

OFFICE OF THE EXECUTIVE ENGINEER ELECTRIC CONSTRUCTION DIVISION
KARNAH

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NIT NO: EC DK/07 of 2011-12
Date: 19-10-2011

Invitation to Bid

For & on behalf of Managing Director JKSPDC, Sealed bids in Single drop, **Three Envelope System (Prequalification, Techno- Commercial & Price Bid)** are invited from eligible bidders for **Commissioning of 2X175 KW Micro Hydel Project Matchill** comprising of two number identical horizontal units 175 KWs along with 2Nos. 250 KVA 3-phase transformers and other allied accessories, equipment & materials. The Scope of the work is as follows:

Proposal-I

Erection, Testing & Commissioning of 2X175 KW TG Sets utilizing Equipment/ machinery available with JKSPDC:

JKSPDC has procured some machinery for 2x175 KW Hydro Power Generating Station at Matchil which is stored at Arampora Grid Station. The Corporation is desirous of utilizing these Equipments with the Procurement, Installation, Testing and Commissioning of balance Equipment required for commissioning of these units at Matchil with evacuation of Power upto switch yard of the Power House. The Scope of work is:-

a) Erection, Testing & Commissioning of the following Equipments available with JKSPDC for commissioning of 2x175 KW units at Matchill. The bidder shall ascertain the healthiness of these equipments & quote for item wise reconditioning / refurbishment if any required for these items. For this purpose the bidder is required to visit the storage site of already procured machinery at Arampora Grid Station in District Kupwara (J&K). The visit shall be facilitated by JKSPDC on request. The detail of available machinery is as under:-

S.No	Particulars of material	Quantity
01 a)	Scroll Case	02 Sets
b)	Guide Apparatus	02 Sets
c)	Shaft & Bearing Assembly	02 Sets
d)	Turbine Runner	02 Sets

e)	Draft Tube & Cone	02 Sets
f)	Fly wheel	02 Sets
02(a)	Speed increasing Gear Box	02 Nos
b)	Lubricating oil system	
03 a)	500mm Long Transition Pieces	02 Nos
b)	Inlet Butterfly valve complete	
04(a)	A.C Generator & Complete Exciter	02 Nos
b)	Voltage Regulator	
c)	SCR 1.0 Frequency Generator	02 Nos
d)	RTD for Generator	02 Nos
05	Initial spares	
a)	Rotating Rectifier Assembly	1 Set
b)	Diodes for RRA	6 Nos
c)	Diode fuse for RRA	6 Nos

b) Design, Engineering, Manufacture, Supply, Erection, Testing & Commissioning of the balance equipment/machinery compatible with available machinery as required for successful commissioning of 2x175 KW MHEP Matchil. JKSPDC envisages supply, erection, testing & commissioning of the following equipments/ machinery: -

S.No	Particulars of material	Quantity
01	Gear Coupling (Turbine & Gear box)	02 Sets
02 (a)	Governor Electronic Controller	02 Nos
(b)	Governor Electronic Activator	
(c)	Speed Sensing Device	
(d)	Distribution Valve	
03 (a)	Oil Pumping Pressure Unit	02 Nos
(b)	Black Starter provision of hand pump	02 Nos
04 (a)	Speed monitor	02 Nos
(b)	Cooling Water System Complete	02 sets
(c)	Gear box & Generator Coupling	02 Nos
05 (a)	Dewatering Pump	01 No
06 (a)	L T Control panel (GRMP cum Breaker)	02 sets
07 (a)	LT cable 1.1 KV grade, AC Conductor covered PVC 3 core X 4mm Sq.	1 lot
(b)	4 core X 10 mm sq.	1 lot
(c)	1 core X 240 mm Sq.	1 lot
(d)	Control cable 1.5 mm Sq	1 Lot
08 (a)	DC Battery bank 58V	1 Set
(b)	Battery charger & Distribution Board	

