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|  | |  | | --- | | **NATIONAL POWER PARKS MANAGEMENT COMPANY (PVT) LIMITED** | |  | |

**INVITATION FOR PRE-QUALIFICATION (IFP)**

**FOR**

**SERVICES AS INDEPENDENT ENGINEER**

**FOR**

**1230 MW COMBINED CYCLE POWER PLANT**

**HAVELI BAHADUR SHAH, JHANG, PUNJAB, PAKISTAN**

**IFP NO. 2A-RLNG-POWER PLANT (IE)**

**Prequalification Documents**

**December 2016**

**Summary Description**

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**Section II. Qualification Criteria (QLC)**

**Section III. Application Forms (APF)**

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| **A. General** | |
| 1. Project Background and Scope of Application | * 1. In connection with the Invitation for Prequalification (IFP) No. 2A-RLNG-POWER PLANT (IE), National Power Parks Management Company (Pvt.) Limited (NPPMCL), the Employer, issues this Prequalification Document on International Competitive Bidding (ICB) basis to Applicants interested in bidding for the services pertaining to Independent Engineer as per the Power Purchase Agreement (PPA) of 1230 MW Combined Cycle Power Plant Haveli Bahadur Shah (the Project).   NPPMCL is a private limited company, wholly owned by Government of Pakistan and incorporated under the Companies Ordinance 1984, established on March 02, 2015. NPPMCL is setting up a 1230 MW (Gross) Combined Cycle Power Plant at Haveli Bahadur Shah, 35km from Jhang under the IPP (Independent Power Producer) regime. RLNG will be the primary fuel for the Plant whereas High Speed Diesel (HSD) will be used as a backup fuel. Configuration of the Plant comprises two (02) GE Frame 9HA.01 Gas Turbines, two (02) Heat Recovery Steam Generators and one (01) Alstom Steam Turbine.  Engineering, Procurement and Construction Contract of the Plant has been signed with M/s PC-Qavi joint venture consisting of Power Construction Conrporation of China and Qavi Engineers Pvt. Limited on October 13, 2015.  Under the Power Purchase Agreement (PPA), the Project is scheduled to be commissioned in phases; with both gas turbines expected to achieve operation in simple cycle mode during the second quarter of 2017 whereas the plant will be commissioned in combined cycle mode in the first quarter of 2018.  The power generated by the Plant will be evacuated through connection to;   * A 500 kV double circuit transmission line, approx. 3 km long, for looping In/Out of the existing Muzaffargarh – Gatti (Faisalabad West) 500 kV single circuit at Haveli Bahadur Shah project, and * A 500 kV double circuit transmission line, approx. 25 km long, for looping In/Out of the existing Multan – Gatti (Faisalabad West) 500 kV single circuit at Haveli Bahadur Shah power plant.   In this regard, the PPA has been executed between the Central Power Purchasing Agency (Guarantee) Limited (the Power Purchaser) and NPPMCL for the sale of the generated energy from the 1230 MW CCPP Haveli Bahadur Shah (herein after the PPA).  NPPMCL intends to hire the services of a reputed independent engineer who shall act independently and impartially in performance of its duties under the PPA (as listed in Section-V of this document) in close association with the Employer, EPC Contractor and the Power Purchaser prior to and during the commissioning phases of the Project (herein after referred as “Independent Engineer”).  The Independent Engineer shall fulfill all the obligations of the “Engineer” as defined in and required under the PPA, and herein after shall be referred to as “the Engineer”.   * 1. The Employer’s Representative to perform the duties delegated by the Employer for the Project is National Engineering Services Pakistan (Pvt.) Ltd. (NESPAK) as Consultants with Lahmeyer International GmbH, HaidermotaBNR & Co.andErnst & Young Ford Rhodes Sidat Hyder as Sub-Consultants to NESPAK. |
| 1. Source of Funds | 2.1 Cost of this Contract shall be financed by National Power Parks Management Company (Pvt.) Limited, the Employer, through its own resources. |
| 1. Fraud and Corruption | * 1. Anticorruption Policy prevailing in Pakistan requires that Applicants/Bidders, contractors, sub-contractors, suppliers, and contractors etc. observe the highest standard of ethics during the procurement and execution of such contracts. In pursuance of this policy, the Employer:  defines, for the purposes of this provision, the terms set forth below as follows:  1. “corrupt and fraudulent practice” means the offering, giving, receiving, or soliciting, of anything of value to influence the action of a public official or the contractor in the procurement process or in contract execution to the detriment of the procuring agency; or misrepresentation of facts in order to influence a procurement process or the execution of a contract, collusive practices among Bidders (prior to or after bid submission) designed to establish bid prices at artificial, non-competitive levels and to deprive the procuring agency of the benefits of free and open competition and any request for, or solicitation of anything of value by any public official in the course of the exercise of his duty; 2. “coercive practice” means impairing or harming, or threatening to impair or harm, directly or indirectly, any party or the property of the party to achieve a wrongful gain or to cause a wrongful loss to another party; 3. “collusive practice” means by arrangement between two or more parties to the procurement process or contract execution, designed to achieve with or without the knowledge of the procuring agency to establish prices at artificial, noncompetitive levels for any wrongful gain; 4. “integrity violation” means any act which violates Anticorruption Policy including corrupt, fraudulent, coercive, or collusive practice, abuse, and obstructive practice; “obstructive practice” by harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in a procurement process, or affect the execution of a contract or deliberately destroying, falsifying, altering or concealing of evidence material to the investigation or making false statements before investigators in order to materially impede an investigation into allegations of a corrupt, fraudulent, coercive or collusive practice; or threatening, harassing or intimidating any party to prevent it from disclosing its knowledge of matters relevant to the investigation or from pursuing the investigation, or acts intended to materially impede the exercise of inspection and audit rights  will reject a proposal for award if it determines that the Bidder recommended for award has, directly or through an agent, engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices or other integrity violations in competing for the Contract; andwill sanction/impose remedial actions on a firm or an individual, at any time in accordance with applicable Laws and Anticorruption Policy including declaring ineligible, either indefinitely or for a stated period of time, to participate as a contractor, nominated subcontractor, manufacturer or supplier, or service provider; or in any other capacity, if it at any time determines that the firm or individual has, directly or through an agent, engaged in corrupt, fraudulent, collusive, coercive or obstructive practices or other integrity violations. |
| 1. Eligible Applicants | * 1. An Applicant shall be an entity or any combination of entities in the form of a Joint Venture (JV) with a formal intent to enter into an agreement or under an existing agreement. In the case of a JV,  all partners to the JV shall be jointly and severally liable; anda JV shall nominate a representative to act as the lead partner who shall have the authority to conduct all business for and on behalf of any and all the partners of the JV during the prequalification process and, in the event the JV is prequalified, during the bidding process, and in the event the JV is awarded the Contract, during contract execution. |
|  | * 1. An Applicant, and all partners constituting the Applicant, shall have the nationality of an eligible country, in accordance with Section IV titled Eligible Countries. An Applicant shall be deemed to have the nationality of a country if the Applicant is a national of that country; or is constituted, incorporated, or registered and operates in conformity with the provisions of the laws of that country. |
|  | * 1. The above requirement shall apply to the determination of the nationality of Bidders/JV partners. |
|  | * 1. Employer considers a conflict of interest to be a situation in which a party has interests that could improperly influence that party’s performance of official duties or responsibilities, contractual obligations, or compliance with applicable laws and regulations. The Employer will take appropriate actions to manage such conflicts of interest which may include rejecting a proposal for award if it determines that a conflict of interest has flawed the integrity of any procurement process. At the time of bidding, Bidders may be considered to be in a conflict of interest with one or more parties if they, including but not limited, to, (a) participated as a contractor in the preparation of the scope of works and services that is the subject of this prequalification (b) as a contractor in the procurement process of EPC works. A Bidder may be considered to be in a conflict of interest with one or more parties in the bidding process if a Bidder participates in more than one bid in the bidding process, either individually or as a partner in a joint venture. This will result in the disqualification of all Bids in which it is involved. However, this does not limit the participation of a Bidder as a sub-contractors in another bid or of a firm as sub-contractors in more than one bid. |
|  | * 1. A firm that is under a declaration of ineligibility/blacklisting by the Government of Pakistan including any of its Employers in accordance with ITA Clause 3, at the date of submission of the Application or thereafter, shall not be considered. |
|  | * 1. Applicants shall provide such evidence of their continued eligibility satisfactory to the Employer, as the Employer shall reasonably request. |
|  | * 1. The successful Bidder shall be required to obtain an appropriate license from Pakistan Engineering Council (if required), in accordance with the provisions of applicable laws.   2. A domestic Applicant and domestic JV partner of a foreign Applicant should be on Active Taxpayer List of FBR.   3. An Applicant shall submit only one Application in this prequalification process, either individually as an Applicant or as a partner of a joint venture. An Applicant who submits or participates in more than one Application will cause all the Applications in which the Applicant has participated to be disqualified. |
| 1. Eligible Services | * 1. The services to be supplied under the Contract shall have as their country of origin, an eligible country as per Section IV titled Eligible Countries. |
|  | **B. Contents of Prequalification Documents** |
| 1. Sections of the Prequalification Documents | * 1. The Prequalification Documents consist of Parts 1 and 2 which include all the sections indicated below, and should be read in conjunction with any Addenda issued in accordance with ITA Clause 8.   **PART 1 Prequalification Procedures**   * Section I. Instructions to Applicants (ITA) * Section II. Qualification Criteria (QLC) * Section III. Application Forms (APF) * Section IV. Eligible Countries (ELC)   **PART 2 Requirements**   * Section V. Scope of Contract (SOC) |
|  | * 1. The “Invitation for Prequalification (IFP)” issued by the Employer is not part of the Prequalification Documents. |
|  | * 1. The Employer accepts no responsibility for the completeness of the Prequalification Documents and its addenda unless they were obtained directly from the Employer. |
|  | * 1. The Applicant is expected to examine all instructions, forms, and terms in the Prequalification Documents and to furnish all information or documentation required by the Prequalification Documents. |
