:

- (i) prior to replacing any of such personnel, the Contractor shall notify UNIDO reasonably in advance and shall submit detailed justifications together with the curriculum vitae of the proposed substitute(s) to permit evaluation by UNIDO of the impact which such replacement(s) would have on the Work programme;

(ii) no Key Technical Personnel replacement shall be made by the Contractor without the prior written consent of UNIDO in accordance with Clause 4 of the UNIDO General Conditions of Contract (Annex A hereof).

d) **Duration of Stay of Contractor's Technical Personnel**

The Contractor's Technical Personnel shall arrive at the Plant Site at the appropriate time or times for the installation and commissioning work Work. They shall be at the Plant Site for such period(s) as shall be required in order to achieve the warranted performance of the Plant and thereby avoid the application of the stipulations of sub-paragraph 3.10 b) hereof. Any extension of the time for achieving the performance warranty under paragraph 3.08 beyond six (6) months shall require UNIDO's acceptance.

e) **Work Programme**

The timings and work programme for the stay of the Contractor's Technical Personnel at the Plant Site shall be as agreed upon between UNIDO, the Project Counterpart and the Contractor.

f) **On-the-Job-Training**

During their stay at the Plant Site, the Contractor's Technical Personnel shall provide On-the-Job Training for Project Counterpart's personnel and other local personnel in the maintenance, repair and operation of the Plant. The programme for this On-the-Job Training shall be as agreed upon between UNIDO, the Project Counterpart and the Contractor.

3.08 Performance Warranty

The Contractor warrants that, after satisfactory completion of the Work, the Plant shall meet the specifications and requirements set forth in the Terms of Reference (Annex G), in the Contractor's Proposal and in the Technical Documentation.

3.09 Performance Tests

a) Conformity of the Plant with the stipulations of paragraph 3.08 shall be established by Performance Tests conducted under the supervision and control of the Contractor in accordance with the stipulations of the programme of the Performance Tests which shall be agreed upon by UNIDO, the Project Counterpart and the Contractor no later than three (3) months prior to the installation of the Equipment at the Plant Site.

- b) The Project Counterpart shall be responsible for providing for the purpose of the said Performance Tests, the necessary raw and auxiliary materials, utilities, manpower and other requisites as required by paragraph 4.01 and in paragraph <number> of the Terms of Reference.
- c) In case the technical parameters referred to in paragraph 3.08 are not achieved, then the Performance Tests may, subject to sub-paragraph 3.10 b), be continued for the additional time needed to achieve the parameters required.
- d) Conformity of the Plant with the requirements of paragraph 3.08 shall be established by measurements conducted jointly by the Contractor, UNIDO and the Project Counterpart at agreed appropriate stages of the Performance Tests as will be defined in the programme of the Performance Tests referred to in sub-paragraph a) hereinabove.
- e) The results of the trials and test runs successfully conducted under this paragraph, together with a statement indicating whether or not the Plant was proven in the Performance Tests to have achieved the requirements of paragraph 3.08 and sub-paragraph a) above, shall be certified by the authorized representatives of the Contractor, UNIDO and the Project Counterpart in the Certificate of Acceptance of the Plant (hereinafter referred to as “the Certificate of Acceptance of the Plant”). The Certificate of Acceptance of the Plant shall be appended to the Final Report under sub-paragraph 3.22 e).

3.10 Failure to achieve Performance Warranty – Remedial Measures/ Compensation

- a) If the performance warranted under paragraph 3.08 is not reached in the Performance Tests conducted under paragraph 3.09, then (unless the failure is due to factors outside the responsibility of the Contractor) the Contractor shall, at his own cost and expense, correct, modify or change any faulty engineering performed by him and shall, either by repair or replacement, correct, modify or change any faulty Equipment supplied by him to the extent necessary for the purpose of achieving the above warranted performance. After execution of these corrections, modifications, changes, repairs and/or replacements, which shall be carried out by the Contractor without delay, a new set of Performance Tests shall be carried out in conformity with paragraph 3.09.

- b) If any failure under paragraph 3.09 or 3.10 a) to meet the stipulations of paragraph 3.08 cannot be rectified by remedial measures and eliminated in further Performance Tests within the period (including extended period) of the Contractor's technical assistance under sub-paragraph 3.07 d) then, unless an extension of time is agreed under sub-paragraph 3.07 d), UNIDO may hold the Contractor in default under paragraph 10.06.

3.11 Mechanical Warranty

The Contractor warrants that the Equipment supplied by him, his subcontractor(s) and/or suppliers under this Contract shall be new and free from defects in workmanship, materials and design. The Contractor shall repair or replace at his own expense and as soon as practicable any of the Equipment which within a period of twelve (12) months after Acceptance of the Work referred to in sub-paragraph 3.09(e) hereinabove, prove to be defective as mentioned above or as a result of any erroneous or inadequate engineering drawings, technical specifications and/or operating instructions of the Contractor.

Damage caused by improper operation contrary to the Contractor's instructions or by negligence or lack of proper maintenance on the part of the Project Counterpart shall not be covered by this warranty. The warranty shall be deemed modified to the extent of any modifications to the Equipment and/or its working conditions made without authorization by the Contractor. This obligation shall survive termination of the Contract.

3.12 Correction of Defective Work

- a) If, within a period of twelve (12) months from after Acceptance of the Work, or under the terms of an applicable special warranty required by the Contract, any of the Work is found to be defective or non-conforming to the Contract, the Contractor shall correct it as soon as practicable after receipt of written notice from UNIDO to do so. This obligation shall survive Acceptance of the Work under the Contract and termination of the Contract.

- b) Nothing contained in this paragraph 3.12 shall be construed to establish a period of limitation with respect to any other obligation which the Contractor might have under the Contract. The establishment of the time period of one year after the date of the Acceptance of the Work or other dates or such longer period of time as may be prescribed by law or by the terms of any warranty required by the Contract relates only to the specific obligations of the Contractor to correct the Work, and has no relationship to the time within which his obligation to comply with the Contract may be sought to be

enforced, nor to the time within which proceedings may be commenced to establish the Contractor's liability with respect to his obligations.

3.13 Modifications to the Equipment

The Contractor reserves the right, during the design, installation, start-up and testing of the Plant, to modify, in consultation with UNIDO and the Project Counterpart, the Equipment to ensure the fulfilment of the Contractor's obligations.

3.14 Delays and Extension of Time

- a) If the Contractor is delayed at any time in the progress of the Work by any act or omission or changes ordered in the Work by UNIDO or the Project Counterpart, or by any employee of either, or by any separate contractor employed by the Project Counterpart, , or any causes beyond the Contractor's reasonable control, or by any other cause which UNIDO determines may justify the delay, then the time for completion of the Work shall be extended by an Amendment to the Contract for such reasonable time as UNIDO may determine. This sub-paragraph does not apply to Force Majeure causes, which are covered by Clause 11 of the UNIDO General Conditions of Contract (Annex A hereof).

- b) Any claim for extension of the time for completion under sub-paragraph 3.14(a) shall be made in writing to UNIDO not more than twenty days (20) after the commencement of the delay; otherwise said claim shall be deemed to be waived. The Contractor shall provide an estimate of the probable effect of such delay on the progress of the Work at the same time he serves notice of the delay.

3.15 Permits, Fees Notices and Legal Requirements

- a) Unless otherwise provided in the Contract, the Contractor shall secure and pay for all the permits and governmental fees, licenses and inspections necessary for the proper execution and completion of the Work after execution of the Contract, which are customarily secured and/or which are legally required at the time Contractor's Proposal is received.

- b) The Contractor shall give all notices and comply with all laws, ordinances, rules, regulations and lawful orders of any public authority bearing on the performance of the Work.

- c) If the Contractor observes that the Work required under the Contract is not in accordance with applicable laws, statutes, building codes and regulations, he shall promptly notify UNIDO in writing. This sub-paragraph is subject to paragraph 3.06.

