

**JAMMU & KASHMIR STATE POWER DEVELOPMENT  
CORPORATION LIMITED**

**OFFICE OF THE CHIEF ENGINEER  
S&K/ CC/ CI & D WING JAMMU  
18 C-C GANDHI NAGAR, JAMMU-180004**

**NOTICE INVITING TENDER**

**NIT NO:1 of 2009 dated**

**Attention:  
Consultants/Consulting Firms/Government Institutions  
for  
EIA Studies of 240 MW KIRTHAI-I Hydro-Electric Project being set up in  
District Kishtwar, Jammu & Kashmir.**

J&K State Power Development Corporation Ltd invites offers from reputed Consultants / Consulting Firms /Government Institutions for conducting Environment Impact Assessment(EIA) survey & studies and preparation of EIA & Environment Management Plan (EMP) reports for 240 MW KIRTHAI Hydro Electric Project being set up in District Kishtwar, J&K State, India.

Details can be seen and /or downloaded from website: [www.jkspdc.nic.in](http://www.jkspdc.nic.in) or obtained from the office of CHIEF ENGINEER, SAWALKOTE & KIRTHAI HYDRO-ELECTRIC PROJECTS, J&K State Power Development Corporation Limited, 18 C-C Gandhi Nagar, Jammu-180004.

Detailed Tender Document can be purchased from the Office of Chief Engineer, Sawalkote & Kirthai HEP, 18 C-C, Gandhi Nagar, Jammu-180004 on all working days starting from 01-10-2009 to 10-10-2009 between 10.00 AM to 12.00 Noon.

Time and last date of submission of bids is 1100 hrs on 31-10-2009.

**Chief Engineer  
Sawalkote & Kirthai Hydro-electric Projects  
JKSPDC, 18 C-C Gandhi Nagar, Jammu-180004**

**No:**

**Dated :**

**Copy to:-**

1. Commissioner/Secretary to Government Power Development Department, Civil Secretariat, Jammu.
2. Commissioner/Secretary to Government Forest Department, Civil Secretariat, Jammu.

3. Managing Director, JKSPDC, Jammu
4. Executive Director JKSPDC, Jammu.
5. Director Finance JKSPDC, Jammu
6. Chief Engineer Kashmir Irrigation & Flood Control Department, Jammu.
7. Chief Engineer P.H.E. Department, Jammu.
8. Director Environment & Remote Sensing Bemina Srinagar.
9. Chief Engineer(Civil) Baglihar Hydro Electric Project Chanderkote Ramban
10. Chief Engineer, Civil Construction Wing, Kashmir
11. Chief Engineer Generation Wing, JKSPDC, Jammu.
12. Chief General Manager (P.F.) JKSPDC Corporate Office, Srinagar.
13. Director National Informatics Centre (NIC) Civil Sectt, Jammu for uploading of the tender document on JKSPDC website [www.jkspdc.nic.in](http://www.jkspdc.nic.in)
14. Joint Director, Information for getting published the tender notice in two leading local and two number leading national dailies namely Times of India and Hindustan Times.
15. Senior General Manager Corporate Office JKSPDC, Srinagar.
16. Chief Project Engineer Parnai, JKSPDC Jammu.
17. Chief Project Engineer Kargil JKSPDC Kargil.
18. Chief Geologist JKSPDC Bemina Srinagar.
19. General Manager (law), JKSPDC Corporate Office Jammu.
20. Chief Pay & Chief Accounts Officer JCC/ KCC Jammu/Srinagar

**JAMMU & KASHMIR STATE POWER DEVELOPMENT CORPORATION LIMITED**

**LETTER OF INVITATION**

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EIA STUDIES  
AND  
PREPARATION OF EIA AND EMP REPORTS  
FOR  
240 MW KIRTHAI-I HYDRO-ELECTRIC PROJECT  
DISTRICT KISHTWAR  
JAMMU & KASHMIR STATE  
INDIA

**SEPTEMBER 2009**

**LETTER  
OF  
INVITATION**

**To**

**M/S**

**Dear Sirs:**

**Subject: Proposal for Consultancy Services for Conducting Environmental Impact Assessment (EIA) surveys & studies and preparation of detailed and comprehensive EIA and Environmental Management Plan (EMP) Reports for the 240 MW KIRTHAI-I HYDRO-ELECTRIC PROJECT, DISTRICT KISHTWAR, JAMMU & KASHMIR.**

1. The J&K State Power Development Corporation Ltd. (OWNER) intends to develop 240 MW KIRTHAI-I Hydro Electric Project on Chenab River in District Kishtwar, Jammu & Kashmir.
2. The purpose of this assignment is to conduct Environmental Impact Assessment (EIA) surveys & studies and prepare detailed and comprehensive EIA report and Environmental Management Plan (EMP) for 240 MW KIRTHAI-I HYDRO-ELECTRIC PROJECT on the basis of Terms of Reference (ToR), approved by Ministry of Environment and Forest, Government of India. The study must conform to the existing standard guidelines read with orders/circulars/policies of Central/ State Government governing such study/ plan issued from time to time. The assignment also entails assisting the Corporation in obtaining consent/ clearance from State Pollution Control Board and Ministry of Environment & Forests, Government of India.
3. You are invited to submit Technical and Financial Proposals for consultancy services in respect of the above assignment.
4. The following documents are enclosed to enable you to submit your proposal:
  - i. Letter of Invitation (LoI) Data Sheet (Annex-I).
  - ii. Terms of Reference (TOR) (Annex-II).
  - iii. Supplementary Information for Consultants. (Annex-III)
  - iv. Formats for Technical and Financial Proposals.
  - v. A Sample Form of Contract for Consultancy Services under which the services will be performed (Annex-IV).

**5. Submission of Proposals:**

The proposals shall be submitted in two parts, viz, "Technical" and "Financial" and should follow the form given in the "Supplementary Information for Consultants."

5.1 The "Technical" and "Financial" proposals must be submitted in two separate sealed envelopes with covering letters as per the Form No. F-I and F-8 (with respective markings in bold letters), in accordance with the formats/ schedules given in the "Supplementary Information for consultants". The First Envelope marked "Technical Proposal" followed by the name of the assignment should include the description of the Firm / Organization, the Firm's general experience in the field of the assignment, the qualifications and competencies of the personnel proposed for the assignment and the proposed work plan methodology and approach in response to the suggested Terms of Reference. The First Envelope should not contain any information

pertaining to the quoted prices whatsoever.

The Second Envelope marked "Financial Proposal" followed by the name of the assignment and indicating "DO NOT OPEN WITH TECHNICAL PROPOSAL" must also be sealed with sealing wax and signed twice across the seal and should contain the detailed price offer for the consultancy services.

5.2 Both the sealed envelopes should again be placed in a sealed cover which will be received in the Office of the **CHIEF ENGINEER, SAWALKOTE & KIRTHAI HYDRO-ELECTRIC PROJECTS, 18 C-C GANDHI NAGAR, JAMMU-180004, J&K. PIN: 180004** up to **1100 Hrs (1ST)** on **31-10-2009**.

Offers received late, on any account and for any reason whatsoever, will not be considered.

**6. Opening of Proposal**

The proposals (First Envelope containing Technical Proposal only) will be opened on **31-10-2009** at **1100 Hrs (IST)** in the Office of CHIEF ENGINEER, SAWALKOTE & KIRTHAI HYDRO-ELECTRIC PROJECTS, 18 C-C GANDHI NAGAR, JAMMU-180004, J&K. PIN: 180004 in the presence of such bidders or their authorized representative who would like to attend the Bid Opening.

It may be noted that the Second Envelope containing the Detailed Price Offer will be opened at 1100 Hrs (1ST) on a date which shall be separately intimated to those bidder whose technical bids shall found to be responsive after completion of Technical Evaluation.

**7. Bid Evaluation**

A two-stage procedure will be adopted in evaluating the proposals with the Technical Evaluation being completed prior to any Financial Proposals being opened.

The Technical Proposals will be evaluated using the following criteria:

- (i) The Firm's relevant past experience in field of EIA survey, studies and preparation of EIA & EMP reports for River Valley Projects/Hydro power sector (100 Marks)
- (ii) Adequacy of the proposed Methodology and Work Plan in response to the TOR (50 marks)
- (iii) Qualification and Competence of key personnel (50 marks).

