

**German Financial Cooperation with India**

***PV-System Medinipur, Dadanpatra, Phase 1***

**Prequalification Document**

**for**

**Consulting Services for Assistance in Engineering,  
Procurement and Construction Supervision in West  
Bengal, India**

**Employer: West Bengal State Electricity Distribution  
Company Limited (WBSEDCL)**

**September 2020**

**ICB No.: BMZ201667724/KFW505133**

**List of Content**

<b>SECTION I – GENERAL PROVISIONS (GP)</b>	<b>3</b>
<b>SECTION II – SPECIAL PROVISIONS (SP)</b>	<b>15</b>
<b>SECTION III – APPLICATION FORMS</b>	<b>51</b>
<b>SECTION IV – ELIGIBILITY CRITERIA</b>	<b>61</b>
<b>SECTION V – KFW POLICY – SANCTIONABLE PRACTICE – SOCIAL AND ENVIRONMENTAL RESPONSIBILITY</b>	<b>63</b>

# SECTION I – GENERAL PROVISIONS (GP)

## 1. General

### 1.1 SCOPE OF APPLICATIONS AND DEFINITIONS

- 1.1.1 In connection with the Invitation for Prequalification indicated in Section II, Specific Provisions (**SP**), the Employer, as defined in the **SP**, issues this Prequalification Document (“Prequalification Document”) to prospective applicants (“Applicants”) interested in submitting applications (“Applications”) for prequalification to bid for the assignment described in SP 1.4.1.
- 1.1.2 The Employer as indicated in the **SP** has applied for or received financing (hereinafter called “funds”) from KfW Development Bank (hereinafter called “KfW”) towards the cost of the project named in the **SP**. The Employer intends to apply a portion of the funds to eligible payments under the Contract(s) resulting from the procurement process.
- 1.1.3 The following definitions apply:
- (a) “Affiliate(s)” means an entity that directly or indirectly controls, is controlled by, or is under common control with the Consultant
  - (b) “Applicable Law” means the laws and any other instruments having the force of law in the Employer’s country, or in such other country as may be specified in the **SP**, as they may be issued and in force from time to time.
  - (c) “Applicant(s)” means an entity or an association of entities (JV) that submits a set of documents as specified hereunder for being prequalified to submit a Proposal.
  - (d) “Consultant” means a legally-established professional consulting firm or an entity that may provide or provides the Services to the Employer under a Contract. The term “Consultant” and “Applicant” are used in this document interchangeably.
  - (e) “Contract” means a legally binding written agreement signed between the Employer and the Consultant.
  - (f) “Day” means a calendar day.
  - (g) “Employer” means the contracting party that legally concludes the Contract for the Services with the selected Consultant notwithstanding the representation by KfW in case of an agency Contract<sup>1</sup>.
  - (h) “Government” means the government of the Employer’s country.
  - (i) “Guidelines” means Guidelines for the Procurement of Consulting Services, Works, Goods, Plant and Non-Consulting

<sup>1</sup> The term Employer in this document shall have the same meaning as the terms Client and Project Executing Agency in the Guidelines.

Services in Financial Cooperation with Partner Countries available at [www.kfw-entwicklungsbank.de](http://www.kfw-entwicklungsbank.de).

- (j) “Joint Venture (JV)” means an association with or without a legal personality distinct from that of its members, of more than one Consultant where one member has the authority to conduct all business for and on behalf of any and all the members of the JV, and where the members of the JV are jointly and severally liable to the Employer for the performance of the Contract.
- (k) “Services” means the work to be performed by the Consultant pursuant to the Contract.
- (l) “Sub-Consultant” means an entity to which the Consultant intends to subcontract any part of the Services while remaining responsible to the Employer as contracting party during the performance of the Contract.
- (m) “Special Provisions (SP)” means an integral part of this Prequalification Document that is used to reflect specific country and project conditions to supplement the General Provisions. In case of conflict between the GP and the SP, the SP shall prevail.

## **1.2 SELECTION OF THE CONSULTANT AND PREQUALIFICA- TION PROCEDURE**

- 1.2.1 To execute the project, the Employer intends to select one or several Consultants in accordance with the Guidelines. The evaluation commission of the Employer may be assisted by a tender agent or in exceptional cases a tender agent may conduct the entire tender procedure on behalf of the Employer. KfW’s monitoring and no-objection is not affected. The details are outlined in the **SP**.
- 1.2.2 This Prequalification Document sets out the prequalification procedure, including but not limited to the minimum requirements towards the experience and capabilities of the Applicants and the evaluation method. The Applicants who demonstrate to the Employer’s satisfaction that they have the experience and the capabilities to execute the project shall be shortlisted in accordance with GP 4.2.5 to participate in the subsequent tendering procedure.
- 1.2.3 The procurement process is the responsibility of the Employer. KfW shall verify that the procurement process is fair, transparent, economical, free of discrimination and according to the provisions in this document. KfW exercises its monitoring function on the basis of the contractual arrangements with the Employer and the Guidelines containing details for KfW’s approval and no objection to individual steps during the procurement process. No contractual relationship between KfW and any third party shall be deemed to exist other than with the Employer.

## **1.3 SANCTIONABLE PRACTICE**

- 1.3.1 KfW requires compliance with its policy in regard to Sanctionable Practice as defined and set forth in Section V.
- 1.3.2 In further pursuance of this policy, Applicants shall permit and shall cause its agents to provide information and permit KfW or an agent appointed by KfW to inspect on site all accounts, records and other documents relating to the procurement process and Contract performance (in the case of award), and to have them audited by auditors or agents appointed by KfW.

#### **1.4 ELIGIBLE APPLICANTS**

- 1.4.1 An Applicant may be a firm that is a private entity, a government-owned entity — subject to Section IV — or a combination of such entities in the form of a Joint Venture (“JV”) under an existing JV Agreement or with the intent to enter into such an agreement supported by Declarations of Association. In the case of a JV, all members shall be jointly and severally liable for the execution of the Contract in accordance with the Contract terms. An Application may include Sub-Consultants, whose relationship with the Applicant is contractual, and who are not held jointly and severally liable for the execution of the Contract. The Applicant shall nominate an authorized representative who shall have the authority to conduct all business for and on behalf of the Applicant and any and all its members, if the Applicant is a JV, during the prequalification process, procurement process (in the event the Applicant submits a Proposal) and during Contract execution (in the event the Applicant is awarded the Contract). Unless specified in the **SP**, there is no limit on the number of members in a JV. The authorization shall be in the form of a written power of attorney attached to the Technical Proposal.
- 1.4.2 Applicants including their Affiliates and, in case of JVs, any of their members, may participate in only one Application. Sub-Consultants whose qualifications are used in the evaluation of at least one Application, pursuant to the Applicant’s request made in accordance with Form 2 (Declaration on Conflict of Interest and of Submitting a Proposal), may only participate in the respective Application. Sub-Consultants, whose qualifications are not used in the evaluation of any Application, may participate in more than one Application. Applications submitted in violation of this procedure will be rejected.
- 1.4.3 It is the Consultant’s responsibility to ensure that its staff, Joint Venture members, Sub-Consultants, agents (declared or not), sub-contractors, service providers, suppliers and/or their employees meet the requirements on eligibility and conflict of interest as established hereunder.
- 1.4.4 KfW’s eligibility criteria for prequalification are described in Section IV, Eligibility Criteria.
- 1.4.5 An Applicant shall provide such evidence of eligibility satisfactory to the Employer, as the Employer shall reasonably request.
- 1.4.6 The materials, equipment and Services to be supplied under the Contract and financed by KfW may have their origin in any country subject to the restrictions specified in Section IV Eligibility Criteria, and all expenditures under the Contract will not contravene such restrictions.

#### **1.5 CONFLICT OF INTEREST**

- 1.5.1 The Consultant is required to provide professional, objective, and impartial advice, at all times holding the Employer’s interests paramount, strictly avoiding conflicts with other assignments or its own corporate interests, and acting without any consideration for future work.
- 1.5.2 Applicants shall be disqualified if they:

- (a) are an Affiliate controlled by the PEA or a shareholder controlling the PEA, unless the stemming conflict of interest has been brought to the attention of KfW and has been fully resolved to the satisfaction of KfW;
- (b) have a business or a family relationship with a PEA's staff involved in the tender process or the supervision of the resulting Contract, unless the stemming conflict of interest has been brought to the attention of KfW and resolved to its satisfaction;
- (c) are controlled by or do control another Applicant or are under common control with another Applicant, receive from or grant subsidies directly or indirectly to another Applicant, have the same legal representative as another Applicant, maintain direct or indirect contacts with another Applicant which allow them to have or give access to information contained in the respective Applications, to influence them or influence the decisions of the PEA;
- (d) are engaged in a Services activity which, by its nature, may be in conflict with the assignment that they would carry out for the PEA;
- (e) were directly involved in drawing up the terms of reference or other relevant information for the tender process. This shall not apply to Consultants who have produced preparatory studies for the project or who were involved in a preceding project phase, insofar as the information they prepared, especially feasibility studies, was made available to all Applicants and the preparation of the terms of reference was not part of the activity;
- (f) were during the last 12 months prior to publication of the tender process indirectly or directly linked to the project in question through employment as a staff member or advisor to the PEA, and are or were able in this connection to influence the Award of Contract.

1.5.3 The Consultant has an obligation to disclose to the Employer any situation of actual or potential conflict that impacts its capacity to serve the best interest of its Employer. Failure to disclose such situations may lead to the disqualification of the Consultant or the termination of its Contract.

## 1.6 REQUESTED SERVICES

1.6.1 A brief description of the requested consulting Services is presented in the **SP**.

## 2. Contents and Preparation of the Application

### 2.1 PREQUALIFICATION DOCUMENT AND COMMUNICATION

- 2.1.1 These Prequalification Documents consist of the sections indicated below, which should be read in conjunction with any Addendum issued in accordance with clause 2.6.

Section I - General Provisions (GP);

Section II - Special Provisions (SP);

Section III - Application Forms:

Form 1: Declaration of Undertaking;

Form 2: Sample Declaration on Conflict of Interest and of Submitting a Proposal;

Form 3: Sample Declaration of Association;

Form 4: Financial Capacity Statement;

Form 5: Project Experience;

Form 6: List of Available Expertise and Human Resource Capacity;

Section IV - KfW Eligibility Criteria;

Section V - KfW Policy – Sanctionable Practice – Social and Environmental Responsibility.

- 2.1.2 Unless obtained directly from the Employer, the Employer accepts no responsibility for the completeness of the Prequalification Documents, responses to requests for clarification, or Addenda in accordance with GP 2.6. In case of any discrepancies, documents issued directly by the Employer shall prevail.
- 2.1.3 The Applicant is expected to examine all instructions, forms, and terms in the Prequalification Documents and to furnish with its Application all information or documentation as is required by the Prequalification Documents.
- 2.1.4 The Application, as well as all correspondence and documents relating to the Application exchanged between the Applicant and the Employer shall be in the language of this document. Any official documents presented in a different language shall be accompanied by a certified translation into the language of this document. The Employer reserves the right to verify the translation. In case of discrepancies the original document shall prevail.
- 2.1.5 All communication between the Employer and Applicants shall take place in writing. For the purposes of the Prequalification Document in writing shall mean communicated in written form (for example by post, e-mail or facsimile) and delivered with proof of receipt.

### 2.2 DOCUMENTS COMPRISING THE APPLICATION

- 2.2.1 The Application submitted by the Applicant shall comprise the following:
- (a) Application Letter, indicating the Applicant's name, address, telephone, fax and email. If the Applicant is a JV, the Application Letter shall also describe the form of association and list the JV members.

- (b) A Power of Attorney authorizing the representative of the Applicant, designated in accordance with GP 1.4.1 to submit the Application on behalf of the Applicant. If the Applicant is a Joint Venture, the Power of Attorney shall be provided by the Lead Consultant nominated in the JV agreement or in the Declarations of Association, submitted in accordance with GP 2.2.1(d)(II). If the representative of the Applicant is the owner, member or director of the Applicant or the Applicant's Lead Consultant, if so nominated in accordance with GP 2.2.1(d)(II), a Power of Attorney shall not be necessary.
- (c) Presentation of the Applicant (maximum 10 pages, no brochures). If the Applicant is a single entity, the presentation shall describe the Applicant's type of entity, ownership structure and organisation chart, as well as its main business areas as they apply to the project. If the Applicant is a JV, the presentation shall provide this information about each JV member as well as a description of the intended form of collaboration of the members within the JV.
- (d) Statements and Declarations:
- I. Declaration of Undertaking in the format provided in Section III.
  - II. Declaration on Conflict of Interest and of Submitting a Proposal in the format provided in Section III.
  - III. If the Applicant is an existing JV, the Applicant shall submit a proof of the existing JV Agreement, indicating the Lead Consultant. If the Applicant is a JV, which the members intend to form for the purpose of executing the Contract, each member of the JV shall submit a Declaration of Association, indicating the Lead Consultant, in the format provided in Section III.
  - IV. Statement on conflict of interest as per GP 1.5 is part of the declaration as per (d) ii. above. If the Applicant is a JV, separate statements shall be provided by each member of the JV.
  - V. Financial Capacity Statement in the format provided in Section III and supported by the Applicant's balance sheets and profit and loss Statements. If the Applicant is a JV, separate statements, including the supporting Balance Sheets and Profit and Loss Statements, shall be provided by each member of the JV. All balance sheets and profit and loss statements shall be certified by a reputable auditor.
  - VI. List of project references in the format provided in Section III. The number and timing requirements towards the project references shall be specified in the **SP**. The Employer reserves the right to contact the clients indicated in the references to ascertain the information provided by the Applicant.
  - VII. List of Available Expertise and Human Resource Capacity in the format provided in Section III.



(e) Any other documentation required in the **SP**.