3.16 Protection of Persons and Property

- a) The Contractor shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work.
- b) The Contractor shall take all reasonable precautions for the safety of, and shall provide all reasonable protection to prevent damage, injury or loss to:
 - (i) all employees at the Plant Site and all other persons who may be affected thereby;
 - (ii) all the Work and all the Equipment to be incorporated therein, whether in storage on or off the Plant Site, under the care, custody or control of the Contractor or any of his subcontractor(s); and
 - (iii) other property at the Plant Site or adjacent thereto.
- c) The Contractor shall give all notices and comply with all applicable law, ordinances, building codes, rules, regulations and lawful orders of any public authority bearing on the safety of persons or property or their protection from damage, injury or loss.
- d) The Contractor shall erect and maintain, as required by existing conditions and progress of the Work, all reasonable safeguards for safety and protection, including posting danger signs and other warnings against hazards, promulgating safety regulations and notifying the Project Counterpart's personnel.
- e) When the use or storage of combustible, explosive or other hazardous materials or equipment is necessary for the execution of the Work, the Contractor shall exercise the utmost care and shall carry on such activities under the supervision of properly qualified personnel.
- f) The Contractor shall promptly remedy all damage, injury or loss to any person or property referred to in sub-paragraph 3.16 b) caused in whole or in part by the Contractor, any subcontractor, or anyone directly or indirectly employed by any of them, or by anyone for

whose acts any of them may be liable and for which the Contractor is responsible under sub-paragraph 3.16 b), except damage, injury or loss attributable to the acts or omissions of the Project Counterpart or anyone directly or indirectly employed by him, or by anyone for whose acts the Project Counterpart may be liable, and not attributable to the fault or negligence of the Contractor. The foregoing obligations of the Contractor are in addition to his obligations under Clause 15 of the UNIDO General Conditions of the Contract (Annex A).

- g)** The Contractor shall designate a responsible member of his Team, whose duty shall be the prevention of accidents at the Plant Site during the execution of the Work. This person shall be the Contractor's Team Leader unless otherwise designated by the Contractor in writing to UNIDO.
- h)** The Contractor shall not load any systems or Equipment or permit any part of the Work to be loaded, so as to endanger safety of the operation.
- i)** In any emergency affecting the safety of persons or property, the Contractor shall act reasonably, at his discretion, to prevent threatened damage, injury or loss.

3.17 Patent Rights

- a)** The Contractor declares that he does not know of any protective rights of third parties which might be infringed by the construction, erection, installation and commissioning of the Plant and its operation. Should, contrary to the Contractor's expectation, claims be raised against UNIDO or the Project Counterpart charging them with infringement of patents, the Contractor shall hold harmless UNIDO and the Project Counterpart and shall indemnify them to the full extent of any damages or awards arising from such claims. This obligation of the Contractor shall continue to be in full force and effect up to the expiration of such patents.
- b)** UNIDO and/or the Project Counterpart shall give the Contractor due notice in writing of any charge of infringement brought against UNIDO and/or the Project Counterpart and of the filing of any suit for infringement and shall give the Contractor opportunity to defend said suit at his discretion and shall not, without the Contractor's consent in writing, make any admissions or consent to any claim of any third party which might be prejudicial to the Contractor's position.

3.18 Other Facilities and Services to be provided by the Contractor

Except as otherwise stipulated in this Contract, the Contractor shall provide all the facilities and services required by his personnel for the execution of this Contract. Expenses of every kind incurred in connexion with such personnel shall be solely for the account of the Contractor. Such expenses shall include, but shall not be limited to, the cost of wages, housing, food, travel, medical attention and personnel insurance.

3.19 Standards of Work

The Contractor shall furnish the highest skill and judgment and cooperate with UNIDO and the Project Counterpart and all UNIDO's consultants and agents in best furthering the interests of UNIDO and the Project Counterpart. The Contractor shall furnish efficient business administration and superintendence. He shall furnish at all times an adequate supply of workmen and materials, and perform the Work in the best way and in the most expeditious and economical manner consistent with the interests of UNIDO and the Project Counterpart.

3.20 Relationship between the Contractor's Team Leader and UNIDO Representative

The Contractor's Team Leader shall maintain a close and continuing relationship with the UNIDO Representative, or UNDP Resident Representative in case UNIDO is not directly represented in *<name of the country>* and/or his designated representative(s), and shall co-operate with him (them) in the performance of the Work hereunder and shall keep him/them currently informed of the progress of the assignment and plans for the performance of the Work. The UNIDO Representative, or UNDP Resident Representative, and/or his designated representative(s) shall have the right to observe at any time the progress of the Work carried out under this Contract and to consult with the Contractor's Team Leader and the other specialists concerning their Work performance.

3.21 Briefings and Debriefings

The Contractor's Team leader may be required during implementation of the Contract to visit UNIDO Headquarters in Vienna, Austria for briefings and debriefings. The dates and duration of such visits will be agreed upon by UNIDO and the Contractor.

3.22 Reports

The Contractor shall submit to UNIDO, Vienna, in accordance with Annex C hereto entitled "Instructions to Contractors for the Despatch of Reports", the following reports, in the English language.

<the reporting schedule below is only indicative. The actual reporting schedule will be agreed upon in each particular case in line with requirements of the Terms of Reference>

a) **Monthly Reports**

Narrative Monthly Reports, in five (5) copies, summarizing the status of the Contract work and the progress made. (Such Monthly Reports shall not be required when other Progress Reports are to be submitted according to the stipulations hereinafter).

b) **Progress Report 1**

Progress Report 1, in () copies, , before <date>.

c) **Progress Report 2**

Progress Report 2, in () copies, , before <date>.

d) **Progress Report 3**

Progress Report 3, in () copies, , before <date>.

e) **Final Report**

A Final Report, enclosing a Certificate of Acceptance of the Work, in () copies, before <date>.

3.23 Clearance of Site on Completion

Upon completion of the Work, the Contractor shall, at his expenses, clear away and remove from the Plant Site all surplus materials, rubbish and temporary works of every kind including the covering up of holes of any nature and leave the whole of the Plant Site and the Work clean and in a workmanlike condition to the satisfaction of UNIDO.

3.24 Supervision of the Execution of the Work by UNIDO's Site Engineer

(This paragraph will be included when the Project foresees appointment of a Site Engineer)

- a) UNIDO may, at its sole discretion, appoint a Site Engineer to supervise the execution of the Work at the Plant Site. The Site Engineer shall in general carry out such duties as are required for the satisfactory execution of the Contract. The Contractor shall cooperate with the Site Engineer in best furthering the interests of UNIDO and the Project Counterpart.

- b)** The duties of the Organization's Site Engineer shall be as follows:
- (i)** Carry out inspection of the delivered Equipment, tests of samples of materials and supplies and verify workmanship, as he may consider necessary at the cost of the Contractor in order to ensure their compliance with the relevant specifications and standards of the Terms of Reference (Annex G);
 - (ii)** Subject to sub-paragraph 3.14(b), propose and submit for appropriate approval to UNIDO's Substantive Office (hereinafter referred to as "the Substantive Office"), the extensions of the Schedule of Work as set out in the Terms of Reference (Annex G) except if they are caused by circumstances for which, in the opinion of the Site Engineer, the Contractor is responsible;
 - (iii)** Explain, adjust and modify, in case of ambiguities or discrepancies, the specifications of the Terms of Reference (Annex G) and the relevant drawings, provided always that any adjustments and modifications shall receive prior approval by the Substantive Office and shall not result in any additional costs to UNIDO beyond the amount specified in paragraph 5.01 hereunder;
 - (iv)** Whenever necessary, provide on site, a technical solution for the execution of the Work in close collaboration with the Substantive Office;
 - (v)** Check quantities of Work completed and clear or reject, in consultation with the Substantive Office, invoices submitted by the Contractor for such quantities;
 - (vi)** Determine the amount(s) due from the Contractor's as provided in Clause 6.00 of the Contract and recommend to the Substantive Office their deduction from any of the Contractor's invoices due for payment;
 - (vii)** Prepare and submit for the approval of the Substantive Office concerned any modification of the Work.
 - (viii)** Submit the Certificate of Acceptance of the Plant to the Substantive Office for signature.

It is understood that any modification of the specifications of the Work or of the approved final designs or drawings or plans related thereto which may result in additional costs to UNIDO, does not commit UNIDO without its prior written approval to increase UNIDO's financial liability as determined in paragraph 5.02 below.

4.00 RESPONSIBILITIES OF THE GOVERNMENT/PROJECT COUNTERPART

4.01 Responsibilities of the Government/Project Counterpart

UNIDO has entered into this Contract with the Contractor on the basis of the Government undertaking to provide, at no cost to the Contractor (through the Project Counterpart, where appropriate), the services and facilities as specified in the Terms of Reference (Annex G) as well as the following complementary services and facilities:

(the scope of responsibilities of the Government/Project Counterpart will be determined based on the provisions of the Project Document)

4.02 Responsibilities of the UNIDO Representative/UNDP Resident Representative

The UNIDO Representative in the Project Area, or UNDP Resident Representative in case UNIDO is not directly represented in (*the country*) , as the representative of UNIDO, shall:

- a) act as Liaison Officer between the Contractor's personnel and officials of the Government in all matters relating to this Contract;
- b) cable UNIDO, Procurement Services/ADM, confirming the arrival in, and departure from, the Project Area of the Contractor's personnel;
- c) refer to UNIDO, Procurement Services/ADM, such administrative matters relating to execution of this Contract as may be brought to its attention and which cannot be resolved in the Project Area.

