

POWER DEVELOPMENT CORPORATION

OFFICE OF THE EXECUTIVE ENGINEER

CIVIL MAINTENANCE DIVISION LJHP GANTAMULLA – BARAMULLA

- 1. Tender Document for:** *Essential Civil Works for Renovation, Modernization, and Up-rating of Lower Jehlum Hydel Project Gantamulla Baramulla (J&K) State*
- 2. Approximate Amount of Work** *Rs. 17.64 crores*
- 3. Tender Notification No:** *CMD/ LJHP/ Wks/ tender/ RMU/ 01 / 09*
Dated: 26-05-09
Issued vide No: CMD/ LJHP/ Wks/ RMU/ 1056-72
Dated 26-05-09
- 4. Issued by:** *For & on behalf of the Managing Director, Jammu & Kashmir Power Development Corporation*

***Executive Engineer
Civil Maintenance Division
LJHP Gantamulla Baramulla***

Price Rs _____ (Rupees _____)

Sold to:-

1. **M/s** _____
S/o _____
R/o _____

Issued Tender Document against a Demand Draft No. _____ Dated:
_____ for Rs _____ on _____
containing _____ pages.

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JAMMU & KASHMIR POWER DEVELOPMENT CORPORATION

OFFICE OF THE EXECUTIVE ENGINEER

CIVIL MAINTENANCE DIVISION LJHP GANTAMULLA – BARAMULLA

TENDER FORM

Note: - *Tenders not accompanied with the Call Deposit Receipt will not be entertained at all, Cheque, Cash, Bank Guarantee will not be accepted. Tenders have reference of previous CDR deposited by the tenderer for some different works other than this division lying with the department whether free from encumbrances or nor will be rejected.*

The validity of tender shall be 180 (One Hundred Eighty Days) only.

Note: - *The tenderers are advised to read thoroughly the terms and conditions of the tender document and also have a spot inspection of the site.*

Issued by

For and on behalf of the Managing Director, JKPDC Srinagar/ Jammu

Executive Engineer

Civil Maintenance Division

LJHP Gantamulla Baramulla

I, M/S _____ S/o _____

R/o _____ hereby tender for the execution of below mentioned work on the rates shown against each from the enclosed rate list with all conditions, specifications, designs, drawings and instructions referred in the tender documents.

1. Name of the work _____

2. Approx. Amount of the work _____

3. Time of Completion _____

4. Amount of Earnest Money _____

5. Call Deposit Receipt No: _____ **Dated** _____

Pledged to _____

6. Revenue Stamps worth Rs 5/- affixed with the tender (on tender form)

Contractor

J & K STATE POWER DEVELOPMENT CORPORATION LIMITED.
OFFICE OF THE EXECUTIVE ENGINEER CIVIL MAINTENANCE DIVISION LJHP
GANTAMULLA BARAMULLA- J & K STATE

NATIONAL COMPETITIVE BIDDING

Tender Notice No: CMD/ LJHP/ Wks/ RMU/01/ 2009

Dated: 26-5-2009

For and on behalf of the Managing Director sealed tenders affixed with Rs 5/= Revenue Stamps valid for 180 days are invited from registered "A" Class Civil Contractors / firms/companies for execution of civil works listed in "Annexure A" on **turnkey basis** for Renovation, Modernisation and Uprating (Civil works under Phase-I related with shutdown of power house) of 105 MW Lower Jehlum Hydel Project located at Gantmulla, District Baramulla J&K-India. The cost of works is Rs 17.64 crores

The tender process will comprise of two stages.

Stage 1 (Prequalification):-The first stage will comprise of pre-qualification of the intending bidders. Pre-Qualification bid document shall be issued to the intending bidders from the office of Executive Engineer Civil Maintenance Division LJHP Gantamulla from **28th May 2009 to 13th June 2009** against payment of Rs 1,000 (Rupees one thousand Only) which is non-refundable/ non-transferable and shall be in the shape of demand draft drawn in favour of Chief Pay & Accounts Officer JKSPDC Baramulla payable at Baramulla. The intending bidder can also download the pre-qualification tender document from JKSPDC website WWW.JKSPDC.NIC.IN, in which case the bidder shall be required to enclose demand draft for Rs 1,000 with prequalification bid as cost of the document in the same manner as stated above . Pre-Qualification Bid shall be filled in/written legibly and carefully with due diligence and necessary documentary proof attached with each proforma in support of entries made thereof.