Weight-age assigned to each of the above criteria and evaluation methodology is enumerated as follows:-

**8. Evaluation Methodology and Decision of Award of Contract:**

8.1 Technical Qualification and Evaluation:

S.NO.	PARTICULARS	Maximum Score
<b>1</b>	<b>Relevant Past Experience in the field of EIA studies and preparation of EIA &amp; EMP reports</b>	<b>100</b>
a)	Completed at least two (2) EIA studies including preparation	100

	of EIA & EMP report/s of at least one hydro electric project of capacity 200 MW and above or two hydro electric projects of 120 MW and above or three hydro electric projects of 100 MW and above and obtained Environment Clearance from the Ministry of Environment & Forests, Government of India for the reports so framed.	
b)	Completed at least one (1) EIA study including preparation of EIA & EMP report/s of at least one hydro electric project of capacity 200 MW and above or two hydro electric projects of 120 MW and above or three hydro electric projects of 100 MW and above and obtained Environment Clearance from the Ministry of Environment & Forests, Government of India for the reports so framed.	50
c)	Any other EIA study if not done under (a) and (b) above	25
<b>2</b>	<b>Adequacy of the proposed methodology and work plan in response to the Terms of Reference</b>	<b>50</b>
a)	Adequacy in approach for meeting all elements of scope of work	5
b)	Methodology of the proposed assignment	10
c)	Adequacy in meeting the time schedule	10
d)	Adequacy of the team proposed for the assignment	25
<b>3</b>	<b>Qualification and competence of Key Personnel</b>	<b>50</b>
<b>a)</b>	<b>Qualification</b>	<b>30</b>
i)	At least one Environment Expert/scientist with PhD + Environment Engineer with M Tech. + Hydro-geologist +Zoologist with M Sc .+ Botanist with M Sc.	30
ii)	At least one Environment Engineer with M Tech. + Hydro-geologist +Zoologist with M Sc.+ Botanist with M Sc.	20
<b>b)</b>	<b>Experience</b>	<b>20</b>
i)	Three people in relevant field with more than 10 years experience in EIA studies and preparation of EIA & EMP reports	20
ii)	Three people in relevant field with 5-10 years experience in EIA studies and preparation of EIA & EMP reports	15
iii)	Five people in relevant field with 1-5 years experience in EIA studies and preparation of EIA & EMP reports	10

8.2 Bidders securing a minimum of 60% of marks in technical evaluation only shall be considered technically responsive.

8.3 Financial Proposals of only such bidders will be opened whose offers have been declared Technically Responsive. Financial Proposal of other Bidders will be returned unopened. The Financial Proposals of Technically Responsive Bidders in separate sealed envelope will be opened after evaluation of the Technical Proposals.

8.4 For comparison of the combined Technical and Price Score of all bidders, following formula will be used:

$$\text{Total Score} = (\text{Technical Score} \times 0.70) + (\text{LP/FP} \times 100) \times 0.30$$

Where LP is the lowest price of the group of bidders being considered and FP is the price of the bidder being evaluated.

**9** The documents mentioned above, including this covering will form the Tender Documents. Each of the above documents and also other documents to be submitted by you as per the tender requirements are to be submitted duly stamped & signed on each page by your accredited representative as a token of your acceptance, which shall constitute your bid. The bid is to be submitted in a sealed envelope with all referred superscription i.e. the name of the assignment/work, due date & time, Bidders Name & Address.

**10 Contract Performance Guarantee (CPG):**

In the event of an award, the successful Bidder (Consultant), within fifteen days of receipt of the Letter of Award from the OWNER, will be required to arrange submission of the CPG in the form of a Bank Guarantee (BG) EQUIVALENT TO 10% (Ten Percent) of the contract consideration. The CPG/BG shall as per proforma (will be given to the successful bidder) and kept valid up to the completion of the assignment. Govt. Institutions/ Organizations shall be exempted from furnishing Contract Performance Guarantee

**11. Basis of Price Offer:**

The Price Offer shall be for the assignment as per Annex I of Bid Proposal Sheet and the Terms of Reference and shall remain FIRM throughout the period of contract. Quoted Price will be on a lump sum basis inclusive of all travel, stay, all taxes / duties, out of pocket expenses, cost of producing documents etc. and the OWNER will not be required to pay and/or reimburse anything over and above the price quoted.

The OWNER reserves the right to ask the bidder to justify and establish price/rate reasonableness. In the event of an award of contract, income tax and/or service taxes will be deducted by the OWNER at source as per law and Tax Deduction at Source Certificate shall be issued to the Consultant by the OWNER.

**12. Time Schedule/Completion Period:**

The assignment is scheduled to be completed as per the Terms of Reference/scope of work within **a total period of 15 months** from the date issue of the Letter of Award,.

### **13. Signing of Formal Contract Agreement**

In the event of an award, the successful Bidder shall be required to enter into a Contract Agreement with the OWNER within 7(seven) days from the date of the Letter of Award (LOA) or with-in such extended time as may be granted by the Owner. The Owner shall provide the pro-forma for this consultancy/Contract Agreement.

### **14. Validity of Bid**

Bidders have to keep their Bids Quotations valid up to 90 (Ninety) days for our acceptance from the date of opening of the Technical Proposals.

### **15 Earnest Money Deposit:**

An Earnest Money Deposit of Indian Rupees 2,00,000.00 (Two Lacs Only) in the form of a Demand Draft pledged to "Chief Pay & Accounts Officer, Sawalkote & Kirthai HEP, JKSPDC, Jammu " payable at Jammu, shall accompany the Bid for the Consultancy Services Package.

Bids received without Bid Guarantee will be rejected outright.

The Earnest Money Deposit will be refunded to the successful Bidder, after signing of the Contract and submission of Contract Performance Guarantee. The Earnest Money Deposit of all unsuccessful Bidders shall be returned within thirty (30) days of award signing of contract with the successful bidder.

Government Institutions/ Organizations shall be exempted from furnishing Earnest Money Deposit.

### **16 Terms of Payment**

Payments will be made by the Owner to the successful bidder herewith referred to as the Consultant in the following manner:

(i) 40% of the Contract Value of this Consultancy - After submission of Draft EIA and EMP report along with executive summary to the State Pollution Control Board in English and Urdu vernacular.

(iii) 20% of the Contract Value of this Consultancy totaling - After successfully conducting public hearings /public consultations and assisting in obtaining clearance from State Pollution Control Board of J&K

(iv) 20% of the Contract Value of this Consultancy - On submission of Final EIA/EMP report to Ministry of Environment & Forests, Government of India for consideration and accord of clearance after incorporating issues discussed in Public Hearings/Public Consultations

(v) 10% of the Contract Value of this Consultancy – On JKSPDC obtainining Environmental Clearance from Ministry of Environment & Forests, Government of India, Government of India for which consultant shall provide necessary assistance .

(vi) 10% of the Contract Value of this Consultancy - After completion of the assignment to the satisfaction of the Owner.

The Consultant shall submit the bills in triplicate to the Owner on the firm's printed bill forms indicating the work done during the period for which the payment is sought.

You are requested to keep your Proposal/Bid valid for a period of NINETY (90) days from the date of opening of the Technical Proposal, during which period you will maintain the personnel proposed for the assignment and also the price.

Kindly acknowledge receipt of this Letter of Invitation through fax/ e-mail per return.

**17. Cost of bid document:-** This bid document can be purchased by the bidders from the office Chief Engineer, Sawalkote & Kirthai Hydro-Electric Projects, 18 C-C Gandhi Nagar, Jammu on payment of Rs 20,000/= in the shape of demand draft drawn in favour of "Chief Pay & Accounts Officer, Sawalkote & Kirthai HEP, JKSPDC, payable at Jammu. Parties downloading the document from the official website of JKSPDC [www.jkspdc.nic.in](http://www.jkspdc.nic.in) shall enclose this demand draft along with their bids as cost of bid document. Govt. Institutions are exempted from making any payment towards the cost of the document.

**Yours Sincerely,**

**Chief Engineer  
Sawalkote & Kirthai HEP  
18 C-C Gandhi Nagar, Jammu  
Jammu & Kashmir State**

For and on Behalf of

**J&K STATE POWER DEVELOPMENT CORPORATION LTD (OWNER)**

## **LOI DATA SHEET**

**LOI DATA SHEET**

<b>1.1</b>	The name the Assignment is :	Conducting Environmental Impact Assessment (EIA) surveys/studies and preparation of detailed and comprehensive EIA and Environmental Management Plan (EMP) for <b>240 MW KIRTHAI-I Hydro Electric Project in District Kishtwar, JAMMU &amp; KASHMIR.</b>
<b>1.2</b>	The name of the owner is	<p>J&amp;K STATE POWER DEVELOPMENT CORPORATION LTD., REGISTERED OFFICE EXHIBITION GROUNDS, SRINAGAR, KASHMIR, J&amp;K-190009. Telephone No:-0194-2458005 Fax. No:0194-2451665</p> <p>CAMP OFFICE: ASHOK NAGAR SATWARI-JAMMU, J&amp;K-180004: Telephone No:-0191-2430548 Fax. No:0191-2435408</p>
<b>1.3</b>	The description and the objectives of the assignment	Conducting Environmental Impact Assessment (EIA) surveys/studies and preparation of detailed and comprehensive EIA and Environmental Management Plan (EMP) for 240 MW KIRTHAI-I Hydro Electric Project in District Kishtwar, JAMMU & KASHMIR, on the basis of Terms of Reference (ToR), approved by Ministry of Environment and Forest(Ministry of Environment & Forests, Government of India) Government of India(GoI) and conforming to the existing standard guidelines read with orders/circulars/policies of Central/State Government governing such study/plan issued from time to time. The assignment also entails assisting the Corporation in obtaining consent/clearance from State Pollution Control Board and Ministry of Environment & Forests, Government of India (GoI)
<b>1.4</b>	The Owner will provide the following inputs:	<p>a) Copy of available Detailed Project Report. b) Terms of Reference approved by Ministry of Environment &amp; Forests, Government of India, GoI</p>
<b>1.5</b>	The documents enclosed are:	<ol style="list-style-type: none"> <li>1. LOI Data Sheet</li> <li>2. Terms of Reference(ToR)</li> <li>3. Supplementary information for consultants.</li> <li>4. Formats for technical and financial proposals.</li> <li>5. Draft contract for Consultancy Services</li> </ol>

