# **Invitation to Bid**

(No.: ITB20-KCN-01-01)

# Consulting Services on Flow/Structural Analysis Methodology for Comprehensive Vibration Assessment Program of Small Modular Reactor

March 2020



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# CHAPTER I

# **GENERAL INFORMATION**

# A. GENERAL INFORMATION OF THE SERVICES

# A. GENERAL INFORMATION OF THE SERVICES

# 1. Purpose

The purpose of the Consulting Services is to support establishing flow/structural analysis methodology for Comprehensive Vibration Assessment Program (CVAP) of SMART100, which is a Small Modular Reactor (SMR).

## 2. Description

Reactor internals of SMART100 will be classified as a prototype in accordance with U. S. Nuclear Regulatory Commission Regulatory Guide 1.20 (RG 1.20, Rev.4). To generate forcing functions and establish analysis methodology Scale Model Testing (SMT) will be carried out. The forcing functions and analysis methodology, obtained and verified in SMT, will be applied to SMART100 design.

KEPCO-E&C will provide detail information and questions for the Contract after contract award, and the Contractor will submit reports covering information and questions provided.

The following sections outline the scope of Consulting Services, implementation method and process, schedules, qualification requirement and deliverables for the Services specified herein.

# **CHAPTER** Ⅱ

# INSTRUCTION TO BIDDER

- A. GENERAL INSTRUCTIONS
- **B. SUBMISSION OF BID DOCUMENTS**
- C. DEADLINE FOR SUBMISSION AND VALIDITY OF BID DOCUMENTS
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#### A. GENERAL INSTRUCTIONS

Bidders are requested to prepare and submit a technical proposal and a financial proposal (collectively, the "Bid Documents") in accordance to all the requirements specified in this Invitation to Bid (ITB). ITB includes all chapters and appendixes indicated in the table of contents of this ITB.

#### B. SUBMISSION OF BID DOCUMENTS

1. Bidders shall submit Bid Documents to the following address by e-mail:

Attn. 1: Mr. Lee Weonjoo

General Manager

Subcontract & Procurement Team Contract Management Department

KEPCO Engineering & Construction Co., Inc.

E-mail: <a href="mailto:leewj@kepco-enc.com">leewj@kepco-enc.com</a>

Attn. 2: Mr. Lee Seunghyun

Subcontract & Procurement Team

Contract Management Department

KEPCO Engineering & Construction Co., Inc.

E-mail: sh.lee@kepco-enc.com

### 2. Documentations to be Submitted

## (a) Commercial Proposal

- Price Bid Form (A. PRICE BID FORM in CHAPTER III INFORMATION for COMMERCIAL PROPOSAL) shall be completed and submitted.
- Deviation Request Form (B. DEVIATION REQUEST FORM in CHAPTER III
  - INFORMATION for COMMERCIAL PROPOSAL) shall be completed and submitted.
- Any comments and/or proposals in connection with this Bid.

## (b) Technical Proposal

- Technical Proposal (Bidder's forms shall be used)

Technical Proposal and Commercial Proposal shall be submitted in separated files and named accordingly. Two separated files using Zip files for each can be an option.

C. DEADLINE FOR SUBMISSION AND VALIDITY OF BID DOCUMENTS

Bidder(s) submit its Bid Documents no later than 09:00 a.m. Korean Standard Time

on March 25th, 2020 and the Bid Documents shall remain firm valid for a period of six

(6) months from the date of this deadline. Once submitted, proposals shall not be

withdrawn until the validity of the Bid Documents.

D. LATE SUMBISSION

Bid Documents received after the deadline for submission of the Bid pursuant to

Section C above may be rejected.

Ε. **CLARIFICATION** 

> Should the any Bidder find discrepancies or should any doubt or question exist as to the true meaning or intent of any portion of the contents of this ITB, the Bidder may

> make a written request to KEPCO Engineering & Construction Co., Inc. (hereinafter

called "KEPCO E&C"). However, the clarification shall be submitted no later than

seven (7) days prior to deadline for submission of this Bid.

The request for clarification and the response shall be given in writing via e-mail.

Clarification inquiries and answers may be disclosed to all Bidders who intend to

participate the Bid.

Bidder's questionnaire for technical matters must be submitted to the following address:

Attn: Mr. Jeong Donghwa

E-mail: dhjeong@kepco-enc.com

Bidder's questionnaire for commercial matters must be submitted to the following

address:

Attn.: Mr. Lee Seunghyun

E-mail: sh.lee@kepco-enc.com

F. **BID CURRENCIES** 

The Bidder shall submit its Bid Documents with amounts in **USD**.

G. LANGUAGE OF BID

The Bid Documents prepared by Bidder(s) and all correspondences and documents

relating to the Bid exchanged between the Bidder and KEPCO E&C shall be written in

English.

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## H. CONFIDENTIAL NATURE OF DOCUMENTS

The contents of this ITB shall only be used for the preparation of the Bid.

## I. OWNERSHIP OF BID AND COMPENSATION

Bid Documents once submitted to KEPCO E&C shall not be returned to the Bidder regardless of whether it is accepted or rejected. The Bidder shall bear all costs associated with the preparation and submission of the Bid Documents, and in no case will KEPCO E&C be responsible or liable for those costs, regardless of the conduct or outcome of the Bid process.

## J. MODIFICATION, REJECTION AND WITHDRAWAL OF BID

KEPCO E&C reserves the right to reject without any liability to the Bidder(s) any part of, or all Bids, to modify or withdraw this ITB at any time, and to enlarge or reduce the scope of Services to be included in the ITB.

## K. QUALIFICATION REQUIREMENT

Only the Bidder(s) which meet requirements described below shall be qualified for this Bid.

- 1. Bidder(s) which has technique related to vibration evaluation for reactor internals of SMR according to U. S. Nuclear Regulatory Commission RG 1.20 (Rev.4).
  - Engineering company or institute which has experiences of Flow-Induced
     Vibration (FIV), AR, AIV and MIV evaluations introduced in RG 1.20 (Rev.4).
    - Engineering company or institute, which has experiences of the
       aforementioned evaluations for SMRs and large nuclear power plants, will be
       considered to have technique related to vibration evaluation for reactor
       internals of SMR.
- 2. Engineering company or institute which has experiences of CVAP according to RG 1.20.

## L. COMPOSITION OF BID DOCUMENTS and BID EVALUATION

Any procedure, method and decision to be taken by KEPCO E&C with regard to the evaluation shall be decisive and any claim by the Bidder will not be accepted. During the evaluation of Bid, KEPCO E&C may ask Bidder(s) for clarification of its Bid Documents.

The Bidder(s) shall prepare and submit its Bid Documents to KEPCO E&C by two different files separating for Part I. Commercial Proposal and Part II. Technical

Proposal as follows:

## Part I. Commercial Proposal (30%)

Terms and conditions attached as Appendixes in this ITB will be the basic terms and conditions to be finalized through contract negotiation. Unless the Bidder(s) clearly states its deviation request and/or exceptions to the terms and conditions in its Commercial Proposal, the Bid Documents shall be construed as an offered in compliance with the terms and conditions as described in the ITB including Appendixes.