The pre - qualification bids will be received on or before **15th June 2009** upto 1400 hours (IST) in person or by post in the office of the Chief Engineer Generation Wing PDC Bemina, Srinagar and shall be opened on the same day or any other subsequent date convenient to the tender opening authority in presence of the bidders, who may choose to be present on the said occasion. Chief Engineer Generation PDC reserves the right to qualify/disqualify any bidder without assigning any reason thereof.

The contractors/firms who qualify in the 1st stage of pre-qualification shall be intimated about their having qualified and only those who have been declared qualified can obtain tender documents for 2nd stage i.e. submission of price bid . The tender document for 2nd stage can be obtained from the office of the Executive Engineer CMD LJHP Gantmulla Baramulla JKSPDC on all working days during office hours from **22**

June 2009 to 30th June 2009 on payment of Rs 5,000 (no-refundable/non-transferable) in the shape of demand draft drawn in favour of Chief Pay & Accounts Officer JKSPDC Baramulla payable at Baramulla .The intending bidder can also download the tender document from JKSPDC website WWW.JKSPDC.NIC.IN, in which case the bidder shall be required to enclose demand draft for Rs 5,000 with his bid as cost of the document in the same manner as stated above.The successful bidders will also be required to deposit Earnest Money Deposit/Call receipt deposit/FDR worth **Rs 30.00 lacs(Rs thirty lacs only)** alongwith the Price bid. The EMD can also be in the shape of an irrevocable bank guarantee in favour of Chief Engineer Generation Kashmir,JKSPDC for the specified amount.

The tenders for price bid will be received on or before **1st July 2009** upto 1400 hours(IST) in person or by post in the office of the Chief Engineer, Generation Wing PDC Bemina, Srinagar and shall be opened on the same day or any other subsequent date convenient to the tender opening committee.

If the date of receipt of tenders mentioned above happens to be holiday, the tenders shall be received on the next working day.

The conditional tender, if any shall be rejected by the tender opening authority without assigning any reasons thereof.

SPECIAL TERMS AND CONDITIONS

1. The turnover of the intending agency in respect of the execution of civil works for the last, three consecutive years should be 1000 lacs aggregate. (The turnover on supply order not to be considered). Weightage for less than Rs 1000 lacs, turnover shall be allowed on pro-rata basis. The turnover in partnership with other firms/ contractors will also be accounted for to the extent of the share of the bidder in the said partnership deed provided, it is duly registered in the name of the contractor, who is seeking pre-qualification. Out of the 1000 lacs last three years turnover stated above, at least Rs 500 lacs must be from works of similar nature i.e. Barrage, Weir, and Reservoirs, water conductors, spillway, forebay, river works and other hydraulic structures.
2. The bidder must also possess a cash flow of Rs 2 crores. Besides networth must be positive.
3. The bidder must possess at least the following machinery in working condition for execution of the work:-
 - i. Excavator = 2 No's
 - ii. Dumper/ Tippers = 10 No.
 - iii. Dozer = 1 No.
 - iv. Concrete Mixer = 6 no.
 - v. Compressors = 2 No's
 - vi. Vibrators = 10 No's.

The bidder must also be in a position to deploy additional machinery at short notice for speedy execution as may be directed by the Engineer- in- Charge. The bidder

should give an undertaking & append the same with his pre-qualification tender bid that in case he is allotted the work, he will deploy the machinery immediately and can arrange further machinery if asked by the department.

4. The bidder should have sufficient experience in the execution of similar nature works for which the experience certificate and completion certificate from the concerned departments shall have to be produced.