| 1. Clarification of Prequalification Documents | * 1. A prospective Applicant requiring any clarification of the Prequalification Documents shall contact the Employer in writing at the Employer’s address as shown hereunder. The Employer will respond in writing to any request for clarification provided that such request is received no later than seven (07) days prior to the deadline for submission of Applications. The Employer shall forward copies of its response to all Applicants who have acquired the Prequalification Documents directly from the Employer including a description of the inquiry but without identifying its source. Should the Employer deem it necessary to amend the Prequalification Documents as a result of a request for clarification, it shall do so following the procedure under ITA Clause 8 and in accordance with the provisions of Sub-Clause 17.2.   For **clarification purposes** only, the Employer’s address is:  Attention: Mr. Shahzad Aziz Khan  (General Manager HR & Admin),  National Power Parks Management Company (Pvt.) Limited  Address: National Power Parks Management Company (Pvt.) Limited, 2nd Floor,  7-C-1, Gulberg-III, Lahore, Pakistan  Telephone: +92-42-35759274  Cell: +92-3334268351  Facsimile number: +92-42-35759275,  Email: shahzad.aziz@nppmcl.com |
| 1. Amendment of Prequalification Documents | * 1. At any time prior to the deadline for submission of Applications, the Employer may amend the Prequalification Documents by issuing addenda. |
|  | * 1. Any addendum issued shall be part of the Prequalification Documents and shall be communicated in writing to all who have acquired the Prequalification Documents directly from the Employer and shall be placed on the Employer’s website for all who have downloaded Pre-qualifiction Documents free of cost. In case the Prequalification Documents have been downloaded from the website, prospective Applicants shall be responsible for ensuring that any addendum uploaded on the website are accessed and downloaded. No direct communication will be made regarding uploading of addendum. |
|  | * 1. To give prospective Applicants reasonable time in which to take an addendum into account in preparing their Applications, the Employer may, at its discretion, extend the deadline for the submission of Applications. |
|  | **C. Preparation of Applications** |
| 1. Cost of Applications | * 1. The Applicant shall bear all costs associated with the preparation and submission of its Application, and the Employer shall in no case be responsible or liable for those costs, regardless of the conduct or outcome of the prequalification process. |
| 1. Language of Application | * 1. The Application, as well as all correspondence and documents relating to the prequalification exchanged by the Applicant and the Employer, shall be written in the English language. Supporting documents and printed literature that are part of the Application may be in another language, provided they are accompanied by an accurate translation of the relevant passages into the English language, in which case, for purposes of interpretation of the Application, the translation shall govern. |
| 1. Documents Comprising the Application | * 1. The Application shall comprise the following:      1. Application Submission Sheet, in accordance with ITA Clause 12;      2. written confirmation authorizing the signatory of the Application to commit the Applicant, in accordance with ITA Sub-Clause 15.3;      3. documentary evidence establishing the Applicant’s eligibility to prequalify, in accordance with ITA Clause 13.1; and      4. documentary evidence establishing the Applicant’s qualifications, in accordance with ITA Clause 14.1; and      5. valid NTN or other registration as required under applicable laws by a domestic Applicant or domestic partner(s) of a JV. |
| 1. Application Submission Sheet | * 1. The Applicant shall prepare an Application Submission Sheet using the form furnished in Section III, Application Forms. This form must be completed without any alteration to its format, unless otherwise approved by the Employer in writing. |
| 1. Documents Establishing the Eligibility of the Applicant | * 1. To establish its eligibility in accordance with ITA Clause 4, the Applicant shall complete the eligibility declarations in the Application Submission Sheet and Forms ELI 1.1, 1.2 and 1.3included in Section III, Application Forms. |
| 1. Documents Establishing the Qualifications of the Applicant | * 1. To establish its qualifications to perform the contract in accordance with Section II, Qualification Criteria, the Applicant shall provide the information requested in the corresponding Information Sheets included in Section III, Application Forms. |
| 1. Signing of the Application and Number of Copies | * 1. The Applicant shall prepare one original of the documents comprising the Application as described in ITA Clause 11 and clearly mark it “ORIGINAL”. The original of the Application shall be typed or written in indelible ink and shall be signed by a person duly authorized to sign on behalf of the Applicant. |
|  | * 1. The Applicant shall submit two (02) copies of the signed original Application, and clearly mark them “COPY”. In the event of any discrepancy between the original and the copies, the original shall prevail. |
|  | * 1. The requirements regarding the legal instrument evidencing the authorization to represent and sign on behalf of the Applicant shall be a power of attorney, duly notarized, indicating that the person(s) signing the Application has(-ve) the authority to sign the Application for Prequalification. Applications submitted by an existing or intended JV shall include an undertaking signed by all partners:      1. stating that all partners shall be jointly and severally liable, and      2. nominating a Representative to act as lead partner who shall have the authority to conduct all business for and on behalf of any and all the partners of the JV during the prequalification process and, in the event the JV is prequalified, during the bidding process, and in the event the JV is awarded the Contract, during contract execution.   2. Each document submitted by the Applicant to the Employer shall comply with the applicable laws of Pakistan, including but not limited to laws relating to the application of the requisite stamp duty, due notarization and attestation, and witnessing. |
|  | **D. Submission of Applications** |
| 1. Sealing and Marking of Applications | * 1. The Applicant shall enclose the original and the copies of the Application in a sealed envelope which shall      1. bear the name and address of the Applicant;      2. be addressed to the Employer, in accordance with Sub-Clause ITA 17.1; and      3. bear the specific identification of this prequalification process indicated in the ITA Sub-Clause 1.1 above. |
|  | * 1. If the envelope is not sealed and marked as required, the Employer will assume no responsibility for the misplacement of the Application. |
| 1. Deadline for Submission of Applications | * 1. Applications shall be submitted by the Applicants through courier/ express mail or by hand at the address indicated in the ITA Sub-Clause 7.1 above. However, Applicants must ensure that the Applications must reach no later than the following deadline:   January 16, 2017 at 1500 hours, Pakistan Standard Time.  Electronically submitted Application shall not be entertained and treated as rejected. |
|  | * 1. The Employer may, at its discretion, extend the deadline for the submission of Applications by amending the Prequalification Documents in accordance with ITA Clause 8, 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. |
| 1. Late Applications | * 1. The Employer shall not consider any Application that arrives after the deadline for submission of Applications, in accordance with ITA17. Any Application received by the Employer after the deadline for submission of Applications shall be declared late, rejected, and returned unopened to the Applicant. |
| 1. Opening of Applications | * 1. The Applications will be opened on the same day mentioned under ITA 17.1 at 1530 hours (Pakistan Standard Time). The Employer shall prepare a record of the opening of Applications that shall include, as a minimum, the name of the Applicant. |
|  | **E. Evaluation of Applications** |
| 1. Confidentiality | * 1. Information relating to the evaluation of Applications, and recommendation for prequalification, shall not be disclosed to Applicants or any other persons not officially concerned with such process until the notification of prequalification is made to all Applicants. |
|  | * 1. From the deadline for submission of Applications to the time of notification of the results of the prequalification in accordance with ITA Clause 28, if any Applicant wishes to contact the Employer on any matter related to the prequalification process, it may do so in writing. |
| 1. Clarification of Applications | * 1. To assist in the evaluation of Applications, the Employer may, at any stage during the course of the prequalification process, ask any Applicant for a clarification of its Application which shall be submitted within a stated reasonable time period of time. |
|  | * 1. If an Applicant does not provide clarifications of the information requested by the date and time set in the Employer’s request for clarification, its Application may be rejected. |
| 1. Responsive-ness of Applications | * 1. The Employer may reject any Application which is not responsive to the requirements of the Prequalification Documents.   2. The Employer reserves the right to waive deviations/omissions, if these don’t materially affect the capability of an Applicant to perform the contract. Sub-contractors’ experience and resources shall not be taken into account in determining the Applicant’s compliance with the qualifying criteria. |
| 1. Margin of Preference | * 1. No margin of preference shall apply for domestic Bidder in the bidding process corresponding to this prequalification. |
| 1. Sub-Contractors | * 1. The Employer does not intend to execute certain specific parts of the Services by sub-contractors selected in advance by the Employer (Nominated Sub-contractors). |
|  | **F. Prequalification of Applicants** |
| 1. Evaluation of Applications | * 1. The Employer shall use the criteria and methods defined in Section II, Qualification Criteria to evaluate the qualifications of the Applicants. |
|  | * 1. The general experience and financial resources of sub-contractors shall not be added to those of the Applicant for purposes of prequalification of the Applicant. |
|  |  |
| 1. Employer’s Right to Accept or Reject Applications | * 1. The Employer reserves the right to accept or reject any Application (subject to the evaluation of Application) and / or annul the prequalification process and reject all Applications at any time, without thereby incurring any liability to the Applicants. |
| 1. Prequalification of Applicants | * 1. All Applicants, whose Applications have been determined to be responsive to the requirements of the Prequalification Documents and who have met or exceeded the specified criteria (Passed) shall be prequalified by the Employer. |
| 1. Notification of Prequalification | * 1. Once the Employer has completed the evaluation of the Applications it shall notify all Applicants in writing of the names of those Applicants who have been prequalified. |
| 1. Invitation to Bid | * 1. Promptly after the notification of the results of the prequalification, the Employer shall invite bids from all the Applicants that have been prequalified. |
| 1. Changes in Qualifications of Applicants | * 1. Any change in the qualification status of an Applicant after being prequalified in accordance with ITA Clause 27 shall be subject to the written approval of the Employer. Any such change shall be submitted to the Employer not later than fourteen (14) days after the date of the Invitation to Bid. Such approval shall be denied if as a consequence of any change,      1. the prequalified Applicant, after the change, no longer substantially meets the qualification criteria set forth in Section II, Qualification Criteria; or      2. a new partner is added to a prequalified Applicant and does not meet the prequalification criteria.   However, the aforesaid requirement does not apply to the scenario if foreign prequalified Applicant makes a joint venture with the domestic partner at the time of bidding. Nevertheless, such new domestic partner shall fulfill the criteria as mentioned under ITA Clause 27.  Furthermore, in case of addition of a new partner to the prequalified Applicant, the role of the Lead Partner shall remain the same. |