Bidder(s) shall submit its Commercial Proposals using forms indicated in Chapter III [Information for Commercial Proposal]

- 1. Bid price made in accordance with Price Bid Form in Chapter III.
  - The lowest bid price will receive the maximum score
- 2. Exceptions and deviations to General Terms and Conditions (GTC) of Appendix A, using Deviation Request Form in Chapter III.
  - The Bidder with no deviation against terms and conditions will receive the maximum score

Commercial evaluation shall be made based on 80% bid price and 20% deviation request

## Part II. Technical Proposal (70%)

The factors to be considered in selecting the first eligible Bidder include, without limitation, the following:

- 1. Bidder's qualification, experience, and capabilities for the task listed on the A.2 Scope of Consulting Services.
  - Experience of designing reactor internals of the small modular reactor
  - Experience of evaluation on flow-induced vibration and acoustic resonance in accordance with United States Nuclear Regulatory Commission (USNRC) Regulatory Guide (RG) 1.20 (Rev.4)
  - Experience of evaluation on acoustic- and mechanical-induced vibration in accordance with USNRC RG 1.20 (Rev.4)
  - Experience of performed (or participated) comprehensive vibration assessment program for reactor internals in accordance with USNRC RG 1.20 (Rev.1 ~3)
  - Description on the practical work experience related with the work scope
- 2. Performance Plan
  - Understanding on requirements of work scope
  - Qualitative guarantees for deliverables
  - Consistency with consultant objectives

- Adequacy of the project manpower and suitability of the proposed man hour
- Completeness and effectiveness of work plan and performance method of the Services

## 3. Manpower

- Project organization and qualification of the key personnel which the Bidder would propose for each task
- Knowledge on regulations, requirements, systems, and design.
- Similar project experience of designated personnel
- Reserve of alternate manpower
- Resumes of the personnel who will perform the Consulting, which should include; name, education, training, language & degree of proficiency, membership of professional societies, employment record, technical qualification certificate, detailed tasks assigned in this project, and other international experiences (if the participating engineers may have the experience with Korean company, then describe the participated period, project name, client, etc.)

# 4. Evaluation Table(Technical)

| No | Evaluation<br>Factors   | Contents   | Score | Details and score  | Remarks  |  |
|----|---|--|-------|--|--|--|
| 1  | Experience of<br>Small Modular<br>Reactor (SMR)<br>Reactor<br>Internal (RI)<br>design | Experience of<br>SMR RI design   | 10    | Number of<br>performed (or<br>participated) SMR RI<br>design projects  | - 2 or more: 100%<br>- 1: 90%<br>- 0: 80%                                |  |
|    |   | Experience of<br>Flow-Induced<br>Vibration (FIV)<br>evaluation           | 5     | Number of<br>performed (or<br>participated) FIV<br>evaluation projects | <ul><li>2 or more: 100%</li><li>1: 90%</li><li>0: Disqualified</li></ul> |  |
|    | Professionality in vibration  | Experience of<br>Acoustic<br>Resonance (AR)<br>evaluation                | 5     | Number of<br>performed (or<br>participated) AR<br>evaluation projects  | - 2 or more: 100%<br>- 1: 90%<br>- 0: Disqualified                       |  |
| 2  | evaluation for<br>SMRs and<br>large nuclear<br>power plants                           | Experience of Acoustic- Induced Vibration (AIV) evaluation               | 5     | Number of<br>performed (or<br>participated) AIV<br>evaluation projects | <ul><li>2 or more: 100%</li><li>1: 90%</li><li>0: Disqualified</li></ul> |  |
|    |   | Experience of<br>Mechanical-<br>Induced<br>Vibration (MIV)<br>evaluation | 10    | Number of<br>performed (or<br>participated) MIV<br>evaluation projects | <ul><li>2 or more: 100%</li><li>1: 90%</li><li>0: Disqualified</li></ul> |  |

|   |  | Experience of CVAP in  | 15 | Number of<br>performed (or<br>participated) CVAP<br>in accordance with<br>USNRC RG 1.20  | -<br>-<br>- | 3 or more: 100%<br>2: 90%<br>1: 80%<br>0: Disqualified |
|---|--|--|----|--|-------------|--|
| 3 | Experience of<br>Comprehensive<br>Vibration<br>Assessment<br>Program<br>(CVAP) | accordance with United States Nuclear Regulatory Commission (USNRC) Regulatory Guide (RG) 1.20 | 10 | Number of performed (or participated) CVAP in accordance with USNRC RG 1.20 (Rev.4)  * Additional score for references of USNRC RG 1.20(Rev.4)                           |             | 2 or more: 100%<br>1: 90%<br>0: 70%                    |
| 4 | Performance<br>Plan  | Schedule and management  | 5  | Understanding of purpose and method of service Appropriateness of  |             | A: 100%<br>B: 90%<br>C: 80%                            |
| 5 | Manpower<br>allocation plan  | Appropriateness<br>of manpower<br>allocation   | 15 | planned schedule  Appropriateness of manpower allocation   |             | D: 70%  A: 100%  B: 90%  C: 80%  D: 70%                |
|   |  | Circillan was als  | 10 | Number of<br>designated technical<br>personnel with more<br>than 10 years of FIV,<br>AR, AIV, and MIV<br>evaluations   | -           | 4 or more: 100%<br>3: 90%<br>2: 80%<br>1 or less: 70%  |
| 6 | Status of<br>Technical<br>Personnel  | Similar work<br>experience of<br>designated<br>technical<br>personnel                          | 5  | Number of designated technical personnel with more than 20 years of FIV, AR, AIV, and MIV evaluations * Additional score for technical personnel with more than 20 years | -           | 2 or more: 100%<br>1: 90%<br>0: 80%                    |
|   | Total  |  |    |  |             |  |

<sup>\*</sup> Each score will be determined by multiplying the weight factors (%) remarked.

<sup>\*\*</sup> Only the bidders which score 85 or more will be considered qualified for this bid. However,

bidders which do not have one or more experiences of each of the following works: FIV, AR, AIV and MIV evaluations introduced in USNRC RG 1.20(Rev.4), and CVAP according to RG 1.20 shall be disqualified for this bid.

## M. OTHERS

- 1. KEPCO E&C will not authorize the expenses related to Bidder's visit to Korea for the discussion of this ITB or contract negotiation.
- 2. The purpose of this ITB is only to select preferred bidder. Accordingly, KEPCO E&C is not obligated to accept the terms and conditions of the Bid Documents. In the event KEPCO E&C and the preferred Bidder fail to reach an agreement on the contract, KEPCO E&C shall have the right to select and negotiate with another Bidder without any liability or compensation to the selected Bidder. KEPCO E&C also reserves the right to reject any and all proposal received by reason of this ITB and to negotiate separately with any source whatsoever, in any manner deemed necessary, to serve the best interest of KEPCO E&C.