5. Time shall be essence of the contract and the work shall have to be completed within 60 days. The tentative date of start shall be 1st week of October 2009. To facilitate execution of works a shutdown is proposed to be taken during the period of execution. The Corporation is also planning Electro mechanical works during the period for which a separate contract shall be in place. The execution of the civil works shall be strictly in accordance with the bar chart prepared by the Engineer-in Charge, and has to be strictly adhered to and work completed in 60 days in any case. In case of failure to complete the work in stipulated time the following additional penalties will be imposed upon the Contractor:-

- a. Loss of generation equivalent to deemed generation in units multiplied by sale rate per unit multiplied by hours of delay caused by civil contractor in completion of civil works.
- b. Extension in time and cost thereof to be granted in favour of electro mechanical contractor to whom water availability may be delayed effecting testing/commissioning of the E-M equipment consequential to the delay in execution of civil works by the civil contractor
- c. Extension in time and cost thereof to be granted to the Engineer-in – charge supervising the work, consequential to the delay in execution of civil works by the civil contractor.
- d. All other losses as shall be incurred by JKSPDC consequential to the delay in execution of civil works by the civil contractor

All other terms and conditions of the NIT shall be the same as per standardized tender document and the General NIT conditions in vogue for project works, details of which can be had from the office of the undersigned on all working days from the date of issue of NIT.

PROCEDURE FOR THE PRE-QUALIFICATION OF TENDERS

Under the Clause **SPECIAL TERMS AND CONDITIONS**, the requirement of turnover for the last three consecutive years in the execution of civil works, requirement of machinery and the experience in the execution of civil works of similar magnitude shall carry points as indicated against each:—

- | | |
|---------------------------------------|--|
| 1. Turnover | 15 marks |
| 2. Cash flow | 5 marks (Full marks for agencies with cash flow of Rs 2.0 crores and above). |
| 3. Networth (which shall be positive) | 5 marks |

4. Machinery
- i. Excavators 15 marks
 - ii. Tippers/Dumpers/ Mixer 15 marks
 - iii. Dozers/ Compressors/ Vibrators 10 marks
 - iv. Labour strength (Skilled) 10 marks
- (Full marks to be awarded to agency with maximum labour others to be awarded marks on pro rata basis to others)
5. Experience in construction of Hydraulic Structures 10 marks
(Agency with maximum turnover in hydraulic works shall be awarded full 10 marks, others shall be awarded on prorata basis)
4. Contractors Personnel 15 marks
(Contractor with 3 degree civil engineers will be awarded full marks and others shall be awarded marks on prorata basis)
- G. Total 100**

The minimum qualifying points shall be 70. Any bidder getting less than 70 points will not be qualified.

The bidder shall have to substantiate every claim, in respect of special conditions by documentary proofs and balance sheets for relevant years..

S. No	Name of Work	NIT Cost of Work	Time of Completion	Position of Funds
01	Execution of Civil works for Renovation, Modernization and Up-gradation of Lower Jelhum Hydel Project Gantamulla Baramulla (J & K State) as per list of works contained in Annexure "A" on turnkey basis (Civil works under Phase-1 related with shutdown of the power house)	Rs 17.64 Crores	02 Months	Available

**ISSUED FOR AND ON BEHALF OF
J & K STATE POWER DEVELOPMENT CORPORATION,
LIMITED
SRINAGAR**

**EXECUTIVE ENGINEER
CIVIL MAINTENANCE DIVISION**

No: CMD/ LJHP/ Wks/ RMU/1056-1072

Dated: 26-05-2009

Copy to the:-

1. Managing Director, J & K Power Development Corporation, Srinagar/ Jammu for favour of information and necessary action. This is in compliance to the verbal instructions/ orders given at site during visit to Lower Jehlum Hydel Project Gantamulla Baramulla.
2. Chief Engineer, Generation Wing, PDC Bemina Srinagar for information and favour of necessary action. This is in reference to his letter No. CEG/ PDC/ Technical/ 588 – 91 Dated: 20-04-2009.
3. Chief Engineer Mechanical Engineering Department Srinagar.
4. Chief Engineer (Civil) NHPC Gingal Uri.
5. Managing Director, JKPCC Srinagar.
6. Superintending Engineer Generation Circle – I PDC Baramulla.
7. General Manager (Finance) Power Development Corporation, Srinagar/ Jammu.
8. Chief Accounts Officer, PDC Baramulla.
9. Director, Information Srinagar along with five copies of NIT for getting the same published in two leading national/ local dailies who have the largest circulation.
10. M/S Raqia Advertising Service, Srinagar for information. They are requested to get the tender document broadcasted in the commercial service of Radio Kashmir Srinagar on two different dates.
11. Executive Engineer, Generation Division LJHP Gantamulla Baramulla.
12. -14. Asst. Executive Engineer Sub Division 1st/ 2nd and 3rd for information.
15. Contractors Association Srinagar/ Baramulla.
16. Notice Board.