5.00 CONTRACT PRICE AND TERMS OF PAYMENT

5.01 Contract Price

UNIDO shall pay the Contractor, for the full and proper performance of his obligations under this Contract, the sum of <currency> <amount in words> (*currency figure*).

This sum shall cover all expenses incurred by the Contractor including, but not limited to the cost of the Equipment rendered DDU the Plant Site, the complete engineering and technical services and Technical Documentation, construction and erection costs, the remuneration of the Contractor's personnel and all other compensations, insurance and social charges as well as his overheads, technical assistance and supervision costs. It shall also cover the costs in connexion with the travels of the Contractor's Technical Personnel from their country of residence and/or place of work to the Plant Site and return, and their subsistence in the Project Area. Also included are all costs incurred by the Contractor in connexion with briefing and debriefing visits as provided in paragraph 3.21.

5.02 Contract Ceiling

UNIDO's financial liability under this Contract is limited to the above-mentioned sum of <currency> <amount in words> (currency figure).

The Contractor shall not do any Work, provide any Equipment, or perform any services which may result in any charges to UNIDO over and above the said sum of United States Dollars (US \$) without the prior written consent of UNIDO and a formal amendment to this Contract.

5.03 Exclusion of Escalation

The Contract price set forth in paragraph 5.01 is fixed and firm and not subject to escalation.

5.04 Currency of Payment

The total Contract price of <currency> <amount in words> (currency figure) shall be paid in this currency.

5.05 Progress Payments

Progress payments on account of the Contract price set forth in paragraph 5.01 shall be made in accordance with the following schedule:

<progress payments will be adjusted to reflect the specifics of the contract deliverables>

- a) upon signing of the Contract by both Parties
and receipt by UNIDO of the performance bank guarantee
mentioned in paragraph 5.06,
the sum of.....

- b) upon UNIDO's receipt and acceptance of the Contractor's Progress Report 1 referred to in sub-paragraph 3.22 b) hereinabove, the sum of.....

- c) upon UNIDO's receipt and acceptance of the Contractor's Progress Report 3 referred to in sub-paragraph 3.22 d) hereinabove, enclosing complete sets of the shipping documents for the delivery of the Equipment under the Contract, the sum of.....

- d) upon UNIDO's receipt and acceptance of the Contractor's Final Report referred to in sub-paragraph 3.22 e) hereinabove, enclosing the Certificate of Acceptance of the Plant, the sum of.....
Total.....

The making of any payment hereunder by UNIDO shall not be construed as an unconditional acceptance by UNIDO of the Work accomplished, or the Equipment or Technical Documentation delivered by the Contractor up to the time of such payment.

5.06 Performance Bank Guarantee

The Contractor shall, within one (1) month from the signing of the Contract, submit to UNIDO a performance bank guarantee issued by a bank or insurance company approved by UNIDO, for the initial sum of <currency> <amount in words> (currency figure). This sum will be lowered to <currency> <amount in words> (currency figure) <but not less than 10% of the Contract price> on the date of the acceptance by UNIDO and/or its authorized representative(s) at the Plant Site of the shipping documents to be submitted by the Contractor in accordance with sub-paragraph 5.05(c) under the Contract. The performance bank guarantee shall secure proper and faithful performance by the Contractor of his obligations under the Contract and shall be in the form set out in Annex F attached hereto. The guarantee will become effective on the date that the initial payment made by UNIDO is received into the Contractor's bank account and shall remain in full force and effect until the date calculated as the date of acceptance by UNIDO of the

Contractor's Final Report to be submitted in accordance with sub-paragraph 3.22 e) of the Contract plus twelve (12) months.

5.07 Withholding of Payments

UNIDO may withhold any payment to the Contractor or, on account of subsequently discovered evidence, nullify the whole or part of any payment approval theretofore given, to such an extent as may be necessary to protect UNIDO, and/or the Government from loss under this Contract on account of:

- a) the Contractor's failure to carry out the Work or to make adequate progress on the Work, except for failure arising out of force majeure;
- b) the Contractor's failure to remedy defective Work and/or unsatisfactory performance, when such failure has been drawn to his attention by UNIDO;
- c) the Contractor's failure to submit the reports required under paragraph 3.22;
- d) the Contractor's failure to pay properly to subcontractor(s) and for material, labour and equipment;
- e) the existence of damage claims presented by UNIDO or of reasonable evidence indicating the probable basis on which damage claims may be presented by UNIDO;
- f) any other breach by the Contractor of the Contract.

The withholding by UNIDO of any interim payment shall not affect the Contractor's obligation to continue performance under this Contract.

No interest shall accrue on payments eventually withheld by UNIDO in application of the stipulations of this paragraph.

5.08 Submission of Invoices

The Contractor shall submit to the Procurement Services/ADM, UNIDO, P.O. Box 300, A-1400 Vienna, Austria, his invoice in one (1) original and two (2) copies reflecting banking instructions, i.e. name and address of the bank, Contractor's Account No., Sort Code No., IBAN, SWIFT for payment by electronic transfer.

5.09 Mode of Payment

All payments under this Contract shall be made by UNIDO on the basis of the Contractor's invoices by electronic bank transfer to the following bank account of the Contractor:

Account of:

Account number:

Bank name:

Address:

6.00 PENALTIES

- 6.01** In case the Contractor, for reasons attributable to him, does not comply with the dates/time limits stipulated in paragraph 3.02 of the Contract regarding performance and delivery, the Contractor is obliged to pay as compensation for any delay one quarter (0.25) percent of the Contract Price for each week of delay but not more than a maximum of ten (10) percent of the Contract Price. These amounts shall be deducted by UNIDO from the sums due to be paid to the Contractor in accordance with sub-paragraph 5.05 of the Contract.

7.00 CONTRACTOR'S CLAIMS AND REMEDIES

- 7.01** In no event shall the Contractor make any claim against UNIDO for or be entitled to additional costs or compensation resulting from any delays in the progress or completion of the Work or any portion thereof, whether caused by the acts or omissions of UNIDO or the Project Counterpart, including but not limited to damages related to overhead, loss of productivity, acceleration delay, total costs and inefficiency. Contractor's sole remedy in such event shall be an extension of the time for completion of the Work, provided the Contractor otherwise meets the requirements and conditions set forth in paragraphs 3.02 and 3.14.

8.00 CONFIDENTIALITY

8.01 Confidential and Proprietary Information

Either Party acknowledges that all knowledge and information concerning the other Party that may be required in connection with the performance of its obligations under this Contract, including, but not limited to, any information relating to its operations and procedures, are confidential and proprietary information of the other Party and it shall receive such confidential and proprietary information in confidence and shall not disclose or permit disclosure of any such knowledge or

information to any person, firm or corporation without the prior written consent of the other Party. Each set of documents containing such information shall be plainly marked so as to indicate the secret and confidential nature thereof.

Either Party shall not, without the prior written consent of the other Party, disclose, furnish or use, in any way whatsoever, and shall take all lawful measures available to prevent any other person and/or entity employed by it or within its control from so disclosing, furnishing or using any confidential or proprietary information of the other Party to which it becomes privy, regardless of whether same was generated pursuant to this Contract. Either Party shall use its best efforts and take all reasonable steps necessary, including the execution of a confidentiality and non-disclosure agreement by its employees, agents, counterparts and subcontractors to ensure that its employees, agents, counterparts and subcontractors fully comply with this paragraph 8.01. These obligations and restrictions of confidentiality shall be effective during the term of the Contract, including any extension thereof, and, unless otherwise provided in the Contract, shall remain effective following any termination of the Contract.

8.02 Liability for Disclosure

Either Party shall be liable for any disclosure of confidential or proprietary information in breach of sub-paragraph 8.01 by its directors, officers, agents, counterparts, employees or subcontractors. Either Party acknowledges that any breach or threatened breach of sub-paragraph 8.01 could cause irreparable injury to the other Party within a short period of time entitling the other Party to preliminary injunctive relief against any such action, which relief shall be in addition to and in no way in limitation of any and all other remedies to which the other Party may be entitled.

8.03 Exclusions

The restrictions referred to in paragraph 8.01 shall not apply to the information which:

- a) presently is in the public domain;
- b) hereafter becomes part of the public domain without the other Party's fault;
- c) was in the possession of the other Party at the time of disclosure, as shown by written evidence;
- d) is disclosed to the other Party at any time hereafter by a third party.