## 

## Section II. Qualification Criteria

# 1. Eligibility

| **Criteria** | **Compliance Requirements** | | | | **Documents** |
| --- | --- | --- | --- | --- | --- |
| **Requirement** | **Single Entity** | **Joint Venture** | | | **Submission Requirements** |
| **All Partners Combined** | **Each Partner** | **At Least**  **One**  **Partner** |

# 1.1 Nationality

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Nationality in accordance with ITA Sub-Clause 4.2. | must meet requirement | not applicable | must meet requirement | not applicable | Forms  ELI –1.1; ELI –1.2  with attachments |

# 1.2 Conflict of Interest

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| No conflicts of interest in accordance with ITA Sub-Clause 4.4. | must meet requirement | not applicable | must meet requirement | not applicable | Application Submission Sheet |

# 1.3 Blacklisting

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Not having been declared ineligible/black listed in accordance with ITA Sub-Clause 4.5. | must meet requirement | not applicable | must meet requirement | not applicable | Form  ELI-1.3 |

# 2. Pending Litigation

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Criteria** | **Compliance Requirements** | | | | **Documents** |
| **Requirement** | **Single Entity** | **Joint Venture** | | | **Submission Requirements** |
| **All Partners Combined** | **Each Partner** | **At Least**  **One Partner** |

# 2.1 Pending Litigation

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| All pending litigation shall be treated as resolved against the Applicant and so shall in total not represent more than fifty (50) percent of the Applicant’s net worth. | must meet requirement | not applicable | must meet requirement | not applicable | Form LIT –2 |