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**EXECUTIVE ENGINEER
CIVIL MAINTENANCE DIVISION
LJHP GANTAMULLA BARAMULLA**

J & K STATE POWER DEVELOPMENT CORPORATION LIMITED.
OFFICE OF THE EXECUTIVE ENGINEER CIVIL MAINTENANCE DIVISION LJHP
GANTAMULLA BARAMULLA- J & K STATE

NATIONAL COMPETITIVE BIDDING

Tender Notice No: CMD/ LJHP/ Wks/ RMU/ 01/ 2009

Dated: 26-05-2009

Gist of Prequalification Tender Notice for RMU of LJHP Baramulla,
J&K State

For and on behalf of the Managing Director sealed tenders affixed with Rs 5/= Revenue Stamps valid for 180 days are invited from registered "A" Class Civil Contractors / firms/companies for execution of civil works on **turnkey basis** for Renovation, Modernisation and Uprating (civil works of phase-I related with shut down of the project) of 105 MW Lower Jehlum Hydel Project located at Gantmulla, District Baramulla J&K-India. The cost of works is about Rs 17.64 crores.. The intending bidders can obtain the prequalification tender document from the office of the undersigned against payment of Rs 1000/= in the shape of demand draft drawn in favour of Chief Pay & accounts officer Baramulla from 28 May 2009 to 13 June 2009 or seen/downloaded from JKSPDC website WWW.JKSPDC.NIC.IN in which case the bidder shall upon submission enclose a demand draft for Rs 1000/ towards cost of document in the same manner as stated above.

EXECUTIVE ENGINEER
CIVIL MAINTENANCE DIVISION
LJHP GANTAMULLA BARAMULLA
PHONE NO: 09419196334,09419430899

RENOVATION, MODERNIZATION AND UP-GRADATION OF LOWER JEHLUM HYDEL PROJECT,
GANTAMULLA, BARAMULLA (J & K STATE)
ANNEXURE "A"

S. No	Name of Civil Work of RMU of LJHP	Estimated Cost	Remarks
01	Providing and Laying of MS Pipe Boom across River Jehlum at Sheeri (upstream) Barrage, LJHP Gantamulla	Rs 195.00 Lakhs	
02	Desilting of Barrage, Balancing Reservoir and Forebay and water conductor of LJHP	Rs 616.26 Lakhs	The dimensions for silt clearance are tentative. The actual measurements shall be taken prior to start of work by the Engineer-in Charge and shall be binding on the Contractor.
03	Replacement of Damaged RCC Panels of open lined channel of water conductor LJHP	Rs 365.00 Lakhs	
04	Stabilization/ Renovation of spillway channel LJHP	Rs 266.725 Lakhs	
05	Improvement/ up-gradation of canal inspection road by way of providing Grade - III and Grade - II/ I including providing and laying 50 mm compacted thickness of premix bituminous macadam base course for a total length of 11116 meters	Rs 196.00 Lakhs	
06	Epoxy/cement grouting treatment of Piers etc of Barrage of LJHP	Rs 125 Lakhs	The cost shown against this work is tentative and may change on receipt of recommendations of CSMRS/CWC which is monitoring the crack deformation of the structure
GRAND TOTAL		Rs 17.64 crores	

Note: **TIME OF COMPLETION = 60 DAYS**

NOTE:- THE ABOVE WORKS WILL TOGETHER CONSTITUTE THE CONTRACT ON TURNKEY BASIS AND THE CONTRACTOR SHALL HAVE TO HANDOVER THE ABOVE WORKS TO THE CORPORATION DULY COMPLETED IN ALL RESPECTS TO THE SATISFACTION OF THE ENGINEER-IN-CHARGE AND THE CORPORATION WITHIN 60 DAYS OF ALLOTTMENT. CONTRACTOR SHALL BE GIVEN 15 DAYS PRIOR NOTICE ABOUT THE ACTUAL DATE OF START FOR ENABLING MOBILISATION OF MEN, MACHINERY AND MATERIAL.