9.00 INSURANCE

9.01 Insurance of the Plant

The Contractor shall, without limiting his or UNIDO's obligations and responsibilities under the Contract, insure with an insurance company acceptable to UNIDO:

- a) The Plant, including the Equipment and Technical Documentation to be incorporated in the Plant, at the full replacement cost and
- b) for an additional sum of fifteen (15) percent of such replacement cost to cover any additional costs of and incidental to the rectification of loss or damage including professional fees and the cost of demolishing and removing any part of the Plant and of removing debris of whatsoever nature.
- c) The insurance referred to in sub-paragraphs 9.01 a) and b) shall be in the joint names of the Contractor and UNIDO and shall cover UNIDO and the Contractor against all loss or damage from whatsoever cause arising from the start of the Work at the Plant Site until the date of the final payment.

9.02 Liability Insurance

The Contractor shall provide and maintain insurance for an appropriate amount against public or third party liabilities for bodily injury or death or property damage arising from any operations carried out by the Contractor in order to comply with his obligations under the Contract.

9.03 Certificates of Insurance

An original and two copies of the certificates of insurance, referred to in sub-paragraph 9.01 a) and b), acceptable to UNIDO shall be filed with UNIDO prior to commencement of the construction and erection of the Plant. The certificates shall be executed by an authorized representative of the insurer. These certificates and the insurance policies required by this paragraph 9.03 may not be canceled or allowed to expire until at least 30 days' prior written notice has been given to UNIDO. Information concerning reduction of coverage shall be promptly furnished by the Contractor to UNIDO.

9.04 Responsibility for Amounts not Recovered

Any amounts not insured or not recovered from the insurers shall be borne by the Contractor.

9.05 Remedies against Contractor's Failure to Insure

If the Contractor fails to effect and keep in force any of the insurances required under the Contract, or fails to provide certificates of insurance to UNIDO in accordance with paragraph 9.03 above, then and in any such case UNIDO may, at its option, hold Contractor in default in accordance with paragraph 10.06 hereinbelow, or effect and keep in force any such certificates and pay any premium as may be necessary for that purpose and from time to time deduct the amount so paid from any monies due to the Contractor, or recover the same as a debt due from the Contractor.

10.00 GENERAL PROVISIONS

10.01 Entry into Effect of the Contract

This Contract shall become effective after its signature by the Parties.

10.02 General Conditions of Contract

The Parties hereto agree to be bound by the UNIDO General Conditions of Contract, which are attached hereto as Annex A.

10.03 Notices

Any notice given by either of the Parties hereunder shall be in writing.

10.04 Transmission of Notices, Invoices, Reports and other Documents

Unless otherwise stipulated in this Contract, instructions, manuals, reports, invoices, notices and shipping documents required to be submitted by the Contractor shall be addressed to the Procurement Services/ADM, UNIDO, P.O. Box 300, A-1400 Vienna, Austria.

10.05 Covenant against Contingent Fees

The Contractor warrants that:

- a) no person or selling agency has been employed or retained by him to solicit or secure this Contract upon an agreement or understanding for a commission, percentage, brokerage, contingent fee or retainer, except regular employees or bona fide and officially established commercial or selling agencies maintained by the Contractor for the purpose of securing business;

- b) no official or servant or retired employee of UNIDO, the United Nations, of the UNDP and the Participating and Executing Agencies of the UNDP or the Government and/or its co-operating Agency(ies), who is not a regular employee of the Contractor, has been or shall be admitted by the Contractor to any direct or indirect benefit arising from this Contract or the award thereof.

For breach of these warranties, UNIDO shall have the right to deduct from the Contract price, or otherwise recover from the Contractor, the full amount of any such commission, percentage, brokerage, contingent fee or retainer so paid.

10.06 Default by the Contractor

In case the Contractor fails to fulfil his obligations and responsibilities under this Contract, and provided the Contractor has not remedied such failure(s) within thirty (30) days of having been given UNIDO's express written notification of the nature of the failure(s), UNIDO may, at its sole option and without prejudice to any other rights that UNIDO may have under this Contract or otherwise, including its right to withhold payment(s) as hereinbefore provided, hold the Contractor in default under this Contract. When the Contractor is thus in default, UNIDO may, by giving written notice to the Contractor, terminate the Contract as a whole or such part or parts thereof in respect of which the Contractor is in default. Upon such notice, UNIDO shall have the right to seek completion, at the Contractor's expense, of that part or those parts of the Contract with respect to which the Contractor is in default. The Contractor shall, in this case, bear sole responsibility for any reasonable costs of completion, including such costs which are incurred by UNIDO over and above the originally agreed Contract price stipulated hereinbefore.

10.07 Temporary Suspension of Work

UNIDO may, at any time, temporarily stop the work being performed by the Contractor under this Contract by giving notice in writing to the Contractor. All work so stopped shall be resumed by the Contractor on the basis of a revised time schedule and on terms and conditions to be mutually agreed upon between the Parties.

10.08 Protests

If the Contractor considers any work demanded of him by the Government/Project Counterpart to be outside the requirements of this Contract or considers any ruling of the Government/Project Counterpart to be unfair or contradicting the stipulations of this Contract, he shall immediately upon such work being demanded, or such ruling being made, ask the Chief, Procurement Services/ADM, for his written instructions or decision.

10.09 Transfer of Rights and Responsibilities from the UNIDO to the Government/Project Counterpart

The Contractor is aware that the title to the Equipment and Technical Documentation will be transferred by UNIDO to the Government/Project Counterpart in due course and accepts that, from such time, all rights and responsibilities of UNIDO under this Contract shall pass to the Government/Project Counterpart.

10.10 Contract Amendment

No modification of, or change in, this Contract, or waiver of any of its provisions, or additional contractual relationship with the Contractor shall be valid unless approved in the form of a written amendment to this Contract, signed by a fully empowered representatives of the Contractor and UNIDO.

10.11 No contractual relationship between Contractor and Project Counterpart

Nothing contained in the Contract shall create, unless specifically provided for otherwise, any contractual relationship between the Project Counterpart and the Contractor.

IN WITNESS WHEREOF, the Parties hereto have executed this Contract.

**UNITED NATIONS INDUSTRIAL
DEVELOPMENT ORGANIZATION**

By.....

By.....

Procurement Services Division
Operational Support Services/PPS
P. O. Box 300
A-1400 Vienna
AUSTRIA

Date.....

Date.....

UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION

Annex A

GENERAL TERMS AND CONDITIONS

(TC Contracts)

1. **Confidential Nature of Documents**

All maps, drawings, photographs, mosaics, plans, reports, recommendations, estimates, documents and all other data compiled by or received by the Contractor under this Contract shall be the property of UNIDO, shall be treated as confidential and shall be delivered only to UNIDO's authorized officials on completion of the work under this Contract; their contents shall not be made known by the Contractor, without the written consent of UNIDO, to any person other than the personnel of the Contractor performing services under this Contract. The obligations of this paragraph do not lapse upon satisfactory completion of the work under this Contract or termination of this Contract, including termination by UNIDO.

2. **Independent Contractor.**

The Contractor shall have the legal status of an independent contractor. Any person assigned by the Contractor to perform services under this Contract shall remain in the employment of the Contractor. The Contractor's personnel and sub-contractors shall not be considered in any respect as being the employees or agents of UNIDO or the United Nations. Without restricting the generality of the foregoing, UNIDO shall not be liable for any claims and demands, loss, costs, damages, actions, suit or other proceedings, brought or prosecuted, in any manner based upon, occasioned by or attributable to the employment relationship between any person assigned by the Contractor to perform services under this Contract and the Contractor. Unless otherwise provided for in this Contract, UNIDO shall not be liable for claims of any kind in connexion with the performance of such services. The Contractor and his employees shall conform to all applicable laws, regulations and ordinances promulgated by legally constituted authorities of the Government.

3. **The Contractor's Responsibility for Employees**

The Contractor shall supervise and be fully responsible for the work performed by and the professional and technical competence of his employees and shall select, for work under this Contract, reliable individuals who will perform effectively in the implementation of the Contract, comply with the laws of the Government, respect the local customs and conform to a high standard of moral and ethical conduct.

4. Assignment of Personnel

The Contractor shall not assign any personnel other than those referred to in this Contract for the performance of work in the field without the prior written approval of UNIDO. Prior to assigning any other personnel for the performance of work in the field, the Contractor shall submit to UNIDO for its consideration, the curriculum vitae of any person the Contractor proposes to assign for such service.

5. Removal of Personnel

Upon written request by UNIDO, the Contractor shall withdraw from the field any personnel provided under this Contract and shall replace such personnel by other acceptable to UNIDO, if UNIDO so requests. All costs and additional expenses resulting from the replacement, for whatever reason, of any of the Contractor's personnel shall be for the account of the Contractor. Such withdrawal shall not be considered as termination in part or in toto of this Contract under the provisions of paragraph 12 "Termination" hereafter.