# **CHAPTER III**

# INFORMATION for COMMERCIAL PROPOSAL

- A. PRICE BID FORM
- **B. DEVIATION REQUEST FORM**

# A. PRICE BID FORM

Total cost (including engineering works and travel expenses) for the Contract shall not exceed the budget (US\$ 130,020).

## 1. Fixed Portion

|     |             | Tasks   | Grade    | Required<br>MH | Amount (US\$)* |
|-----|-------------|---|----------|----------------|----------------|
|     |             | A. General Considerations for Comprehensive Vibration As Small Modular Reactor (SMR)    | ssessmen | t Program (C   | (VAP) of       |
|     |             | <ol> <li>Regulatory issues for CVAP of SMR introduced<br/>in RG 1.20 (Rev.4)</li> </ol> | PE<br>SE |                |                |
|     |             | 2. Technical issues for CVAP of SMR   | PE<br>SE |                |                |
|     |             | B. Implementation for CVAP of SMR using Scale Mode                                      |          | (SMT)          |                |
|     |             | 1. Generation of forcing functions  |          | 5 (===)        |                |
|     |             | <u> </u>  | PE       |                |                |
|     |             | Acoustic-Induced Vibration (AIV)  | SE       |                |                |
|     |             | O Flow and Acoustic-Induced Vibration, AR on  | PE       |                |                |
|     |             | a Helical Steam Generator   | SE       |                |                |
|     |             | Machanical Induced Vibration (MIV)  | PE       |                |                |
|     | Draft       | Oraft   |          |                |                |
| 1   | Report      | 2. Development of structural analysis methodology                                       |          |                |                |
|     | Submittal   | O Structural analysis modeling  | PE       |                |                |
|     |             | Structural analysis moderning   | SE       |                |                |
|     |             | Application of FIV  | PE<br>SE |                |                |
|     |             |   |          |                |                |
|     |             | <ul><li>Application of AIV</li></ul>  | PE<br>SE |                |                |
|     |             | O A 1' C CAMV   | PE       |                |                |
|     |             | Application of MIV  | SE       |                |                |
|     |             | C. Other Considerations for CVAP  |          |                |                |
|     |             | 1. Generation and application of forcing functions o                                    | PE       |                |                |
|     |             | n reactor internals (e.g. SG, CEDM, PZR etc.) n   |          |                |                |
|     |             | ot evaluated in commercial reactors   | SE       |                |                |
|     |             | 2. Additional considerations for the evaluation of st                                   | PE       |                |                |
|     |             | ructural integrity  | SE       |                |                |
| 2   |             | Technical Review Meeting  | PE       |                |                |
|     |             | recinited Review Miceting   | SE       |                |                |
| 3   |             | Final Report Submittal  | PE       |                |                |
| 5   |             | *   | SE       |                |                |
|     |             | Total   |          |                |                |
| * N | Man-Hour Ra | ate: US\$/Hour for Professional Engineer (PE),<br>US\$/Hour for Senior Engineer (SE)    |          |                |                |

# 2. Reimbursable portion

|              | Item of Expenses | Unit Cost<br>(US\$) | Quantity | Amount (US\$) |
|--------------|------------------|---------------------|----------|---------------|
| Two (2)      | Transportation   |                     |          |               |
| Professional | Accommodation    |                     |          |               |
| Engineers    | Meal             |                     |          |               |
|              | Total            |                     |          |               |

\*Exceeding amounts of each item of travel expense described in table above shall not be reimbursed by KEPCO E&C.

| 3. | Payment | Terms |
|----|---------|-------|
|    |         |       |

| _ | After submittal of the Draft Consultation Rep | oort: % of firm and fixed | nrice  |
|---|---|---------------------------|--------|
| - | After submittal of the Diant Consultation Rep | Joil % of fiffi and fixed | price, |

- After the Technical Review Meeting: \_\_\_\_\_ % of firm and fixed price;
   After submittal and acceptance of the Final Consultation Report incorporating KEPCO E&C's comments: \_ % of firm and fixed price.

#### **DEVIATION REQUEST FORM** B.

| Article # | DESCRIPTION | JUSTIFICATION |
|-----------|-------------|---------------|
|           |             |               |
|           |             |               |
|           |             |               |
|           |             |               |
|           |             |               |
|           |             |               |
|           |             |               |
|           |             |               |

# **CHAPTER IV**

# INFORMATION for TECHNICAL PROPOSAL

- A. SCOPE OF THE SERVICES
- B. METHOD OF PERFORMANCE
- C. CONSULTATION SCHEDULE
- D. DELIVERABLES

# A. SCOPE OF THE SERVICES

| 1 | General Considerations for Comprehensive Vibration Assessment Program (CVAP) of Small Modular Reactor (SMR)   |
|---|---|
|   | (a) Regulatory issues for CVAP of SMR introduced in RG 1.20 (Rev.4)   |
|   | (b) Other technical issues for CVAP of SMR  |
| 2 | Implementation for CVAP of SMR using Scale Model Testing (SMT)  |
|   | <ul> <li>(a) Generation of forcing functions         <ul> <li>Acoustic-Induced Vibration (AIV)</li> <li>Acoustic analysis methodology inside SMR with an integrated Reactor Coolant Pump (RCP)</li> <li>Flow and Acoustic-Induced Vibration, and Acoustic Resonance (AR) on a Helical Steam Generator</li> <li>Case study on vibration in a helical steam generator</li> <li>Mechanical-Induced Vibration (MIV)</li> <li>Measurement of MIV load</li> <li>Methodology for application of measured data</li> <li>Limitation on the application of measured data</li> </ul> </li> </ul>   |
|   | (b) Development of structural analysis methodology  Structural analysis modeling  - Structures to be analyzed  - Simplification and sub-modeling  - Interaction between components  - Effect of fluid  - Analysis of measured data and verification of model  Application of Power Spectral Density (PSD) turbulence load  - Application of coherence area  - Definition of relation between coherence areas  - Modes and missing mass  - Analysis of measured data and verification of the application  Application of acoustic wave load  - Distribution of loads  - Phase of the loads between components  - Fluid-structure coupled analysis  - Analysis of measured data and verification of the application  Application of MIV  - Analysis methodology  - Analysis methodology |
|   | <ul><li>Analysis for load propagation</li><li>Application of load</li></ul>   |

- Analysis of measured data and verification of the application

## 3 Other Considerations for CVAP

- (a) Generation and application of forcing functions on reactor internals (e.g. Steam Generator (SG), Control Element Driving Mechanism (CEDM), Pressurizer (PZR) etc.) not evaluated in commercial reactors
- (b) Additional considerations for the evaluation of structural integrity

#### B. METHODS OF PERFORMANCE

The Contractor shall provide consulting services on flow/structural analysis methodology for Comprehensive Vibration Assessment Program (CVAP) of Small Modular Reactor (SMR).