EXECUTIVE ENGINEER

**CIVIL MAINTENANCE DIVISION
LJHP GANTAMULLA BARAMULLA**

(FORM TO BE COMPLETED BY THE CONTRACTOR/ FIRM GIVING ALL NECESSARY INFORMATION WITH SUPPORTING DOCUMENTS)

I. Name of Firm:

II. Year of Establishment

III. Registration of Contracting Firm/
Contractor with State/ Central Govt.

IV. Place of Business

V. Field of Specialization

VI. Organization Set Up

a. Engineers (Qualified)

b. Technicians

c. Operators

d. Managerial Staff

e. Any other Staff

Contractor/ Firm

PRE- QUALIFICATION TENDER - , LJHP**VII. Details of Works of Similar Nature with Magnitude**

a. Works executed in the past

b. Works in progress at present
with %age of achievements thereof

c. Whether completed any work

d. Penalty imposed if any

e. Awarded Arbitration held for

f. Experience and Performance

VIII. Financial Resources of the Firm/ Contractor

a. Paid up capital

b. Working Capital

c. Turnover for the last three
consecutive years

d. Capacity to submit performance
guarantee & security deposit

**IX. Details of Machinery Available in working conditions with Firm/
Contractor**

a. Excavators

b. Tippers/ Dumpers

c. Dozers

d. Any other plant/ machinery
connected with the job

X. Labour strength

a. Unskilled

Contractor/ Firm

ANNEXURE "C"
PRE- QUALIFICATION TENDER – LJHP

**CONSTRUCTION PLANT/ EQUIPMENT AND MACHINERY AND ITS PLANNING
SCHEDULE**

(TO BE FURNISHED BY THE TENDERER)

S.NO	NAME OF MACHINERY & ITS TYPE OF CONSTRUCTION	YEAR OF MAKE AND CAPACITY	SOURCE/ SOURCES OF MOBILIZATION	NO. TO BE DEPLOYED ON THIS WORK AND WITH PROBABLE DATE OF DEPLOYMENT
	NAME OF WORK(S) WHERE MACHINES ARE PRESENTLY DEPLOYED		PROBABLE DATE OF COMPLETION OF WORK(S) WHERE MACHINES ARE PRESENTLY DEPLOYED	

Contractor/ Firm

Special Terms and Conditions

1. The works during night hours have to be executed by the Contractor by making his own arrangements regarding dewatering and lighting.
2. Price escalation clause shall not be applied.
3. Accommodation for labour has to be arranged by the Contractor.
4. Cutting of trees at working site and haul road shall have to be done by the Contractor.
5. Haul road upto dumping side shall have to be constructed and maintained by the contractor.
6. Flood Lights during night shall have to be arranged by the contractor.
7. Huts for labourers shall have to be constructed by the contractor.
8. All precautions shall have to be taken during dumping of material / silt so that no excavated earth work slips into the river.
9. The service tax @ 4.2% in vogue during the currency of the contract shall be deducted at source.

Part-IIInd

1. The tender should be accompanied with the required Earnest money i.e Rs. 30.00 lacs (Rupees Thirty Lac only) in the shape of an irrevocable bank guarantee in favour of Chief Engineer Generation Kashmir JKSPDC Srinagar for the specified amount.
2. Tender received late shall not be entertained.
3. The contractor should court their rates for the complete job.
4. The tender form should be signed by only one person and should not be on behalf of the contractor. Tenders submitted jointly should not be accepted under the partnership deed between the tenderers, unless is recognized by the Board of registration and classification of contract act.
5. The tender should be written clearly and legible without any over writing both in figures as well as in words any corrections in the tender must be signed by the contractor, correction slips etc raising or lowering the rates with any point of points in connection with the tender will not be entertained after tenders have been submitted and open.
6. The rates quoted by the contractor shall be inclusive of royalty and all other taxes and no claim on this account shall be entertained by the department.