<b>1.6</b>	<b>Consortium</b>	The consultancy firm may form consortium/ joint ventures (technical / Financial/ Legal) for successful completion of the assignment. The Consultancy firm should submit the technical and financial capability of the consortium members and their role and responsibility for the above assignment.
<b>1.7</b>	<b>The address for Submission of Bids:</b>	CHIEF ENGINEER, SAWALKOTE & KIRTHAI HYDRO-ELECTRIC PROJECTS, J&K STATE POWER DEVELOPMENT CORPORATION, 18 C-C GANDHI NAGAR, J&K Telephone: 0191-2432707 Fax: 0191-2432435
<b>1.8</b>	<b>Bid Guarantee/EMD</b>	Bid Guarantee INR Rs. 2,00,000.00 (Rupees Two Lacs only) in the form of Bank Demand Draft to accompany the technical proposal
<b>1.9</b>	<b>The date and time of submission of Bids.</b>	11 AM (1100 Hrs 1ST) on <b>26-10-2009</b>
<b>1.10</b>	<b>Bid Opening date</b>	Technical Proposal Bid Opening on <b>26-10-2009</b> at <b>1100 Hrs.</b> Financial Proposal: Date and Time for opening of Financial Bids shall be communicated separately.
<b>1.11</b>	<b>Validity period.</b>	90 days from the date of opening of technical proposal.
<b>1.12</b>	<b>Bid Evaluation Criteria.</b>	The Technical Proposal will be evaluated using the following criteria:- i)The Firm's relevant past experience in field of EIA studies and EMP for River Valley Projects/Hydro power sector- 100 Marks) (ii) Adequacy of the proposed Methodology and Work Plan in response to the TOR: 50 Marks. (iii) Qualification and Competence of key personnel : 50 Marks  For detailed evaluation methodology please refer Clause 7 & 8 of letter of invitation (LoI) preceding this data sheet  <ul style="list-style-type: none"> <li>• Firms securing a minimum of 60% of marks only shall be considered technically responsive.</li> <li>• Financial Proposals of only such firms will be opened whose offers have been declared Technically Responsive. Financial Proposal of</li> </ul>

		<p>other Bidders will be returned unopened. The Financial Proposals of Technically Responsive Bidders in separate sealed envelope will be opened after evaluation of the Technical Proposals.</p> <ul style="list-style-type: none"> <li>• For comparison of the combined Technical and Price Score of all Firms, following formula will be used:</li> </ul> <p>Total Score = (Technical Score x 0.70) + (LP/FPx100) x0.30</p> <p>Where LP is the lowest price of the group of firms being considered and FP is the price of the firm being evaluated.</p>
<b>1.13</b>	<b>Commencement of the Assignment.</b>	From the date of letter of Award/letter of Intent

TERMS  
OF  
REFERENCE

## TERMS OF REFERENCE

for

**Consultancy Services for Conducting Environmental Impact Assessment (EIA) surveys & studies and preparation of detailed and comprehensive EIA and Environmental Management Plan (EMP) for 240 MW KIRTHAI-I Hydro Electric Project in District Kishtwar, JAMMU & KASHMIR.**

### 1.0 Objective

The J&K State Power Development Corporation Ltd. (OWNER) intends to develop **240 MW KIRTHAI-I Hydro Electric Project on river Chenab in District Kishtwar, Jammu & Kashmir.**

JKSPDC seeks to engage reputed and experienced Consultants/Consulting Firms/Institutions to conduct Environmental Impact Assessment (EIA) surveys & studies and preparation of detailed and comprehensive EIA report and Environmental Management Plan (EMP) for **240 MW KIRTHAI-I Hydro Electric Project in District Kishtwar, JAMMU & KASHMIR** on the basis of Terms of Reference (ToR), approved by Ministry of Environment and Forest (Ministry of Environment & Forests, Government of India) Government of India (GoI) conforming to the existing standard guidelines read with orders/circulars/policies of Central/State Government governing such study/plan issued from time to time.

The assignment also entails assisting the Corporation in obtaining consent/clearance from State Pollution Control Board and Ministry of Environment & Forests, Government of India (GoI).

The scope of work shall include necessary advisory services for the entire duration of the assignment.

### 2.0 Outline of the task to be carried out

The consultants shall carry out the following tasks:-

- a. Familiarize himself with details of the project.
- b. Conduct EIA surveys and studies and prepare EIA and EMP reports as per but not limited to approved ToR of Ministry of Environment & Forests, Government of India appended herewith.
- c. Submit draft reports including executive summary and required formats to J&K State Pollution Control Board in English and Urdu Vernacular (executive summary only) and providing necessary technical assistance for obtaining Consent / Clearance from J&KSPCB/ Ministry of Environment and Forests.
- d. Assist JKSPDCL during Public hearings/consultations.

- e. Incorporate necessary studies / changes in EIA and EMP after public hearing/consultation
- f. Submit finalized EIA and EMP report with Executive Summary as per the requirement of J&KSPCB and Ministry of Environment & Forests, Government of India.
- g. Presentation to J&KSPCB and to Ministry of Environment & Forests, Government of India during appraisal till necessary clearance is accorded.
- h. Furnishing necessary clarifications which may be sought by J&KSPCB, Ministry of Environment & Forests, Government of India, and NGOs and by general Public regarding Environmental issues connected with the Project.
- i. All other activities as would be required for successful completion of EIA studies and preparation of EIA & EMP reports and clearance from Ministry of Environment & Forests, Government of India/JKSPCB.
- j. In the event that the Consultant is in default of his duties in performance of the services as envisaged in the Contract Agreement, the Consultant shall rectify all defects, inadequacies and insufficiencies pointed out by Owner and authorities before whom the report(s) is submitted within a period of 15 days from the date on which such defects, deficits etc have been communicated to the consultant verbally or in writing as the case may be.

### **3.0 Schedule for Completion of the Tasks**

The assignment is scheduled to be completed within **15 months** from the date of letter of award as given at para 5 of this ToR.

### **4.0 Inputs to be provided by JKSPDC:**

- a. Copy of available Detailed Project Report.
- b. Terms of Reference approved by Ministry of Environment & Forests, Government of India.
- c. No other assistance shall be provided by JKSPDC. Office accommodation, transport for daily movement of consultant for the assignment, telephone, computer and other facilities shall be arranged by the consultant at his/ their own cost.

### **5.0 THE FINAL OUTPUT THAT WILL BE REQUIRED OF THE CONSULTANT**

The outline of the task to be performed by the Consultant has been elucidated at point no 2.0 above. The time lines for the final outputs shall be as follows:-

- a. Draft detailed EIA & EMP Report with executive summary as required including all necessary pre-requisites: **12 months after letter of award.**

- b. Final detailed EIA report & EMP report (10 copies) with executive summary as required including all necessary pre-requisites: **15 months after letter of award.**

**In case additional copies (more than 15) are required by the owner the same will have to be provided by the Consultant for which actual cost incurred on preparation of the copies i.e. printing, binding etc shall be reimbursed to the Consultant.**

**The consultant shall also have to submit soft copy of the final studies & reports to the owner.**

#### **6.0 Experience:**

The consultants and the personnel deployed to take up the assignment must have sufficient experience in conducting surveys and drafting of EIA, EMP reports for River Valley Projects/Hydro Power Projects and having successfully assisted the owner's case before Pollution Control Boards and Ministry of Environment & Forests, Government of India. The Consultant's personnel must possess relevant technical qualification/knowhow in the field for in support of which they shall be required to attach credential certificate(s) from their clients.