2.2.2 Applicants shall submit concise and clear, but substantial documents and adhere to the above structure. Any interlineations, erasures or overwriting shall be valid only if initialled by the Applicant's representative designated in accordance with GP 1.4.1.

## **2.3 COST OF APPLICATION**

2.3.1 All cost relating to the preparation of the Application, including but not limited to site visits, obtaining information, preparation and submission of the Application, shall be borne by the Applicant.

## **2.4 SIGNING OF THE APPLICATION AND THE NUMBER OF COPIES**

2.4.1 The Applicant shall prepare one original Application as described in GP 2.2 and clearly mark it "ORIGINAL". All documents comprising the original Application shall be typed or written in indelible ink and shall be signed by the Applicant's representative designated in accordance with GP 1.4.1. If the Applicant is a JV, the statements and declarations submitted by the members of the JV in accordance with GP 2.2.1(d)(II) – (VII) shall be signed by duly authorized officials, such as owners or directors of the respective members.

2.4.2 The Applicant shall prepare copies of the signed original Application and clearly mark each of them "COPY". The number and type of copies of the Application shall be in accordance with the **SP**. In the event of any discrepancy between the original and the copies, the original shall prevail.

2.4.3. If electronic copies of the Proposal are required in accordance with GP 2.4.2, they shall be presented as unalterable and printable PDF files on CD or DVD disks, marked accordingly.

## **2.5 CLARIFICATION OF PREQUALIFICA- TION DOCUMENT**

2.5.1 Applicants may request a clarification of the Prequalification Document until the deadline indicated in the **SP**. Any request for clarification shall be sent in writing or by standard electronic means to the address indicated in the **SP**. Responses shall be in writing or by standard electronic means and shall be sent to all prospective Applicants who have obtained the Prequalification Document directly from the Employer, including a description of the inquiry but without identifying its source, not later than ten (10) Days prior to the deadline for the submission of Applications in accordance with GP 3.2.1.

2.5.2 If necessary, the Employer may send clarifications of the Prequalification Document to all prospective Applicants who have obtained the Prequalification Document directly from the Employer, not later than ten (10) Days prior to the deadline for the submission of Application in accordance with GP 3.2.1.

## **2.6 AMENDMENT OF PREQUALIFICA- TION DOCUMENT**

2.6.1 At any time prior to the deadline for the submission of Applications but not later than ten (10) Days before the submission date the Employer may amend the Prequalification Document by issuing an Addendum.

2.6.2 Any Amendment issued shall be part of the Prequalification Document and shall be communicated immediately in writing to all prospective Applicants who have obtained the Prequalification Document from the Employer.

- 2.6.3 To give Applicants reasonable time to take an Amendment into account in preparing their Applications, the Employer may, at its discretion, extend the deadline for the submission of Applications in accordance with GP 3.2.2.

### 3. Submission of Applications

#### 3.1 SEALING AND IDENTIFICATION OF APPLICATIONS

- 3.1.1 The Applicant shall enclose the original and the copies of the Application in a sealed envelope that shall:
- (a) bear the name and address of the Applicant;
  - (b) be addressed to the Employer, in accordance with GP 3.2 below;
  - (c) bear the project title and/or tender number;
  - (d) bear the following words clearly visible „Not to be opened by the Postal Service - Prequalification for “ and the name of the assignment.
- 3.1.2 The Employer shall not be responsible for misplacement, losing or premature opening of the Application if the envelope is not sealed or marked in accordance with GP 3.1.1. The disposal of original late Applications shall be obligatorily documented in a late Applications protocol, which shall be provided to KfW as part of the opening protocol prepared in accordance with GP 3.2.7 and to the entity, which has submitted the late Application.

#### 3.2 DEADLINE FOR SUBMISSION OF APPLICATIONS, OPENING

- 3.2.1 Applicants may submit their Applications by mail, by courier or by hand, against confirmation of receipt. Applications shall be submitted by the Applicants at the address and no later than the deadline indicated in the **SP**. Any Application received by the Employer after the deadline shall be declared late and rejected, and promptly disposed of.
- 3.2.2 The Employer may, at its discretion, extend the deadline for the submission of Applications by amending the Prequalification Document in accordance with GP 2.6, in which case all rights and obligations of the Employer and the Applicants subject to the previous deadline shall thereafter be subject to the deadline as extended.
- 3.2.3 The preparation and the submission of the Applications is the responsibility of the Applicant and no relief or consideration can be given for errors and omissions.
- 3.2.4 If copies of the Application shall be sent to multiple addresses in accordance with GP 3.2.1, the timely receipt of the original Application in compliance with GP 3.2.1 shall be decisive for the timely submission of the Application.
- 3.2.5 The Employer's evaluation committee as detailed in **SP** 1.2.1 shall proceed with the opening of the Applications shortly after the submission deadline as indicated in the **SP** and establish and sign an opening protocol as per GP 3.2.7.
- 3.2.6 Unless otherwise agreed the Employer's evaluation committee shall be composed of at least three members. One member of the Evaluation committee shall not be staff from the Employer's administration or organisation.

- 3.2.7 At the opening of the Applications the following shall be recorded in the opening protocol: the name and business address of the Applicant or, in case of a Joint Venture, the name and business address of the Joint Venture, the name and business address of the lead member and the names and business addresses of all members; the presence or absence of the Declaration of Undertaking whether they have been received on time and sealed as per GP 3.1.1. and any other information deemed appropriate or as indicated in the **SP**.

## 4. Evaluation-Process of the Prequalification Documents

### 4.1 CONFIDENTIALITY

- 4.1.1 After the opening of the Applications and until the announcement of the prequalification results to the Applicants no communication of any type between the Applicants and the Employer, its staff or any other person involved in the evaluation is permitted except as specified under GP 4.3.
- 4.1.2 Information relating to the Applications, their evaluation and result shall not be disclosed to Applicants or any other persons not officially concerned with the prequalification procedure until the Employer notifies the Applicants of the prequalification results.

### 4.2 EVALUATION

- 4.2.1 The Employer shall reject an Application that is not substantially responsive to the requirements of this Prequalification Document. In particular, an Application failing to demonstrate that the Applicant fulfils the financial capability requirements set out in the **SP** or lacking the following documents shall be considered not substantially responsive:
- a) Declaration of Undertaking (Form 1)
  - b) Financial Capability Statements and supporting documentation as required (Form 4)
  - c) Declaration on Conflict of Interest and on Submitting an Application (Form 2)
  - d) Power(s) of Attorney authorizing the representative of the Applicant
  - e) If the Applicant is a JV, either proof of the existing Association Agreement or a Declaration of Association (Form 3)
- 4.2.2 The Employer shall evaluate the responsive Applications in terms of the prequalification criteria indicated in the **SP** and award each responsive Application a prequalification score of up to 100 points.
- 4.2.3 For the purposes of scoring individual prequalification sub-criteria in accordance with GP 4.2.2 the Employer shall apply the following qualitative approach to each criteria:
- a) 100% of the max. score: Excellent, no errors or omissions at all are noted. Exhaustive, conclusive, comprehensive, precise and further leading suggestion / idea / offering with respect to the sub-criterion.
  - b) 75% of the max. score: Good, minimal errors or omissions noted. Exhaustive, conclusive, comprehensive and precise with respect to the sub-criterion.
  - c) 50% of the max. score: Unsatisfactory, major errors or omissions noted not comprising the fulfilment of the sub-criterion, basically meets the requirement of the respective sub-criterion.
  - d) 25% of the max. score: Poor, major errors or omissions are noted comprising the fulfilment of the sub-criterion, substantially

deviates from or indicates misunderstanding of the requirement of the respective sub-criterion.

- e) 0 % of the max. score: Insufficient / Fail, does not meet the requirement of the respective sub-criterion at all or does not provide any information regarding the requirement of the sub-criterion.

4.2.4. The Employer shall reject an Application if,

- (a) it has determined that the Application is nonresponsive in accordance with GP 4.2.1;
- (b) it has awarded the Application a prequalification score, which is lower than the minimum prequalification score of 70 points out of 100. Depending on the nature of the assignment a minimum score may be applied not only to the overall score but also to the achievement of a subscore dedicated to environmental, social, health and safety (ESHS) issues, if specified so in the Special Provisions (SP).

4.2.5 The Employer shall establish a shortlist of qualified Applications determined to be responsive and scoring higher than the minimum prequalification score. The number of Applicants to be invited is generally five (5) but could be increased up to eight (8) if required and subject to prior indication in the SP. However, if the number of prequalified Applicants exceeds this predefined number Applicants will be invited as per their ranking.

#### **4.3 EMPLOYER'S RIGHT TO ACCEPT OR REJECT APPLICATIONS**

- 4.3.1 The Employer reserves the right to accept or reject any Application, and to annul the prequalification process and reject all Applications at any time, without thereby incurring any liability to the Applicants.
- 4.3.2 The Employer is not bound to select any Application.

#### **4.4 NOTIFICATION OF PREQUALIFICA- TION AND PUBLICATION**

- 4.4.1 The Employer shall notify all Applicants in writing on the outcome of evaluation shortly after the finalisation of the evaluation.
- 4.4.2 In addition, the Employer shall publish the list of prequalified Applicants (including all JV members, if any) who will be invited to submit an Offer (prequalification-result notice), after KfW's No-Objection to the prequalification evaluation report on GTAI's website and in any other media in which the prequalification notice was published.
- 4.4.3 Applicants that have not been prequalified may write to the Employer to request, in writing, the grounds on which they were not qualified.
- 4.4.4 Upon such a request the Employer will inform such Applicants on the major shortcomings and weaknesses of their Application.

#### **4.5 REQUEST FOR PROPOSAL**

- 4.5.1 Promptly after the notification of the results of the prequalification, the Employer shall invite the prequalified Applicants to submit their Proposals.

## SECTION II – SPECIAL PROVISIONS (SP)

*(the references refer to the respective figures in the General Provisions)*

### 1.1.1 EMPLOYER

The Employer is West Bengal State Electricity Distribution Company Limited (WBSEDCL).

ICB name and number are:

WBSEDCL, No. BMZ201667724/KFW505133

The prerequisites for disbursements for this assignment are not yet finalised. Any contractual commitment related to this tender procedure is subject to the readiness of disbursement of funds for this assignment.

### 1.2.1 SELECTION OF THE CONSULTANT

The tender procedure is conducted on behalf of the Employer by Mr Andreas Hahn, ah-Advice International. The Tender Agent seeks approval for final decisions.

### 1.4.1 APPLICANTS

The following conditions shall apply to the engagement of Sub-Consultants by the Applicant: None

### 1.6.1 REQUESTED SERVICES

In the state of West Bengal - India, a solar PV power plant with a capacity of 125 MW<sub>p</sub> is currently being developed by the WBSEDCL. The overall objective of this assignment is to ensure the successful and timely implementation of the utility-scale PV project in accordance with international best practices. The Services requested under this assignment are described in the Terms of Reference (ToR) listed in 4.3. The TOR are still subject to change.

### 2.2.1 DOCUMENTS COMPRISING THE APPLICATION

2.1.1(d)(VI) Project References:

- Maximum number of reference projects to be presented: 10
- Time period: during past 5 years

### 2.5.1 CLARIFICATION OF PREQUALIFICATION DOCUMENT

The address for any clarifications regarding this application is as follows:

Mr Andreas Hahn, Tender Agent, e-mail: [ahadvice@outlook.com](mailto:ahadvice@outlook.com) and a copy to:

Mr. Sengupta, Solar Power Generation Department, Office of the Chief Engineer

Electronic mail address: solarwbsedcl2018@gmail.com

The deadline for requests for clarification by Applicants is 21 days prior to the submission date as per SP 3.2.1. The response to requests for clarification will be forwarded to Applicants not later than ten (10) days prior to the deadline for the submission of Applications.

### 3.2.1 DEADLINE FOR SUBMISSION OF APPLICATIONS

Electronic submission of Application Documents via an e-procurement platform at or before **15 hrs CET on 09 October 2020**.

Applicants will be informed by the Tender Agent 10 days before the deadline for submission about the e-procurement procedure and about the transfer of their personal data for registration as users. Without prior onboarding onto the e-Procurement platform, it is not possible to participate in the electronic submission.

## 4.2 EVALUATION

4.2.1 The Applicant shall demonstrate the following financial capabilities:

Annual turnover of lead consultant including all associated partners showing the necessary turnover of more than **600,000 EUR** (or equivalent in a different currency) in each of the last three financial years (refer to Form 4). The date for the currency conversion to be applied, shall be 31 December 2019. A certified statement of financial capacity (by independent chartered accountant) of the lead consultant and all associated partners is required. The Consultant should not have negative net worth, in any of the last three financial years.

Responsive Application as per GP 4.2.2 will be evaluated in accordance with the following criteria and scoring system<sup>2</sup>.