# 3. Financial Situation

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Criteria** |  | **Compliance Requirements** | | | | **Documents** |
| **Requirement** | **Single Entity** | **Joint Venture** | | | | **Submission Requirements** |
| **Lead Partner** | **All Partners Combined** | **Each Partner** | **At Least One Partner** |

# 3.1 Historical Financial Performance

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Submission of audited Financial Statement, or, if not required by the law of the Applicant’s country, management financial Statements, for the last three (03) years. | must meet requirement | must meet requirement | not applicable | must meet requirement | not applicable | Form FIN - 3.1 with attachments |

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# 3.2 Average Annual Turnover

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Minimum average annual turnover of US$ one hundred & fifty thousand (150,000 US$) as reported in the financial statements , within the last three (03) years or a cumulative turnover of US$ four hundred & fifty thousand (450,000 US$) over the last three (03) years. | must meet requirement | must meet 60% of the requirement | must meet requirement | not applicable | not applicable | Form FIN - 3.2 |

# 3.3 Credit Line

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Available Cash Flow in the amount of equivalent to US$ one hundred thousand (100,000 US$) to meet cash flow requirements, which is a combination of undrawn credit facility and un-encumbered cash/Bank balances for smooth execution of its services. | must meet requirement | must meet 60% of the requirement | must meet requirement | not applicable | not applicable | Form FIN - 3.3 |

# 3.4 Credit Worthiness

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Debt Service Coverage Ratio ≥ 1 | must meet requirement | must meet requirement | not applicable | not applicable | not applicable | Form FIN - 3.3 |
| Maximum Debt/Equity Ratio of 70:30 | must meet requirement | must meet requirement | not applicable | not applicable | not applicable | Form FIN - 3.3 |

Note: An Applicant may provide alternative proof of credit worthiness in the form of credit rating from a reputable credit-rating agency acceptable to the Employer (such as Moodys, S&P, Fitch, PACRA, JCR-RVS etc.)

# 4. Experience

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Criteria** | | **Compliance Requirements** | | | | | | | **Documents** |
| **Requirement** | | **Single Entity** | | **Joint Venture** | | | | | **Submission Requirements** |
| **All Partners Combined** | | **Lead Partner** | | **Other Each Partner** |
| The Applicant (as single entity or lead partner of a joint venture) must have conducted/witnessed tests prior to, during and at the end of commissioning period (as substantially defined in Section V, Article 8 of this document) on at least one (01) gas turbine based combined cycle power plant; with gross output of 100 MW or higher at ISO conditions during the last ten (10) years. | must meet requirement | | Not Applicable | | must meet requirement | | Not Applicable | | Form EXP-4.1  and  Form EXP-4.2 |

# 5.0 Personnel Capabilities

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Criteria** | **Compliance Requirements** | | | | **Documents** |
| **Requirement** | **Single Entity** | **Joint Venture** | | | **Submission Requirements** |
| **All Partners Combined** | **Lead Partner** | **Other Each Partner** |
| 1. The Applicant must have on its permanent payroll at least five (05) Graduate Engineers, each with at least 5 years’ of experience. 2. Additionally, the Applicant must demonstrate that in case it is declared successful bidder pursuant to completion of the instant procurement process, it will be in a position, to deploy at least one engineer having qualification in each of the disciplines of electrical, mechanical, I&C and civil with experience of testing of gas turbine based combined cycle thermal power plants. | must meet all requirement  must meet all requirement | must meet all requirement  must meet all requirement | Not applicable  Not applicable | Not applicable  Not applicable | Forms  PER-5.1  and  PER-5.2  Form PER-5.3 |

## Section III. Application Forms

Application Submission Sheet

Date:

IFP No.: 2A-RLNG-POWER PLANT (IE)

**Invitation for Prequalification for Services as Independent Engineer for 1230 MW Combined Cycle Power Plant Haveli Bahadur Shah, Jhang, Punjab, Pakistan.**

To: Mr. Shahzad Aziz Khan

(General Manager HR & Admin),

National Power Parks Management Company (Pvt.) Limited

Address: National Power Parks Management Company (Pvt.) Limited, 2nd Floor,   
7-C-1, Gulberg-III, Lahore, Pakistan

Telephone: +92-42-35759274

Cell: +92-333-4268351

Facsimile number: +92-42-35759275,

Email: shahzad.aziz@nppmcl.com

We, the undersigned, apply to be prequalified for the referenced IFP and declare the following:

1. We have examined and have no reservations to the Prequalification Documents, including Addenda No(s)..............................................., issued in accordance with ITA Clause 8.
2. We, including all JV partners for any part of the contract(s) resulting from this prequalification process, if any, have nationalities of eligible countries, in accordance with ITA Sub-Clause 4.2.
3. We understand that at the time of bidding, we, including any JV partners for any part of the contract resulting from this procurement process, shall not have any conflict of interest in accordance with ITA Sub-Clause 4.4.
4. We, including any JV partners for any part of the contract(s) resulting from this prequalification, have not been declared ineligible/blacklisted by any of our employer(s) / client(s)in accordance with ITA Sub-Clause 4.5.
5. We, including any JV partners, shall comply with the requirements in accordance with ITA Sub-Clauses 4.7 and 4.8.
6. We understand that you may cancel the prequalification process at any time and that you are not bound either to accept any Application that you may receive or to invite the prequalified Applicants to bid for the subject contract of this prequalification, without incurring any liability to the Applicants, in accordance with ITA Clause 26.
7. We agree to permit the Employer or its representative to inspect our accounts and records and other documents relating to the Application for prequalification and to have them audited by auditors appointed by the Employer.
8. All of the Forms accompanying the Application have duly been signed by the undersigned and stamped.

Name

In the capacity of

Signed

……………………………………..(Seal)…

Duly authorized to sign the Application for and on behalf of (Name of Applicant)

Date

|  |  |
| --- | --- |
| **Witness # 1:** | **Witness # 2:** |
| Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| Signed by: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | Signed by: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| Designation: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | Designation: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| Seal: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | Seal: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

Form ELI – 1.1  
Applicant Information Sheet

Date:

IFP No.: 2A-RLNG-POWER PLANT (IE)

Page of pages

|  |  |  |
| --- | --- | --- |
| Applicant Information | | |
| **Applicant’s legal name** | |  |
| **In case of JV, legal name of each partner** | |  |
| **Applicant’s country of constitution** | |  |
| **Applicant’s year of constitution** | |  |
| **Applicant’s legal address in country of constitution** | |  |
| **Applicant’s authorized representative**  (name, address, telephone numbers, fax numbers, e-mail address) | |  |
| **Attached are copies of the following original documents.**   * 1. In case of single entity, articles of incorporation or constitution of the legal entity named above, in accordance with ITA Sub-Clauses 4.1 and 4.2. * 2. Authorization to represent the firm or JV named in above, in accordance with ITA Sub-Clause 15.3. * 3. In case of JV, letter of intent to form JV or JV agreement, in accordance with ITA Sub-Clause 4.1. | | |

Form ELI – 1.2  
JV Information Sheet for JV Partners

Date:

IFP No.: 2A-RLNG-POWER PLANT (IE)