The Contractor shall perform the Consulting Services according to the Contract.

The method and process of performance for the Contracting Services shall be as follows.

## 1 Submittal of Draft Consultation Report

The Contractor shall submit one (1) Draft Consultation Report (as a pdf) via email. KEPCO E&C will provide detail information and questions required to make out the draft report. The draft report shall covers the information, questions provided and the consultation items listed in Section A.2.

KEPCO E&C will review the draft report and provide comments on the draft report to the Contractor.

## 2 Technical Review Meeting

| (a) |            | Contractor shall conduct an onshore Technical Review Meeting in Republic of       |
|-----|------------|---|
|     | Kor        | ea (ROK) for four (4) working days maximum in order to discuss the following      |
|     | iten       | ns:   |
|     | $\bigcirc$ | KEPCO E&C's comments and questions on the report;                                 |
|     | $\bigcirc$ | KEPCO E&C's concerns related to the items listed in Section A.2.                  |
| (b) | Dore       | iginants from the Contractor shall consist of at least two (2) ancincers, one (1) |

- (b) Participants from the Contractor shall consist of at least two (2) engineers: one (1) engineer in each field of flow and structural analyses.
- (c) The agenda and participant list of the meeting shall be sent to KEPCO E&C at latest one (1) week before the meeting.
- (d) The meeting minutes and presentation materials (as a pdf) shall be sent to KEPCO E&C within one (1) week after the meeting via email.

## 3 Issuance of Final Consultation Report

The Final Consultation Report (as a pdf) shall be issued by incorporating the following items into the draft report:

- O Resolutions and actions defined at the technical review meeting;
- O Meeting minutes and presentation materials of the technical review meeting.

## C. CONSULTATION SCHEDULE

- A. The Draft Consultation Report shall be delivered within seven (7) weeks after contract award.
- B. The meeting minutes and presentation materials shall be provided to KEPCO E&C within one (1) week after the Technical Review Meeting.
- C. The Final Consultation Report shall be submitted within two (2) weeks after the technical review meeting.

| ITEMO   |  | SCHEDULE (WEEK) |   |   |   |   |   |   |   |    |    |    |    |
|---|--|-----------------|---|---|---|---|---|---|---|----|----|----|----|
| ITEMS   |  | 2               | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
| Providing Data and Information for the Consultation |  |                 |   |   |   |   |   |   |   |    |    |    |    |
| (KSD <sup>1)</sup> )                                |  |                 |   |   |   |   |   |   |   |    |    |    |    |
| Submittal of Draft                                  |  |                 |   |   |   |   |   |   |   |    |    |    |    |
| Report (Contractor)                                 | '  |                 |   |   |   |   |   |   |   |    |    |    |    |
| Comments on   |  |                 |   |   |   |   |   |   |   |    |    |    |    |
| Draft Report  |  |                 |   |   |   |   |   |   |   |    |    |    |    |
| (KSD)   |  |                 |   |   |   |   |   |   |   |    |    |    |    |
| Onshore Technical                                   |  |                 |   |   |   |   |   |   |   |    |    |    |    |
| Review Meeting in                                   |  |                 |   |   |   |   |   |   |   |    |    |    |    |
| ROK   |  |                 |   |   |   |   |   |   |   |    |    |    |    |
| (KSD/Contractor)                                    |  |                 |   |   |   |   |   |   |   |    |    |    |    |
| Submittal of Final                                  |  |                 |   |   |   |   |   |   |   |    |    |    |    |
| Report (Contractor)                                 |  |                 |   |   |   |   |   |   |   |    |    |    |    |
| 1) KSD: KEPCO E&                                    | 1) KSD: KEPCO E&C Nuclear Steam Supply System, System Designer |                 |   |   |   |   |   |   |   |    |    |    |    |

## D. DELIVERABLES

| Deliverables                               |           | File Format          | Due Date  |  |
|--|-----------|----------------------|---|--|
| C 14 - 4 :                                 | Draft     | Electronic(PDF) File | *D + 7 weeks                                      |  |
| Consultation<br>Report                     | Final     | Electronic(PDF) File | Within 2 weeks after the technical review meeting |  |
| Meeting Minutes and Presentation Materials |           | Electronic(PDF) File | Within 1 week after the technical review meeting  |  |
| * D means contr                            | act date. |                      |   |  |

# **APPENDIX**

# **TERMS and CONDITIONS**

- A. GENERAL TERMS AND CONDITIONS
- **B.** TEMPLATE OF LETTER OF PERFORMANCE
- C. NON-DISCLOSURE AGREEMENT
- D. INTEGRITY PACT
- E. PAYMENT TERMS

## A. GENERAL TERMS AND CONDITIONS

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# **PREAMBLE**

This consulting services contract (the "Contract') is made and entered into effective as of this \_\_\_

| day of  | , 2020 (hereinafter called the "Execution Date") by and between:  |
|---------|---|
| 1.      | <b>KEPCO Engineering &amp; Construction Co., Inc.</b> ("KEPCO E&C"), a company duly organized and existing under the laws of the Republic of Korea ("Korea") and having its principal office of business at 269 Hyeoksin-ro, Gimcheon-si, Gyeongsangbuk-do, 39660, Korea; and |
| 2.      |   |
|         | WITNESSETH:   |
|         | REAS, KEPCO E&C desires the Contractor to provide KEPCO E&C with certain services;  |
|         | <b>REAS</b> , the Contractor offers to provide KEPCO E&C with such Services and to abide by ms and conditions of this Contract;   |
| experie | <b>REAS</b> , the Contractor has represented himself that it is technically qualified and enced in the type of work as defined hereinafter and that it is professionally and financially e of providing the Services for KEPCO E&C  |
| and co  | <b>REAS</b> , KEPCO E&C and the Contractor (hereinafter referred to, individually, a "Party" llectively, the "Parties") desire to document their agreement to cover the conditions under the Services shall be provided; and  |
| WHEI    | <b>REAS</b> , the representatives of the Parties possess proper and sufficient authority to agree.  |
|         | THEREFORE, for and in consideration of the premises and the mutual covenants and nents hereinafter set forth, the Parties agree as follows:   |

## ARTICLE 1. [DEFINITIONS]

- "Contract" means this agreement entered into between KEPCO E&C and the Contractor for the supply of the Services.
- "Contractor" means \_\_\_\_\_ and its successors and assignees entering into this Contract with KEPCO E&C for the supply of Services in accordance with this Contract.
- "day" means calendar day unless expressly indicated as a working day.
- "KEPCO E&C" means KEPCO Engineering & Construction Company, Inc., having its headquarters in Gyeongsangbuk-do, Korea and its legal representatives, successors and assignees.
- "Korea" means the Republic of Korea.
- "Services" means all services to be performed by the Contractor in accordance with the terms and conditions of this Contract.