	Criteria	Max. Score	
1.	Clarity, completeness and conciseness of application document submitted	5	
2.	Experience of the Firm: Evidence of relevant experience gained in the <b>utility-scale photovoltaic sector</b> by consultants during the past 6 (six) years .	35	
2.1	Experience in implementing similar utility-scale PV projects.		20
2.1.1	Five references of similar projects (owner's engineer) included in proposal (worldwide).		
2.1.2	Five references projects that demonstrate the firm's experience in construction works in earthquake-		

<sup>2</sup> In very specific cases a deviation from the qualification criteria and the scoring range might be justified subject to KfW's prior approval.



	endangered regions and/or at sites with extreme climate/whether conditions.		
2.2	Working experience in the framework of public entities / governments / development banks in developing countries and emerging markets. (criterion: Five utility-scale PV project references included in proposal.)		<b>5</b>
2.3	Working experience in the Region (Bangladesh, India, Pakistan, Sri Lanka), preferably India. (criterion: Five utility-scale PV project references included in proposal, out of which at least three are from India.)		<b>10</b>
<b>3.</b>	Experience of the Human Resource Capacity	<b>60</b>	
3.1	The applicant, or a part of the applying companies is an Indian consulting firm, active in the Indian RE sector for at least 5 years ( <b>“must meet requirement”</b> ).		
3.2	Assessment of the technical expertise in the power sector (renewable energy, power grid) specific to this project.		<b>20</b>
3.2.1	Consultant convincingly shows his general ability to provide the requisite technical expertise (criterion: number of qualified experts)		10
3.2.2	Consultant has sufficient permanent staff to perform the technical tasks (criterion: relation freelance/permanent staff)		10
3.3	Assessment of environmental and social expertise specific to this project		<b>20</b>
3.3.1	Consultant convincingly shows its general ability to provide the requisite environmental and social expertise (criterion: number of qualified experts)		10
3.3.2	Consultant has sufficient permanent staff to perform the environmental and social tasks (criterion: relation freelance/permanent staff)		10
3.4	Assessment of financial/procurement expertise specific to this project		<b>20</b>
3.4.1	Consultant convincingly shows its general ability to provide the requisite financial/procurement expertise (criterion: number of qualified experts)		10
3.4.2	Consultant has sufficient permanent staff to perform the financial/procurement tasks (criterion: relation freelance/permanent staff)		10

**A minimum of 14 from 20 points in 3.3 is to be reached in order to be qualified.**

The number of prequalified Applicants to be invited to submit a Proposal is limited to five (5). Should more than 5 applicants score above the minimum prequalification score 70 points, then the highest scoring 5 applicants will be short-listed. The results of the prequalification process, i.e. the names of the short-listed applicants, will be published on GTAI's and WBSEDCL's website.

#### **4.3 TERMS OF REFERENCE (TOR) – Subject to Change**

**German Financial Cooperation with India**  
**ICB No.: BMZ201667724/KFW505133**

**Consulting Services for Assistance in Engineering, Procurement  
and Construction Supervision in West Bengal, India**

**Period of assignment: November 2020 – December 2023**

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### **1. INTRODUCTION**

India ranks number two in the global list of countries by population and its need for energy supply continues to rise as a result of the country's dynamic economic development and modernization. In the wake of power deficits and rising import costs of fossil fuel resources, India's energy security is a major concern for the government. As rapid economic growth is expected to continue, massive investments in power generation and related infrastructure are required. India is seeking to balance its development needs with the need to diversify the existing energy mix with clean and affordable low-carbon energy sources. This creates manifold opportunities for solar photovoltaic (PV) energy deployment in India.

### **2. PROJECT BACKGROUND**

#### **2.1 Project Executing Agency**

In the state of West Bengal, a solar PV power plant with a capacity of 125 MW<sub>p</sub> is currently being developed by the West Bengal State Electricity Distribution Company Limited (WBSEDCL). WBSEDCL is one of the leading power utility services organizations of the country. The utility provides quality power to a customer base of more than 19 million across West Bengal through its service network spanning 5 Zones, 20 Regional Offices, 76 Distribution Divisions and 530 Customer Care Centers. The main business of WBSEDCL is power distribution and hydro generation of electricity. With the planned construction and operation of a utility-scale solar PV power plant, WBSEDCL is opening up a new field of business in the area of power generation. Funds have been earmarked for this project by the German bilateral Financial Cooperation, implemented by KfW.

WBSEDCL hereby invites qualified Consultants to express their interest in assisting WBSEDCL to successfully implement the project. WBSEDCL has requested KfW to assist in appointing an Project Implementation Consultant (PIC) who will work for WBSEDCL and provide the requested services.

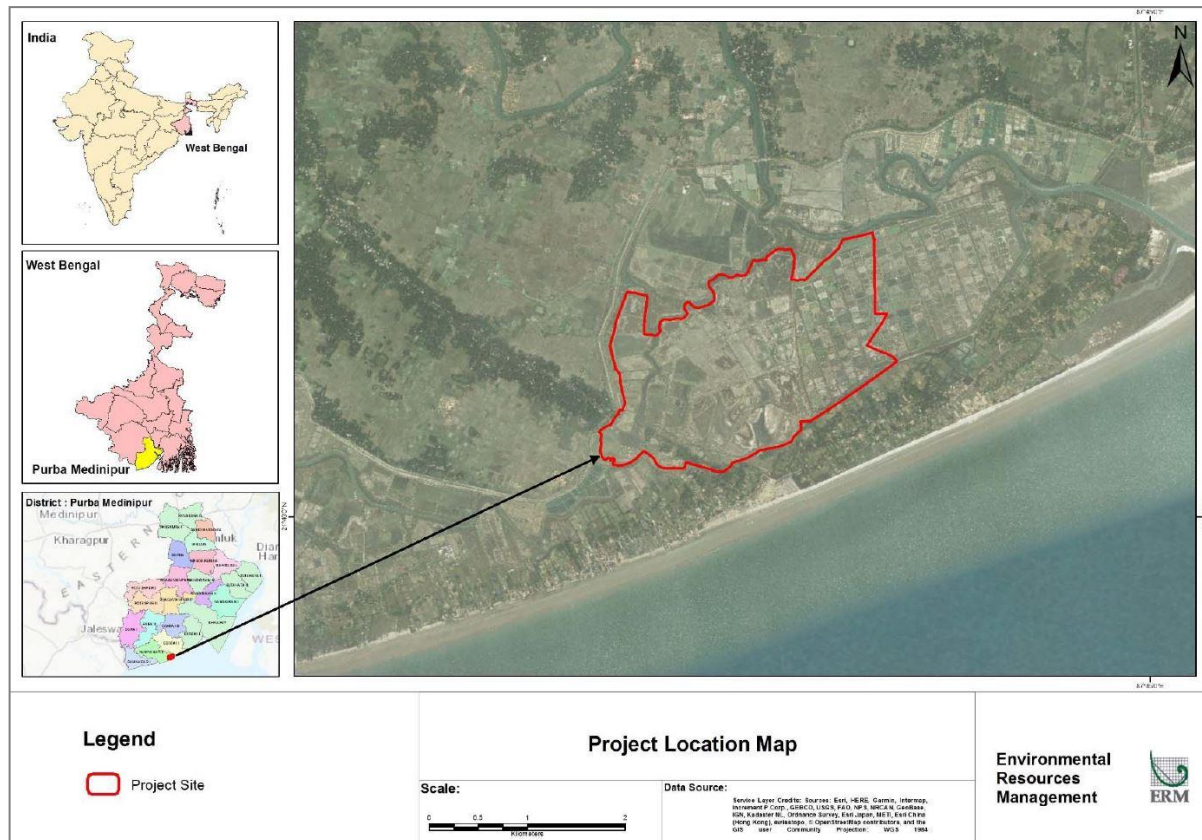
#### **2.2. Construction Period**

Conclusion of the Engineering, Procurement and Construction (EPC) contract is expected by end of the calendar year 2020. Site preparations are expected to begin in the first calendar quarter of 2021 and followed by installation works. Commissioning of the PV plant is planned by the end of 2021. Work for preparation of the site and installing site infrastructure such as roads, drainage and a connection to the relevant substation at Ramnagar Block 2 are being

carried out or scheduled to start soon. This work shall not be part of the scope of the EPC-contractor and shall also not fall under the tasks to be supervised by the PIC.

### 2.3 Site and other Data

**Project Location:** The proposed project site is located in the state of West Bengal, India at 21°40'50" N / 87°42'40" E. Figure 1 gives an overview of the potential project site with an available area of approximately 200 hectares.



**Figure 1:** Location of the proposed site (Source: ERM)

The project site was formerly used for salt farming from seawater by the state-owned Bengal Salt Company. The salt pan has not been operated for decades, except for occasional use by local villagers (see below). The project site is characterized by salient geographic features such as embankments, salt pans, creeks, irrigation structures and proximity to the shore line. The entire patch of land is almost void of any plant growth due to the salinity of the soil.

**Socio-Economic Conditions:** The entire land is owned by the government and there is no private land located within the site. However, consultations with local communities revealed that the project will result in economic displacement of about 100-200 families that are dependent on the land located within the project area for fishing and salt farming. Discussions held with the local communities did not point towards the presence of any sites bearing cultural historical or spiritual significance within the project footprint.

**Natural Hazards:** The project region is vulnerable to a number of natural hazards. It is categorized as cyclone prone area with wind speeds up to 280 km/h. During the monsoon season, storm tide and Tsunami events, the project site is subject to flooding and related erosion of soil (see figure 2). Furthermore, earthquakes of a magnitude of 5.0–5.2 are reported

in the area (years 1964/1976). According to the Seismic Zonation Map prepared by the Bureau of Indian Standards, the project area falls in Zone II (moderate damage risk zone).



**Figure 2:** The project site is vulnerable to a number of natural hazards (Source: ERM)

The challenging environmental conditions need to be reflected in the design of the PV power plant (e.g. streamlined design of the solar generator, corrosion protection of all system components, etc.), the surrounding embankment (e.g. adjusting the height of the embankment) and the respective water evacuation systems (mainly of storm/rainwater) from the site.

#### **2.4. Construction Environmental and Social Management Plan (CESMP)**

Solar energy is a promising alternative to fossil fuel-based energy, but its development can require a complex set of environmental and social tradeoffs. Thus, for all project activities it will be important to ensure that potential negative environmental and social (E&S) impacts are minimized, while striving to enhance benefits for local communities and the environment. In this regard, an independent Environmental and Social Consultant has been assigned to conduct the required Environmental and Social Impact Assessment (ESIA), including the following respective sub-plans in compliance with the Relevant Standards of KfW's Sustainability Guideline (2019): Environmental and Social Management Plan (ESMP), Stakeholder Engagement Plan (SEP) and a Livelihood Restoration Plan (LRP). While some of the measures entailed in these plans are to be implemented by WBSEDCL, the SEP and the ESMP include specific requirements to be adhered to by the EPC-Contractor. For doing so, the EPC-Contractor is obliged to prepare and follow the Construction Environmental and Social Management Plan (CESMP), including the implementation of specific actions for stakeholder engagement and grievance redress. The purpose of the CESMP is to provide a consolidated summary of all E&S commitments relevant for the construction phase of the project. The measures focus on the management, monitoring and reporting of environmental (e.g. air emissions, biodiversity and environmental contamination) and social aspects (e.g. protection of human rights, communication with local stakeholders, safety of workers and communities). The CESMP also gives an overview about the E&S Management System that is being

implemented to ensure systematic and effective execution of these commitments, including roles and responsibilities between WBSEDCL, the Project Implementation Consultant (PIC) and the Contractor.

### **3. OBJECTIVES OF THE ASSIGNMENT**

The overall objective of this assignment is to ensure the successful and timely implementation of the utility-scale PV project in accordance with international best practices. The PIC will be selected through a competitive international bidding process and based on its approach and methodology for specific tasks under this Terms of Reference (TOR).

### **4. SCOPE OF WORK**

In order to reach the objectives set out in this assignment, the Consultant is expected to conduct the following tasks but may not be limited to these. The consultant shall execute the tasks in close collaboration with WBSEDCL and KfW.

#### **4.1 General Scope of Services**

Consulting services shall comprise technical, economic, environmental and social as well as project management support to WBSEDCL for the entire project implementation period. The task of the PIC shall comprise the following areas (among others):

Support of WBSEDCL with regard to the preparation and implementation (until final acceptance) of the Project in:

- Project management including risk management
- Review of detailed technical design
- Supervise procurement and quality control of solar PV system components
- Supervise installation, testing and commissioning
- Environmental, Social, Health and Safety (ESHS) compliance through supervision and respective Monitoring, Reporting and Evaluation (MRE)
- Support in financial management
- Certification of completed milestones and support of WBSEDCL in requesting disbursements to KfW
- Establish, review and update the overall project construction schedule, budget and disbursement schedule
- Verification of invoices and measuring of project indicators
- Approval and management/monitoring (e.g. but not limited to ESMP/SEP/LRP) during the entire Project implementation period
- Supporting WBSEDCL in its reporting obligations towards KfW
- Ad hoc services as may be required

In conducting the points mentioned above the PIC shall further be responsible to report any deviations, deficiencies or insufficiencies of the design, services, works or components supplied and shall promptly make recommendations of measures for rectification of the identified issues.

## 4.2 Detailed Scope of Services

The following description attempts to outline the PIC's tasks during execution of his services in suitable detail. However, the PIC shall bear in mind that the list of tasks and activities can by no means be considered as a complete and comprehensive description of the PIC's duties. It is rather the PIC's responsibility to critically verify the scope of services indicated and to extend, reduce or amend it, wherever he deems necessary according to his own professional judgement and the knowledge he will acquire during the preparation of his proposal. It is understood that the PIC carries out all work as necessary to fulfil the project objectives.

### Task 1: Preliminary Works

Goal: The conditions for a timely and successful implementation of the project are created.

Main Activities:

- Prepare an updated detailed time, cost, and financing schedule for the proper technical and financial implementation of the Project. This schedule will be submitted to WBSEDCL and KfW within one calendar month after contract signature. Such schedule is to show, by deadlines and amounts, the intended chronological interrelation of the Project activities and the resulting financial requirements. If any significant deviation from such schedule becomes necessary during the implementation of the Project, WBSEDCL and KfW shall be furnished with a revised schedule.
- Review existing studies and reports and provide feedback for amendment including but not limited to: (i) Basic Design Report, (ii) Embankment Study, (iii) ESIA report, (iv) Solar and meteorological data, (v) grid impact studies, (vi) Contractual documents, (vii) Terms of Reference (ToR) of EPC Contractor, (viii) Soil and geotechnical surveys.
- Review status of required permissions and permits.
- Review site conditions and appropriateness for solar PV power plant installation.
- Review of operability of scheme in relation to technical specification, infrastructure, off-take demand and required levels of output, availability and safety.
- Comment on technical and contractual aspects of integration with - and linkages to grid network.