6. Assignment

The Contractor shall not assign, transfer, pledge or make other disposition of this Contract or any part thereof or of any of the Contractor's rights, claims or obligations under this Contract except with the prior written consent of UNIDO.

7. Sub-Contracting

In the event the Contractor requires the services of sub-contractors, the Contractor shall obtain the prior written approval and clearance of UNIDO for all sub-contractors. UNIDO's approval of a sub-contractor shall not relieve the Contractor of any of his obligations under this Contract, and the terms of any sub-contract shall be subject to and in conformity with the provisions of this Contract.

8. UNIDO Privileges and Immunities

Nothing in or relating to this Contract shall be deemed a waiver of any of the privileges and immunities of UNIDO.

9. Non-employment of UNIDO Staff Members

The Contractor shall not, while this Contract is in effect, employ or consider the employment of UNIDO staff members without the prior written approval of UNIDO.

10. Language, Weights and Measures

Unless otherwise specified in the Contract, the English language shall be used by the Contractor in all written communications to UNIDO with respect to the services to be rendered and all documents procured or prepared by the Contractor pertaining to the work. The metric system of weights and measures shall be used by the Contractor and estimates of quantities involved shall be made and recorded in metric units, except when otherwise specified in the Contract.

11. Force Majeure

Force Majeure as used herein shall mean acts of God, laws or regulations, industrial disturbances, acts of the public enemy, civil disturbances, explosions and any other similar event of equivalent force not caused by nor within the control of either party and which neither party is able to overcome. As soon as possible after the occurrence of any event constituting Force Majeure, and if the Contractor is thereby rendered unable, wholly or in part, to perform its obligations and meet its responsibilities under this Contract, the Contractor shall give notice and full particulars thereof in writing to UNIDO. In this event, the following provisions shall apply:

- (a) The obligations and responsibilities of the Contractor under this Contract shall be suspended to the extent of its inability to perform them and for as long as such inability continues. During such suspension and in respect of work suspended, the Contractor shall be entitled only to reimbursement by UNIDO, against appropriate vouchers, of the essential costs of maintenance of any of the Contractor's equipment and of per diem of the Contractor's personnel rendered idle by such suspension.
- (b) The Contractor shall, within fifteen (15) days of the occurrence of the Force Majeure, submit a statement to UNIDO of estimated expenditures for the duration of the period of suspension.
- (c) The term of this Contract shall be extended for a period equal to the period of suspension taking, however, into account any special conditions which may cause the time for completion of the work to be different from the period of suspension.
- (d) If the Contractor is rendered permanently unable, wholly or in part, by reason of Force Majeure, to perform its obligations and meet its responsibilities under this Contract, UNIDO shall have the right to terminate this Contract on the same terms and conditions as are provided for in paragraph 12, "Termination" except that the period of notice may be seven (7) days instead of thirty (30) days.
- (e) For the purpose of the preceding sub-paragraph (d), UNIDO may consider the Contractor permanently unable to perform in case of any period of suspension in excess of ninety (90) days. Any such period of ninety (90) days or less shall be deemed temporary inability to perform.

12. Termination

UNIDO may terminate this Contract in whole or in part and at any time, upon thirty (30) days' notice of termination to the Contractor. The initiation of arbitral proceedings in accordance with paragraph 16, "Arbitration", below shall not be deemed a termination of this Contract. In the event such termination is not caused by the Contractor's negligence or fault, UNIDO shall be liable to the Contractor for payment in respect of work already

accomplished, for the cost of repatriation of the Contractor's personnel, for necessary terminal expenses of the Contractor, and for the cost of such urgent work as is essential and as the Contractor is asked by UNIDO to complete. The Contractor shall keep expenses at a minimum and shall not undertake any forward commitment from the date of receipt of UNIDO's notice of termination.

13. Bankruptcy

Should the Contractor be adjudged bankrupt or be liquidated or become insolvent, or should the Contractor make a general assignment for the benefit of its creditors, or should a receiver be appointed on account of the Contractor's insolvency, UNIDO may, without prejudice to any other right or remedy it may have under the terms of this Contract, terminate this Contract forthwith by giving the Contractor written notice of such termination. The Contractor shall immediately inform UNIDO of the occurrence of any of the above events.

14. Insurance and Liabilities to Third Parties

- (a) The Contractor shall provide and thereafter maintain insurance against all risks in respect of its property and any equipment used for the execution of this Contract.
- (b) The Contractor shall provide and thereafter maintain all appropriate workmen's compensation insurance, or its equivalent, with respect to its employees to cover claims for personal injury or death in connection with this Contract.
- (c) The Contractor shall also provide and thereafter maintain liability insurance in an adequate amount to cover third party claims for death or bodily injury, or loss of or damage to property, arising from or in connection with the provision of services under this Contract or the operation of any vehicles, boats, airplanes or other equipment owned or leased by the Contractor or its agents, servants, employees or sub-contractors performing work or services in connection with this Contract.
- (d) Except for the workmen's compensation insurance, the insurance policies under this Article shall:
 - (i) Name UNIDO as additional insured;
 - (ii) Include a waiver of subrogation of the Contractor's rights to the insurance carrier against UNIDO;
 - (iii) Provide that UNIDO shall receive thirty (30) days written notice from the insurers prior to any cancellation or change of coverage.

- (e) The Contractor shall, upon request, provide UNIDO with satisfactory evidence of the insurance required under this Article.
- (f) Any amounts not insured or not recovered from the insurers shall be borne by the Contractor.
- (g) If the Contractor fails to effect and keep in force any of the insurances required under the Contract, then and in any such case UNIDO may, at its option, hold the Contractor in default in accordance with the Contract, or effect and keep in force any such insurances and pay any premium as may be necessary for that purpose and from time to time deduct the amount so paid from any monies due to the Contractor, or recover the same as a debt due from the Contractor.

15. Indemnification

The Contractor shall indemnify, hold and save harmless and defend at its own expense UNIDO, its officers, agents, servants and employees from and against all suits, claims, demands and liability of any nature or kind, including costs and expenses, arising out of acts, omissions, negligence or misconduct of the Contractor or its officers, agents, servants, representatives, employees, or sub-contractors in the performance of this Contract. This requirement shall extend to claims or liabilities in the nature of workmen's compensation and to claims or liabilities arising out of the use of patented inventions or devices. The obligations under this paragraph do not lapse upon termination of this Contract.

16. Settlement of Disputes

(a) Amicable Settlement

The Parties shall use their best efforts to settle amicably any dispute, controversy or claim arising out of, or relating to this Contract or the breach, termination or invalidity thereof. Where the parties wish to seek such an amicable settlement through conciliation, the conciliation shall take place in accordance with the UNCITRAL

Conciliation Rules then obtaining, or according to such other procedure as may be agreed between the parties.

(b) Arbitration

Unless, any such dispute, controversy or claim between the Parties arising out of or relating to this Contract or the breach, termination or invalidity thereof is settled amicably under the preceding paragraph of this Article within sixty (60) days after receipt by one Party of the other Party's request for such amicable settlement, such dispute, controversy or claim shall be referred by either Party to arbitration in accordance with the UNCITRAL Arbitration Rules then obtaining, including its provisions on applicable law. The arbitral tribunal

shall have no authority to award punitive damages. The parties shall be bound by any arbitration award rendered as a result of such arbitration as the final adjudication of any such dispute. It is understood, however, that the provisions of this paragraph shall not constitute nor imply the waiver by UNIDO of its privileges and immunities.

17. Conflict of Interest

No employee of the Contractor assigned to perform work under this Contract shall engage, directly or indirectly, either in his own name or through the agency of another person, in any business, profession or occupation in the country of the Government; nor shall he make loans to or investments in any business, profession, or occupation in the said country.

18. Obligations

In connexion with the performance of its services under this Contract, the Contractor shall neither seek nor accept instructions from any authority external to UNIDO. The Contractor shall refrain from any action which may adversely affect UNIDO and shall fulfil its commitments with full regard for the interests of UNIDO. Unless authorized in writing by UNIDO, the Contractor shall not advertise or otherwise make public the fact that it is performing or has performed services for UNIDO. Also, the Contractor shall not, in any manner whatsoever, use the name, emblem or official seal of the United Nations or of UNIDO or any abbreviation of the name of the United Nations in connexion with its business or otherwise. The Contractor is required to exercise utmost discretion in all matters relating to this Contract. Unless required in connexion with the performance of its work under this Contract or where specifically authorized by UNIDO, the Contractor shall not communicate at any time to any person, government or authority external to UNIDO any information which has not been made public and which is known to it by reason of its association with UNIDO. The Contractor shall not, at any time, use such information to private advantage. These obligations do not lapse upon satisfactory completion of the work under this Contract or termination of this Contract, including termination by UNIDO.