09 (a)	Initial spares	1 Lot
(b)	Other spares	1 Lot
10 (a)	Special Tools & Tackles	1 lot
11 (a)	All consumables including oils for complete erection, initial running & commissioning.	L.S
12	Transformer Accessories & Control Panel (TACP)	2 Nos
13	Power Transformer 0.433/11 KV, 250 KVA	2 Nos
14	11 KV VCBs (2 Incomer, 2 O/G & 1 auxiliary)	5 Nos (1 set)
15	Bus PTs	6 Nos
16	LT AC Panel	1 No
17	25 KVA DG Set	1 No
18	Synchronizing panel (11 KV Side)	1 No
19	Generator bed plate & foundation	2 sets
20	Gear box bed plate & foundation bolts	2 sets
21	Turbine sole plate & foundation bolts	2 sets
22	Penstock & turbine drain valves & pipes	2 sets
23	Auxiliary transformer 11/0.433 KV, 25 KVA	1 No
24	11 KV Cables & termination kit	1 lot
25	RTD For Hydro Generator	6 Nos
26	Rotating Rectifier Assembly	1 set
27	Diodes for RRA	6 Nos
28	Diode fuse for RRA	6 Nos
29	AVR/ Excitation panels	2 Sets
30	By pass pressure balancing system	2 Sets
31	Oil pipeline fitting & hose	1 Lot

However, bidders may identify the balance equipment if any required for successful commissioning 2x175 KW Generating Station and quote accordingly.

c) Erection Tools & Tackles required for successful commissioning of the power plant.

d) Mandatory Spares in respect of various equipments listed in (a), (b) & (c) above.

e) First fill and extra of consumables as required such as CO₂, Oils & lubricants, filling compounds, touch up paint, essential chemicals etc.

The scope is only indicative. Any item not included in the scope of work but is necessary for successful completion / functioning of the project shall be deemed to have been included in the scope of work. The aim is to utilise the existing machinery after reconditioning/ refurbishment as required & design, engineering, manufacture, supply of the balance equipment necessary for installation, testing & commissioning of 2x175 KW units at Matchill with delivery of power at

switchyard. The bidder is required to visit the storage site of already procured machinery at Arampora Grid Station for inclusion of this machinery in their offer after reconditioning required if any. The visit of the desirous bidders shall be facilitated by JKSPDC on request. (The detail of available machinery is included in tender documents along with the balance machinery required for successful commissioning of 2X175 KW MHEP Matchill as envisaged by JKSPDC).

The Bidder in his own interest shall familiarize himself with the prevailing Operating Mechanism /Evacuation of Power /Architecture / Available Space for various Equipments to be installed as per the bidding document in the Power House to facilitate in the design of equipments offered. No structural modification in Civil Works shall be allowed, except expansion of space, if any required.

Proposal-II

Supply, Erection Testing & Commissioning of Complete new material/ Equipment & Machinery for commissioning of 2x175 KW MHEP Matchill:

The bidder may quote for the supply, erection, testing & commissioning of the complete new equipment/machinery as required for commissioning of 2X175 KW MHEP Matchil. JKSPDC envisages supply erection testing & commissioning of the following equipments/ machinery:

SNo	Particulars of material	Quantity
01 a)	Scroll Case	02 Sets
b)	Guide Apparatus	02 Sets
c)	Shaft & Bearing Assembly	02 Sets
d)	Turbine Runner	02 Sets
e)	Draft tube & Cone	02 Sets
f)	Fly wheel	02 Sets
02(a)	Speed increasing gear box	02 Nos
b)	Lubricating oil system	
03 a)	500mm Long Transition pieces	02 Nos
b)	Inlet Butterfly valve complete	
04(a)	A.C Generator & complete Exciter	02 Nos
b)	Voltage Regulator	
c)	SCR 1.0 Frequency Generator	02 Nos
d)	RTD for Generator	02 Nos
05	Initial spares	
a)	Rotating Rectifier Assembly	1 Set
b)	Diodes for RRA	6 Nos