### Task 2: Supervision of PV Site Preparatory Works and Review of Detail Design

Goal: PV site preparatory works and detail design are in accordance with contract agreements, relevant industry standards and best practices.

Main Activities:

- Ensure that the EPC contractor has designed the PV-system works to well interface with the site preparatory works (e.g. roads, site clearance and leveling, enforcement of embankment, water evacuation systems, etc.) that have already been undertaken or in the process of being conducted and require to adjust engineering designs if required.
- Scrutinize and approve final construction designs prepared by EPC contractor.
- Review the EPC contractor's mobilization and site preparation program. Ensure that the program is sufficiently detailed and includes at least: (i) Tasks and durations, (ii)



Restrictions placed on any task, (iii) Task-related risks and compensation measures, (iv) Interdependencies between tasks, (v) Milestones and key dates (vi) Parties responsible for tasks including interfaces, (vii) Actual progress against plan

- Supervise all site preparation activities of the EPC contractor and sub-contractors and ensure a functioning interface management at construction site.
- Ensure compliance with applicable environmental, health and safety regulations.
- Regularly check impacts of preparatory site works on cultural heritage (e.g. chance finds of tangible cultural material). Develop and put in place a Chance Find Procedure.
- Regularly report on work progress to WBSEDCL and KfW (refer to reporting requirements described in chapter 5.).

### **Task 3: Inspection, Testing and Delivery Control during Manufacturing Period**

Goal: The quality of all equipment and material to be supplied under all contracts is assured.

#### Main Activities:

- Review and approve proposals on quality assurance program and delivery schedule prepared by the EPC contractor in particular considering the 'Requirements for the implementation of grid-connected PV-systems' attached as Annex 1 to these Terms of Reference.
- Organize factory inspections and laboratory tests for PV system components (at least but not limited to transformers, inverters and solar PV modules).
- The PIC's price proposal for factory test and laboratory test witnessing shall include all personnel and travel expenses of the PIC for minimum of 3 trips and accommodation 5 days per travel as a single item in budget. It is not required to assign permanently an inspector in the manufacturer's country.
- Agree on the testing procedures and samples with the relevant manufacturers, the EPC contractor and WBSEDCL at least 4 weeks before the test.
- Conduct factory inspections and test witnessing of related system components and material.
- Review and witness all factory/equipment tests reports provided by manufacturers or the EPC contractor in order to ensure strict compliance with the defined testing procedures, including tests performed by third parties.
- Prepare a detailed report on each factory inspection witnessed and seek *No-Objection* of KfW and WBSEDCL.
- Organize and manage random equipment sampling (e.g. solar modules before shipment) in a certified testing laboratory or station, if requested by WBSEDCL and/or KfW.
- Provide periodical review of production schedules and delivery schedules by the EPC contractor.

#### **Task 4: PV Power Plant Construction Supervision**

Goal: PV system construction works are in accordance with contract agreements, relevant industry standards and best practices.

Main Activities:

- Ensure constant on-site supervision by senior staff during construction phase (refer to chapter 7)
- Review the EPC contractor's PV system construction program. Ensure that the program is sufficiently detailed and includes at least: (i) Tasks and durations, (ii) Restrictions placed on any task, (iii) Task-related risks and compensation measures, (iv) Interdependencies between tasks, (v) Milestones and key dates (vi) Parties responsible for tasks including interfaces, (vii) Actual progress against plan.
- Check and approve EPC contractor's machinery (e.g. forklifts, cranes, bull dozer) and temporary facilities (e.g. storage place, worker camps, toilets and washrooms, headquarters)
- Check and approve EPC contractor's security arrangements to avoid theft and vandalism.
- Check and approve EPC contractor's Quality Assurance Plan.
- Review and approve test procedures for materials and equipment to be tested on site by the EPC contractor (e.g. solar modules) and witness such tests.
- Check and approve EPC contractor's design documentation and construction method for each installation step.
- Supervise all construction activities of the EPC contractor and its sub-contractors, verify compliance with the design documents and ensure a functioning interface management at the construction site.
- Inspect and provide direction on preventive safety and environmental control measures.
- Monitor the progress of works and order corrective measures, if required.
- Certification of completed milestones and support of WBSEDCL in requesting disbursements to KfW.
- Maintain records of payment to the EPC contractor and its sub-contractors.
- Regularly report on work progress to WBSEDCL and KfW (refer to 5.3.1).
- Prepare a detailed Project Completion Report including as-built drawings (to be provided by EPC) and photographs (refer to 5.4).

#### **Task 5: Commissioning and Acceptance Testing**

Goal: The EPC contractor has complied with all of its construction-related obligations, the PV power plant is performing as per the contractually agreed specifications and is ready to be handed over to WBSEDCL.

Main Activities:



- Compare actual completion date against the contractually guaranteed completion date and claim financial compensation, if required.
- Check if EPC contractor's commissioning and acceptance testing procedures and acceptance criteria are in accordance with contract agreements.
- Mechanical Completion:
  - Visually inspect the mechanical works (e.g. solar module mounting, electrically active components, buildings, site surveillance, etc.) and compile a *Punch List* of construction defects, if required.
  - Check if corrosion protection of all system components is in accordance with technical specifications.
  - Verify functionality of surrounding embankment and water evacuation systems.
  - Successful mechanical completion allows for commissioning activities to commence.
- Commissioning:
  - Check and approve that the PV power plant is structurally and electrically safe and sufficiently robust to operate for the specified lifetime.
  - Supervise and witness all relevant tests and checks on DC side (e.g. Polarity Check, Open Circuit Voltage Test, Short Circuit Current Test, Insulation Resistance Test, Earth Continuity Check).
  - Supervise grid connection and energization of the PV power plant in accordance with the grid connection agreement.
  - Review and approve the EPC contractors' Commissioning Test Report.
- Provisional Acceptance Testing:
  - Check position and if required, request for installation of meteorological station including data logger and sensors (e.g. Pyranometers) corrected.
  - Check calibration certificates of all sensors and check cleaning frequency of pyranometers.
  - Supervise *Performance Ratio* (PR) testing and compare PR measured over the test period (e.g. 15 days) against the guaranteed PR value stated in the contract.
  - If required, define corrective measures and review completion of all activities included in the *Punch List*.
  - Issue *Provisional Acceptance Certificate* after successfully passing the PR test.
  - Prepare the *Provisional Acceptance Report*.
  - Initiate final milestone payment to EPC contractor.
- Intermediate Acceptance Testing:

- Supervise PR testing (in particular recalibration and cleaning of pyranometers, collection of operational data, calculation of PR) over the first year of operation.
- Issue Intermediate Acceptance Certificate after successfully passing the PR test.
- Prepare Intermediate Acceptance Report.
- **Final Acceptance Testing:**
  - Supervise PR testing (in particular recalibration and cleaning of pyranometers, collection of operational data, calculation of PR) over the second year of operation.
  - Issue Final Acceptance Certificate after successfully passing the PR test.
  - Prepare Final Acceptance Report.
  - Initiate return of performance bond to EPC contractor.

**Task 6: Environmental, Social, Health and Safety (ESHS) Compliance through Supervision and respective Monitoring, Reporting and Evaluation (MRE)**

Goal: ESHS Compliance of the Project is assured.

KfW has categorized the Project as of substantial environmental and social risk (Category B+) under the KfW's Sustainability Guideline (2019), chiefly due to the livelihood impacts on local land users (fishing and salt farming), occupational and community health and safety risks as well as environmental risks in relation to water bodies and proximity to conservation zones.

It is expected that WBSEDCL together with the PIC will take all material measures and actions so that the Project is implemented in accordance with national laws and regulations as well as in line with the World Bank Environmental and Social Standards (ESSs) as required by KfW's Sustainability Guideline (2019). In addition, adherence to the World Bank Group's Environmental, Health and Safety Guidelines and Industry Specific Guidelines, as applicable (e.g. Environmental, Health and Safety Guidelines for Electric Power Transmission and Distribution), Guidelines on Incorporating Human Rights Standards and Principles, Including Gender, in Programme Proposals for Bilateral German Technical and Financial Cooperation, ILO Core Labour Standards and the UN Basic Principles and Guidelines on Development-based Evictions and Displacement, namely §§ 42, 49, 52, 54 and 60) is required as well.

In order to adhere to these ESHS requirements, WBSEDCL together with the PIC will ensure that the Project complies throughout the entire implementation period (≈ November 2020 – December 2023) with all the provisions set out in the project ESMP, the SEP and the LRP that have been developed during Project Preparation Stage by another Consultant in 2019/2020 and of which relevant aspects will be incorporated by the EPC-Contractor in its respective CESMP. This shall take into account ESHS related analysis of the said ESHS documentation to be provided by KfW to the Consultant as per request.

**Main Activities:**

Specifically, the Consultancy Services to be provided in the context of ESHS compliance include the following tasks:

*During the Planning and Procurement Phase*

- Ensure that the ESHS provisions of the ESMP, SEP and LRP are integrated into the Project planning, detailed design and procurement process (e.g., Standard ESHS Works Requirements), including organizational, budget, monitoring and reporting arrangements; As appropriate, this may include:
  - Liaising with WBSEDCL for ensuring that its staffing includes sufficiently experienced and skilled ESHS managers and community liaison officers in charge of relations with external stakeholders and project affected people to implemented all ESHS measures required by the ESMP/SEP and LRP that fall under WBSEDCL's responsibility.
  - Ensuring that the ESHS provisions in the procurement documents are consistent with national requirements and the ESHS requirements of KfW.
  - Defining appropriate qualification criteria for the ESHS capacity of the contractors commensurate with the assignment requirements, but acknowledging the limited expertise and experience among local contractors with international ESHS standards. ESHS criteria shall not be formulated in a manner unnecessarily restricting the competition.
  - Assisting WBSEDCL to determine whether the EPC Contractor is substantially responsive (i.e. without deviation, reservation or omission) to KfW's ESHS requirements as specified in the valid version of KfW's SBD for the Procurement of Works and has provided suitable references. This includes the assessment of the EPC Contractor's proposed ESHS Methodology, Management Strategies and Implementation Plans, the suitability of the Code of Conduct as well as the availability of suitably qualified ESHS experts among its key personnel and its references, required to manage the key ESHS risks of the Project.
  - Ensuring that ESHS specific issues are emphasized upon contract award and informing that the successful EPC Contractor put these forward to any subcontractors, and to suppliers, in particular those for major supply items.
  - Checking that all relevant ESHS aspects are duly covered in the Contract.
  - Approving after due revision the EPC Contractor's CESMP.
  - Informing the EPC Contractor that relevant works shall not commence prior to the Consultant's approval of the EPC Contractors CESMP and satisfaction of appropriate measures in place to address ESHS risks and impacts.
  - Informing the EPC Contractor that relevant works shall not commence before required compensation and livelihood restorations measures are implemented in accordance with the LRP.
  - Assisting WBSEDCL in the diligent implementation of all measures as required by the SEP and the LRP in regard to stakeholder engagement , grievance redress and livelihood restoration prior to start of construction, including respective MRE.

*During the Construction, Commissioning and Operation Phase*

- Provide technical support and supervision to WBSEDCL for ensuring that the ESHS measures and actions as set required in the ESMP, SEP and LRP are implemented diligently and completely throughout Project construction and commissioning, which includes responsibilities on side of WBSEDCL and the EPC Contractor (CESMP); As appropriate, this

may include:

- Ensuring that construction work start only once compensation and livelihood restorations have been implemented or made available to Project Affected People (PAP) as defined in the LRP.
- Attendance to relevant stakeholder consultation meetings held by WBSEDCL with PAPs, as required by the SEP, and to key milestone livelihood restoration-related activities, as required by the LRP. Provide recommendations if deemed necessary for adherence to SEP and LRP requirements.
- Continuous updating and preparation of the final LRP inter alia to record that all compensation payments and restoration entitlements described in the LRP have been implemented/made available to each PAP and success indicators have been fulfilled; In case of any non-compliance or required adaptive management, provide actionable details of any livelihood initiatives and implementation arrangements which require follow-on action for ensuring livelihoods are restored to pre-displacement levels.
- Undertaking regular site visits to the Project site for verifying and ground-truthing the implementation of the specific ESHS measures, including stakeholder engagement, livelihood restoration and remedial actions to address any detected non-compliance.
- Supervising the EPC Contractor's implementation of the CESMP, instruct the EPC Contractor to update the CESMP if it becomes necessary, and report on compliance of the EPC Contractor with its respective requirements as well as the ESHS Works Requirements stipulated in the tender documents.
- Checking if the EPC Contractor provides instructions and trainings to workers, Subcontractors and Suppliers (in particular those for major supply items) to assure that they understand the relevant ESHS requirements and that the EPC Contractor complies with the Code of Conduct.
- Documenting the EPC Contractor's non-conformances and follow-up on correction/remediation. In case of severe ESHS violations (and in particular OHS risks to life), the Consultant shall suspend works and/or payments in accordance with the contract until the EPC Contractor has rectified the situation.
- Reviewing the EPC Contractor's progress reports, and checking if detected non-conformities are documented, analyzed and addressed by corrective actions. Documentation shall include a digital photograph and with captions to provide a visual illustration, explicitly indicating the location, date of inspection and the non-conformity in question.
- Monitoring any grievances in relation to ESHS matters, including land and livelihood issues, as well as the follow-up on their resolution.
- Monitoring of serious incidents and accident as well as the follow-up on their resolution.

#### *Throughout the Project Implementation*

- Report on the ESHS implementation through specific reporting and progress reports, and assist WBSEDCL in its reporting to KFW. As appropriate, this may include:

Monitoring, reporting and evaluation of the ESMP, SEP and LRP implementation by contributing to the regular progress reports throughout the Project implementation phase (see also the ESHS reporting template in Annex 2).