19. Title Rights

- (a) The United Nations or UNIDO, as the case may be, shall be entitled to all property rights including but not limited to patents, copyrights and trademarks, with regard to material which bears a direct relation to, or results from the services provided to the United Nations or UNIDO by the Contractor under this Contract. At the request of UNIDO, the Contractor shall take all necessary steps, prepare and process all necessary documents and assist in securing such property rights and transferring them to the United Nations and UNIDO in compliance with the requirements of the applicable law.
- (b) Title to any equipment and supplies which may be furnished by UNIDO shall rest with the United Nations or UNIDO as the case may be and any such equipment and supplies shall be returned to UNIDO at the conclusion of this Contract or when no longer needed by the

Contractor. Such equipment and supplies, when returned to UNIDO, shall be in the same condition as when delivered by UNIDO to the Contractor, subject to normal wear and tear.

20. Facilities, Privileges and Immunities of Contractor and Contractor's Personnel

UNIDO agrees to use its best efforts to obtain for the Contractor and his personnel (except Government nationals employed locally), to the extent granted by the Government to UNIDO staff members, such facilities, privileges and immunities as the Government has agreed to grant to contractors and to their personnel performing services for the United Nations Development Programme within the country. Such facilities, privileges and immunities shall include exemption from or reimbursement of the cost of any taxes, duties, fees or levies which may be imposed in the country on salaries or wages earned by the Contractor's foreign personnel in connexion with the execution of the work under this Contract and on any equipment, materials and supplies which the Contractor may bring into the country in connection with the work under this Contract or which, after having been brought into the country, may be subsequently withdrawn therefrom. A copy of the relevant provisions concerning facilities, privileges and immunities which UNIDO shall seek to obtain, is attached to and made a part of this Contract (Annex B).

21. Waiver of Facilities, Privileges and Immunities

Any provision, whether in an Agreement, Plan of Operation or any other instrument, to which the recipient Government is a party and by which the recipient Government confers benefits upon the Contractor and his personnel in the form of facilities, privileges, immunities, or exemptions by reason of his performance of services for UNIDO under this Contract may be waived by the UNIDO where, in its opinion, the facility, privilege or immunity would impede the course of justice and can be waived without prejudice to the successful completion of the work under this Contract or to the interest of the United Nations Development Programme or UNIDO.

22. Encumbrances/liens

The Contractor shall not cause or permit any lien, attachment or other encumbrance by any person to be placed on file or to remain on file in any public office or on file with UNIDO against any monies due or to become due for any work done or materials furnished under this Contract, or by reason of any other claim or demand against the Contractor.

23. Tax Exemption

- (a) In accordance with Section 7 of the Convention on the Privileges and Immunities of the United Nations and Section 9 of the Convention on the Privileges and Immunities of Specialized Agencies which are applicable to UNIDO by virtue of Article 21 of its Constitution, UNIDO is exempt from all direct taxes, except charges for public utility services, and is exempt from customs duties and charges of a similar nature in respect of articles imported

or exported for its official use. In the event any governmental authority refuses to recognize UNIDO's exemption from such taxes, duties or charges, the Contractor shall immediately consult with UNIDO to determine a mutually acceptable procedure.

- (b) Accordingly, the Contractor authorizes UNIDO to deduct from the Contractor's invoice any amount representing such taxes, duties or charges, unless the Contractor has consulted with UNIDO before the payment thereof and UNIDO has, in each instance, specifically authorized the Contractor to pay such taxes, duties or charges under protest. In that event, the Contractor shall provide UNIDO with written evidence that payment of such taxes, duties or charges has been made and appropriately authorized.

24. Child labor

- (a) The Contractor represents and warrants that neither him, nor any of his suppliers is engaged in any practice inconsistent with the rights set forth in the Convention on the Rights of the Child, including Article 32 thereof, which, inter alia, requires that a child shall be protected from performing any work that is likely to be hazardous or to interfere with the child's education, or to be harmful to the child's health or physical mental, spiritual, moral or social development.
- (b) Any breach of this representation and warranty shall entitle UNIDO to terminate this Contract immediately upon notice to the Contractor, without any liability for termination charges or any other liability of any kind of UNIDO.

25. Mines

- (a) The Contractor represents and warrants that neither him, nor any of his suppliers is actively and directly engaged in patent activities, development, assembly, production, trade or manufacture of mines or in such activities in respect of components primarily utilized in the manufacture of Mines. The term "Mines" means those devices defined in Article 2, Paragraphs 1, 4 and 5 of Protocol II annexed to the Convention on Prohibitions and Restrictions on the Use of Certain Conventional Weapons Which May Be Deemed to Be Excessively Injurious or to Have Indiscriminate Effects of 1980.
- (b) Any breach of this representation and warranty shall entitle UNIDO to terminate this Contract immediately upon notice to the Contractor, without any liability for termination charges or any other liability of any kind of UNIDO.

UNIDO
VIENNA

UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION

PRIVILEGES AND IMMUNITIES SECTION

1. The Contractor's personnel (except nationals of the Government employed locally) shall have the right to the following:
 - (i) Immunity from legal process in respect of all acts performed by them in execution of the work under this Contract;
 - (ii) Immunity from national service obligations;
 - (iii) Immunity from immigration restrictions;
 - (iv) The privilege of bringing into the country reasonable amounts of foreign currency for the purpose of the work under this Contract or for personal use of such personnel, and of withdrawing any such amounts brought into the country or, in accordance with the relevant foreign exchange regulations, such amounts as may be earned therein by such personnel in the execution of the work under this Contract and
 - (v) In the event of international crises, the same repatriation facilities as diplomatic envoys.
2. All personnel of the Contractor shall enjoy inviolability for all papers and documents relating to the work under this Contract.
3. The Government shall either exempt from or bear the cost of any taxes, duties, fees or levies which it may impose on any foreign firm or organization which may be retained by the UNIDO, and on the foreign personnel of any such firm or organization in respect of:
 - (i) The salaries or wages earned by such personnel in the execution of the work under this Contract and
 - (ii) Any equipment, materials and supplies brought into the country in connection with the work under this Contract or which, after having been brought into the country, may be subsequently withdrawn therefrom.
4. The facilities, privileges and immunities to which the Contractor and his personnel may be entitled may be waived by the UNIDO where, in its opinion, such facilities, privileges and immunities would impede the course of justice and can be waived without prejudice to the successful completion of the work under this Contract or to the interests of the United Nations Development Programme or UNIDO.

INSTRUCTIONS FOR THE DISPATCH OF REPORTS

PLEASE NOTE COMPLIANCE WITH THE FOLLOWING INSTRUCTIONS IS MANDATORY

1. The Contractor shall dispatch all copies of his interim, preliminary, draft final and final reports to the addresses stipulated in the Contract via air parcel post or airfreight. If the reports consist of several volumes, and are bulky and of considerable weights, the Contractor shall obtain appropriate instructions from UNIDO prior to effecting shipment.
2. In all instances, reports shall be packed in suitable containers, which shall be carefully marked with the following information:
 - Name(s) and address (es) of the consignee(s) as stipulated in the Contract
 - Description of Contents (i.e. interim, preliminary, draft final or final report)
 - Project No. And Title
 - UNIDO Contract No.
3. An envelope shall be securely fastened to the outside of the container(s) which shall enclose a detailed list of the contents specifying:
 - No. of copies of the reports contained in the package
 - Volume(s) number(s) (when the reports consist of more than one volume)
 - Language(s) of the report.
4. The Contractor shall ensure that the recipient(s) of the reports is (are) notified in advance of the shipment by airmail letter accompanied by copies of the above-mentioned list(s) and shipping documents if any.
5. When the Contractor is required to ship his reports to a recipient other than UNIDO Headquarters, he shall ensure that copies of the correspondence relating to and the shipping documents covering such shipments are sent, for information, to UNIDO Headquarters.

It should be noted that the above instructions do not apply to “Monthly Progress Reports”

PACKING AND MARKING INSTRUCTIONS

1. PACKING OF EQUIPMENT

The Goods shall be securely protected and packed in accordance with the best established practices so as to protect from damage during transit from the point(s) of manufacture and until arrival at the Plant site under conditions which may involve multiple handlings, transport by ship, rail and road, re-shipment, storage, exposure to heat, moisture, rain and possibility of pilferage. All packing shall allow for easy removal and checking at site.

2. EQUIPMENT CLEANING, SANDBLASTING AND PAINTING

The Goods shall be properly cleaned and/or sand-blasted and, where applicable, applied with one coat of rust inhibitor and a flat shop coat of paint except for shop finished equipment which shall be supplied finish painted.