**DETAILED TERMS OF REFERENCE**  
**APPROVED BY**  
**Ministry of Environment & Forests, Government of India**  
**for conducting**  
**EIA studies of 240 MW KIRTHAI-I HYDROELECTRIC PROJECT**

**SALIENT FEATURES OF THE PROJECT**

**I-ENVIRONMENTAL IMPACT ASSESSMENT (EIA) REPORT**

**The Baseline studies** should consist of 3 seasonal studies (Pre-Monsoon, Monsoon and Winter Seasons) and should be conducted in the following Study area

**Study Area:**

The study area should include the following areas:

- Upstream area
- Submergence Area
- Project area to be acquired for various project appurtenances, area within 10 Km radius from main project components (i.e. Diversion weir, power House etc.).
- Methodology used for collection of baseline data be given in a separate chapter which should also include photographic evidence of laying experiments/collection samples in the study area.
- Frequency of sampling and number of sampling for each season be reported in EIA

**A. Baseline Data**

**1. Geological and Geophysical Aspects**

- Geography & physiography of the project area
- Design discharge & its RI (Recurrence interval).
- Regional Geology and structure of the catchment
- Critical review of the geological features around the project area
- Impact of project on geological environment
- Justification for location & execution of the project in relation to structural components (Dam height),
- Structural safety of the barrage against pumping and retrogression failure

**2. Seismotectonics**

- Study of design earthquake parameters
- Site specific study of earthquake parameters should be done. The results of the site specific earthquake design parameters should be sent for approval

of the National Committee of Seismic Design parameters of (NCSDP), CWC

### **3. Hydrology of the basin**

- Hydro-metrology, drainage system
- Intensity of the rainfall of the project site
- Catastrophic events like cloud bursts and flash floods, if any should be documented.
- Water availability for the project and the aquatic fauna.
- Sedimentation (for estimation of Sedimentation rate direct sampling of river flow is to be done during EIA to get actual silt flow rate (to be expressed in ha-m per sq Km per year
- Design discharge and its recurrence interval.

### **4. Biological Resources**

#### **i. Flora**

- Forests and forest types (including protected and ecologically sensitive areas within the project area).
- Vegetation profile, no of species in the project area, etc.
- Community structure in the project site through vegetation mapping.
- Inventorisation of all groups of plants in the study area (algae to angiosperms)
- Species Diversity index (Shanon-Weaver Index) of the biodiversity in the project area as well as plant fossil & phytoplankton .
- Importance value index (IVI) of the predominant species in the project area.
- Documentation of economically important plants, medicinal as well as timber, fuel wood etc.
- Endemic, endangered and threatened species, if any in the project site.
- Impact of impoundment and construction activities on the vegetation.
- Location of any Biosphere Reserve, National Park or Sanctuary in the vicinity of the project, if any.

#### **ii. Fauna**

- Inventorisation of animals in the study area (Protozoa-Mammalia)
- Zoogeographic distribution/affinities
- Endemic threatened and endangered species and animal fossils

#### **iii. Avifauna**

- Status
- Resident/Migratory/passage migrants
- Impact of project on threatened/endangered taxa, if any.

#### **iv. Aquatic Ecology**

- Aqua-fauna like macro-invertebrates, zooplankton, phytoplanktons, benthos

etc, including downstream ecology.

- Conservation Status.

**v. Fish and fisheries**

- Fish migration,if any.
- Breeding grounds
- Impact of diversion weir building on fish migration and habitat degradation.
- Overall ecological impact upto 10 Km d/s from the confluence of the TRT with the river and the impact of untreated and waste water into the river and the alternatives explored.

**5. Estimation of environmental flow for the aquatic species and river morphology.**

**6. Conservation areas and status of the threatened/endangered taxa**

- Biotic Pressures
- Management plan for conservation areas and threatened/endangered taxa.

**7. Remote Sensing & GIS studies**

- Delineation of critically degraded areas in the directly draining catchment on the basis of Silt Yield Index as per the methodology of AISLUS
- Land use and land cover mapping ( FCC satellite Imagery)
- Drainage pattern/map
- Soil map
- Geo-physical features, slope and relief maps
- Demarcation of snow fed and rain fed areas for a realistic estimates of the Water availability.

**8. Socio-economic aspects**

- Land details\*
- Demographic profile.
- Ethnographic Profile
- Economic structure
- Development profile
- Agricultural practices
- Cultural and aesthetics sites
- Infrastructure facilities, education health and hygiene, communication, network, etc. impact on socio-cultural and ethnographic aspects due to weir/dam building.

***\*Report should include list of the entire Project Affected Families with their names, education, land holdings, other properties, occupation, etc.***

## **9. Air Environment**

- Baseline Information on ambient air quality in the project area covering aspects like SPM, RSPM,, SO<sub>2</sub>, NOX
- Noise Environment
- Traffic density in the project area

## **10. Construction Methodology and Schedule**

## **11. Positive as well as negative Impacts likely to accrue due to the project are to be listed.**

### **B. Impact prediction**

#### **Air**

- Changes in ambient levels and ground level concentration due to total emission from point, line and area sources.
- Effects on soils, material, vegetation, and human health.
- If DG sets are to be used during construction period, then the impact on vegetation and air environment.

#### **Noise**

- Changes in ambient levels due to noise generated from equipment, blasting operations and movement of vehicles
- Effect on fauna and human health

#### **Water**

- Changes in quality
- Sedimentation of reservoir
- Impact on fish fauna
- Impact of sewage disposal
- Downstream Impact on water, land & human environment due to drying up of river.

#### **Land**

- Changes in land use and drainage pattern
- Changes in land quality including effects of waste disposal
- Riverbank and their stability
- Impact due to submergence

#### **Biological**

- Deforestation and shrinkage of animal habitat
- Impact on fauna and flora (including aquatic species if any) due to decreased flow of water
- Impact on rare and endangered species, endemic species, and migratory path/route of animals , if any
- Impact on breeding and nesting grounds, if any
- Impact on animal distribution, migration routes ( if any), habitat fragmentation and destruction due to dam building activity

### **Socio-Economic Aspects**

- Impact on the local community including demographic changes
- Impact on economic status
- Impact on human health
- Impact on increased traffic
- Impact on Holy places and Tourism

### **Stake Holders analysis**

- Adverse economic impact on project affected families due to land acquisition etc. Positive impacts like benefits from carbon trading etc.

## **II. ENVIRONMENT MANAGEMENT PLAN (EMP)**

### **1. Catchment Area Treatment Plan**

Delineation of micro-watersheds in the river catchment and mapping of critically degraded areas requiring various biological and engineering treatment measures for entire catchment area. Identification of area for treatment based upon Remote Sensing & GIS methodology and Silt Yield Index (SYI) method of AISLUS coupled with ground survey. The prioritization of watershed for treatment based upon SYI. Spatial Information in each micro watershed should be earmarked on maps in the scale of 1:50,000, The Cat plan should be prepared with year-wise Physical and financial details.

### **2. Creation of Green Belt Plan around the periphery of the Reservoir**

### **3. Biodiversity Management Plan** for conservation and preservation of endemic, rare and endangered species of flora and fauna (in consultation with the State Wildlife Department)

### **4. Fisheries Conservation & Management Plan**

### **5. Compensatory afforestation Programme**

### **6. Resettlement & Rehabilitation (R&R) Plan** along with social/ community development plan R&R Plan should be framed in consultation with the Project Affected Persons (PAPs), Project Authorities and the State Government.

### **7. Muck Disposal Plan** (Suitable sites for dumping of excavated material would be identified in consultation with the State Pollution Control Board and Forest Department)

### **8. Energy Conservation Measures**

- 9. Restoration and landscaping of working Areas:** reclamation of borrow pits (quarry sites) and construction areas.
- 10. Wier/dam break analysis and disaster management plan.**
- 11. Public Health Delivery System** including the provisions for drinking water facility for the local community.
- 12. Solid Waste Management Plan** for domestic waste from colonies and labour camps, etc.
- 13. Water and Air Quality & Noise Environment Management during construction and post-construction periods.**
- 14. Environmental Monitoring Programme (With physical & financial details covering all the aspects from EMP).**
- 15. A Summary of Cost Estimate for all the plans**

Regarding irrigation aspects of the **240 MW KIRTHAI-I Hydro Electric Project in District Kishtwar, JAMMU & KASHMIR**, additional TOR may be suggested by the EAC of Ministry of Environment & Forests, Government of India, during a suggested visit of a sub-group of the committee to the proposed site. After the site visit, if required, additional ToR shall have to be included in the present study.

As per the provision of the EIA Notification of 2006, draft EIA/EMP report as per the above terms of reference shall be submitted to the State Pollution Control Board/Committee for conducting public hearing.

All the issues discussed in the Public Hearing/Public Consultation should be addressed to and incorporated in the final EIA/EMP report and submitted to the Ministry for Environment Clearance.

# SUPPLEMENTARY INFORMATION FOR CONSULTANTS

**Annexure-III**

**SUPPLEMENTARY INFORMATION FOR CONSULTANTS**

**Proposals:**

Proposals will be evaluated according to criteria given in the letter of invitation (LOI) and should include the following information:

**1.1 With Technical Proposals:**

A brief description of the firm (including joint venture consortium member) and an outline of the relevant past experience on assignments / projects of similar nature executed during the last 10 years in the format given in Form F-3.