#### **Task 7: Monitor Project Management Tools (schedule, budget, disbursements)**

Goal: WBSEDCL has suitable instruments for the management of the PV project and makes use of them.

##### Main Activities:

- Scrutinize project management tools currently being used by WBSEDCL and check if these tools are suitable for managing a PV project.
- Describe deficiencies of existing tools and suggest improvements, modifications, addition. Introduce new tools for PV project management, if required.
- Develop and implement a suitable monitoring concept for impact assessment and proper project management.
- Suggest a mechanism to ensure monitoring tools are effectively being used by all relevant stakeholders with expected outcomes.
- Conduct on the job project management trainings for WBSEDCL staff.

#### **Task 8: Support WBSEDCL in Financial Management of the Project**

Goal: The financial management of the project is running smoothly.

##### Main Activities:

- Examine invoices submitted by the EPC contractor and relevant sub-contractors on the basis of the supply and service contracts to determine whether the services and supplies being invoiced were actually performed.
- Examine that the payment has fallen due and all necessary documents are available as required in the supply and service contracts.
- Examine that the documents to be presented include valid down payment and implementation guarantees in accordance with the specimen required by KfW, (validity, guarantee amount), if applicable, insurance policies and transport documents.
- Examine whether the regulations concerning the disbursement procedure that are agreed between the WBSEDCL and KfW – and are passed on to the Consultant – are being adhered to.
- In so far as the above mentioned conditions are met,
  - Certify the copy of the contractor's invoice
  - Certify the disbursement request to be addressed to KfW by WBSEDCL accordingly

- The Consultant will keep the relevant documents ready for inspection by WBSEDCL/KfW.

### **Task 9: Site Meetings**

Goal: All stakeholders are well informed about the current status of the project, the critical path is well identified and key topics are tracked closely.

Main Activities:

- Organize monthly on-site meetings of the PIC, WBSEDCL project managers and the EPC contractor's representatives. The meetings shall deal at least with the following matters:
  - Review of works completed so far
  - (i) Tasks and durations, (ii) Restrictions placed on any task, (iii) Task-related risks and compensation measures, (iv) Interdependencies between tasks, (v) Milestones and key dates (vi) Parties responsible for tasks including interfaces, (vii) Actual progress against plan EPC contractor's work schedule and methods
- Prepare Minutes of Meeting (MoM) to be signed by the participating parties.
- Distribute MoM among participants, WBSEDCL's management and KfW.

### **Task 10: Site Diary**

Goal: Relevant project activities and site events are documented.

Main Activities:

- Ensure that a one page, daily site diary is maintained by the EPC contractor. The site diary shall include:
  - Weather conditions
  - Major works completed, accepted or rejected
  - Written instructions given to EPC contractor
  - Problems encountered
  - Site meetings and other events, which have bearing on the project implementation

### **Task 11: Knowledge Transfer and Training**

Goal: Skills are transferred to WBSEDCL staff on all aspects of solar PV project management.

Main Activities:

- Review training documents from EPC, including on ESHS aspects, and provide feedback on any shortcomings.
- Review the credentials of the trainers suggested by the EPC and require for an exchange for trainers that are deemed not fit.

- The PIC will also arrange for orderly and timely transfer of all intellectual property accruing from the project to WBSEDCL who remains the owner of the same and retains the right to use it at will without further reference to any party, except where specifically agreed. This will include design data, calculations and reports, drawings, etc.

Further the PIC may be asked to provide ad hoc technical services as may be required. For the sake of reasonable quoting a total of 5 full working days of ad hoc services are estimated to be required.

## **5. DELIVERABLES AND TIMETABLE**

The following reports are to be produced by WBSEDCL and the PIC during the course of the Project and submitted to KfW for information and approval. The PIC shall assist WBSEDCL to prepare various reports and documents requested by KfW. The PIC retains responsibility for delivery of all services under his scope. Before submitting any report, the PIC's home office is obliged to carefully screen the respective document to ensure the required quality.

The contents of reports will have to be agreed with WBSEDCL and KfW and will be specified in the consulting agreement. Generally, all reports have to be prepared in DIN-A4 format and in editable electronic form (Word, Excel, PowerPoint, etc.) as well as in Acrobat PDF format. Size of letters and line spacing shall be adequate. All reports, concepts, summaries or other written deliverables shall be provided in English language.

### **5.1 Inception Report**

The PIC shall submit the inception report to WBSEDCL and KfW. It will outline the Consultant's work plan, define the review and implementation schedule by task, specify submission dates for each one of the required reports in draft form, and assign the personnel by name and date period to each task. The proposed project schedule shall be broken down by tasks and sub-tasks and presented in chart form in an acceptable form using Microsoft Project.

### **5.2 Factory Inspection Reports**

The PIC shall prepare detailed Factory Inspection Reports as described under Task 3.

### **5.3 Project Progress Reports**

WBSEDCL in close cooperation with the PIC shall prepare and submit quarterly Project Progress Reports (PPRs) to KfW. The PPRs shall be prepared in accordance with KfW guidelines.

#### **5.3.1 Reporting during Construction Phase**

Until the *Final Acceptance* of the PV power plant, the PPRs shall include at least the aspects indicated by the following preliminary Table of Contents. The contents shall be adjusted and supplemented by WBSEDCL and the PIC, if required:

#### **Preliminary Table of Contents during Construction Phase:**

1. Executive summary
2. Deviations and Corrective Actions
3. Project status (sub-chapters to be added as they become relevant)
  - 3.1. Site Preparation

- 3.2 Procurement
- 3.3 Engineering
- 3.4 Manufacturing
- 3.5 Delivery
- 3.6 Construction and Installation
- 3.7 Commissioning
- 3.8 Provisional, Intermediate and Final Acceptance Test
- 3.9 End of Warranty Inspection
- 3.10 Change Orders and Contractual Changes (if any)
- 3.11 Quality Management
- 3.12 Delays and Deviations (if any)
- 4. Budgeting and Payments
  - 4.1 Project Costs
  - 4.2 Disbursement of Funds
  - 4.3 Cost and Financing Plan
- 5. Insurances and Guarantees
- 6. Time Schedule and Milestone Trend Analysis
- 7. Photo Report
- 8. ESHS Compliance Report (according to the table of content illustrated in Annex 2)

### **5.3.2 Reporting during Operation and Maintenance Phase**

After the Solar PV power plant enters into operation (after Provisional Acceptance), WBSEDCL and the PIC shall report for two operational years on the following aspects:

#### **Preliminary Table of Contents during Operation Phase:**

- 1. Executive summary
- 2. Project status (sub-chapters to be added as they become relevant)
  - 2.1 General Condition of Solar PV Power Plant
  - 2.2 Key Performance Indicators (e.g. PR, Capacity Factor, Availability Factor)
  - 2.3 Energy Production
    - Report on SCADA and meteorological station data consistency
    - Evaluation and graphic presentation of the essential meteorological data (e.g. solar irradiation and temperature distribution)
    - Actuals and prognosis on yearly energy production according to simulation model (e.g. PVsyst) supplied by the EPC contractor and meteorological data acquired during the year.
    - Reasons for loss of energy production and counter measures by system operator (EPC contractor).



## 2.4 Operation & Maintenance Events

- List and explanation of extraordinary operation events
- Use of spare parts and status of spare parts inventory

## 3.0 Environment, Health and Safety

### 3.1 Health and Safety Events (e.g. training, accidents, theft)

### 3.2 Waste Management Practices and Treatment

### 3.3 Water Consumption and Water Management Practices and Treatment

### 3.4 Environmental Events (e.g. earthquakes, flooding)

### 3.5 Social Events

## 4.0 Financial Report

### 4.1 Electricity Sale and Income Generation

### 4.2 Profit & Loss Statement

### 4.3 Total O&M Cost and Breakdown

### 4.4 Contribution to Project Indicators (e.g. CO<sub>2</sub>-Mitigation, energy yield)

## 5.0 ESHS Compliance Report (according to the table of content illustrated in Annex 2)

### 5.4 Acceptance Reports

The PIC shall prepare the following Acceptance Reports as described under Task 5:

- Provisional Acceptance Report
- Intermediate Acceptance Report
- Final Acceptance Report

### 5.5 Project Completion Report

Upon completion of the solar PV project construction activities, the PIC shall prepare a Project Completion Report (PCR) (max. 100 pages excluding annexure) in accordance with WBSEDCL and KfW's requirements. The PCR will form a comprehensive record of project implementation and related project phases (refer to 5.2.1 – Project Status) and shall include the main lessons learnt and recommendations, including summaries of key ESHS aspects and respective recommendations.

### 5.6 Warranty Inspection Report

After two years of operation and maintenance, the PIC shall issue a Warranty Inspection Report (max. 40 pages excluding annexure) compiling the results of solar PV system inspection and any requirements for system improvement by the EPC contractor. A positive inspection result is the prerequisite for issuing the following certificates:

- Final Take-Over Certificate
- Performance Certificate
- Final Payment Certificate

## 5.7 Certificates

The PIC shall carry out needed inspections and tests in liaison with WBSEDCL and issue the following certificates:

- Disbursement Certificates
- Provisional Acceptance Certificate
- Intermediate Acceptance Certificate
- Final Acceptance Certificate
- Intermediate Take-Over Certificate
- Final Take-Over Certificate
- Performance Certificate
- Final Payment Certificate
- Other Certificates, as required

Deliverable	Timeline
1. Time, Cost and Financing Schedule	1 month after commencement of PIC contract
2. Inception Report	1 month after commencement of PIC contract
3. Project Progress Reports	Quarterly
4. Acceptance Reports	Provisional Acceptance Report: After successful provisional acceptance testing Intermediate Acceptance Report: After one (1) year of operation Final Acceptance Report: After two (2) years of operation
5. Project Completion Report	2 months after Final Acceptance
6. Warranty Inspection Report	2 months after Final Acceptance
7. Certificates	Dependent of project progress

## 6. PRINCIPLES OF WORK

Although the PIC's scope of work during execution of his services has been outlined as detailed as possible in Chapter 4, the PIC shall bear in mind that the list of tasks and activities cannot be considered as complete. Rather, it is the PIC's responsibility to critically assess the scope of services indicated and to propose extensions or amendments depending on his own professional judgement and the know-how he will acquire during preparation of the proposal. It is the duty of the PIC to meet and coordinate his activities with all relevant stakeholders. In meeting the Terms of Reference, the PIC will review any existing relevant study reports previously done.

## 7. SKILLS AND EXPERIENCE

The PIC needs to be adequately qualified for this interdisciplinary assignment, covering technical, economic and financial, as well as environmental and social aspects. As a general requirement, the PIC shall have adequate education, professional knowledge and experience in handling similar tasks in the past. In particular it is required, that the PIC has sufficient knowledge and experience in at least the following fields:

- Minimum 15 years working experience in utility-scale energy sector (conventional and renewable)
- Expertise and proven track record as Owner's Engineer in utility-scale solar PV projects
- Documented working experience in India
- Experience in working and coordinating with public entities / governments
- Analytical, well-structured work approach
- Excellent cross-cultural skills
- Fluent in English

An international PIC is expected to associate with an Indian consulting firm active in the Indian RE sector for at least 5 years. It is expected that the PIC consider sufficient manpower for the field, home office and backstopping with relevant expertise as well as excellent command of the English written and spoken language in his offer. The list of experts can include, but does not necessarily need to be limited to the following experts:

No.	Key Position	Area of specific expertise	Minimum qualification and professional experience
1.	Team Leader / Project Manager (TL/PM)	Working experience in renewable energy sector. Substantial experience in project management, procurement, engineering, business administration is required. Previous working experience in projects financed by international financial institutions, especially associated knowledge of KfW financed project progress reporting, disbursement and monitoring procedures is desirable. In order to ensure continuous quality control and adequate coordination/communication, the TL/PM shall be continuously on site during	University degree, preferably in business management, engineering or financing with min. 15 years of experience in consultancy and RE.

		construction works, starting from contractor's mobilization up to the end of provisional acceptance. Previous working experience in India is essential. This position shall not be sub-contracted to a third party.	
2.	Solar/Electrical Engineer	Substantial working experience in solar energy sector. Designing and planning of utility-scale PV power plants (> 50 MW <sub>p</sub> ). Proven track record as Owner's Engineer including electrical engineering and construction supervision for at least five (5) utility-scale PV power plants connected to high voltage transmission lines (132 KV or higher voltage). Experience in India is essential. This position shall not be sub-contracted to a third party.	Master's degree or degree of equivalent level in Electrical Engineering or comparable with at least 15 years of experience in the power sector (conventional and renewable)
3.	Civil Engineer	Working experience in civil engineering in the power or water sector. Proven track record of civil engineering in developing countries and under challenging environmental conditions (e.g. deserts, flood prone areas). Experience in India is desirable. This position shall not be sub-contracted to a third party.	Master's degree or degree of equivalent level in Civil Engineering or comparable with at least 10 years of experience in the power sector (conventional and renewable) and/or water sector.
4.	Commissioning Engineer	Experience in commissioning of utility-scale PV power plants. The Engineer should have commissioned at least four (4) utility-scale PV projects within the last 5 years with an aggregated total capacity of 200 MW <sub>p</sub> or higher. Experience in India is desirable.	Master's degree or degree of equivalent level in Electrical or Mechanical Engineering or comparable with at least 10 years of experience in the power sector (conventional and renewable)

5.	Environmental / Social Expert	<p>Comprehensive knowledge of environmental and social impact assessment and management of similar projects and the application of respective safeguard instruments (ESMP, SEP, LRP) in line with World Bank Environmental and Social Standards (ESS) or IFC Performance Standards as well as relevant EHS Guidelines of World Bank Group.</p> <p>Due to the complexity of the Project in regard to ESHS compliance the Consultant's team should include at least two ESHS positions:</p> <ol style="list-style-type: none"> <li>1. National Environmental Safeguard Specialist for covering the environmental due diligence of the Project.</li> <li>2. International Social Safeguard Specialist for covering the social due diligence of the Project, with particular qualifications on resettlement and livelihood restoration.</li> </ol> <p>Experience in India is essential for both positions.</p>	<p>Master's degree or degree of equivalent level in Environmental Sciences, Agricultural Sciences, Environmental Engineering, Ecology, Anthropology, Ethnology with at least 10 years of experience in conducting ESIA's, implementing ESMPs, Resettlement Action Plans (RAP) and LRP for infrastructure projects according to international standards. For key staff fluency in English is mandatory.</p>
6.	Financial Expert / Procurement Specialist	<p>Experience in procurement of solar PV system components and related factory inspections. Knowledge of KfW Procurement Guidelines or similar guidelines of international financial institutions (e.g. World Bank, AFD, EU). Experience in India is desirable.</p>	<p>Master's degree or degree of equivalent level in Economics, Business Administration, Engineering with at least 10 years of experience in project financing and procurement.</p>

Experts who do not comply with the minimum requirements listed above will be excluded from the evaluation, and respective bids rejected. Rejection of proposal in case that less than

14 of the maximum 20 points will be achieved for Environmental/Social expert (also refer to SECTION II – Special Provisions, 4.2.1). An individual expert may cover more than one key position. In this case, his capabilities in each position will be evaluated individually. Therefore, CVs should clearly demonstrate the relevant experience. The services of the PIC shall be conducted to great extend in West-Bengal/India. All logistics, transportation, accommodation and factory inspections, etc. shall be considered within the responsibility of the PIC.