3. LIFTING TACKLES, SKIDS AND OTHER EQUIPMENT LIFTING AND PROTECTION MEASURES

Heavy equipment shall be provided with suitable lifting tackle(s) and be mounted on and bolted to skids, which shall be of sufficient strength to support, and prevent distortion to it. All openings of pipes and large valves must be protected by wooden covers or plugs and machined threads must be covered by caps to protect them against damage in transit.

4. SPECIAL PACKING INSTRUCTIONS

All equipment and parts susceptible to corrosion by exposure to moisture and all electrical equipment shall be thoroughly protected against damage during transit and storage. Machine-finished surfaces shall be coated with approved anti-rust compound and all unfinished surfaces of machinery are to be given one coat of rust protective paint. In addition to normal packing, all electrical equipment shall be wrapped in polyethylene and polypropylene plastic sheets, and all openings in electrical equipment shall be sealed with waterproof tapes. A protective greaseproof paper shall be inserted between the brushes and armatures of motors and generators.

5. ITEMS TO BE PACKED SEPARATELY

The Contractor shall deliver the following equipment in individual separate packages with appropriate markings:

- Commissioning spares;
- Special welding rods and fluxes, if required for the equipment being supplied by him;
- Specialized erection tools and tackles, instrument and appliances, if required for the equipment being supplied by him;
- Spare parts and accessories.

PACKING AND MARKING INSTRUCTIONS

6. PACKING OF FRAGILE ITEMS

Fragile items shall be wrapped in crepe cellulose wadding or some equally efficient cushioning material and packed in substantial wooded boxes.

7. RESPONSIBILITY FOR DAMAGES DUE TO FAULTY PACKING

Notwithstanding anything stated in this Annex D, the Contractor shall be entirely responsible for loss, damage or deterioration to the Goods occasioned by faulty, defective or insecure packing or due to improper or insufficient protective measures up to C.I.F. (port of destination).

8. TAGGING

Each piece of equipment or parts thereof shall, when shipped or railed or otherwise dispatched, be tagged with the corresponding part numbers.

9. MARKINGS**(a) Markings on Package Side 1**

The following shipping marks shall be clearly stenciled with good quality non-fading paint on one side of the containers (boxes, crates, packages, etc.), in characters at least 150 mm high where the size of the containers permits.

UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION
 UNIDO _____ PLANT PACKAGE NO.
 Project No.
 UNIDO Contract No.

There shall be no duplication of package numbers.

(b) Markings on Package Top and Bottom

On the top and end the following symbol shall be marked:

Project No. _____ UNIDO _____ PLANT
 UNIDO Contract No. _____ PACKAGE NO.

(c) Markings on Package Side 3

On one end the following information shall be marked:

Project No. _____ UNIDO _____ PLANT
 UNIDO Contract No. _____

PACKING AND MARKING INSTRUCTIONS

GROSS WEIGHT _____ (KILOGRAMS)
NET WEIGHT _____ (KILOGRAMS)
LENGTH _____ (METRES)
WIDTH _____ (METRES)
HEIGHT _____ (METRES)
MADE IN _____
(Country of Origin)

(d) **Markings on Package Side 4**

On the side opposite the above, the name of the Contractor, UNIDO Contract number and other identifying data shall be clearly marked.

(e) **Special Marking Requirements for Bundles and Metal Bases**

In the case of bundles or metal bases, the proper markings, as hereinbefore designated shall be placed on metal tags, which are to be securely attached to the bundle or base as conspicuously as possible.

(f) **Package Topside Indication**

If necessary, packages must be marked on all four sides with arrows pointing to the top.

(g) **Markings for Fragile Items**

Fragile material shall be marked on all sides with appropriate cautionary symbols.

(h) **Markings for Unbalanced Weights**

When required due to length of unbalanced weight, the containers or pieces of equipment shall show the location of cables or hooks and the centre of balance.

DRAWINGS, SPECIFICATIONS AND MANUALS

Drawings, Specifications and Manuals

- Process mechanical flow sheet
- Drawings and technical characteristics of the equipment
- Drawings of main equipment piping layout
- Drawings required to assemble the plant
- Architectural specification for the civil building and layout of the foundations for the machinery
- One line and assembling drawings for power distribution; detailed drawing for the utilities within battery limits
- Operating and Maintenance Manuals
- Chemical Analysis Manual

The above shall cover and include all necessary basic engineering and, to the usual extent, detailed engineering specifications, operating and maintenance manuals and instruction, and shall conform to the following:

a) DRAWING MEASUREMENTS AND TEXTS

All drawings shall be dimensioned in the Metric System. Where drawings are usually made in the English (or other) systems, they shall also have Metric System dimensions in parenthesis or below the dimension line. Titles and written notations shall be in English. In general, all drawings shall be of the same size. All design drawings shall be oriented to match the Plant arrangement drawings and shall have a key plan identifying the Plant area to which they apply. The Plant arrangement drawings shall include an arrow pointing to the north. There shall be sufficient reference notes on the drawings to permit quick identification and proper understanding.

b) PLANT PIPING DRAWINGS

This category of drawings shall include temperatures and pressures, all pumps, valves and instrumentation. The piping diagram and one (1) line pipeline plans shall include general pipeline/duct routings to avoid equipment and electrical interferences and to make units requiring servicing and maintenance accessible. Both the piping diagram and one line pipeline plans shall show inter-connecting pipelines/ducts and terminal points of the Contractor's piping/ducting. Where necessary, the Contractor shall also give diagrams and drawings showing waste disposal systems.

c) PLANT ELECTRICAL DRAWINGS

This category of drawings shall include layout drawings showing locations of electrical equipment, including motors, controls, motor list for items of the Contractor's supply, single line, inter-locking and sequence diagrams. The details furnished by the Contractor shall include main routings for cabling.

d) PLANT INSTRUMENTATION DRAWINGS

This category of drawings shall include the control scheme and instrumentation flow diagrams and the general arrangement of the instrument and control panels.

e) SUPPLIER'S EQUIPMENT DRAWINGS

Supplier's equipment drawings, as may be available without restrictions to the Contractor, shall be provided by the Contractor as soon as possible before commencement of erection.

DRAWINGS, SPECIFICATIONS AND MANUALS

f) FOUNDATION OUTLINE DRAWINGS AND LOAD DATA

When applicable, the Contractor shall supply foundation arrangement drawings, including dimensional anchor/foundations, bolt location plans and loading drawings for all foundations and structures, giving the size and specification of any foundation/anchor bolts, sleeves, inserts, supports and other materials which have to be embedded in concrete.

g) PLANT MACHINERY ASSEMBLY AND ERECTION INSTRUCTIONS AND DRAWINGS

Where applicable, the contractor shall furnish five (5) copies of the following:

- Descriptive literature and drawings to illustrate the working principles, method of assembly and dismantling.
- Instruction manuals for proper erection and assembly of all the equipment supplied by him.
- Instruction sheets for proper equipment balancing, alignment, checking and calibration as may be necessary.
- Erection drawings showing all details and particulars, in sequence, required for the erection and installation of the equipment supplied by him.

The documents and drawings referred to in this sub-paragraph g) shall be submitted so as to be available at site in sufficient time prior to commencement of erection.

h) MAINTENANCE AND OPERATING MANUALS

The Contractor shall furnish to UNIDO:

- Ten (10) copies of maintenance manuals covering all phases of maintenance, including lubricating charts, showing every point requiring lubrication, grade of lubricant, schedule for lubrication, and, where required, the correct amount and grade of oil or grease necessary to refill after drainage.
- Ten (10) copies of operating instructions, including all details necessary to ensure proper procedure and sequence of operation.

The documents, drawings and other information referred to in this sub-paragraph shall be submitted prior to commissioning of the Plant.

i) INSPECTION PROTOCOLS

After shipment of the equipment, the Contractor shall, without delay, submit to UNIDO five (5) sets of final inspection protocols for major and important equipment, which has been inspected and tested.

j) DRAWING AND DOCUMENTS AT COMPLETION OF WORK

Upon completion of his work, the Contractor shall provide, for all the items supplied by him and his sub-contractor, one (1) reproducible and five (5) prints of each drawing incorporating all changes made during the execution of the work, including those made at the Plant site during erection, assembly and commissioning.