Any comments or suggestions of the consultant on the Terms of reference as given in Form F-7.

A description of the manner in which consultants would plan to execute the work viz. work plan, time schedule for the key staff proposed to be deployed for this assignment (in Form F-4) and approach / methodology proposed for carrying out the required work along with bar chart.

The composition of the team of personnel which the consultant would propose to provide with the details of name of the key personal, his area of expertise, position and the tasks and duration which would be assigned to each team member in form F-5.

*Curricula Vitae* of the individual staff member to be assigned to the work and of the senior officer in the home office who would be responsible for supervision of the team. The *curricula vitae* should follow the attached Format - F-6.

Estimates of the total time effort that could be provided for the service, supported by the bar-chart diagrams showing the man-months for each of the staff expert of the team.

**1.2 With Financial Proposals:**

All payments pursuant to the cost of providing the consultancy service shall be made in Indian Rupees You may submit your financial proposal on the lump sum basis which you consider appropriate for successful completion of the assignment. Envelope with financial proposals shall contain the details of cost as explained in Para 5.0 of Letter of Invitation and should include the information as given in Form F-8 & F-9.

**1.3** Bids completed in all respects are to be submitted in 3 (Three) copies viz. one

original & two copies.

**1.4** In preparing the proposal, the Consultants should give particular attention to the following:

- (a) Members of the team should have the requisite experience in Technical, financial, legal and preferably handled the similar assignment in hydropower sector. A good working knowledge of English is essential for the personnel working on this assignment. Reports shall be in English and Urdu.
- (b) The majority of the personnel comprising the consultant's team should be drawn from the permanent staff members of the firm.

**1.5 Conflict of Interest:**

The consultant hired to provide services for the proposed assignment, and any of its affiliates, will be disqualified from subsequent services related to the initial assignment for the same project.

FORMAT  
FOR  
TECHNICAL PROPOSAL

**FORM NO. F-I**

**From:**

**To:**

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**Subject:** Consultancy Services for Conducting Environmental Impact Assessment (EIA) surveys & studies and preparation of detailed and comprehensive EIA and Environmental Management Plan (EMP) Reports for the 240 MW KIRTHAI-I HYDRO-ELECTRIC PROJECT, JAMMU & KASHMIR.

**Sir,**

I/we Consultant / Consultancy Firm herewith enclose Technical Proposal for selection of my/our firm as Consultant for \_\_\_\_\_

Yours faithfully,

**Signature:** \_\_\_\_\_

**Full Name :** \_\_\_\_\_

**Address:** \_\_\_\_\_

**FORM NO.F-2**  
**CERTIFICATE AS TO CORPORATE PRINCIPAL**

I \_\_\_\_\_ certify that I am  
\_\_\_\_\_ of the company under the laws of  
\_\_\_\_\_ and that \_\_\_\_\_ who signed the above  
tender is authorized to bind the Company / Firm by authority of its governing body.

**Signature full:** \_\_\_\_\_

**Name and Address :** \_\_\_\_\_

**And Address:** \_\_\_\_\_

\_\_\_\_\_ **(Seal)**

**Form No. F-3**  
**ASSIGNMENTS OF SIMILAR NATURE SUCCESSFULLY COMPLETED**

1. Brief Description of the Firm:

S. No.	Name Assignment (Brief Scope)	Name of project	Owner of sponsoring	Cost assignment	Date of commencement	Date of completion	Was assignment satisfactorily completed
1	2	3	4	5	6	7	8

The firm should also give details of the ongoing similar assignment in the above format.

**Signature:** \_\_\_\_\_

**Full Name :** \_\_\_\_\_

**and address:** \_\_\_\_\_

Note: Please attach documentary proof.

**FORM NO. F.4**

**WORK PLAN TIME SCHEDULE**

Consultant may furnish the work plan, time schedule of the key staff for the various activities and methodology/approach involved in the assignment. The complete process is scheduled to be completed by 15 months from the date of award of contract.

**Signature:** \_\_\_\_\_

**Full Name :** \_\_\_\_\_

**Address:** \_\_\_\_\_

**FORM NO. F.5**

Composition of the team personnel and the task which would be assigned to each team Member for the proposed assignment:

TECHNICAL / FINANCIAL/ LEGAL KEY MEMBERS OF THE TEAM FOR CARRYING OUT THE ASSIGNMENT (including members of Joint Ventures/Consortium member)

S.No	Name	Position	Qualification	Area of Expertise	Duration in man-months	Task Assignment

**Signature:** \_\_\_\_\_

**Full Name :** \_\_\_\_\_

**Address:** \_\_\_\_\_

**SUGGESTED FORMAT OF CURRICULUM VITAE FOR MEMBERS OF  
CONSULTANTS TEAM**

1 Name: \_\_\_\_\_

2 Profession/  
Present Designation: \_\_\_\_\_

3 Years with firm \_\_\_\_\_ Nationality \_\_\_\_\_

4 Area of Specialisation: \_\_\_\_\_

5 Proposed Position on Team: \_\_\_\_\_

6 Key Qualifications: \_\_\_\_\_

(Under this heading give outline of staff members experience and training most pertinent to assigned work on proposed team. Describe degree of responsibility held by staff member on relevant previous assignments and give dates and locations. Use up to half-a-page.)

7 Education:

(Under this heading, summarize College/ University and other specialized education of staff member, giving names of schools, colleges, etc., dates attended and degrees obtained. Use up to quarter page.)

8 Experience

(Under this heading, list of positions held by staff member since graduation, giving dates, names of employing organization, title of positions held and location of assignments. For experience in last ten years also give types of activities performed and Owner references, where appropriate. Use up to three quarters of a page.

9 Language

(Indicate proficiency in speaking, reading and writing of each language by 'excellent', 'good' or 'poor').

**Signature** \_\_\_\_\_  
**Full Name** \_\_\_\_\_  
**Address** \_\_\_\_\_  
**Date:** \_\_\_\_\_

**FORM NO. F-7**

**COMMENTS/SUGGESTIONS OF CONSULTANT**

On the terms of reference

- 1.
- 2.
- 3.

**Signature** \_\_\_\_\_  
**Full Name** \_\_\_\_\_  
**and address** \_\_\_\_\_



# FORMAT FOR

# NANCIAL PROPOSAL

**From:**

**To:**

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Sir,

**Price Bid for providing Consultancy Services for Conducting Environmental Impact Assessment (EIA) surveys & studies and preparation of detailed and comprehensive EIA and Environmental Management Plan (EMP) Reports for the 240 MW KIRTHAI-I HYDRO-ELECTRIC PROJECT, District Kishtwar, JAMMU & KASHMIR.**

I/we \_\_\_\_\_ consultant/ consultancy firm herewith enclose Financial proposal for selection of my/our firm as consultant for \_\_\_\_\_

**Yours Faithfully**

**Signature:** \_\_\_\_\_

**Full Name:** \_\_\_\_\_

**And Address:** \_\_\_\_\_

**FORM NO. F-9**

**SCHEDULE OF PRICE BID**

To be submitted with Financial Offer in Second Envelope)

Consultancy services for the assignment as given in the Terms of Reference for **Conducting Environmental Impact Assessment (EIA) surveys & studies and preparation of detailed and comprehensive EIA and Environmental Management Plan (EMP) Reports for the 240 MW KIRTHAI-I HYDRO-ELECTRIC PROJECT, District Kishtwar, JAMMU & KASHMIR** enclosed with the Bid Document.

Item	Lump Sum Amount	
	In figures	In words
	I	
<b>TOTAL</b>		

Note: 1. The lump sum price should include overhead but of pocket expenses, travel, Boarding, lodging, visits to site etc. inclusive of Taxes Duties.