Page of pages

**Each member of a JV must fill in this form**

|  |  |
| --- | --- |
| JV Information | |
| **Applicant’s legal name** |  |
| **JV Partner’s legal name** |  |
| **JV Partner’s country of constitution** |  |
| **JV Partner’s year of constitution** |  |
| **JV Partner’s legal address in country of constitution** |  |
| **JV Partner’s authorized representative information**  (name, address, telephone numbers, fax numbers, e-mail address) |  |
| **Attached are copies of the following original documents.**   * 1. Articles of incorporation or constitution of the legal entity named above, in accordance with ITA Sub-Clauses 4.1 and 4.2. * 2. Authorization to represent the firm named above, in accordance with ITA Sub-Clause 15.3. * 3. Letter of Intent to form JV or JV agreement in accordance with ITA Sub-Clause 4.1. | |

Form ELI – 1.3  
Ineligibility/Blacklisting

The local Applicant / Partner of the JV shall attach original affidavit duly authenticated by the relevant government agency on non-judicial stamp paper that the Applicant has not been declared ineligible/blacklisted by any Governmental/Semi-Governmental agency/department including any of its employer(s) / client(s)till date due to the reasons including but not limited to corrupt practices as depicted at ITA Clause 3, influencing the Employer in evaluation of the Bids or contract award decisions etc.

The foreign Applicant / Partner of the JV shall undertake as above and the undertaking shall be authenticated by the relevant authorized body of his country.

Form LIT – 2  
Pending Litigation

Applicant’s Legal Name: Date:

JV Partner Legal Name: .…………………………………. IFP No.: 2A-RLNG-POWER PLANT (IE)

Page of pages

**Each Applicant or each partner of a JV must fill in this form**

|  |  |  |  |
| --- | --- | --- | --- |
| Pending Litigation | | | |
| * **No pending litigation in accordance with Criteria 2.1 of Section II, Qualification Criteria** * **Pending litigation in accordance with Criteria 2.1 of Section II, Qualification Criteria, as indicated below** | | | |
| **Year** | **Matter in Dispute** | **Value of Pending Claim in US$ Equivalent** | **Value of Pending Claim as a Percentage of Net Worth** |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

Form FIN – 3.1  
Financial Situation

Applicant’s Legal Name: Date:

JV Partner Legal Name: …………………………………. IFP No.: 2A-RLNG-POWER PLANT (IE)

Page of pages

**Each Applicant or partner of a JV must fill in this form**

| **Financial Data for Previous 3Years [US$ Equivalent]** | | | |
| --- | --- | --- | --- |
|  | Year 1: | Year 2: | Year 3: |
| Information from Balance Sheet | | | |
| Total Assets (a) |  |  |  |
| Total Liabilities (b) |  |  |  |
| Net Worth (a-b) |  |  |  |
| Current Assets (c) |  |  |  |
| Current Liabilities (d) |  |  |  |
| Working Capital (c-d) |  |  |  |
| Information from Income Statement | | | |
| Total Revenues |  |  |  |
| Profits Before Taxes |  |  |  |
| Profits After Taxes |  |  |  |
| Currency Exchange Rate used for conversion/translation from local currency to US$ at year end |  |  |  |
| * Attached are copies of financial statements in English language in the name of Applicant (the prospective bidder) i.e. balance sheets including all related notes, and income statements for the last three (03) years, as indicated above, complying with the following conditions. * All such documents reflect the financial situation of the Applicant or each partner to a JV. All such documents reflect the financial situation of the Applicant or each partner to a JV * Historic financial statements must be audited by a certified accountant. * Historic financial statements must be complete, including all notes to the financial statements. * The financial information reflected above should be consistent with the corresponding information reported in the audited financial statements   Historic financial statements must correspond to accounting periods already completed and audited (no statements for partial periods shall be requested or accepted).  *Soft copies of these financial statements in the form of CD together with respective hard copies shall be provided.*  Note: If Applicant is part of a Group of Companies*, or affiliated with/member of a foreign entity, please provide the Detailed Group/Entity Structure indicating, among other details (like shareholding %age, legal status and name of all companies/entities, common directorship, affiliations/membership status, if any, etc.) the Ultimate Parent.* | | | |

Form FIN – 3.2  
Average Annual Turnover

Applicant’s Legal Name: Date:

JV Partner Legal Name: …………………………………... IFP No.: 2A-RLNG-POWER PLANT (IE)

Page of pages

**Each Applicant or each partner of a JV must fill in this form**

|  |  |  |  |
| --- | --- | --- | --- |
| Annual Turnover Data for the Last Three (03)- Years | | | |
| **Year** | **Amount**  **Currency** | **Exchange**  **Rate** | **US$**  **Equivalent** |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
| **Average Annual Turnover** | | |  |

The information supplied should be the Annual Turnover of the Applicant or each partner of a JV in terms of the amounts recognized for each year, converted to US Dollars at the rate of exchange at the end of the period reported. This should consistent with the amounts reported in the audited accounts.

Form FIN – 3.3  
Credit Line

The Applicant shall provide original certificate from reputed banks/DFIs to the effect that the Applicant (individual/JV) has financial resources/access/un-encumbered cash/bank balance to the said credit line for smooth execution/completion of the Engineering Services.

The “Available Cash Flow” must be demonstrated inter alia through a combination of undrawn credit facility and unencumbered cash/bank balances at each year end. The above said information/statement must be at least for a period of last three (03) years.

Form EXP – 4.1

Specific Experience (Summary Sheet)

Applicant’s Legal Name: Date:

JV Partner Legal Name: ………………………………….. IFP No.: 2A-RLNG-POWER PLANT (IE)

Page of pages

**Fill up the summary sheet for to provide summary of contracts.**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Specific Experience in accordance with Criteria 4 of Section II (Summary) | | | | | | | | |
| Sr. No. | **Name of project** | **Location of project** | **Name of employer** | **Configuration of plant** | **Size & Model of units** | **Gross Capacity of plant** | **Contract Award Date** | **Contract End Date** |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |

Form EXP – 4.2  
Specific Experience

Applicant’s Legal Name: Date:

JV Partner Legal Name: …………………………………... IFP No.: 2A-RLNG-POWER PLANT (IE)

Page of pages

**Fill up one (1) form per contract.**

|  |  |  |  |
| --- | --- | --- | --- |
| Specific Experience in accordance with Criteria 4 of Section II | | | |
| **Contract No**. . . . . . **of** . . . . . . | **Contract Identification** |  | |
| **Award Date** |  | **Completion Date** |  |
| **Role in Contract** | * **Contractor** |  | * **Sub-Contractor** |
| **Total Contract Amount** | **US$** | | |
| **If partner in a JV, specify participation of total contract amount** | **Percent of Total** | **Amount** | |
| **Employer’s Name**  **Address**  **Telephone/Fax Number**  **E-mail** |  | | |
| Description | | | |
|  | | | |

Note: The employer’s/End User’s Certificates on their letterhead should be attached. If not in English, translation thereof in English, duly authenticated/notarized must be attached.