FINANCIAL STATEMENT AND CERTIFICATION

Must be completed and submitted by Suppliers as an integral part of their Offers

1. The information requested in the Tables below must be provided with your Offer, please complete accordingly:

Table 1

| | | |
|-----------|--|--|
| A. | Name of Company/organization | |
| B. | Address of Head Office | |
| C. | Fax and E-mail Numbers | |
| D. | Date Established and/or Registered | |
| E. | Paid up Capital | |
| F. | Date of the Latest Balance Sheet | |
| G. | Fixed Assets | |
| H. | Current Assets | |
| I. | Long Term Liabilities | |
| J. | Current Liabilities | |
| K. | Net Worth | |
| L. | Solvency Ratio (Current Assets/Current Liabilities) | |
| M. | Profit Margin Ratio | |
| L. | Name of Principal Officer | |
| M. | Where Applicable - Name and address of your Representative in the Country of the Project (if any) - | |
| | | |

Table 2

| Please state your Yearly Total Value of Business for the last three (3) Years in US\$ | | | |
|--|-----------------|---------------|-------------------|
| YEAR | DOMESTIC | EXPORT | US\$ TOTAL |
| | | | |
| | | | |
| | | | |

Table 3

| Please Provide Details of the Services/Goods Provided in the Advertised Sector during the last three (3) Years, if any | | | | |
|---|-------------------|-----------------------------|-----------------------------|-----------------------------|
| CATEGORY/DESCRIPTION OF GOODS/SERVICES | Value US\$ | 1st. Year | 2nd. Year | 3rd. Year |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

2. Please provide the Name and address of your company/organization's bank:

FINANCIAL STATEMENT AND CERTIFICATION

Must be completed by Suppliers invited to submit Offers

-
- 3.** Litigation in progress
Please provide brief information regarding on-going arbitration and other pending legal action, if any
- _____
- _____
- 4.** Please provide details of Consortium or Group to which company/organization belongs, if any:
- _____
- _____
- 5.** Please provide any other information (chronology and business line, organization structure, etc.):
- _____
- _____

We, the below, hereby certify to the best of our knowledge that the foregoing statements are true and correct and all available information and data have been provided herein, and that we agree to show you documentary proof thereof upon your request.

(Date)

(Signature of Authorized Representative)

(Printed Name of Authorized Representative)

(Position of Authorized Representative)

(Telephone No. And Fax No.)

Certified:

(Date)

(Signature of Authorized Representative)

(Printed Name of Authorized Representative)

(Position of Authorized Representative)

(Name of Certifying Authority and Telephone No. And Fax No.)

BANK INFORMATION FORM

1. Important: Please provide **complete** and **correct** bank details as required below. The beneficiary is responsible for the banking data provided in this form. UNIDO is not responsible for any delay in payments resulting from changes in banking information which have not been promptly communicated to UNIDO, nor will bear any charges resulting from incorrect and incomplete information provided in this form.

2. Any changes to the banking details should be communicated by using a new Bank Information Form, as requests by email will not be accepted.

3. The undersigned authorizes UNIDO to contact the bank for confirmation/verification of information provided, if

Note: Only one bank account in the name of the beneficiary will be accepted. No third-party payee is allowed.

| | |
|---|--|
| NAME AND ADDRESS OF ACCOUNT HOLDER | |
| | |
| | |

| | |
|--|--|
| BANK NAME AND ADDRESS TELEPHONE AND EMAIL | |
| | |
| | |

| | |
|-----------------------|--|
| ACCOUNT NUMBER | |
|-----------------------|--|

| | |
|--|--|
| IBAN <small>(INT'L BANK ACCOUNT NO.)</small> | |
|--|--|

| | |
|--------------------------|--|
| BIC OR SWIFT CODE | |
|--------------------------|--|

| | |
|--|--|
| ABA NUMBER <small>9-DIGITSCODE FOR ACH</small> | |
|--|--|

ACH (AUTOMATED CLEARING HOUSE) AND FED WIRE TRANSFES (ONLY FOR USA)

| | |
|--|--|
| BANK ROUTING NO. <small>(BLZ, SORT CODE, CHIP UID, TRANSIT NO. etc.)</small> | |
|--|--|

| | |
|-------------|---|
| DATE | NAME AND SIGNATURE OF AUTHORIZED SIGNATORY (1) |
| | |
| DATE | NAME AND SIGNATURE OF AUTHORIZED SIGNATORY (2) |
| | |

ACKNOWLEDGEMENT FORM – STATUS OF SUPPLIER RESPONSE (RFP)

RFP NO.: 700002685

CLOSING DATE: 29 November 2017
17h00 (Vienna, Austria)

PROJECT NO.: 120601

AUTHORIZED OFFICIAL: Aymen Ahmed

Please complete "A" or "B" or "C"

And return

WITHIN THREE (3) DAYS AFTER DOWNLOADING THE RFP DOCUMENTS

TO

UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION

by mail:

UNIDO

Wagramer Strasse 5, P.O. Box 300, A-1220 Vienna, Austria

By telefax:

By e-mail:

A: We shall submit our offer by: _____ (date)

B: We may submit and will advise by: _____ (date)

C: If, after downloading and reviewing the RFP documents, you do not intend to submit an offer,

please indicate the reason:

- We do not have the capacity to submit a proposal at this time;
- We cannot meet the technical requirements for this FRP;
- We do not think we can make a competitive offer at this time;
- Other (specify).

We acknowledge that this RFP is confidential and proprietary to UNIDO, and contains privileged information.

Name & Title of Authorized Representative:

Signature:

Company Name and Address:

Telephone No.:

Facsimile No.:

E-mail address:

QUALIFICATION REQUIREMENTS AND EVALUATION CRITERIA

RFP: 700002685

APPENDIX

I. QUALIFICATION REQUIREMENTS

OPERATIONAL

Certificate of Incorporation

The Proposer should be registered as a legal entity authorized to enter into contracts for provision of services and goods. As a proof, the Proposer should provide a certified copy of Certificate of Incorporation or other documents setting forth the legal basis of the company. It is highly recommended to register as UN User at the United Nation Global Marketplace (www.ungm.org) prior to submitting the offer.

Licenses/ Authorizations

The Proposer should provide a copy of relevant licenses and/or authorizations, where applicable, enabling the company to perform the required services/work required under the RFP.

International scope of operations

The invitee should provide, if available, information on operations outside of country of origin.

Internationally recognized Quality Standards

The Proposer is to indicate if and which established international recognized Quality Control System / Standards are applied to their activity (i.e. CE, ISO 9001, ISO 14001 or Eurovent/ARI). If applicable, the certificates should be provided.

PRODUCT

Internationally recognized Quality Standards for goods/service

The Invitee should provide information that the required goods meet international quality standards and, if yes, exactly which standards.

EXPERIENCE

Years in business

The Proposer should justify at least three (3) years of experience in the field of services/ works. The Proposer shall list those previous experiences in fulfilling contracts of nature similar to the subject RFP for the private sector and for UN agencies.

MANDATORY FINANCIAL QUALIFICATION REQUIREMENTS

A certified copy of the Financial Statements has to be provided and the Proposer shall meet the following basic financial criteria:

Profitability

Profit Margin Ratio or Return on Assets Ratio should be in excess of 1%

Solvency ratio

A solvency ratio (ratio of current assets to current liabilities) of more than 1 is required.

Turnover

The average annual turnover for the past 3 years (or for whatever period of time the contractor has been in business for, if it has not yet reached 3 years) should be at least two times more than anticipated value of the contract.

Litigation in progress

The impact of any pending claims, arbitration and other pending legal action should not exceed 50% of total assets of the contractor.

II. EVALUATION CRITERIA

PRICE/COST

Total cost

Total price i.e. total sum of unit prices as per cost breakdown required in Appendix 3 of the RFP documents

Other cost requirements

- Prices for equipment, parts and supplies shall be quoted DAP (INCOTERMS 2010) Plant Site.

Note: While price is an important factor, however, it shall not be the primary consideration in evaluating responses to this RFP.

Proposed payment terms

Requirement for advance payment, progress payments plan, etc. evaluated versus UNIDO's normal requirements indicated in the Model Contract.

CONTRACTUAL

- Agreement to the UNIDO contractual terms and conditions
- Acceptance of UNIDO's Model Contract and Conditions of Contract
- All other statements as required in paragraph 3 of the RFP

TECHNICAL

Compliance with the Terms of Reference

If alternate products/solutions are offered, all necessary documentation has to be attached to the technical offer to prove the equivalence.

Management

- Contractor's organization, structure and overall facilities
- Contractor's facilities and resources available for this contract;
- Proposed subcontracting effort in connection with obtaining additional resources;
- Adequacy of management organization and plan to satisfy requirements.

Guarantee Terms and Conditions

Adequacy of proposed guarantee terms and conditions in comparison with those defined in the TOR.

Personnel qualifications

Technical experience of principal personnel related to the performance of the requirement;
Education qualification related to the performance of the requirement should be provided in CV's when applicable.