## ARTICLE 2. [SCOPE OF THE SERVICES]

- 2.1 The Services to be performed by the Contractor under this Contract are described in Appendix A [Scope of Services and Method of Performance] attached hereto and made a part hereof.
- 2.2 Upon completion of all tasks in accordance with the schedule agreed between the Parties, the Contractor shall submit its work results including all deliverables to KEPCO E&C for its inspection and review. Upon acceptance in writing by KEPCO E&C of the work results, the Contractor shall be deemed to have completed the Services.

## ARTICLE 3. [CONTRACT PRICE]

- 3.1 The maximum total amount to be paid by KEPCO E&C under the Contract and corresponding to the total contract price (the "Contract Price") shall be USD \$\_\_\_\_\_ inclusive of labor cost and other direct costs. The Contractor agrees that any amount exceeding the above Contract Price shall not be paid by KEPCO E&C.
- 3.2 In case any increase or decrease in accordance with Article 7, "Revisions" or Article 13, "Termination" is required, such portion of increase or decrease shall be calculated based on the cost detail specified in Appendix B [CONTRACT PRICE & PAYMENT].

#### ARTICLE 4. [TERMS OF PAYMENT]

4.1 The Contractor shall submit invoices to KEPCO E&C in accordance with the following payment schedule described in Appendix B [CONTRACT PRICE & PAYMENT].

Notwithstanding anything to the contrary, the Contractor's invoice shall not be paid until and unless the Letter of Performance Commitment described in Article 10 is submitted to KEPCO E&C.

4.2 KEPCO E&C shall pay the accepted amount to the Contractor within thirty (30) days after the receipt of the invoice by telegraphic transfer to the Contractor's bank account. For the avoidance of any doubt, no invoice shall be paid unless and until KEPCO E&C has received and accepted the result (including but not limited to deliverables such as technical consulting service report) of Services performed by the Contractor.

Should any adjustment be necessary as a result of questioned or disallowed items, such adjustment shall be added to or deducted from, as the case may be, any following invoice. If there remains a questioned item, KEPCO E&C reserves the right to withhold payment for the items in question.

4.3 Except for banking charges incurred by KEPCO E&C to pay Contractor in connection with Article 3 "Contract Price", all banking charges shall be for the Contractor's account.

## **ARTICLE 5. [TAXES]**

Except as otherwise specifically provided in this Contract, the Contractor shall bear and pay the corporate tax, personal income tax, inhabitant tax and any other taxes assessed on the Contractor, if any, by all local, state or national government authorities outside of Korea in association with the Services, while those levied by government authorities of Korea shall be borne by KEPCO E&C.

## **ARTICLE 6. [FORCE MAJEURE]**

No Party shall be in default or shall be liable for any loss or damage due to delay in, or prevention of the performance of its obligations under this Contract if such delay or prevention results from the causes beyond such Party's control ("Force Majeure"). Force Majeure shall include, but are not limited to, the following:

- (a) Acts of God such as storms, floods or earthquakes;
- (b) Civil disturbances such as riots, strikes, revolutions, rebellions or insurrections;
- (c) Accidents or disruptions such as fires or explosions;
- (d) Any acts, laws, decrees, priorities, orders or regulations of any governmental authorities (national or local) including embargoes, quarantines, prohibitions of trade (including delays or failure to act), and delays or failures to issue any necessary license, permit or export or import authorization; or
- (e) Hostilities, invasions, wars (declared or not), or nuclear incidents.

## **ARTICLE 7. [REVISIONS]**

7.1 KEPCO E&C shall have the right to request and subsequently to order the Contractor from time to time during the performance of the Services to make any changes to the Services for the

- modification, addition or deletion of any part of the Services, provided that such changes fall within the general scope of the Services.
- The Contractor shall promptly inform KEPCO E&C if the change result in changes to schedule and/or price and the Parties shall in good faith negotiate such schedule and/or price changes.
- 7.2 Notwithstanding Paragraph 7.1 above, any changes made necessary due to any default of the Contractor in the performance of its obligations under the Contract shall not be deemed to be the changes under Paragraph 7.1 above and such changes shall not result in any adjustment of the Contract Price.

## **ARTICLE 8. [INDEMNITY]**

- 8.1 The Contractor shall indemnify, defend, and hold harmless KEPCO E&C and its successors and assigns, their directors, officers, agents and employees from and against any and all claims for loss or damages for bodily injury or death suffered by anyone whomsoever, or any property damage of third party, arising directly or indirectly or claimed to arise out of the Contractor's caused by the negligent conduct or negligent performance of the Services or resulting from the negligent performance by the Contractor's employees in the performance of the Services.
- 8.2 The Contractor, at its own expense, shall defend any suit or action brought against KEPCO E&C where the Contractor has agreed to indemnify and defend KEPCO E&C as provided in Paragraph 8.1 above, and shall pay all such judgments against each of them including reasonable attorney's fees and expenses arising and resulting therefrom. The Contractor shall keep KEPCO E&C fully informed of the progress of any such suits or actions, and shall agree to consult with KEPCO E&C at all reasonable times in regard to the progress of such suits or actions.

## ARTICLE 9. [WARRANTY AND LIABILITY]

- 9.1 The Contractor warrants that it shall completely perform the Services for KEPCO E&C according to the provisions of this Contract, especially Appendix A [Scope of Services and Method of Performance].
  - In the event the Contractor ceases the performance of the Services due to any other reasons than those permitted by provisions of the Contract, KEPCO E&C may claim damages arising out of or resulting from such nonfulfillment based on the provision of Paragraph 8.1. In such case, KEPCO E&C shall have right to reject the payment invoiced by the Contractor for the performance of the Services.

- 9.2 The Contractor warrants that it shall perform the Services for KEPCO E&C making commercially utmost use of its skill and experience in an efficient, economic and thorough manner within its areas of expertise, in accordance with sound and currently acceptable engineering and management standards, practices, procedures, applicable laws and regulations.
- 9.3 In the event any of the Contractor's Services do not conform to the standards set forth in Paragraphs 9.1 and 9.2 above, KEPCO E&C shall promptly notify the Contractor of any nonconformity. The Contractor shall, at its own expense, upon receipt of written notice from KEPCO E&C, perform any additional Services necessary to correct the nonconformity so that negligent errors or omissions therein are removed to the reasonable satisfaction of KEPCO E&C. Any claims by KEPCO E&C for re-performance of the Contractor's Services shall be made within one (1) year from completion of such Services.
- 9.4 The Contractor's aggregate limit of liability for the Services, arising from violation of its obligations under this Contract, shall not exceed the total Contract Price set forth in Article 3.

## ARTICLE 10. [LETTER OF PERFORMANCE COMMITMENT]

As a security for satisfactory performance of its obligation under this Contract, the Contractor shall provide KEPCO E&C with an unconditional Letter of Performance Commitment signed by the Contractor in favor of KEPCO E&C, in the amount of ten percent (10%) of the Contract Price shown in the Article 3 from the Execution Date of this Contract until thirty (30) days after the acceptance of the Services set forth in Article 22.