c)	Diode fuse for RRA	6 Nos
06	Gear Coupling (Turbine & Gear box)	02 Sets
07 (a)	Governor Electronic Controller	02 Nos
(b)	Governor Electronic Activator	
(c)	Speed Sensing Device	
(d)	Distribution Valve	
08 (a)	Oil Pumping pressure Unit	02 Nos
(b)	Black Starter provision of hand pump	02 Nos
09 (a)	Speed monitor	02 Nos
(b)	Cooling Water System Complete	02 sets
(c)	Gear box & Generator Coupling	02 Nos
10 (a)	Dewatering Pump	01 No
11 (a)	L T Control panel (GRMP cum Breaker)	02 sets
12 (a)	LT cable 1.1 KV grade, AC Conductor covered PVC 3 core X 4mm Sq.	1 lot
(b)	4 core X 10 mm sq.	1 lot
(c)	1 core X 240 mm Sq.	1 lot
(d)	Control cable 1.5 mm Sq	1 Lot
13 (a)	DC Battery bank 58V	1 Set
(b)	Battery Charger & Distribution Board	
14 (a)	Initial spares	1 Lot
(b)	Other spares	1 Lot
15 (a)	Special tools & Tackles	1 lot
16 (a)	All consumables including oils for complete erection, initial running & commissioning.	L.S
17	Transformer Accessories & Control Panel (TACP)	2 Nos
18	Power Transformer 0.433/11 KV, 250 KVA	2 Nos
19	11 KV VCBs (2 Incomer, 2 O/G & 1 auxiliary)	5 Nos (1 set)
20	Bus PTs	6 Nos
21	LT AC Panel	1 No
22	25 KVA DG Set	1 No
23	Synchronizing panel (11 KV Side)	1 No
24	Generator bed plate & foundation	2 sets
25	Gear box bed plate & foundation bolts	2 sets
26	Turbine sole plate & foundation bolts	2 sets
27	Penstock & turbine drain valves & pipes	2 sets
28	Auxiliary Transformer 11/0.433 KV, 25 KVA	1 No
29	11 KV Cables & Termination Kit	1 lot
30	RTD For Hydro Generator	6 Nos
31	Rotating Rectifier Assembly	1 set
32	Diodes for RRA	6 Nos
33	Diode fuse for RRA	6 Nos

34	AVR/ Excitation panels	2 Sets
35	By pass pressure balancing system	2 Sets
36	Oil pipeline fitting & hose	1 Lot

Detailed Technical Specifications of the machinery are given in the tender documents Volume-II

The Scope in this case shall Comprise of:-

- a) Design, Engineering, Manufacture, Supply, Transportation to Project Site, Insurance, Storage, Handling at site, unloading, Erection, Testing and commissioning of 2x175 KW Horizontal units along with control, protection, metering, annunciation, cooling, dewatering, lubricating, hydraulic, gearing, pressure & allied systems as listed above.
- b) Design, Engineering, Manufacture, Supply, Transportation to Project Site, Insurance, Storage, Handling at site, unloading, Erection, Testing and Commissioning of 2Nos. 433V/11KV, 250 KVA 3-Ø Power Transformers along with accessories including other equipments and machinery, Circuit Breakers ; Isolators with or without earth switch(s); Instrument Transformers – CTs & PTs; Surge Arrester; C&R Panels with all necessary instruments, relays, meters, switches, internal wiring and other miscellaneous equipment; Battery Bank & Battery Charger; AC/DC distribution boards; Automatic Voltage Stabilizer (AVR) Power & Control cables, Cable trays; Bus-Bars, Conductor & Conductor accessories; Clamps & Connectors; Post Insulators & Insulator Hardware; Shield wire / Ground wire and accessories; Earthing & Grounding conductor, Marshalling Kiosks, etc.
- c) Design, Engineering, Manufacture, Supply, Transportation to Project Site, Insurance, Storage, Handling at site, unloading, Erection, Testing and Commissioning of:-
 - i) Galvanizing, Painting and Welding etc. where ever required.
 - ii) Supply of all Erection Tools & Tackles
 - iii) Supply of Mandatory Spares in respect of various equipment / material as listed in the document.
 - iv) Any other equipment /material required for completion of entire job.

The scope given above is only indicative, complete details of scope of work are covered under various sections of Volume-II-Technical Specifications.

d) Any item not included in the scope of work but necessary for successful completion / functioning of the project shall be deemed to have been included in the scope of work & needs to be quoted accordingly.

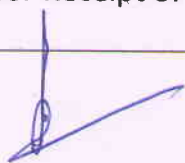
The bidders may quote for both the proposals to enable JKSPDC to analyse the offers technically, commercially & financially to decide for the most viable option. The bidder may propose for any improvement in technical specifications. A pre bid conference is proposed to be held in this regard.

A brief description of the salient features of this Project is as under:-

Location	Village Dudhi, Matchil
Tehsil / District	Kupwara (J&K)
Net Head	12.0 M
Designed Discharge	4.0 Cumecs
Capacity	350 KW's
No. and Size of Units	2 of 175 KW each

Bidding documents are non transferable & can be obtained by intending bidders or their authorized representatives on submission of a written application & on payment of non-refundable amount in the shape of Demand Draft from the office of the **Chief Engineer Generation Wing JKSPDC, Bemina Srinagar J&K** as per the following schedule. Issuance of bidding documents, however, shall not automatically mean that such firms fulfill/ meet the qualifying requirements.