In the above table of ‘Description’, the information including but not limited to the following should be provided:

1. Amount (insert in US Dollars in words and figures)
2. Plant type &size (insert type and ratings of plant and major equipment i.e. gas turbine(s), HRSG(s), steam turbine(s))
3. Configuration
4. Fuel
5. Other characteristics (insert other characteristics as required in Criteria 4.2 of Section II)
6. Proof of external quality audits by specialized firm(s) and ISO certifications

Form PER-5.1  
Personnel Summary

Applicant’s Legal Name: Date:

JV Partner Legal Name: …………………………………... IFP No.: 2A-RLNG-POWER PLANT (IE)

List of personnel and relevant details in accordance with the Criteria 5.0 is to be provided as under:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Personnel Summary in accordance with Criteria 5 of Section II** | | | | |
| **Sr. No.** | **Name** | **Job Title** | **Qualification** | **Total Experience** |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

Form PER-5.2  
Documentary Proof of Personnel

Applicant’s Legal Name: Date:

JV Partner Legal Name: …………………………………... IFP No.: 2A-RLNG-POWER PLANT (IE)

Applicant to provide documentary proof of permanent employment and Resumes / CVs of the personnel mentioned in Form PER-5.1

Form PER-5.3  
Undertaking for Deployment of Personnel

Applicant’s Legal Name: Date:

JV Partner Legal Name: …………………………………... IFP No.: 2B-RLNG-POWER PLANT (IE)

Applicant to provide an undertaking on its official letterhead in the following form.

**UNDERTAKING**

We, [name of Applicant / JV] do hereby assure that we have access to engineers qualified in the electrical, mechanical, I&C and civil disciplines having sufficient experience in conducting/witnessing tests prior to, during and at the end of commissioning period (as substantially defined in Section V, Article 8 of this document) and shall deploy such personnel for the assignment in case the assignment is awarded to us pursuant to completion of the instant procurement process**.**

[*affix official stamp of the Applicant and signature of authorized person of the Applicant*]

## Section IV. Eligible Countries

All countries of the world with whom Islamic Republic of Pakistan has commercial/trade relations and those who are not subject to sanctions imposed by the United Nations Security Council.

**PART 2**

**Requirements**

## Section V. Scope of Contract

1. Brief Description of Scope of Services Under the Contract

The Engineer will oversee the Tests being performed as listed in the Power Purchase Agreement and issue certificates on successful completion of those tests required for Commercial Operations to be achieved (Details listed in Section V: Article 8). Salient features of the Project are as under:

|  |  |
| --- | --- |
| NO. | DESCRIPTION |
|  | Combined Cycle Power Plant (2 GT + 2 HRSG + 1 ST) Net Output Range is 1207.9 MW at RSC |
|  | Simple Cycle Net Output for Each Gas Turbine Unit is 380.2 MW at RSC. |
|  | Primary Fuel shall be Natural Gas (RLNG) |
|  | Net efficiency (LHV) in combined cycle operation with once through cooling is 62.44% at RSC |
|  | Net efficiency (LHV) in simple cycle operation is 40.96% at RSC. |
|  | Simple cycle operation will be required for early generation for about 6-8 months |

The Plant is being designed, manufactured and installed for continuous operation at base load and as well as at part loads. The Plant shall comprise components and systems built to international standards. Standardization and interchangeability of equipment and parts shall be optimized. The Plant shall comply with all the applicable national and statutory codes and will consist:

* Gas turbines - GE 9HA.01 (3000 rpm) – 2 units;
* Steam turbines – Alstom (721.1 t/h, 162 bar) - 1 unit;
* HRSG – Alstom natural circulation, horizontal, three pressure with reheat (360.55 t/h, 166.7 bar) – 2 units;
* Gas turbine generator – GE Hydrogen Cooled (500 MVA) – 2 units;
* Steam turbine generator – GE H84 (500 MVA) – 1 unit;
* Frequency – 50 Hz;
* The plant will be designed for a lifetime of 240,000 operating hours over a period of 30 years.

**Abbreviation:**

AIS – Air-insulated switchgear

BoP - Balance of plant

CCPP – Combined cycle power plant

EDOC – Effective date of contract

EPC - Engineering, procurement and construction

FFH Factored Fired Hours

GT – Gas turbine

HRSG – Heat recovery steam generator

HSD High Speed Diesel

ISO - International Organization for Standardization

LHV – Low heating value

LNG - Liquefied natural gas

LTSA – Long term service agreement

MCR Maximum Continuous Rating

OEM – Original equipment manufacturer

OH – Operating hours

RLNG - Re-Gasified liquefied natural gas

RSC Reference Site Conditions

SC – Simple cycle

SNGPL- Sui Northern Gas Pipelines Limited

ST – Steam turbine

**2.** **Schedule for Services as Independent Engineer**

The expected sequence of execution of projects is presented below:

|  |  |  |
| --- | --- | --- |
| NO. | ACTION | DATE\* |
|  | Advertisement for Invitation for Prequalification of the Engineer | 16 December 2016 |
|  | Issuance of Prequalification Document | 16 December 2016 |
|  | Submission of Prequalification Applications | 16 January 2017 |
|  | Evaluation Report on Prequalification Applications | 19 January 2017 |
|  | Approval of Evaluation Report & Bidding Documents | 21 January 2017 |
|  | Issuance of Bidding Documents by the Employer to pre-qualified Bidders | 23 January 2017 |
|  | Submission of Engineer’s Bid | 23 February 2017 |
|  | Evaluation Report – Engineer’s Bid | 27 February 2017 |
|  | Approval of Evaluation Report | 28 February 2017 |
|  | Notification of Successful Engineer’s Bidder | 01 March 2017 |
|  | Signing of Contract | 11 March 2017 |

\* These dates are indicative only and the Employer must not be held liable for any changes in the same.

**3. Site**

The site for setting-up the power plant is situated at Haveli Bahadur Shah, District Jhang in Punjab province of Pakistan. (Location map of the Site& 3-D model of the power plant is attached as Annex-I& II respectively).

**4. Primary Fuel**

The gas will be made available by Sui Northern Gas Pipeline Limited (SNGPL). The gas supply terminal is situated within the power plant’s boundaries. The gas pressure will be 34 to 48 bar(g) at terminal point and temperature of around 35 deg. F to 90 deg. F.

The fuel system will comprise the natural gas control and metering system together with gas treatment skid, fine filter and condensate return line to condensate tank, fuel consumption meters, all necessary equipment like stop valve, control valve, pressure transmitters, gas heater, the respective instrumentation and an automatically operated purging system. Gas supply is considered stable and therefore no storage facilities are considered necessary.

Gas Booster Station comprising of 3x50% Gas Compressors shall be installed in order to achieve the pressure required by the Gas Turbines.

Gas Supply Agreement (GSA) has already been signed.

**5. Back-up Fuel**

High speed diesel (HSD) oil shall be the back-up fuel. HSD oil will be delivered by road tankers and unloaded by means of truck unloading stations and supplied to the storage tanks. The HSD storage tanks shall be of the cylindrical welded steel type. The capacity of HSD tanks shall ensure about 7days’ continuous operation of the plant at MCR.

**6. Power Evacuation**

The National Transmission & Despatch Company Limited (NTDCL) is the entity responsible for carrying out the design, construction, maintenance, and operation of the grid system, consisting of transmission lines and grid stations throughout the country, except for K-Electric area. NTDCL transmission network links generating stations and load centers of the entire country creating one of the world's largest contiguous grid systems. The national grid, connecting hydro generation in the north and thermal generation in mid-country and the south, consists of a large network of transmission lines and grid stations to transmit power to load centers throughout the country.