## ARTICLE 11. [OWNERSHIP OF DATA AND PROPRIETARY INFORMATION]

- 11.1 All the reports and technical documents developed for KEPCO E&C by the Contractor under this Contract shall become the property of KEPCO E&C.
- 11.2 The Contractor shall keep confidential all the data and information provided and designated by KEPCO E&C as confidential or proprietary and shall not divulge them to any third parties.

## ARTICLE 12. [SUSPENSION AND EXTENSION]

- 12.1 KEPCO E&C shall have the right to suspend or extend the completion of the Services for any reason upon fifteen (15) days prior written notice to the Contractor.
- 12.2 The completion shall be suspended or extended by a period of time reflecting the effect of the suspension or extension.

12.3 The Contractor shall resume the suspended Services within the earliest reasonable date after receipt of KEPCO E&C's request to do so, but not later than thirty (30) days following receipt of such notice.

## **ARTICLE 13. [TERMINATION]**

- 13.1 KEPCO E&C may at any time terminate the Contract, with or without cause by giving the Contractor a fifteen (15) days' notice in writing ("Termination Notice"). Upon receipt of KEPCO E&C's Termination Notice, the Contractor shall either immediately or upon the date specified in the Termination Notice cease all further Services.
- 13.2 The Contractor shall be paid compensation for the Services performed up to the date of termination except in case the termination is made due to the Contractor's default.
- 13.3 In the event termination as described in Paragraph 13.1 above is made due to the Contractor's default or breach of obligations hereunder, the Contractor shall be liable to KEPCO E&C for all loss, damages and expenses as a result of such termination. In such case, KEPCO E&C shall have the right to reject payment to the Contractor.

## ARTICLE 14. [ASSIGNMENT AND SUBCONTRACT]

- 14.1 Neither this Contract nor the benefits or obligations under this Contract shall be sold, assigned or transferred by either Party to any third parties including subsidiary or affiliated companies without the prior written approval of the other Party, with such approval not to be unreasonably withheld by either. In the event the approval is given by either for assignment or transfer, such an approval shall not relieve either from any liability and/or responsibility under this Contract.
- 14.2 Any subcontract, modification or termination hereof relating to the performance of the Services by the Contractor shall not be made without the prior written approval of KEPCO E&C.

## ARTICLE 15. [DISPUTES AND ARBITRATION]

- 15.1 All disputes, controversies or differences which may arise between the Parties, out of or in relation to or in connection with this Contract, or for the breach thereof, if not settled by mutual agreement, shall, at the option of the initiating Party and upon written notice to the other Party, be finally settled by arbitration in Seoul, Korea in accordance with the International Arbitration Rules of the Korea Commercial Arbitration Board and under the laws of the Republic of Korea.
- 15.2 The award rendered by the arbitrator(s) shall be final and binding upon both the Parties concerned.

## ARTICLE 16. [GOVERNING LAW]

All discrepancies, controversies or differences, or the validity, construction and performance of the Contract shall be governed by and interpreted in accordance with the laws of the Republic of Korea, without regard to its conflict of laws principles.

## ARTICLE 17. [CONTRACT PERIOD]

The period of the Contractor's Services shall be \_\_\_\_\_\_ from the Execution Date. However, notwithstanding the forgoing, the contract period shall be regarded as the period from the Execution Date of this Contract to the expiration date of all rights and responsibilities including the Contractor's warranty, liability, settlement of all tax obligations, and any other obligation under this Contract.

## ARTICLE 18. [LIQUIDATED DAMAGES FOR DELAY]

In the event that, for reasons attributable to Contractor, the Services are delayed beyond the completion date specified in the Contract documents, the Contractor shall pay liquidated damages to KEPCO E&C, not as a penalty, in an amount of zero point one two five (0.125) percent of the amount of each delayed portion for each day of delay. The liquidated damages shall not exceed ten (10) percent of the total Contract Price.

KEPCO E&C is entitled to deduct such liquidated damages from any payment due to the Contractor.

## ARTICLE 19. [SEVERABILITY]

In the event that any articles, provision, portion or application thereof is held to be unenforceable or invalid by any court of competent jurisdiction, the validity and enforceability of the remaining provisions, portions or applications thereof shall not be affected thereby.

### **ARTICLE 20. [NOTICE]**

All notices, communications and approvals required or permitted to be given hereunder shall be given in writing in English and shall be made to the address of the parties concerned in one of the following means;

- Personal delivery to the designated representative of each of the parties;
- by registered post; or
- by telefax or email

the specific designation of the parties as set forth below;

| If to KEPCO E&C:                               |
|--|
| KEPCO Engineering & Construction Co., Inc.     |
| 269, Hyeoksin-ro, Gimcheon-si,                 |
| Gyeongsangbuk-do, 39660, the Republic of Korea |
| Attention: Mr                                  |
| Tel: +82-54-421                                |
| E-mail:@kepco-enc.com                          |
| If to the Contractor:                          |
|  |
|  |
| Attention:                                     |

E-mail: \_\_\_ Fax No.:

Either Party hereto may change its address by a notice given to the other Party in the manner set forth immediately above. Notice given as herein provided shall be considered to have been given upon receipt.

## ARTICLE 21. [INFRINGEMENT OF PATENTS]

In the event any suit, claim, action or proceeding against KEPCO E&C or their designee arises from allegations that any proprietary rights arising from the Services provided by the Contractor under this Contract, including without limitation the computer programs, or any portion thereof constitute infringement of any patent, copyright, trade secret, Know-How, or any other proprietary right of any third party, the Contractor shall defend KEPCO E&C's or their designee's right, title and interest to the same against such suit, claim, action, or proceeding at the Contractor's expense and shall hold KEPCO E&C and their designee harmless from any damages or losses of any kind including without limitation legal fees. If as a result of such suit or proceeding, the proprietary rights or any part thereof is held to constitute an infringement and the use of said proprietary rights, or any part thereof, is enjoined, the Contractor promptly shall, at his option and expense, either procure for KEPCO E&C the right to continue using said proprietary rights, or the part thereof, or replace the same with non-infringing proprietary rights acceptable to KEPCO E&C.

## ARTICLE 22. [ACCEPTANCE OF THE SERVICES]

22.1 The Contractor shall give KEPCO E&C written notice as soon as it has completed the Services. Within fifteen(15) calendar days after receipt of such notice, KEPCO E&C shall notify in writing whether to accept those Services or request Contractor for correction of any unfinished work or deficiencies.

- 22.2 If the Contractor performs or corrects the unfinished work or deficiencies and notifies KEPCO E&C that all such items of unfinished work or deficiencies have been corrected, KEPCO E&C shall give the Contractor the written notice of acceptance ("Acceptance of Services") within fifteen(15) calendar days thereafter.
- 22.3 If KEPCO E&C fails to give notice of acceptance in the manner and at the times provided above, the Services shall be deemed to have been accepted by KEPCO E&C for all purposes of this Contract. The Acceptance of Services by KEPCO E&C shall in no event be considered a release of the Contractor's responsibilities, within the warranty period specified in Article 9.