2. The prices shall remain FIRM till completion of the Assignment

Signature: \_\_\_\_\_

Full Name: \_\_\_\_\_

And Address: \_\_\_\_\_

SAMPLE FORM OF  
CONTRACT  
FOR



**CONTRACT FOR CONSULTANTS' SERVICES SAMPLE**

This **CONTRACT** (hereinafter, together with all Appendices attached hereto and forming an integral part hereof, called the "Contract") is made the ----- day of ----- (Month) of 2009 between J&K State Power Development Corporation Ltd. (JKSPDC) (hereinafter called the "Owner") on one hand and------(hereinafter called the "Consultants") on the other hand (in case of joint venture, each and all of the participating firms will be jointly and severally liable to the Owner for all the Consultants' obligations under this Contract)

**WHEREAS:-**

- (A) The Owner intend to hire consultant to conduct EIA surveys and studies and prepare EIA & EMP plan and assist JKSPDC in obtaining consent/clearance from J&K State Pollution Control Board and Ministry of Environment & Forest, GoI.
- (B) The Owner has requested the Consultants to provide certain consulting services required for the Project as defined hereinafter (hereinafter called the "Services");
- (C) The Consultants, having represented to the Owner that they have the required professional skills, personnel and technical resources have agreed to provide the Services on the terms and conditions set forth in this Contract;

NOW THEREFORE the parties hereto hereby agree as follows:

**1. GENERAL PROVISIONS**

**1.1. Definitions**

Unless the context otherwise requires, the following terms whenever used in this Contract have the following meanings:

- (a) "Applicable Law" means the laws and any other instruments having the force of law in the State of J&K, as they may be issued and in force from time to time;
- (b) "Contract" means this Contract together with all Appendices/Attachments and including all modifications made, in accordance with the provisions of Clauses 2.6 hereof between the owner and the Consultants.
- (c) "Effective Date" means the date on which this Contract comes force and effect pursuant to Clause 2.1 hereof;
- (d) "Personnel" means persons hired by the Consultants or by any Sub-consultant as employees and assigned to the performance of the Services or any part thereof; "Foreign Personnel" means such persons who at the time of being so hired had their domicile outside the Government's country; and "Local Personnel" means such persons who at the time of being so hired had their domicile inside the Government's country;
- (e) "Party" means the Owner or the Consultants as the case may be;
- (f) "Project" means **240 MW KIRTHAI-I HYDRO-ELECTRIC PROJECT IN DISTRICT KISHTWAR, JAMMU & KASHMIR.**

- (g) "Services" means the work to be performed by the Consultants pursuant to this Contract for the purposes of the Project, as described in Appendix A hereto;
- (h) "Starting Date" means the date referred to in Clause 2.3 hereto
- (i) "Sub consultant" means any entity to which the Consultants subcontract any part of the Services in accordance with the provisions of Clause 3.5 hereinafter; and
- (g) "Third Party" means any person or entity other than the Government, the Owner, the Consultants or a Consultant.

## **1.2. Relation between the parties**

Nothing contained herein shall be construed as establishing a relation of master and servant or of agent and principal as between the Owner and the Consultants. The Consultants, subject to this Contract, have complete charge of Personnel performing the Services and shall be fully responsible for the Services performed by them or on their behalf hereunder.

## **1.3. Law Governing Contract**

This Contract, its meaning and interpretation, and the relation between the Parties shall be governed by the Applicable Law prevailing in the J&K State.

## **1.4. Language**

This Contract has been executed in the English language, which shall be the binding and controlling language for all matter relating to the meaning or interpretation of this Contract.

## **1.5. Headings**

The headings shall not limit, alter or affect the meaning of this Contract.

## **1.6. Notices**

- 1.6.1** Any notice, request or consent required or permitted to be given or made pursuant to this Contract shall be in writing. Any such notice, request or consent shall be deemed to have been given or made when delivered in person to an authorized representative of the Party to whom the communication is addressed, or when sent by registered mail, telex, telegram or facsimile to such Party at the following address:

For the Owner: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Attention:  
Cable Address:  
Facsimile:

For the Consultants:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Attention:  
Cable address: \_\_\_\_\_  
Telex:  
Facsimile:

**1.6.2** Notice will be deemed to be effective as follows:

- a. in the case of personal delivery or registered mail, on delivery
- b. in the case of telexes seventy two (72) hours following confirmed Transmission
- c. in the case of telegrams, ninety six (96) hours following confirmed transmission; and
- d. in the case of facsimiles, seventy two (72) hours following confirmed Transmission.

**1.6.3.** A Party may change its address for notice hereunder by giving the other Party notice of such change pursuant to this Clause.

**1.7 Location**

The Services shall be performed at Srinagar / Jammu, project sites in J&K State or at such location required by owner, hereto and, where the location of a particular task is not so specified, at such locations as the Owner may approve.

**1.8 Authority of Member in Charge**

The Members hereby authorize \_\_\_\_\_ to act on their behalf in exercising all the Consultants' rights and obligations towards the Owner under this Contract, including without limitation the receiving of instructions and payments from the Owner.

**1.9 Authorized Representative**

Any action required or permitted to be taken, and any document required or permitted to be executed under this Contract, may be taken or executed:

- (a) on behalf of the Owner by [REDACTED] or his designated representative;
- (b) on behalf of the Consultants by \_\_\_\_\_ or his designated representative.

### **1.10 Taxes and Duties**

The consultants and the personnel shall pay the taxes, duties; fees, levies and other impositions levied under the existing, amended or enacted laws during life of this contract and the Owner shall perform such duties in regard to the deduction of such tax as may be lawfully imposed.

## **2.0 COMMENCEMENT, COMPLETION, MODIFICATION AND TERMINATION OF CONTRACT**

### **2.1 Effectiveness of Contract:**

This Contract shall come into force and effect on the date (the "Effective Date") of the Owner's notice to the Consultants confirming that the following conditions have been met:

- (a) This Contract has been approved by Owner.
- (b) Requisite Advance payment Bank Guarantee in the prescribed format has been submitted.

### **2.2 Termination of Contract for failure to become Effective:**

If this Contract has not become effective within seven (7) days of the date hereof, either Party may, by not less than two weeks (2) weeks' written notice to the other Party, declare this Contract to be null and void, and in the event of such a declaration by either Party, neither Party shall have any claim against the other Party with respect hereto.

### **2.3 Commencement of Services:**

The Consultants shall begin carrying out the Services immediately viz. from the date of issue of LoI/ Letter of Award (the "Starting Date"), or on such date as the Parties may agree in writing.

### **2.4 Expiration of Contract:**

Unless terminated earlier pursuant to Clause 2.9 hereof, this Contract shall terminate' when, pursuant to the provisions hereof, the Services have been completed and the payments of remuneration and reimbursable expenditures have been made.

### **2.5 Entire Agreement:**

This Contract contains all covenants, stipulations and provisions agreed by the Parties. No agent or representative of either Party has authority to make, and the Parties shall not be bound by or be liable for, any statement, representation, promise or agreement not set forth herein.

## **2.6 Modification:**

Modification of the terms and conditions of this Contract, including any modification of the scope of the Services, may only be made by written agreement between the Parties and shall not be effective until the consent of the parties has been obtained. Pursuant to Clause 7.2 hereof, however, each Party shall give due consideration to any proposals for modification made by the other Party.

## **2.7 Force Majeure:**

### **2.7.1. Definition**

- (a) For the purposes of this Contract, "Force Majeure" means an event which is beyond the reasonable control of a Party, and which makes a Party's performance of its obligations hereunder impossible or so impractical as reasonably to be considered impossible in the circumstances, and includes, war, riots, civil disorder, earthquake, fire, explosion, storm, flood or other adverse weather conditions, strikes, lockouts or other industrial action (except where such strikes, lockouts or other industrial action are within the power of the Party invoking Force Majeure to prevent), confiscation or any other action by government agencies.
- (b) Force Majeure shall not include
  - 1) Any event which is caused by the negligence or intentional action of a Party or such Party's Sub-consultants or agents or employees, nor
  - 2) Any event which a diligent Party could reasonably have been expected to both (i) take into account at the time of the conclusion of this Contract, and (ii) avoid or overcome in the carrying out of its obligations hereunder.

### **2.7.2. No Breach of Contract:**

The failure of a Party to fulfill any of its obligations hereunder shall not be considered to be a breach of, or default under, this Contract in so far as such inability arises from an event of Force Majeure, provided that the Party affected by such an event has taken all reasonable precautions, due care and reasonable alternative measures, all with the objective of carrying out the terms and conditions of this Contract.

### **2.7.3 Measures to be taken:**

- (a) A Party affected by an event of Force Majeure shall take all reasonable measures to remove such Party's inability to fulfill its obligations hereunder with a minimum of delay.
- (b) A Party affected by an event of Force Majeure shall notify the other Party

of such event as soon as possible, and in any event not later than fourteen (14) days following the occurrence of such event, providing evidence of the nature and cause of such event, and shall similarly give notice of the restoration of normal conditions as soon as possible.

- (c) The Parties shall take all reasonable measures to minimize the consequences of any event of Force Majeure.

#### **2.7.4 Extension of Time:**

Any period within which a Party shall, pursuant to this Contract, complete any action or task, shall be extended for a period equal to the time during which such Party was unable to perform such action as a result of Force Majeure.

#### **2.7.5. Consultation:**

Not later than thirty (30) days after the Consultants, as the result of an event of Force Majeure, have become unable to perform a material portion of the Services, the Parties shall consult with each other with a view to agreeing on appropriate measures to be taken in the circumstances.