Inspection & Sale of Bidding Documents	From 31-10-2011 to 30-11-2011 between 10 A.M to 4 PM on all working days.
Cost of Bidding Documents.	Rs. 5000/=(In the shape of Crossed Demand Draft drawn in favour of Chief Pay and Accounts Officer PDC Unit Baramulla Kashmir, J&K
Inspection of already procured machinery at Arampora Grid Station.	From 31-10-2011 to 30-11-2011 between 10 A.M to 4 PM on all working days.
Last Date & Time for Receipt of Tenders	10-12-2011 till 2.00 PM
Date & Time of Opening of Prequalification Bid	10-12-2011 at 3.00 PM or any other subsequent date convenient to tender opening authority.
Venue for Receipt of Tenders	Office of the Chief Engineer Generation Wing JKSPDC Bemina Srinagar Kashmir J&K




The detailed Pre-qualification Requirements are given in the Bidding Documents of the subjected work.

Bids should be delivered to the Chief Engineer Generation Wing JKSPDC, Srinagar Kashmir at the address mentioned in the bidding documents. Bids will be received & opened in presence of bidders/their authorized representatives who may wish to be present at the time of opening of bids.

JKSPDC will not be responsible for misplacement/delay in receipt of request for issuance of bidding documents sent by post.

The Decision with respect to opting for any of the two Proposals (I or II) shall be at the sole discretion of JKSPDC based on the techno commercial & financial analysis of the proposals received from bidders. The bidder shall have no say in this regard except providing the necessary techno-commercial inputs/information including technical presentations to facilitate the decision making.

Prequalification Criteria:-

1. Technical Criteria:

The Bidder must be in the business of relevant field for the last 5 (Five) years, with Planning, Design, Engineering, Supply, Erection, Testing and successful Commissioning of at least:-

- i) One Micro-Hydel Project of capacity not less than 300 KW.

OR

- ii) Two Micro Hydel Projects of capacity not less than 150 KW each.
The same should be in successful operation for the last one year.

2) Financial Criteria

Minimum Average Annual Financial Turnover of the last three (3) consecutive years should be INR 100 Lacs or equivalent foreign currency.

Documentary Evidence in support of the Technical and Financial capabilities should be furnished as a proof with the respective bidding documents.

Earnest Money Deposit:

An Earnest Money Deposit (EMD) of Rs. 2.00 Lacs in the shape of CDR/FDR/Bank Guarantee from any Nationalized Bank drawn in favour of Chief Engineer Generation Wing, JKSPDC Bemina Srinagar-Kashmir must be furnished with the techno commercial bid. The bidder should enclose the earnest money equivalent to the balance amount beyond Rs. 2.00 Lacs along with his price bid in a separate envelope which shall be opened at the time of opening of price bids.

This additional amount should be equivalent to the difference if any between 2% of quoted price & Rs. 2.00 Lacs enclosed with techno-commercial bids.

All correspondence/ communication including those pertaining to purchase of bidding documents, inspection of machinery at Arampora Grid Station & submission of bids with regard to the above shall be made at the following address:

**Chief Engineer
Generation Wing JKSPDC
Bemina Srinagar Kashmir
E-Mail:cegenkmr@gmail.com
Phone: 0194-2493140**

JKSPDC reserves the right to modify, cancel/ withdraw the NIT or a part thereof, without assigning any reason. Such decision consequently will not incur any liability whatsoever on part of JKSPDC.


**Executive Engineer
Electric Construction Division
Karnah.**

No: ECDK/714-733

Date: 19-10-2011

Copy To:

- 1) Managing Director J&KSPDC for favour of information.
- 2) Advisor cum Consultant Corporate office JKSPDC Srinagar for information.
- 3) Chief Engineer Generation Wing Kashmir JKSPDC for information.
- 4) Chief Engineer Civil Investigation Division Kashmir for information.
- 5) Director Finance JKSPDC for information.
- 6) Superintending Engineer Generation Circle-1 PDC Baramulla for information.
- 7) Chief Pay & Accounts Officer JKSPDC Baramulla for information.
- 8) Company Secretary JKSPDC for information with the request for hosting the NIT on official website of JKSPDC.
- 9) Joint Director Information for publishing the Gist of NIT in at least two leading National and local English news papers for wide publicity.
- 10) Programme Director Door Darshan Srinagar /AIR for telecasting/
Broadcasting the notice through electronic media.



13-14) Assistant Executive Engineer Power house/ Stores/ Civil subdivisions
for information.

15) M/S Andritz Hydro

16) M/S HPP

17) M/S Jyoti

18) M/S Kirloskar

19) Notice board


Executive Engineer
 Electric Construction Division
Karnah.