SUBJECT TO CHANGE

### **Annex 1: Requirements for the implementation of grid-connected PV-systems**

General (please see Attachment 1 for explanation of names of module-tests and Attachment 2 for list of relevant norms):

- Environmental and Social Impact Assessment (ESIA) and Management (e.g., ESMP, SEP etc.)
- Highest efficiency standards and Good International Industry Practice (GIIP) for the cleaning of modules that does not interfere with local water needs and food security
- ESHS compliance during construction and operation, in particular safe working conditions with electrical systems according to national norms and standards, in particular safety provisions like rubber mats, electric shock chart, first aid box, fire extinguishers, sand buckets, waste management for hazardous waste, transformers and batteries, all personnel deployed are provided with basic training in first aid and firefighting, grievance mechanism that is transparent and accessible with regular reporting to WBSedCL
- Grid connection and evacuation of electricity is assured
- Sufficient insurance of PV-system
- Yield assessment according to international best practices, impact of all aspects of horizon (also buildings, towers, smoke-stacks, high smoke or steam development in the close vicinity of the project) considered in yield assessment, yield assessment to show yield values for probability of exceedance scenarios P50 and P90
- Overbuilt (ratio of total module power to total inverter power in each sub-system) not higher than 1.2
- Adequate corrosion protection for all installed components
- All combiner boxes are adequately closed with all cable glands sealed
- Comprehensive and complete grounding
- Lightning protection of the solar modules and all other components of the PV-system
- Surge protection of all electronic components of the PV-system
- Performance Ratio (PR)-Testing: Before acceptance > 73% for 30 days operation, after acceptance > 78% during first two years of operation, witnessed by independent engineer, irradiance measured in accordance to international best practice
- Availability-Testing: > 98% during first two years of operation
- Penalties agreed for not passing tests on system- and component level

- Monitoring system/SCADA including irradiance measurement on module plane, module temperature measurement, string-monitoring in case inverters with a nominal power of over 60 kVA are used
- Solar modules certified compliance with IEC 61215, IEC 61730, IEC 61701, IEC 62716, IEC 62804 with linear performance guarantee of at least 25 years, only framed solar modules, only solar modules with sufficient margin on lower edge for build-up of crust, no use of concentrating photovoltaics, no use of organic photovoltaics or other unproven photovoltaic technology
- Adequate labelling of module rows, combiner-boxes and cables
- Engineering, procurement and construction of system by company that is certified in accordance to ISO 9001, ISO 14001 and OHSAS 18001 or comparable
- Only use of UV-resistant cables and cable-ducts as well as sufficient protection for cables from vermin for all outdoor installation of cables, adequate fixing of cables, observation of permissible bending-radius of all cables, adequate sealing of cable ducts,
- Operation and maintenance (O&M) contract that includes an O&M plan including work instructions, quality manual and qualification requirements of staff for ensuring environmental protection, health and safety on site and stating warranties to achieve certain key performance indicators such as Availability, temperature corrected PR, regular cleaning of air-filters, limit on reaction times, etc. In case regular module cleaning is conducted the impact and required frequency of module-cleaning is to be evaluated at least once a year (please note that for utility-scale ground-mounted systems additional points are specified below)
- As built documentation in accordance to IEC 62446 provided to owner of PV-system prior to final payment
- Manufacturing, engineering, design, installation, testing, operation and recycling according to relevant norms and standards, in particular norms from attached list.

Utility-scale ground-mounted systems:

- No use of land with settlements that would require physical displacement or agriculturally used land for subsistence purposes that would require livelihood restoration
- No sites that have the potential to affect areas important for terrestrial or marine biodiversity, classified as “natural” or “critical” habitats (as of World Bank ESS 6, para 21-25)
- No sites that could give rise to significant social conflict, e.g., due to conflicting land tenure claims, unresolved legacy issues of past projects in the area or prevailing civil unrest



- No sites where the remediation of historical pollution from past activities affecting land and water resources in accordance with Good International Industry Practice would not be possible
  - Surface acquired in accordance with national law and international standards (incl. compensation and livelihood restoration paid/made available prior to start of construction works)
  - No land that contains unique archaeological, historical, or cultural value or cultural heritage features or with particular significance for ethnic minorities, tribal or indigenous peoples
  - No land that has a significant amount of trees or forestation located on it (for smaller number of trees that require felling compensatory measures are acceptable)
  - Relevant surveys to determine properties of soil, flood, earthquake or other relevant factors
  - Complaint mechanism during planning, construction and operation
  - Only use of fix-installed or single-axis tracking with horizontal axis installation of solar modules, verified structural integrity of module mounting system
  - Independent engineer (electrical, structural and civil) during engineering, procurement, construction, commissioning, PR-testing and O&M with track record of at least 10 years and at least 5 projects of at least 20 MWp ground-mounted PV-systems each during the past 3 years with certification in accordance with ISO 9001
  - Acceptance-testing: VIS-, STC-, ISO-, EL-, PID- and LID-testing conducted on sufficient sample (AQL 1.0 using sampling level S-3 for VIS-, STC-, ISO- and EL-testing and sampling level S-2 for PID- and LID-testing) of modules shipped to project, THI-testing on running system conducted by an institute accredited in accordance with IEC 17025 by an internationally recognized accreditation body
  - Durability-testing of modules, either manufacturer tests DHT 1500 and TCT 400 or higher on modules from relevant lines every quarter
- or
- pre-production factory inspection, production oversight and POT- and EGC-testing conducted on sufficient sample (AQL 1.0, using sampling level S-2) by an institute accredited in accordance with IEC 17025 by an internationally recognized accreditation body
- Factory inspection prior to the production of the modules to be shipped to the project in question and during the production of the modules to be shipped to the project
  - O&M contract that covers the following key points:

- Environment, Social, Health and Safety (ESHS): Measures on site to react adequately to medical problems, slips, trips and falls, collisions, strains and sprains, electrocution, fire, mud and water, mechanical injuries, weather, wildlife and livestock.
- Personnel and training: All persons working on site to be trained at least in basic EHS, First Aid and specific risks in accordance to the PV-system in question (working in heights for roof-top systems).
- Technical asset management: To include at least regulatory compliance, warranty management, insurance claims and contract management.
- Power-plant operation: To include at least grid-code compliance, power-plant security, monitoring and supervision, performance analysis, power-plant controls and reporting.
- Power-plant maintenance: Covering at least mounting structures, solar modules, combiner boxes, inverters, switchboards, switchgear, transformers, cables, monitoring system, weather station, auxiliary system, fire detection system, security system and any other relevant parts of the PV-system. The maintenance work is to include predictive maintenance, corrective maintenance, extraordinary maintenance and spare parts management. The maintenance is to be carried out in accordance to O&M manuals of the various components of the PV-system and the O&M manual supplied by the provider of the complete system.
- Data acquisition and monitoring: Acquisition of relevant data such as irradiance in plane of the PV-modules with at least two pyranometers according to Secondary Standard or First Class quality classification and ISO 9060:1990, module temperature, other local meteorological data, string-currents, inverter operational data, energy injected, warnings and alarms, AC circuit / protection relays. Monitoring to include long-term storage of data, calculation of key performance indicators (KPIs) as mentioned below, visualisation of relevant data and KIPs, detection of malfunctions as well as long-term degradation, handling of alarms and generation of reports. The data acquisition and monitoring systems is to be provided with sufficient cybersecurity.
- Key performance indicators: Covering at least the KPIs performance-ratio according to IEC 61724, availability, acknowledgement-time, intervention-time, response-time and resolution-time.
- Contractual framework: To contain definition and clear obligations concerning monitoring, availability guarantee, response-time guarantee, bonuses and liquidated damages, spare-parts management and reporting obligations.

**Attachment 1: Brief explanation of module tests**

## Visual inspection (VIS)

- › **Brief Description of Test**  
Visual inspection of solar modules by trained personnel
- › **Damage typically detected**  
Yellowing, delamination, bubbles, deformation of encapsulate
- › **Reference to existing standards**  
VIS is described in IEC 61215

## Output power measurement at STC (STC)

- › **Brief Description of Test**  
Measurement procedure for determination of the output power of solar modules
- › **Damage typically detected**  
Deviation from name-plate power
- › **Reference to existing standards**  
STC is described in IEC 61215

## Damp-heat-test (DHT)

- › **Brief Description of Test**  
Solar modules are placed in a surrounding with humidity of 100% and a temperature of 85°C for a time of 1000 h (IEC-value) or 2000 h (DHT x 2)
- › **Damage typically detected**  
Yellowing, delamination, bubbles, deformation of encapsulate
- › **Reference to existing standards**  
DHT (1000 hour duration) is described in IEC 61215

## Thermal-cycling-test (TCT)

- › **Brief Description of Test**  
Solar modules are placed in a surrounding temperature cycling from -40°C to 85°C for 200 cycles (IEC-value) or 400 cycles (TCT x 2)
- › **Damage typically detected**  
Cell damage, interconnector damage, yellowing, delamination, bubbles, deformation of encapsulate
- › **Reference to existing standards**  
DHT (1000 hour duration) is described in IEC 61215

## Peel-off test (POT)

- › **Brief Description of Test**

The Tedlar foil is pulled away from the laminated foil and the intermediate foils are pulled apart measuring the force that is required to do this.

- › **Damage typically detected**

Insufficient adhesion between back-sheet and laminate

- › **Reference to existing standards**

None

#### EVA gel content test (EGC)

- › **Brief Description of Test**

Patch of solar module is cut out, weighed and cooked for 30 minutes in formaldehyde and then weighed again. The loss of weight shows the amount of EVA that had not been cross-linked in the lamination.

- › **Damage typically detected**

Potential for Delamination

- › **Reference to existing standards**

Unknown

#### PID test (PID)

- › **Brief Description of Test**

Solar modules are subjected to high temperature, high moisture and 1000 VDC between poles and frames as well as poles for a certain amount of time, measurement of module power before and after the test determines power loss, that is to be less than 5%

- › **Damage typically detected**

Power loss through potential induced degradation

- › **Reference to existing standards**

IEC 62804

#### LID test (LID)

- › **Brief Description of Test**

Solar modules are subjected to light directly after having been received from manufacturing and without having been exposed to light before, measurement of module power before and after the test determines power loss, this is to be less than 5%

- › **Damage typically detected**

Power loss due to initial exposure to light

- › **Reference to existing standards**

Unknown

## Thermal imaging (THI)

- › **Brief Description of Test**  
Generate thermal images from modules or strings of modules during full-load operation and evaluate particularly hot parts of modules or strings.
- › **Damage typically detected**  
Cell damage, interconnector damage, damaged bypass-diodes
- › **Importance for assessing durability of modules**  
Medium
- › **Reference to existing standards**  
IEC 60904-14

## Electro-luminescence imaging (EL)

- › **Brief Description of Test**  
Generate an EL-picture of the modules in question
- › **Damage typically detected**  
Damaged Cells
- › **Importance for assessing durability of modules**  
High
- › **Reference to existing standards**  
None

**Attachment 2: List of relevant standards and norms**

IEC	Title
17025	General requirements for the competence of testing and calibration laboratories
50380	Datasheet and nameplate information for photovoltaic modules
60269	Supplementary requirements for fuse-links for the protection of semiconductor devices
60364-6	Low-voltage electrical installations – Part 6: Verification
60364-7-712	Low-voltage electrical installations – Part 7-712: Requirements for special installations or locations - Solar photovoltaic (PV) power supply systems
60529	Degrees of protection provided by enclosures (IP Code)
60891	Photovoltaic devices – Procedures for temperature and irradiance corrections to measured I-V characteristics
60898	Circuit-breakers for overcurrent protection for household and similar installations
60904	Photovoltaic Devices (incl. Part 14: Outdoor infrared thermography of photovoltaic modules and plants)
60947	Low-voltage switchgear and controlgear
61000	Basic EMC publications
61173	Overvoltage protection for photovoltaic (PV) modules
61215	Terrestrial photovoltaic (PV) modules – Design qualification and type approval
61345	UV test for photovoltaic (PV) modules
61557	Electrical safety in low voltage distribution systems up to 1000 V a.c. and 1500 V d. – equipment for testing, measuring and monitoring of protective measures
61683	Photovoltaic systems – Power conditioners – Procedure for measuring efficiency
61701	Salt mist corrosion testing of photovoltaic (PV) modules
61724	Photovoltaic system performance monitoring – Guidelines for measurement, data exchange and analysis
61727	Photovoltaic (PV) systems – Characteristics of the utility interface
61730	Photovoltaic module safety qualification
61829	Crystalline silicon PV array, on site measurements
61853	Photovoltaic (PV) module performance testing and energy rating – Part 1: Irradiance and temperature performance measurements and power rating
61936	Power installations exceeding 1 kV a.c.