The power generated by the Plant will be evacuated through connection to;

* A 500 kV double circuit transmission line, approx. 3 km long, for looping In/Out of the existing Muzaffargarh – Gatti (Faisalabad West) 500 kV single circuit at Haveli Bahadur Shah project, and
* A 500 kV double circuit transmission line, approx. 25 km long, for looping In/Out of the existing Multan – Gatti (Faisalabad West) 500 kV single circuit at Haveli Bahadur Shah power plant.

Power will be evacuated by National Transmission & Despatch Company Limited (NTDCL). The required 500kV step-up transformers and 500 KV AIS in 1 ½ breaker scheme is included in EPC scope.

Power Purchase Agreement has been executed between the Power Purchaser, i.e. CPPA(G) and NPPMCL for the sale of the generated energy from the 1230 MW CCPP Haveli Bahadur Shah.

**7. Owner’s Project Consultants**

National Power Parks Management Company (Private) Limited is supported by National Engineering Services Pakistan (Pvt.) Limited (NESPAK) as Consultants. Lahmeyer International Gmbh, HaidermotaBNR & Co. and Ernst & Young Ford Rhodes Sidat Hyder will be Sub-Consultants.

NESPAK is Pakistan’s leading engineering consultancy organization. It was established in 1973 as a private limited company by the Government of Pakistan. NESPAK is registered with a number of international funding agencies such as IBRD, ADB, IDB, etc. NESPAK has undertaken more than 3500 projects out located in Afghanistan, Azerbaijan, Bahrain, Bangladesh, Benin, Cameroon, Chad, Comoros Island, Dominica, Ethiopia, Gambia, Ghana, Guinea, Iran, Iraq, Kazakhstan, Kyrgyzstan, Libya, Nepal, Nigeria, Oman, Pakistan, Qatar, Saudi Arabia, Senegal, Sierra Leone, Somalia, Sudan, Syria, Tajikistan, Tanzania, Thailand, Turkey, Turkmenistan, U.A.E, Uzbekistan, Yemen.

Lahmeyer International from Germany was established in 1890 in Frankfurt am Main and from the beginning of 2015 is a part of GDF SUEZ Group as a daughter company of Tractebel Engineering (Belgium). Tractebel Engineering ranks as one of the major international engineering companies operating in the energy and infrastructures sectors. Lahmeyer also offers a wide range of planning and engineering services for complex infrastructure projects in the fields of energy and water, as well as building and transportation. Lahmeyer, a trusted brand name, is continuing as an independent business unit of Tractebel Engineering. With well over 4,400 employees and an annual turnover of more than 600 Million Euro, joint company is one of the most significant energy, water, and infrastructures engineering companies worldwide.

1. **The Scope of Services of Independent Engineer**

The following activities will be undertaken;

### **8.1 Review of EPC Contractor’s Test and Commissioning Programme (Task 1)**

The Engineer will review and report / comment on the EPC Contractors Test and Commissioning Programme to ensure that the tests are planned in accordance with prudent engineering practices and comply with the project Power Purchase Agreement (PPA).The plans show that the tests will be carried out in accordance with international standards and the scheduled time/duration for each test will comply the test duration as mentioned in PPA, no deviation in performance is allowed from PPA & OEM recommendations. The Engineer will follow the scheduled time and will be at site continuously during these activities.

The Engineer will review / comment on the test procedures for the tests prior to synchronization as at least mentioned in Section 8.2 and tests upon / after synchronization as at least mentioned in Section 8.3.

### **8.2 Tests Prior to Synchronization (Task 2)**

Prior to synchronization of the Complex with the Grid System, the Engineer shall deliver to the Company and the Power Purchaser the Certificate of Readiness for Synchronization GT1. Prior to the delivery of the Certificate of Readiness for Synchronization GT1 and the first synchronization of the Complex, the Company shall carry out, or shall cause the Contractors to carry out, in the presence of the Engineer, the following tests:

* Automatic voltage regulator setting and adjusting in standstill condition and with the generator running at no load;
* Turbine governor control checks including steam governor over- speed test.
* Open and short circuit tests on each generator; and
* Functional testing and timing of high voltage switchgear in the switchyard of the Complex.
* The Company and the Power Purchaser shall verify that the protection level settings for the following are as agreed by the Operating Committee:

1. Stator earth fault;
2. Negative phase sequence;
3. Generator transformer over-current and earth fault; and
4. High voltage bus-bar protection.

* Voltage phasing checks will be carried out between the sub-station of the Complex and the Grid System.
* All inter-tripping circuits between the Complex and the Power Purchaser’s equipment will be proved.

The provisions and the tests stated above will apply, mutatis mutandis, each time the Complex (or part thereof) is to be synchronized to the Grid System, with references to Certificate of Readiness for Synchronization GT1 being read as Certificate of Readiness for Synchronization GT2 and Certificate of Readiness for Synchronization (as applicable).

On satisfactory completion of these tests, The Engineer will issue the Certificate of Readiness for synchronization of GT1, Certificate for Readiness of synchronization of GT2 and Certificate of Readiness for Synchronization, as applicable and then witness the first synchronization of GT1, GT2 and Complex accordingly.

### **8.3 Tests upon and after synchronization of the Complex and Commissioning Tests (Task 3)**

After first synchronizing the Complex, initial operational testing of the Complex shall be conducted by the Company or its Contractors. Once the Company is satisfied that GT1 is capable of continued reliable operation, the Company shall request the Engineer to issue the Certificate of Readiness GT1. Upon the issuance by the Engineer of the Certificate of Readiness GT1, the Company shall so notify the Power Purchaser and carry out or cause its Contractors to carry out, the following tests (the “Commissioning Tests GT1”), which if the Complex satisfies the minimum performance criteria therefore, will result in the Complex Being Commissioned GT1 and in the establishment of the Simple Cycle Operations Start Date GT1:

* Initial Tested Capacity (ITC) test;
* Reliability run test;
* Automatic voltage regulator droop;
* Turbine governor operation, including a steam governor over speed test;
* Reactive capability;
* Minimum load capability;
* Response of Complex to step load changes;
* Full load rejection; and
* Heat rate test of each gas unit and the complex.

The provisions and the tests stated above will apply, mutatis mutandis, for the Commissioning Test GT2 and the Commissioning Tests, with references to the Certificate of Readiness GT1 being read as the Certificate of Readiness GT2 and Certificate of Readiness (as applicable),references to Commissioned GT1 being read as Commissioned GT2 and Commissioned (as applicable), references to Commissioning Test GT1being read as Commissioning Test GT2 and Commissioning Tests (as applicable) and reference to Simple Cycle Operations Start Date GT1being read as Simple Cycle Operations Start Date GT2 and the Commercial Operations Date (as applicable).

### **8.4 Reliability Run and Initial Capacity Test (Task 3)**

For the reliability run test, the Engineer will be on site for the entire period of the reliability run test(s) of GT1, GT2 and Complex till successful completion of such test(s) in accordance with the provisions of Power Purchase Agreement. They will organize a duty roster to ensure the Engineer representation on site during such test(s). The Initial Capacity test of GT1, GT2 and Complex will be undertaken during the reliability run test of GT1, GT2 and Complex as mentioned in PPA.