## ARTICLE 23. [RESPONSIBILITIES OF THE PARTIES]

- 23.1 KEPCO E&C's Responsibilities
- 23.1.1 KEPCO E&C shall provide available, data, criteria and other necessary information to the Contractor in a reasonably expeditious manner for the Contractor to perform the Services.
- 23.2 The Contractor's Responsibilities
- 23.2.1 The Contractor shall obtain necessary customary local licenses, permits, authorizations, customs clearances and handling, and agreements required for the Contractor to do business in the jurisdiction in which the Services are performed. The costs related to this Paragraph shall be for the Contractor's account.
- 23.2.2 The Contractor, its employees and agents shall comply with all legal provisions, regulations and safety rules for work applying in the territories in which the Services are carried out.

## ARTICLE 24. [LANGUAGE AND UNITS]

The text of this Contract, technical specification or documents shall be made in English. The metric system and units shall be used for all principal instruction, instrumentation and other operating parameters. However, the foot-pound system can also be used in addition for reference.

## **ARTICLE 25.** [ENTIRE AGREEMENT]

This Contract constitutes the entire agreement and understanding between the Parties as to the subject matter of this Contract and merges and supersedes all previous discussions, agreements and understanding of any and every nature between them. This Contract shall not be amended except by written agreement of the Parties.

## ARTICLE 26. [CONTRACTUAL INTEGRITY]

- 26.1 The Contractor shall not offer or grant any bribes or undue benefits, including money, other articles, or treats, either directly or indirectly to any officials concerned, in the process of bid, award of contract, execution or performance of contract.
- 26.2 The Contractor shall not engage in any unfair practices that unreasonably undermine fair competition in a bid, such as bid-rigging or collusion to render the award of contract to a particular participant.
- 26.3 In the event of violation of the above, KEPCO E&C shall be entitled to:
  - 1) terminate any contract with the Contractor including this Contract; and/or
  - prohibit the Contractor from participating in any bids invited by KEPCO E&C for the period of two(2) years, and the Contractor shall not raise any objections or file any civil or criminal claims against KEPCO E&C for any measures taken by KEPCO E&C.
- 26.4 The Contractor shall be deemed to have signed and accepted the Integrity Pact attached hereto by signing this Contract.

## **ARTICLE 27. [EFFECTIVENESS]**

This Contract shall be entered into full force and effect upon the signing of this Contract by the parties hereto.

**IN WITNESS WHEREOF,** the Parties hereto have caused this Contract to be executed in duplicate each of which is deemed an original, by their respective duly authorized representatives as of the date first above written in the Preamble.

| <b>KEPCO</b> Engineering & Construction Co., Inc. |        |  |
|---|--------|--|
| By:   |        |  |
| Name: Lee Weonjoo                                 | By:    |  |
| Title: General Manager                            | Name:  |  |
|   | Title: |  |

#### B. LETTER OF PERFORMANCE COMMITMENT

## LETTER OF PERFORMANCE COMMITMENT

| Date: [     | ], 2020       |                           |
|-------------|---------------|---------------------------|
|             |               |                           |
| Λ           | 1             |                           |
| Attn: [     | J             |                           |
| To: Contrac | et Managemer  | nt Department, KEPCO E&O  |
| 269, Hyeok  | sin-ro, Gimch | neon-si                   |
| Gyeongsan   | gbuk-do, 3966 | 60, the Republic of Korea |

#### **Re:** Letter of Performance Commitment

As of [Date, 2020], we, [Guarantor Company's Name], a corporation duly organized under the laws of [Guarantor's Incorporated Country] with its principal place of business at [Guarantor's address] (the "Guarantor") write and submit this Letter of Performance Commitment ("Letter") for the rights and benefits of KEPCO E&C, a corporation duly organized under the laws of the Republic of Korea with its principal place of business at 269, Hyeoksin-ro, Gimcheon-si, Gyeongsangbuk-do, 39660, the Republic of Korea (the "Beneficiary") (the Guarantor and the Beneficiary may be referred as a "Party" individually or "Parties" collectively).

We, as the Guarantor, intends to provide the Beneficiary with a legally-binding commitment to perform obligations under [Contract No: KCN04-20-XX, Contract for "..."] executed between the Parties as of [Date, 2020] (the "Primary Contract"). Upon our receipt of the Beneficiary's notice of material breach of the Primary Contract and written request of payment, we hereby promise to unconditionally make payment in cash in the amount equal to ten percent (10%) of the Primary Contract amount unless we can prove with sufficient written evidence that we have not materially breached the Primary Contract.

We hereby duly submit this Letter to the Beneficiary with our representative's signature as below.

Company Name: Authorized Signature: (Sign) Print Name: Print Title:

(+Notarization if necessary)

## C. NON-DISCLOSURE AGREEMENT

THIS NON-DISCLOSURE AGREEMENT (the "NDA") is made and entered into as of this [Date, Month] 2020 (the "Effective Date"), by and between:

KEPCO Engineering & Construction Co., Inc., a company organized and existing under the laws of the Republic of Korea, having its principal place of business at 269, Hyeoksin-ro, Gimcheon-si, Gyeongsangbuk-do, 39660, the Republic of Korea ("**KEPCO E&C**"),

| and   |
|---|
| , a company organized and existing under the laws of, having its principle place of business at,  |
| KEPCO E&C and the are individually referred to as a "Party", and collectively as the "Parties".   |
| RECITALS  |
| WHEREAS, the Parties have signed Contract "" (KCN04-20-XX) ("Purpose"); and   |
| WHEREAS, the Parties anticipate that such discussions will involve the disclosure of confidential or proprietary information owned or controlled by KEPCO E&C ("Disclosing Party") to the ("Receiving Party") and desire to undertake certain measures to protect any such information from unauthorized use or disclosure. |

NOW, THEREFORE, in consideration of the foregoing premises and the mutual covenants provided herein, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties hereby agree as follows:

- 1. "Confidential Information" shall mean any information, ideas or materials now or hereafter owned by or otherwise in the possession or control of, or otherwise relating to, the Disclosing Party of a confidential nature, including but not limited to proprietary samples, designs, specifications, calculations, data, reports, drawings, process, formula, method, know-how, trade secret, business-related information, technical information, marketing information, engineering information, construction information, and other information relating to the Purpose, which may be disclosed by the Disclosing Party to the Receiving Party in connection with the Purpose. Confidential Information shall also include all copies, summaries, analyses, or extracts of such information, ideas or materials disclosed by the Disclosing Party, based thereon or derived therefrom.
- 2. The Receiving Party shall:
  - (a) limit the dissemination of Confidential Information within its organization to only those employees having a need for access,
  - (b) protect Confidential Information from disclosure to third parties approved by the Disclosing Party with at least the same degree of care (but no less than a reasonable degree of care) as it uses to protect its own Confidential Information of like kind from unauthorized use or disclosure,
  - (c) use Confidential Information only for the Purpose expressly stated above, and
  - (d) not copy or reproduce the Confidential Information without the written consent of the Disclosing Party, except for such copies as may be required for the Purpose.
- 3. The obligations of Paragraph 2 above shall survive termination of this NDA, provided that such obligations shall not apply to any information that the Receiving Party can prove by corroborated evidence:

- (a) was or is developed for the Receiving Party by persons who had not been exposed to Confidential Information;
- (b) was publicly available at the time of disclosure or became publicly available through no fault of the Receiving Party and without breach of this NDA by the Receiving Party or any affiliate, agent, consultant or employee of the Receiving Party; or
- (c) was or is rightfully received by the Receiving Party from a third party without limitation or restriction on its disclosure at the time of disclosure by such third party and without breach of this NDA.