62093	Balance-of-system components for photovoltaic systems – Design qualification natural environments
62103	Electronic equipment for the use in power installations
62108	Concentrator photovoltaic (CPV) modules and assemblies
62109	Safety of power converters for the use in photovoltaic power systems
62116	Testing procedure of Islanding Prevention Methods for Utility-Interactive Photovoltaic Inverters
62208	Empty enclosures for low-voltage switchgear and controlgear assemblies – General requirements
62305	Protection against lightning
62423	Type F and type B residual current operated circuit-breakers with and without integral overcurrent protection for household and similar uses
62446	Grid connected photovoltaic systems – Minimal requirements for system documentation, commissioning tests and inspection
62548	Design requirements for photovoltaic (PV) arrays
62716	Ammonia corrosion testing of photovoltaic (PV) modules
62788	Measurement procedures for materials used in Photovoltaic Modules
62804	Photovoltaic (PV) modules – Test methods for the detection of potential-induced degradation
62852	Connectors for DC-application in photovoltaic systems – Safety requirements and tests
62930	Electric cables for photovoltaic systems <b>in progress</b>

Link to registered institutes: <http://members.iecee.org/>

**ISO Title**

2859 Sampling procedures for inspection by attributes

**DIN EN Title**

1990 Basis of structural design

50618 Electric cables for photovoltaic systems

## Annex 2: Preliminary Table of Content and Form of Environmental, Social, Health and Safety (ESHS) Reporting during construction and operation

The list below presents the minimum information to be included in the ESHS monitoring report of the Project during construction and operation. The reports are to be developed by the WBSEDCL, with support of the Implementation Consultant, and shall follow the structure as described below:

1. General information, status of the project  
*Reporting Period, nature of sources (internal audit, site visit, ESHS documentation etc.), technical status of the project.*
2. Summary of Project Activities  
*Short summary on the main project activities that have taken place during the reporting period and potential changes to the initial project (new activities, extension of area of influence, new sites, site closing...) and new environmental or social issues identified and the way they have been dealt with.*
3. Regulatory Compliance  
*Status list of ESHS related permits, clearances, inspections etc., including results / follow-up of inspections by local authorities or any third party audits.*
4. Human Resources Management  
*Total number of current project workforce (local, national, international), number of contractors and number of contracted workers per contractor (local, national, international) as well as the percentage of women among the project workforce, number of health & safety staff on site as well as number of staff in charge of ESHS topics (ESHS Manager, HR Manager; Stakeholder Relations Manager, etc.) at the project owner, subcontractors and companies.*
5. Implementation Status of Environmental and Social Mitigation Measures  
*Implementation status of the Environmental and Social Management Plan (ESMP) and compliance with the respective measures following the monitoring procedures defined therewith as well as any changes or difficulties and corrective actions the borrower may have taken.*

Project Activity/Subproject	ESMP requirement	Monitoring date	Documentation produced	Key Issues Observed	Actions Needed
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*Attach pictures, complementary studies or any other document that can illustrate the measures taken and provide detail on information presented and the evolution of the project's ESHS impact.*

*The report should focus on the following aspects in particular:*

- (i) *Evolution of budgets spent on environmental and social matters and temporary budget for next reporting period*
- (ii) *Evolution of main indicators identified in the ESMP and measured during previous years / months, such as:*
  - a. *Number of non-compliances*
  - b. *OHS measures*
  - c. *Noise measurements, air quality analysis, wastewater and solid waste discharges etc.*
  - d. *Water consumption and management of wastes*
- (iii) *Efficiency of the measures implemented, of residual social and environmental impacts and related potential corrective measures*



6. Progress on corrective action of ESHS non-conformances  
*Status of the implementation of any corrective actions to address ESHS related non-conformances identified in previous progress reports.*
7. Status and Progress on the Implementation of the LRP  
*Report on the progress made during this reporting period on the implementation of the LRP following the monitoring procedures defined in the document, especially in regards to*
- (i) Total number of affected people and financial losses of PAP in regards to their demobilized structures and assets*
  - (ii) Progress of compensation payments to PAPs in various categories, according to the compensation regime described in the LRP;*
  - (iii) Coordination of compensation activities with construction schedule;*
  - (iv) Progress of livelihood restoration measure delivery and social support entitlements to all PAPs;*
  - (v) Evaluation of the compliance of the LRP implementation with the requirements/entitlements described in the LRP document;*
  - (vi) Adherence to grievance mechanism and outstanding issues requiring management's attention and equality of access;*
  - (vii) Evaluation of satisfaction of PAPs with the LRP implementation through participatory means, including individual interviews with PAPs, focus group discussions and structured field observations;*
8. Incidents of Community Health and Safety  
*Figures and summaries on third party incidents (community protests etc.) and accidents (e.g. community members, road traffic etc.) in relation to adjacent communities.*
9. Incidents of Occupational Health and Safety (OHS) as well as Environmental Protection  
*Figures and summaries for OHS related accidents and incidents, especially on*
- (i) Number of near misses,*
  - (ii) First aid cases,*
  - (iii) Incidents with more than three days of absence,*
  - (iv) Fatalities;*
  - (v) Workers unrest or strike;*

*Figures and summaries on any environmentally related accidents or incidents (spills, explosions, uncontrolled discharges...).*

*For every major event mentioned above, provide a detailed explanation of circumstances (nature, root causes), consequences, and the action plan implemented or to be implemented (remedial and preventive actions with correspondent resources and responsibilities).*

*Summaries could follow the structure below:*

1	General Information	2	
3	Project Name, Activity, Country	4	
5	Name of Project Implementing Agency	6	
7	Name of Contractor Company and subcontractors	8	

9	Name, position and company of main person(s) involved with/ causing the Incident	10	
11	Details about Accident/ Incident	12	
13	Date and Time of Incident	14	
15	Location of Incident	16	
17	Type of Incident	18	
19	Detailed Description of Incident (attach photos if needed)	20	
21	Describe victims and damage (fatalities, injured, environmental damage (e.g. water pollution) etc.)	22	
23	Describe immediate response	24	
25	Describe long-term response	26	

#### 10. Stakeholder Engagement Activities and Community Development Activities

*Summary of activities that are related to stakeholders (e.g. consultation with statutory stakeholders and summary of outcomes) and any activities related to support in the local communities as described in the Stakeholder Engagement Plan (SEP).*

*Provide links to the WBS EDC website where the ESIA documents can be downloaded.*

#### 11. Grievances and Conflict Resolution

*Figures and summaries for*

- (i) *Workers complaints (e.g. related to labour/accommodation conditions) and their resolution;*
- (ii) *Community/third party grievances, any ESHS issues-related legal action/litigation against the project as well as their resolution.*

Grievance Received	Grievance Date	Action taken	Action Date	Notes/Any outstanding issue
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#### 12. Outlook and any recommendations to be considered during the next reporting period

## **SECTION III – APPLICATION FORMS**

## Form 1– Declaration of Undertaking

### Declaration of Undertaking

Reference name of the Application/Offer/Contract:

("Contract")<sup>3</sup>

To:

("Project Executing Agency")

1. We recognise and accept that KfW only finances projects of the Project Executing Agency ("PEA")<sup>4</sup> subject to its own conditions which are set out in the Funding Agreement it has entered into with the PEA. As a matter of consequence, no legal relationship exists between KfW and our company, our Joint Venture or our Subcontractors under the Contract. The PEA retains exclusive responsibility for the preparation and implementation of the Tender Process and the performance of the Contract.
2. We hereby certify that neither we nor any of our board members or legal representatives nor any other member of our Joint Venture including Subcontractors under the Contract are in any of the following situations:
  - 2.1) being bankrupt, wound up or ceasing our activities, having our activities administered by courts, having entered into receivership, reorganisation or being in any analogous situation;
  - 2.2) convicted by a final judgement or a final administrative decision or subject to financial sanctions by the United Nations, the European Union or Germany for involvement in a criminal organisation, money laundering, terrorist-related offences, child labour or trafficking in human beings; this criterion of exclusion is also applicable to legal Persons, whose majority of shares are held or factually controlled by natural or legal Persons which themselves are subject to such convictions or sanctions;
  - 2.3) having been convicted by a final court decision or a final administrative decision by a court, the European Union, national authorities in the Partner Country or in Germany for Sanctionable Practice in connection with a Tender Process or the performance of a Contract or for an irregularity affecting the EU's financial interests *(in the event of such a conviction, the Applicant or Bidder shall attach to this Declaration of Undertaking supporting information showing that this conviction is not relevant in the context of this Contract and that adequate compliance measures have been taken in reaction)*;
  - 2.4) having been subject, within the past five years to a Contract termination fully settled against us for significant or persistent failure to comply with our contractual obligations during such Contract performance, unless this termination was challenged and dispute resolution is still pending or has not confirmed a full settlement against us;
  - 2.5) not having fulfilled applicable fiscal obligations regarding payments of taxes either in the country where we are constituted or the PEA's country;
  - 2.6) being subject to an exclusion decision of the World Bank or any other multilateral development bank and being listed on the website <http://www.worldbank.org/debarr> or respectively on the relevant list of any other multilateral development bank *(in the event of such exclusion, the Applicant or*

<sup>3</sup> Capitalised terms used, but not otherwise defined in this Declaration of Undertaking have the meaning given to such term in KfW's "Guidelines for the Procurement of Consulting Services, Works, Plant, Goods and Non-Consulting Services in Financial Cooperation with Partner Countries".

<sup>4</sup> The PEA means the purchaser, the Employer, the client, as the case may be, for the procurement of Consulting Services, Works, Plant, Goods or Non-Consulting Services.

*Bidder shall attach to this Declaration of Undertaking supporting information showing that this exclusion is not relevant in the context of this Contract and that adequate compliance measures have been taken in reaction); or*

- 2.7) being guilty of misrepresentation in supplying the information required as a condition of participation in the Tender.
3. We hereby certify that neither we, nor any of the members of our Joint Venture or any of our Subcontractors under the Contract are in any of the following situations of conflict of interest:
- 3.1) being an Affiliate controlled by the PEA or a shareholder controlling the PEA, unless the stemming conflict of interest has been brought to the attention of KfW and resolved to its satisfaction;
  - 3.2) having a business or family relationship with a PEA's staff involved in the Tender Process or the supervision of the resulting Contract, unless the stemming conflict of interest has been brought to the attention of KfW and resolved to its satisfaction;
  - 3.3) being controlled by or controlling another Applicant or Bidder, or being under common control with another Applicant or Bidder, or receiving from or granting subsidies directly or indirectly to another Applicant or Bidder, having the same legal representative as another Applicant or Bidder, maintaining direct or indirect contacts with another Applicant or Bidder which allows us to have or give access to information contained in the respective Applications or Offers, influencing them or influencing decisions of the PEA;
  - 3.4) being engaged in a Consulting Services activity, which, by its nature, may be in conflict with the assignments that we would carry out for the PEA;
  - 3.5) in the case of procurement of Works, Plant or Goods:
    - i. having prepared or having been associated with a Person who prepared specifications, drawings, calculations and other documentation to be used in the Tender Process of this Contract;
    - ii. having been recruited (or being proposed to be recruited) ourselves or any of our Affiliates, to carry out works supervision or inspection for this Contract;
4. If we are a state-owned entity, and compete in a Tender Process, we certify that we have legal and financial autonomy and that we operate under commercial laws and regulations.
5. We undertake to bring to the attention of the PEA, which will inform KfW, any change in situation with regard to points 2 to 4 here above.
6. In the context of the Tender Process and performance of the corresponding Contract:
- 6.1) neither we nor any of the members of our Joint Venture nor any of our Subcontractors under the Contract have engaged or will engage in any Sanctionable Practice during the Tender Process and in the case of being awarded a Contract will engage in any Sanctionable Practice during the performance of the Contract;
  - 6.2) neither we nor any of the members of our Joint Venture or any of our Subcontractors under the Contract shall acquire or supply any equipment nor operate in any sectors under an embargo of the United Nations, the European Union or Germany; and
  - 6.3) we commit ourselves to complying with and ensuring that our Subcontractors and major suppliers under the Contract comply with international environmental and

labour standards, consistent with laws and regulations applicable in the country of implementation of the Contract and the fundamental conventions of the International Labour Organisation<sup>5</sup> (ILO) and international environmental treaties. Moreover, we shall implement environmental and social risks mitigation measures when specified in the relevant environmental and social management plans or other similar documents provided by the PEA and, in any case, implement measures to prevent sexual exploitation and abuse and gender based violence.

7. In the case of being awarded a Contract, we, as well as all members of our Joint Venture partners and Subcontractors under the Contract will, (i) upon request, provide information relating to the Tender Process and the performance of the Contract and (ii) permit the PEA and KfW or an agent appointed by either of them, and in the case of financing by the European Union also to European institutions having competence under European Union law, to inspect the respective accounts, records and documents, to permit on the spot checks and to ensure access to sites and the respective project.
8. In the case of being awarded a Contract, we, as well as all our Joint Venture partners and Subcontractors under the Contract undertake to preserve above mentioned records and documents in accordance with Applicable Law, but in any case for at least six years from the date of fulfilment or termination of the Contract. Our financial transactions and financial statements shall be subject to auditing procedures in accordance with Applicable Law. Furthermore, we accept that our data (including personal data) generated in connection with the preparation and implementation of the Tender Process and the performance of the Contract are stored and processed according to the Applicable Law by the PEA and KfW.