### **2.8. Suspension:**

The Owner may, by written notice of suspension to the Consultants, suspend all payments to the Consultants hereunder if the Consultants fail to perform any of their obligations under this Contract, including the carrying out of the Services, provided that such notice of suspension (i) shall specify the nature of the failure, and (ii) shall request the Consultants to remedy such failure within a period not exceeding thirty (30) days after receipt by the Consultants of such notice of suspension and shall invoke contract performance guarantee.

### **2.9. Termination:**

#### **2.9.1. By the Owner:**

The Owner may, by not less than thirty (30) days' written notice of termination to the Consultants (except in the event listed in paragraph (f) below, for which there shall be a written notice of not less than sixty (60) days), such notice to be given after the occurrence of any of the events specified in paragraphs (a)-through (f) of this Clause 2.9.1, terminate this Contract:

- (a) If the Consultants fail to remedy a failure in the performance of their obligations hereunder, as specified in a notice of suspension pursuant to Clause 2.8 hereinabove, within thirty (30) days of receipt of such notice of suspension or within such further period as the Owner may have subsequently approved in writing;
- (b) If the Consultants become insolvent or bankrupt or enter into any agreements with their creditors for relief of debit or take advantage of any law for the benefit of debtors or go into liquidation or receivership whether compulsory or voluntary;

- (c) If the Consultants fail to comply with any final decision reached as a result of arbitration proceedings pursuant to Clause 8 hereof;
- (d) If the Consultants submit to the owner a statement which has a material effect on the rights, obligations or interests of the Owner and which the Consultants know to be false;
- (e) If, as the result of Force Majeure, the Consultants are unable to perform a material portion of the Services for a period of not less than sixty (60) days; or
- (f) If the Owner, in its sole discretion and for any reason whatsoever, decides to terminate this Contract.

#### **2.9.2. Cessation of Rights and Obligations:**

Upon termination of this Contract pursuant to Clauses 2.2 or 2.9 hereof, or upon expiration of this Contract pursuant to Clause 2.4 hereof, all rights and obligations of the Parties hereunder shall cease, except

- (a) Such rights and obligations as may have accrued on the date of termination or expiration,
- (b) The obligation of confidentiality set forth in clause 3.2 hereof,
- (c) Any right which a Party may have under the applicable law

#### **2.9.3. Cessation of Services:**

Upon termination of this Contract by notice to pursuant to Clauses 2.9 hereof, the Consultants shall, immediately upon dispatch or receipt of such notice, take all necessary steps to bring the Services to a close in a prompt and orderly manner and shall make every reasonable effort to keep expenditures for this purpose to a minimum.

#### **2.9.4. Payment upon Termination:**

Upon termination of this Contract pursuant to Clauses 2.9 hereof, the 'Owner shall make the following payments to the Consultants:

- (a) Remuneration pursuant to Clause 6 hereof for Services satisfactorily performed prior to the effective date of termination:
- (b) Reimbursable expenditures pursuant to Clause 6 hereof for expenditures actually incurred prior to the effective date of termination; and
- (c) Except in the case of termination pursuant to paragraphs (a) through (d) of Clause 2.9 hereof, reimbursement of any reasonable cost incident to the prompt and orderly termination of the Contract including the cost of the return travel of the Consultants' personnel an'd their eligible dependents

### **3.0 OBLIGATIONS OF THE CONSULTANTS**

#### **3.1 General**

##### **3.1.1 Standard of Performance**

The Consultants shall perform the Services and carry out their obligations hereunder with all due diligence, efficiency and economy, in accordance with generally accepted techniques and practices used with professional engineering and consulting standards recognized by professional bodies, and shall observe sound management, and technical and engineering practices, and employ appropriate advanced technology and safe and effective equipment, machinery, materials and methods. The Consultants shall always act, in respect of any matter relating to this Contract or to the Services, as faithful advisers to the Owner, and shall at all times support and safeguard the Owner's legitimate interests .

##### **3.1.2 Law Governing Services**

The Consultants shall perform the Services in accordance with the Applicable Law prevailing in the State of J&K and shall take all practicable steps to ensure that any Sub-consultants, as well as the Personnel and agents of the Consultants and any Sub consultants, comply with the Applicable Law prevailing in the State of J&K.

##### **3.1.3 Conflict of Interest**

The consultant shall hold the Owner's interest paramount, without any consideration for future work, and strictly avoid conflict with other assignments or their corporate interests.

##### **3.2.1 Consultants not to benefit from Commission, Discounts etc.**

The payment of the Consultant shall constitute the Consultant's only payment in connection with this Contract or the Services, and the Consultant shall not accept for their own benefit any trade commission, discount, or similar payment in connection with activities pursuant to this Contract or to the Services or in the discharge of their obligations under the Contract, and the Consultant shall use their best efforts to ensure that the Personnel, any Sub-Consultants, and agents of either of them similarly shall not receive any such additional payment.

##### **3.2.2 Consultants and Affiliates not to be otherwise interested in Project**

The Consultant agrees that, during the term of this Contract and after its termination, the Consultant and any entity affiliated with the Consultant, as well as any Sub-Consultants and any entity affiliated with such Sub-Consultants, shall be disqualified from providing goods, works or services (other than consulting services) resulting from or directly related to the Consultant's Services for the preparation or implementation of the project.

##### **3.2.3 Prohibition of Conflicting Activities:**

The Consultant shall not engage, and shall cause their Personnel as well as their Sub Consultants and their Personnel not to engage, either directly or indirectly, in

any business or professional activities which would conflict with the activities assigned to them under this Contract.

#### **3.2.4 Confidentiality:**

The Consultants, their Sub-consultants and the Personnel of either of them shall not, either during the term or within two (2) years after the expiration of this Contract, disclose any proprietary or confidential information relating to the Project, the Services, this Contract or the Owner's business or operations without the prior written consent of the Owner.

#### **3.3 Insurance to be taken out by the Consultant:**

The Consultant (a) shall take out and maintain, and shall cause any Sub-Consultants to take out and maintain, at their (or the Sub-Consultants', as the case may be) own cost but on terms and conditions approved by the Owner, insurance against the risks, and for the coverage, as shall be specified in the SC; and (b) at the Owner's request, shall provide evidence to the Owner showing that such insurance has been taken out and maintained and that the current premiums have been paid.

#### **3.4 Liability of the Consultants**

The Consultants shall be liable to the Owner for the performance of the Services in accordance with the provisions of this Contract (Note: If the Consultants consist of more than one entity, this should be changed to read: "The Consultants and each of their Members shall be jointly and severally liable to the Owner for the performance of the Services ... ) and for any loss suffered by the Owner as a result of a default of the Consultants in such performance, subject to the following limitations:

- (a) The Consultants shall not be liable for any damage or injury caused by or arising out of the act, neglect, default or omission of any persons other than the Consultants, its Sub-consultants or the Personnel of either of them; and
- (b) The Consultants shall not be liable for any loss or damage caused by or arising out of circumstances over which the Consultants had no control.
- (c) In the event that the Consultant is in default of his duties in performance of the services as envisaged in the Contract Agreement, the Consultant shall redo, rectify all defects, inadequacies and insufficiencies pointed out by Owner and authorities before whom the report(s) is submitted within a period of 15 days from the date on which such defects, deficits etc have been communicated to the consultant verbally or in writing as the case may be.

#### **3.5 Indemnification of the Owner by the Consultants**

The Consultants shall keep the Owner, both during and after the term of this Contract, fully and effectively indemnified against all losses, damage, injuries, deaths, expenses,

actions, proceedings, demands, costs and claims, including, but not limited to, legal fees and expenses, suffered by the Owner or any Third Party, where such loss, damage, injury or death is the result of a wrongful action, negligence or breach of Contract of the Consultants or their Sub-consultants; or the Personnel or agents of either of them, including the use or violation of any copyright work or literary property or patented invention, article or appliance.

### **3.6 Consultants Actions Requiring Owner's Prior Approval:**

The Consultants shall obtain the Owner's prior approval in writing before taking any of the following actions:

- (a) Appointing Personnel to carry out any part of the Services, including the terms and conditions of such appointment;
- (b) Entering into a subcontract for the performance of any part of the Services, it being understood:
  1. That the selection of the Sub-consultant and the terms and conditions of the subcontract shall have been approved in writing by the Owner prior to the execution of the subcontract, and
  2. That the Consultants shall remain fully liable for the performance of the Services by the Sub-consultant and its Personnel pursuant to this Contract;

### **3.7 Reporting Obligations:**

The Consultants shall submit to the Owner the reports and documents specified in Appendix B hereto, in the form, in the numbers and within the time periods set forth in the said Appendix, including any supporting data required by the Owner

### **3.8 Documents Prepared by the Consultants to Be the Property of the Owner**

All plans, drawings, specifications, designs, reports and other documents prepared by the Consultants in performing the Services shall become and remain the property of the Owner, and the Consultants shall, not later than upon termination or expiration of this Contract, deliver all such documents to the Owner, together with a detailed inventory thereof. The Consultants may retain a copy of such documents but shall not use them for purposes unrelated to this Contract without the prior written approval of the Owner.