On successful completion of the reliability run test(s) of GT1, GT2 & Complex and Initial Capacity Test GT1, GT2 & Complex, the Engineer will submit the Capacity Test Certificate GT1, GT2 & Complex, the Certificate of Commissioning (confirming that the plant is ready for Commercial Operation) and the final Commissioning Test Report.

### **8.5 Certificate that construction has been carried in accordance with the PPA (Task 5)**

The Engineer will carry out review of the Complex to verify its construction has been carried out in compliance with the PPA technical requirements and issue a Certificate on or before the Simple Cycle Operations Start Date GT1, the Simple Cycle Operations Start Date GT2 and the Commercial Operations Date.

### **8.6 Certificate of Delay in Commissioning (Task 4)**

If the Power Purchaser does not complete the Power Purchaser Interconnection Works on time and it impacts the Commissioning tests of GT1, Commissioning tests of GT2 and Commissioning tests of Complex then the Engineer will issue the certificate that the delay in Commissioning of GT1, Commissioning of GT2 and Commissioning of the Complex is due to the delay in interconnection works by the Power Purchaser.

### **8.7 The Engineer Deliverables**

The Engineer will deliver the following documents:

* Report on EPC Contractor’s Test and Commissioning Plan & Procedures; (Task 1)
* Certificates of Readiness for Synchronization; (Task 2)
* Report on Tests Prior to Synchronization; (Task 2)
* Certificates of Readiness for Commissioning Tests; (Task 3)
* Report on Commissioning Tests; (Task 3)
* Report on Reliability Run and Initial Capacity Test; (Task 3)
* Report on heat rate Test; (Task 3)
* Capacity Test Certificates; (Task 3)
* Certificates of Commissioning (Ready for Commercial Operations); (Task 4)
* Certificate that the construction of the Complex has been carried out in all material respects in compliance with the terms of PPA; (Task5)
* Certificate of Delay in Commissioning (if applicable). (Task 4)

All deliverables will be issued to Power Purchaser i.e. CPPA (G) and Client (NPPMCL).

The Engineer will provide the deliverables after each and relevant task in English language in printed and ‘PDF’- format.

Each Report will be provided as one (1) Draft version and, after incorporation of Client’s comments, one (1) Final version.

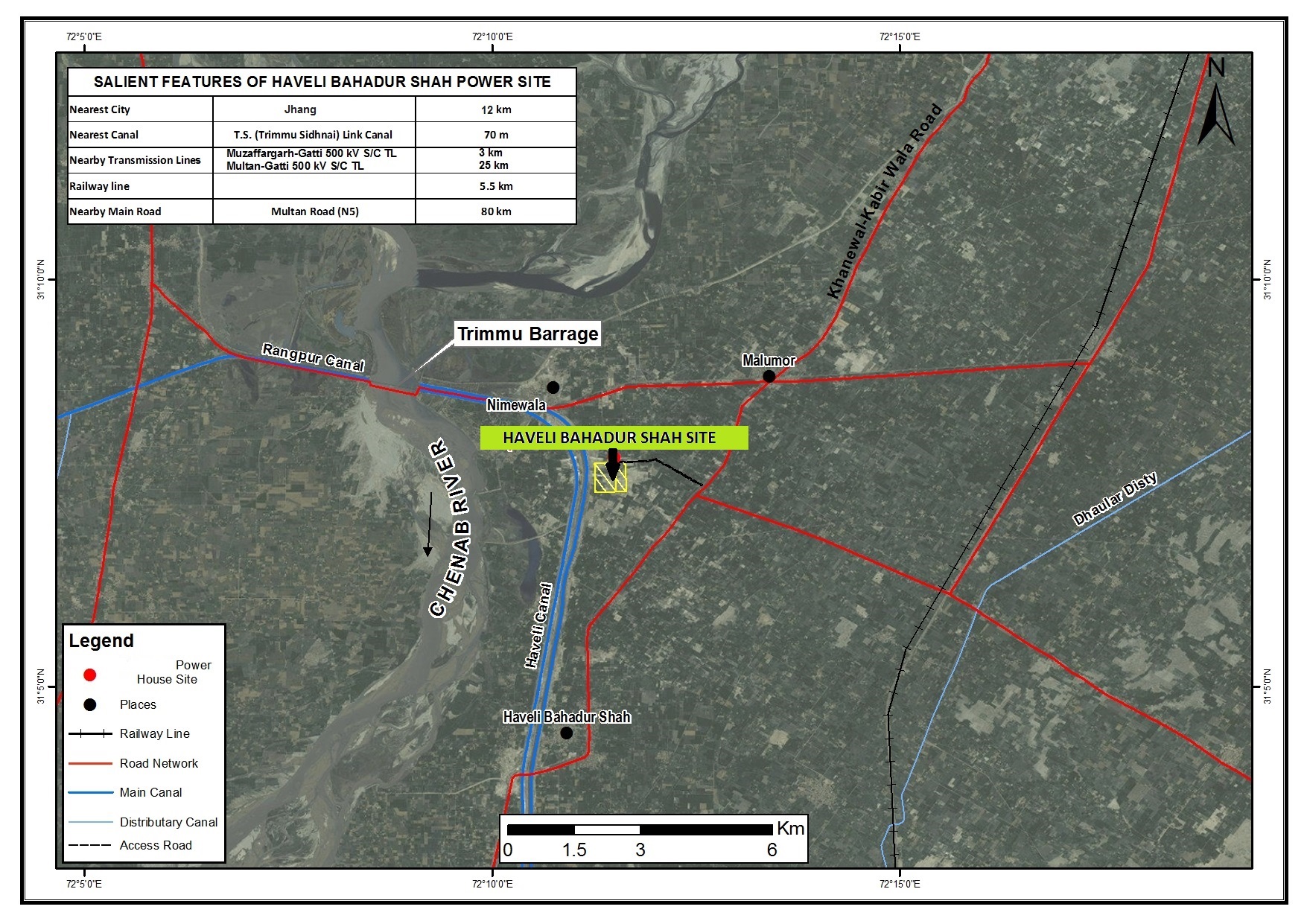
### **8.8 Key Requirements**

* The Engineer shall have no power or authority to amend or modify the test or amend test duration as mentioned in PPA, violation from this will be treated as breach of contract;
* In accordance with standard procedures, the Engineer will appoint a Project Manager to lead this project and at least one experienced Power Engineer who shall have capability in operations of CCPP;
* Power Engineer needs to have the power of attorney from –the Engineer for issuing all certificates and he will witness all critical tests personally in order to execute this responsibility;
* In addition, experts will be available in the home office to support the Engineers at site.
* At least one (01) performance/mechanical engineer will be on site during the Performance and Reliability test runs;
* The Engineer will be resident at site and must follow the schedule time, or any agreed time with power purchaser during normal and off hours (if required) for smooth execution of commissioning and testing activities.
* If the Engineer’s representative(s) has to leave site, then first their replacement should be mobilized to the Site to avoid having any impact on testing and commission plan.
* Résumés and details of the Engineer’s assigned for the Haveli Bahadur Shah project will be submitted to NPPMCL for approval.

### **8.9 Site Visits**

The Client will make all reasonable efforts to provide access to the Engineer to site to allow it to perform its duties as stipulated in this document.

**Annex-I: Location Map**



Power House Site

**Annex-II: 3-D Model of the Power Plant being set-up**