Name: \_\_\_\_\_ In the capacity of: \_\_\_\_\_

Duly empowered to sign in the name and on behalf of<sup>6</sup>: \_\_\_\_\_

Signature:

Dated:

<sup>5</sup> In case ILO conventions have not been fully ratified or implemented in the Employer's country the Applicant/Bidder/Contractor shall, to the satisfaction of the Employer and KfW, propose and implement appropriate measures in the spirit of the said ILO conventions with respect to a) workers grievances on working conditions and terms of employment, b) child labour, c) forced labour, d) worker's organisations and e) non-discrimination.

<sup>6</sup> In the case of a JV, insert the name of the JV. The person who will sign the application, Bid or Proposal on behalf of the Applicant/Bidder shall attach a power of attorney from the Applicant/Bidder.

## **Form 2 – Sample Declaration on Conflict of Interest and of Submitting a Proposal**

### **Declaration on Conflict of Interest and of Submitting a Proposal**

Project (name and country):

Tender Ref./ Project ID:

We *[insert the name of the Applicant]* hereby declare that we are an independent Consultant and we, nor any member of the JV in which we are member, nor any Sub-Consultant listed below have a conflict of interest as per GP 1.5.

We hereby declare that in the event of being prequalified by the Employer, we shall submit a Proposal, subject to the details of the tender documents.

*[Insert the following text if the Application includes one or several Sub-Consultants, whose qualifications should be considered by the Employer in the pre-qualification process:*

“We request that the qualifications of the following Sub-Consultant(s) shall be considered by the Employer in the pre-qualification process,

*[List Sub-Consultants here]*

If short-listed, we undertake to submit a Proposal that includes all of the above Sub-Consultants.”]

*[Signature of the authorised representative of the Applicant, designated in accordance with GP 1.4.5]*

### Form 3 – Sample Declaration of Association

#### Declaration of Association

Project (name and country):

Tender Ref./ Project ID:

We hereby declare our intent to associate with the following firms for the purpose of forming a Joint Venture:

*[Insert the names of the other JV members here]*

*[Insert the name of the Lead Consultant]* shall be the Lead Consultant.

We hereby confirm that we have not associated with any other firms for the purposes of this assignment and that we will not submit an application separately from the firms listed above. Further, we understand that if a Consultant appears as an associate in more than one Application, all Applications in which the Consultant appears shall be disqualified.

In the event that this JV is awarded a Contract, we shall perform the Services in the composition and in the form of cooperation described above.

*[Signature of the authorised representative of the Applicant, designated in accordance with GP 1.4.5]*



### Form 4 – Financial Capacity Statement

*[This table is provided for illustrative purposes only. Adjust the table to reflect the financial capability requirements set out in accordance with GP 4.2.1]*

Financial data	2 years before last year <sup>7</sup> <specify> EUR	Year before last year <specify> EUR	Last year <specify> EUR	Average <sup>8</sup> EUR
Annual turnover <sup>9</sup>				
Current assets <sup>10</sup>				
Current liabilities <sup>11</sup>				
Current ratio (current assets/current liabilities)				

If annual accounts are not yet available for the last year, please provide latest estimates or provisional figures. Figures in all columns must be calculated on the same basis to allow a direct, year-on-year comparison to be made (or, if the basis has changed, please provide an explanation of the change as a footnote to the table).

Natural persons without balance sheet shall provide appropriate information.

<sup>7</sup> Last year = last accounting year for which the entity's accounts have been closed.

<sup>8</sup> Amounts entered in the 'Average' column must be the mathematical average of the amounts entered in the three preceding columns of the same row.

<sup>9</sup> The gross inflow of economic benefits (cash, receivables, other assets) generated from the ordinary operating activities of the enterprise (such as sales of goods, sales of Services, interest, royalties, and dividends) during the year.

<sup>10</sup> A balance sheet account, that represents the value of all assets that are reasonably expected to be converted into cash within one year in the normal course of business. Current assets include cash, accounts receivable, inventory, marketable securities, prepaid expenses and other liquid assets that can be readily converted to cash.

<sup>11</sup> A company's debts or obligations that are due within one year. Current liabilities appear on the company's balance sheet and include short term debt, accounts payable, accrued liabilities and other debts.

**Form 5 – Project Experience**

Ref no:	Project title							
Name of legal entity (declaring Consultant)	Project Country	Overall project value (EUR)*	Proportion carried out by the legal entity (%)*	Provided staff input (person months)	Name of client	Origin of funding	Dates (start/end)	Name of JV members, if any
...	...	...	...	...	...	...	...	...
Detailed description of project (background, objectives and main activities)						Services provided by the legal entity for the project		
...						...		

\* If the overall project value refers to overall project cost inclusive of Consulting Services please indicate the consulting fee separately. The portion carried out by the legal entity refers to that figure.

## Form 6 – List of Available Expertise and Human Resource Capacity

### 1. Access to Expertise Required for the Assignment

Complete the list below to demonstrate the extent to which you have access (internally / externally) to expertise required for this assignment / for the project team profiles described in GP / SP 1.6. Include home-office project management / administration and back-stopping personnel. Include freelance personnel and Sub-Consultant staff, if applicable (see Declaration in Annexe I). **Do not attach CVs** as no detailed evaluation of candidates for the project team shall be carried out at the prequalification stage. The Applicant shall not present a potential project team. The focus is on access and availability to project relevant expertise. It is understood that prequalified Applicants are not required to include staff named below into the Proposal.

Name	Project team profile / areas of required expertise as per GP / SP 1.6 <sup>12</sup>	Education/ Degree	Years of Professional Experience	Relationship with / Years within the Applicant <sup>13</sup>	Country/Regional Experience	Relevant Project References (Description of project-related experience)	Languages

<sup>12</sup> The project team profiles should be identical to the project team profiles listed in GP / SP 1.6. The information provided in the “Education/Degree” and “Relevant Project References) should demonstrate that the expert’s core specialization is appropriate for the respective project profile.

<sup>13</sup> For freelance experts (e.g. with retainer Contracts or formal agreements) indicate “FE” and how long the expert has been associated with the Applicant. For Sub-Consultant staff indicate “Sub”. Staff from Affiliated firms of the Applicant shall be considered as Sub-Consultant staff.

**Form 6 continued****2. Human Resource Capacity**

Complete the list below to demonstrate the permanent staff available in the areas of expertise required in this assignment as described in GP / SP 1.6. The focus here is on the Applicants human resource capacity and breadth in relation to the required expert Services.

*[To avoid misunderstanding insert a separate sheet for each JV members here]*

Departments / Divisions in the firm relevant to the project team profile / areas of required expertise as per GP / SP 1.6	Staff		Total staff appropriate for the specialisation
	Permanent staff in the Applicants firm	Freelance staff	

Total staff number of the Applicant			
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Please substantiate above statements with (an) organizational chart(s) of the firm or the relevant parts of the firm.

## SECTION IV – ELIGIBILITY CRITERIA

### Eligibility in KfW-Financed Procurement

1. Consulting Services, Works, Goods, Plant and Non-Consulting Services are eligible for KfW financing regardless of the country of origin of the Contractors (including Subcontractors and suppliers for the execution of the Contract), except where an international embargo or sanction by the United Nations, the European Union or the German Government applies.
2. Applicants/Bidders (including all members of a Joint Venture and proposed or engaged Subcontractors) shall not be awarded a KfW-financed Contract if, on the date of submission of their Application/Offer or on the intended date of Award of a Contract, they:
  - 2.1 are bankrupt or being wound up or ceasing their activities, are having their activities administered by courts, have entered into receivership, or are in any analogous situation;
  - 2.2 have been
    - (a) convicted by a final judgement or a final administrative decision or subject to financial sanctions by the United Nations, the European Union and/or the German Government for involvement in a criminal organisation, money laundering, terrorist-related offences, child labour or trafficking in human beings; this criterion of exclusion is also applicable to legal Persons, whose majority of shares are held or factually controlled by natural or legal Persons which themselves are subject to such convictions or sanctions;
    - (b) convicted by a final court decision or a final administrative decision by a court, the European Union or national authorities in the Partner Country or in Germany for Sanctionable Practice during any Tender Process or the performance of a Contract or for an irregularity affecting the EU's financial interests, unless they provide supporting information together with their Declaration of Undertaking (Form available as Appendix to the Application/Offer which shows that this conviction is not relevant in the context of this Contract and that adequate compliance measures have been taken in reaction;
  - 2.3 have been subject within the past five years to a Contract termination fully settled against them for significant or persistent failure to comply with their contractual obligations during Contract performance, unless this termination was challenged and the dispute resolution is still pending or has not confirmed a full settlement against them;
  - 2.4 have not fulfilled applicable fiscal obligations regarding payments of taxes either in the country where they are constituted or the PEA's country;
  - 2.5 are subject to an exclusion decision of the World Bank or any other multilateral development bank and are listed in the respective table with debarred and cross-debarred firms and individual available on the World Bank's website or any other multilateral development bank unless they provide supporting information together with their Declaration of Undertaking which shows that this exclusion is not relevant in the context of this Contract or
  - 2.6 have given misrepresentation in documentation requested by the PEA as part of the Tender Process of the relevant Contract.
3. State-owned entities may compete only if they can establish that they (i) are legally and financially autonomous, and (ii) operate under commercial law. To be eligible, a state-owned

entity shall establish to KfW's satisfaction, through all relevant documents, including its charter and other information KfW may request, that it: (i) is a legal entity separate from their state; (ii) does not currently receive substantial subsidies or budget support; (iii) operates like any commercial enterprise, and, inter alia, is not obliged to pass on its surplus to their state, can acquire rights and liabilities, borrow funds and be liable for repayment of its debts, and can be declared bankrupt.

## SECTION V – KfW POLICY – SANCTIONABLE PRACTICE – SOCIAL AND ENVIRONMENTAL RESPONSIBILITY

### 1) Sanctionable Practice

The PEA and the Contractors (including all members of a Joint Venture and proposed or engaged Subcontractors) must observe the highest standard of ethics during the Tender Process and performance of the Contract.

By signing the Declaration of Undertaking the Contractors declare that (i) they did not and will not engage in any Sanctionable Practice likely to influence the Tender Process and the corresponding Award of Contract to the PEA's detriment, and that (ii) in case of being awarded a Contract they will not engage in any Sanctionable Practice.

Moreover, KfW requires to include in the Contracts a provision pursuant to which Contractors must permit KfW and in case of financing by the European Union also to European institutions having competence under European law to inspect the respective accounts, records and documents relating to the Tender Process and the performance of the Contract and to have them audited by auditors appointed by KfW.

KfW reserves the right to take any action it deems appropriate to check that these ethics rules are observed and reserves, in particular, the rights to:

- (a) reject an Offer for Award of Contract if during the Tender Process the Bidder who is recommended for the Award of Contract has engaged in Sanctionable Practice, directly or by means of an agent in view of being awarded the Contract;
- (b) declare misprocurement and exercise its rights on the ground of the Funding Agreement with the PEA relating to suspension of disbursements, early repayment and termination if, at any time, the PEA, Contractors or their legal representatives or Subcontractors have engaged in Sanctionable Practice during the Tender Process or performance of the Contract without the PEA having taken appropriate action in due time satisfactory to KfW to remedy the situation, including by failing to inform KfW at the time they knew of such practices.

KfW defines, for the purposes of this provision, the terms set forth below as follows:

<b>Coercive Practice</b>	The impairing or harming, or threatening to impair or harm, directly or indirectly, any person or the property of the person with a view to influencing improperly the actions of a person.
<b>Collusive Practice</b>	An arrangement between two or more persons designed to achieve an improper purpose, including influencing improperly the actions of another person.
<b>Corrupt Practice</b>	The promising, offering, giving, making, insisting on, receiving, accepting or soliciting, directly or indirectly, of any illegal payment or undue advantage of any nature, to or by any person, with the intention of influencing the actions of any person or causing any person to refrain from any action.
<b>Fraudulent Practice</b>	Any action or omission, including misrepresentation that knowingly or recklessly misleads, or attempts to mislead, a person to obtain a financial benefit or to avoid an obligation.

**Obstructive Practice** Means (i) deliberately destroying, falsifying, altering or concealing evidence material to the investigation or the making of false statements to investigators, in order to materially impede an official investigation into allegations of a Corrupt Practice, Fraudulent Practice, Coercive Practice or Collusive Practice, or threatening, harassing or intimidating any Person to prevent them from disclosing their knowledge of matters relevant to the investigation or from pursuing the investigation, or (ii) any act intended to materially impede the exercise of KfW's access to contractually required information in connection with an official investigation into allegations of a Corrupt Practice, Fraudulent Practice, Coercive Practice or Collusive Practice.

**Sanctionable Practice** Any Coercive Practice, Collusive Practice, Corrupt Practice, Fraudulent Practice or Obstructive Practice (as such terms are defined herein) which is unlawful under the Financing Agreement.

## **2) Social and Environmental Responsibility**

Projects financed in whole or partly in the framework of Financial Cooperation have to ensure compliance with international Environmental, Social, Health and Safety (ESHS) standards (including issues of sexual exploitation and abuse and gender based violence). Contractors in KfW-financed projects shall consequently undertake in the respective Contracts to:

- (a) comply with and ensure that all their Subcontractors and major suppliers, i.e. for major supply items comply with international environmental and labour standards, consistent with Applicable Law and regulations in the country of implementation of the respective Contract and the fundamental conventions of the International Labour Organisation (ILO) and international environmental treaties and;
- (b) implement any environmental and social risks mitigation measures, as identified in the environmental and social impact assessment (ESIA) and further detailed in the environmental and social management plan (ESMP) as far as these measures are relevant to the Contract and implement measures for the prevention of sexual exploitation and abuse and gender-based violence.