## **4.0 CONSULTANTS' PERSONNEL**

### **4.1 General**

The Consultants shall employ and provide such qualified and experienced Personnel as are required to carry out the Services

### **4.2 Description of Personnel**

- (a) The titles, agreed job descriptions, minimum qualifications and estimated periods of engagement in the carrying out of the Services of each of the Consultants' Personnel are described in Appendix C.
- (b) If required to comply with the provisions of Clause 3.1.1 of this Contract, adjustments with respect to the estimated periods of engagement of Personnel set forth in Appendix C may be made by the Consultants by written notice to the Owner, provided:
  - (1) That such adjustments shall not alter the originally estimated period of engagement of any individual by more than 10% or one week, whichever is larger, and
  - (2) That the aggregate of such adjustments shall not cause payments under this Contract to exceed the ceilings set forth in Clause 6.2 of this Contract. Any other such adjustments shall only be made with the Owner's written approval.
- (c) If additional work is required beyond the scope of the Services specified in Appendix A, the estimated periods of engagement of Personnel set forth in Appendix C may be increased by agreement in writing between the Owner and the Consultants, provided that any such increase shall not, except as otherwise agreed, cause payments under this Contract to exceed the ceilings set forth in Clause 6 of this Contract.

#### **4.3 Agreed Personnel**

The Consultant hereby agrees to engage the personnel and sub-consultants listed by title as well as by name in Appendix C in order to fulfill his contractual obligations under this contract.

#### **4.4 Removal and/or Replacement of Personnel**

- (a) Except as the Owner may otherwise agree, no changes shall be made in the Personnel. If, for any reason beyond the reasonable control of the Consultants, it becomes necessary to replace any of the Personnel, the Consultants shall forthwith provide as a replacement a person of equivalent or better qualifications.
- (b) If the Owner
  - (1) Finds that any of the Personnel has committed serious misconduct or has been charged with having committed a criminal action, or
  - (2) Has reasonable cause to be dissatisfied with the performance of any of the Personnel, then the Consultants shall, at the Owner's written request specifying the grounds therefore, forthwith provide as a replacement a person with qualifications and experience acceptable to the Owner.
- (c) Any of the Personnel provided as a replacement under Clauses (a) and (b)

above, the rate of remuneration applicable to such person as well as any reimbursable expenditures (including expenditures due to the number of eligible dependents) the Consultants may wish to claim as a result of such replacement, shall be subject to the prior written approval by the Owner. Except as the Owner may otherwise agree,

- (1) The Consultants shall bear all additional travel and other costs arising out of or incidental to any removal and/or replacement, and
- (2) The remuneration to be paid for any of the Personnel provided as a replacement shall not exceed the remuneration which would have been payable to the Personnel replaced.

## **5.0 Obligations of the Owner:**

### **5.1 Payment**

In consideration of the Services performed by the Consultants under this Contract, the Owner shall make to the Consultants such payments and in such manner as is provided by Clause 6 of this contract.

### **5.2 Services and Facilities**

The Owner shall make available free of charge to the Consultant the Services and Facilities listed under Appendix D.

## **6.0 Payment to the Consultants:**

**6.1** An all inclusive cost of services and ceiling contract value payable in Indian Rupees is set forth in Appendix C.

### **6.2 Mode of Payment**

Payments will be made by the Owner to the consultant as follows:

(i) Payments will be made by the Owner to the successful bidder herewith referred to as the Consultant in the following manner:

(i) 40% of the Contract Value of this Consultancy - After submission of Draft EIA /EMP report to the State Pollution Control Board in English and Urdu vernacular

(iii) 20% of the Contract Value of this Consultancy - After successfully conducting public hearings /public consultations and assisting in obtaining clearance for establishment from State Pollution Control Board of J&K

(iv) 20% of the Contract Value of this Consultancy - On submission of Final EIA/EMP report to Ministry of Environment & Forests, Government of India for consideration of clearance from Ministry of Environment & Forests, Government of India, GoI after incorporating issues discussed in Public Hearings/Public Consultations

(v) 10% of the Contract Value of this Consultancy – On JKSPDC obtaining Environmental Clearance from Ministry of Environment & Forests,

Government of India, GoI for which consultant shall provide necessary assistance .

(vii) 10% of the Contract Value of this Consultancy - After completion of *the* assignment to the satisfaction of the Owner.

**6.3** The Consultant shall submit the bills in triplicate to the Owner on firms printed bill forms indicating the work done by him during the period for which payment is sought.

**6.4** The Owner shall cause the payment of the Consultants as per above given in schedule of payment above within sixty (60) days after the receipt by the Owner of bills with supporting documents. But if the progress is not satisfactory and according to agreed work program/schedule the payment may be withheld.

**6.5** The final payment under this Clause shall be made only after satisfactory completion of the activities mentioned in the TOR is completed.

**6.6** All payments under this Contract shall be made to the account of the Consultants with:

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## **7.0 Fairness and Good Faith:**

### **7.1 Good Faith:**

The Parties undertake to act in good faith with respect to each other's rights under this Contract and to adopt all reasonable measures to ensure the realization of the objectives of this Contract.

### **7.2 Operation of the Contract:**

The Parties recognize that it is impractical in this Contract to provide for every contingency which may arise during the life of the Contract, and the Parties hereby agree that it is their intention that this Contract shall operate fairly as between them, and without detriment to the interest of either of them, and that, if during the term of this Contract either Party believes that this Contract is operating unfairly, the Parties will use their best efforts to agree on such action as may be necessary to remove the cause or causes of such unfairness, but no failure to agree on any action pursuant to this Clause shall give rise to a dispute subject to arbitration in accordance with Clause 8 hereof.

## **8.0 SETTLEMENT OF DISPUTES**

### **8.1 Amicable Settlement**

The Parties shall use their best efforts to settle amicably all disputes arising out of or in connection with this Contract or the interpretation thereof. Any dispute between the parties as to matters arising pursuant to this Contract which cannot be settled amicably

shall be resolved as per the J&K Arbitration & Conciliation Act, 1997 as amended from time to time. Jurisdiction of J&K Courts will apply.

IN WITNESS WHEREOF, the Parties hereto have caused this Contract to be signed in their respective names as of the day and year first above written.

**For and On Behalf of (Owner)**

**By** \_\_\_\_\_  
**Authorised Representative**

**Witness:**

- 1.**
- 2.**

**For and On Behalf of (Consultants)**

**By** \_\_\_\_\_  
**Authorised Representative**

**Witness:**

- 1.**
- 2.**

**SAMPLE LIST OF APPENDICES TO FORM PART OF THE  
CONTRACT**

**A- Description of the Services**

Detailed descriptions of the Services to be provided; dates for completion of various tasks; place of performance for different tasks; specific tasks **to** be approved by Owner; etc.

**B- Reporting requirements**

Format, frequency and contents of reports; persons to receive them; dates of submission; etc.

**C- Consultants' Personnel**

Titles and names (if already available), detailed job descriptions and minimum qualifications of Personnel to be assigned to work in the Government's country, and man-months for each.

**D- Duties of the Owner**

Service, facilities and properties to be made available **to** the consultants by the owner

**E- Cost of Services**

Cost of Services

## **APPENDIX-A**

### **DESCRIPTION OF SERVICES**

The purpose of this assignment is to conduct Environmental Impact Assessment (EIA) surveys & studies and prepare detailed and comprehensive EIA report and Environmental Management Plan (EMP) for **240 MW KIRTHAI-I HYDRO-ELECTRIC PROJECT, JAMMU & KASHMIR** on the basis of Terms of Reference (ToR), approved by Ministry of Environment and Forest (Ministry of Environment & Forests, Government of India) Government of India (GoI) .

The study must conform to the existing standard guidelines read with orders/circulars/policies of Central/State Government governing such study/plan issued from time to time. The assignment also entails assisting the Corporation in obtaining consent/clearance from State Pollution Control Board and Ministry of Environment & Forests, Government of India, GoI.

## **APPENDIX-B**

### **REPORTING REQUIREMENTS**

- a. Draft detailed EIA & EMP Report with executive summary as required : 12 months after letter of award
- b. Final detailed EIA report & EMP report (10 copies) with executive summary as required : 15 months after letter of award

In case additional copies (more than 15) are required by the owner the same will have to be provided by the Consultant for which actual cost incurred on preparation of the copies i.e. printing, binding etc shall be reimbursed to the Consultant. The consultant shall also have to submit soft copy of the final studies & reports to the owner.

**APPENDIX-C**  
**CONSULTANTS' SUBCONSULTANTS AND KEY PERSONNEL**

**APPENDIX-D**  
**DUTIES OF THE OWNER**

The consultants shall have to make their own arrangements for completion of the assignments.

**APPENDIX-E**

**(Cost of services)**