The Receiving Party shall not use nor disclose Confidential Information in reliance on any of the foregoing exceptions without notifying the Disclosing Party in writing of its intended reliance at least fourteen (14) days in advance of use or disclosure. Confidential Information shall not be deemed to be within the foregoing exceptions merely because it may be embraced by more general information in the public domain or in the Receiving Party's possession. Confidential Information embodied within a combination of features available in the public domain or in the Receiving Party's possession shall not be deemed to be within the foregoing exceptions unless the combination of features itself is in the public domain or in the Receiving Party's possession.

- 4. The Receiving Party shall not manufacture, reproduce, redesign, alter, modify, break-down, disassemble, reverse engineer, analyze or otherwise attempt to derive the material composition or the physical characteristics of the underlying information, structure or ideas of any tangible materials received as Confidential Information from the Disclosing Party. The Receiving Party may not use the Confidential Information to perform any services outside the scope of this NDA. Upon completion of the Purpose, the Receiving Party shall promptly destroy or return all tangible Confidential Information remaining in its possession.
- 5. No warranty, license, right or immunity under any patent or other intellectual property is intended to be granted to the Receiving Party by this NDA.
- This NDA shall be considered to have been entered into and construed in accordance with the laws of the Republic of Korea, without regard to conflict of laws principles.
- 7. This NDA shall be effective from the Effective Date hereof, and continue in effect for 10 years from the completion and/or termination of the Contract, KCN04-20-XX, whichever is the later, provided that all obligations attaching to Confidential Information disclosed shall survive such termination.
- 8. The Receiving Party warrants that any subcontractor of the Receiving Party having access to or contact with any Confidential Information shall be subject to an agreement having obligations of confidentiality which are at least as restrictive as those contained herein. The Receiving Party warrants that such subcontractor shall have access only to such Confidential Information which is absolutely necessary to enable subcontractor to perform its duties in accordance with this NDA.
- 9. All tangible information, including drawings, designs, specifications, calculations, blueprints, flowsheets, sketches, descriptions, data, samples and other tangible material pertaining to the Confidential Information shall remain the property of the Disclosing Party. At the completion of the Purpose or request of the Disclosing Party, the Receiving Party shall promptly return all such tangible information, and all copies thereof, to the Disclosing Party.
- 10. The Receiving Party agrees to comply, and do all things necessary for the other Party to comply, with all applicable laws, regulations and ordinances, including, but not limited to, any applicable export control laws and regulations, insofar as they relate to the activities to be performed under this NDA. Each Party agrees to obtain any required government approvals prior to export of any technical data disclosed to it or the direct product related thereto.
- 11. This NDA contains the entire agreement between the Parties as to the subject matter hereof and supersedes and replaces all previous written or oral understandings, agreements, negotiations, commitments, or representations, and any other writings or communications in respect to such

subject matter. No amendment of this NDA shall be effective unless in writing and signed by both of the Parties.

- 12. The Receiving Party agrees that money damages shall not be a sufficient remedy for any breach of this NDA by it and that in addition to all other remedies which may be available, the Disclosing Party shall be entitled to specific performance and injunctive or other equitable relief, without bond, as a remedy for any such breach or threatened breach in accordance with the procedures set out in Paragraph 13 of this NDA.
- 13. Any dispute or claim, whether based on contract, tort, statute or other legal or equitable theory arising out of or in connection with this NDA, if not settled by mutual agreement, shall be finally settled by arbitration in Seoul, Korea in accordance with the International Arbitration Rules of the Korean Commercial Arbitration Board by one or more arbitrators appointed in accordance with the said Rules, provided that a Party may seek appropriate interim injunctive relief pending the formation of the arbitration panel. In the event of any legal action to enforce this NDA or to recover damages or other relief on account of any breach of this NDA, the prevailing party will be entitled (in addition to any and all other remedies) to recover any and all costs and expenses (including, without limitation, reasonable attorneys' fees) that it may incur in connection with such action.

**IN WITNESS WHEREOF**, the Parties hereto have executed this NDA as of the date first above written.

| KEPCO Engineering & Construction Co., Inc. |        |  |
|--|--------|--|
| Зу   | Ву     |  |
| Name: Lee Weonjoo                          | Name:  |  |
| Title: General Manager                     | Title: |  |

## D. INTEGRITY PACT

## **Integrity Pact**

In connection with conducting any business transactions with KEPCO Engineering & Construction Co., Inc. (KEPCO E&C), the undersigned hereby covenants the following:

- 1. We shall not offer or grant any bribes or undue benefits, including money, other articles, or treats, either directly or indirectly to any officials concerned, in the process of bid, award of contract, execution or performance of contract.
- 2. We shall not engage in any unfair practices that unreasonably undermine fair competition in a bid, such as bid-rigging or collusion to render the award of contract to a particular participant.

We acknowledge that, in case of breach of the above covenants, any of our contract with KEPCO E&C may be terminated and we may not be allowed to participate in any bidding invited by KEPCO E&C.

We will fully comply with this Integrity Pact, and will not raise any objections or file any civil or criminal claims against KEPCO E&C for the measures taken by KEPCO E&C.

| Ву:    |      |  |
|--------|------|--|
| Name:_ | <br> |  |
| Title: |      |  |

## E. PAYMENT TERMS

The Contractor shall submit the invoices to KEPCO E&C for cost for the engineering works specified in Appendix B, "Contract Price". The payments of the firm and fixed price (for the engineering works) will be made by the contractor invoices in accordance with the following plan:

| $\bigcirc$ | After submittal of the Draft Consultation Report: % of firm and fixed price;  |
|------------|---|
| $\bigcirc$ | After the Technical Review Meeting: % of firm and fixed price;                |
| $\bigcirc$ | After acceptance of the Final Consultation Report: % of firm and fixed price. |

The Final Consultation Report shall incorporate all comments from KEPCO E&C and its resolution between KEPCO E&C and the Contractor. Final payment will be made after KEPCO E&C's review and acceptance on the Final Consultation Report.

Compensation of Contractor's travel expenses for participation in the Technical Review Meeting will be made on a cost reimbursement basis after the Technical Review Meeting. The Contractor shall submit substantiating documents for travel expenses.