7. The competent authority reserve himself the right to reject any or all the tenders without assigning any reason thereof.
8. Conditional or provisional tenders shall not be entertained. Tenders with over writing and interpolation shall straight way be rejected without assigning any reasons thereof.
9. The rates quoted by the tenderer shall remain enforce for any substantial increase/ decrease of quantities. The contractor shall not claim any compensation / revision of rates/ variation in quantities.
10. For any typographical error or omission in the documents the interpretation given by the Chief Engineer shall be final and binding to the contractor.
11. As soon as acceptance of tender is communicated to the successful contractor the contract shall be complete binding upon him. Formal deed in incorporating the terms of the contract shall be executed by the contractor immediately after the allotment of work is communicated to him. Failure to execute the formal deed shall not however prevent the contract being enforced against him. Any loss sustained by the Govt. as a result of retendering the same shall have to be recovered from him.
12. The contractor have to draw an agreement with the corporation / department within weeks time from the date of issue of allotment.
13. Any damage caused to adjoining structures of the project, electric poles, Zamindar khuls during excavation/ dumping of material/ mulba the same shall have to be got rectify by the contractor at his own cost and no claim on this account shall be entertained (what so ever).
14. No payment shall be made before the agreement is drawn.
15. If the contractor after the work is allotted to him backs out from the contract he shall be debarred by the Chief Engineer Generation PDC Srinagar from retendering the Govt contracts besides liable for penalty as deemed fit.
16. All conditions as per standard tender from presently in vogue in PDC will remain intact in addition to these special terms and conditions and also laid down in PWD Form 25 and 33.
17. The work have to be completed strictly according to the specifications within the time limit specified about failing which a penalty $\frac{1}{4}$ % of contract some per week of delay subject to maximum of $2\frac{1}{2}$ % of contract some.
18. The amount of work may increase or decrease the terms of compact shall remain unchanged.

19. The contractor shall have to make his own arrangement for the safety of the labour and material during execution of work, providing of warning signal and relating arrangements where ever needed shall be the responsibility of the contractor.
20. In case the progress of work is found to be does not remain uniformly satisfactory in accordance to the per chart/ work programme and the contractor in charge of work sees that the work is likely not to be completed within the stipulated time the department will be free to retender the work or execute the work in any manner it seems fit in such case the original contractor will have to bear the extra cost involved in completion of the work.
21. Bad or defective work shall not be accepted even on reduced rates but will be totally rejected. Cost of material used on this defective work shall be recovered from the contractor.
22. Any claim on account of royalty or damages done to the property of Govt. or Zamindari land by the contractor during execution of work shall be his own responsibility. The authorities of PDC reserve the right of changing, altering, deleting enhancing or decreasing any item or items of work which ever deemed proper in the interest of work during the execution of work, however for such change written instructions from the competent authority will be necessary.
23. Any item/ items of work not provided in the sanction estimate but found necessary to be executed will be paid as per sanction schedule of rates with reasonable appreciation and if outside the sanction schedules of rates.
24. Flood lights have to be provided by the contractor at his own cost.
25. During execution of work the contractor or his authorized agent will always remain at sight of work during the period the labourers are working outside to watch the safety measures and receive instruction to be given by the authorities of PDC.
26. Dismantled material shall be stocked safely as per instruction of competent authority.
27. During the execution of work the department may execute some other construction work in this area due to which this work may have to be got stopped intermittently for some period. No claim on this account of such break will be entertained by the department.
28. The contractor is required to make his own arrangement for carriage of material to the site of work.

29. During the execution of work on this project the successful tenderer shall take all precautions to avoid any damage to this project and shall be responsibility of the contractor to make good the loss or damaged caused to any structure of this project.
30. The successful tenderer shall be wholly and soly responsible to bear the consequences for any negligence shown towards the safety measures to be taken by him to avoid any loss or life or property during the execution of work on this project.
31. No sublet or contract is allow if any part or full contract is executed by the contractor on sublet basis the payment for that part or full contract shall be forfeited.
32. Recoveries if due from the contractor shall be made from his bill in case of following.
 - i) Retention on account of security deposit.
 - ii) Penalty in full if involved.
 - iii) Expenditure if incurred by the Government on behalf of the contractor.
 - iv) Charge and service such as water supply , power etc. rendered by the Govt in full.
 - v) Charge on account of material supplied by the department.
 - vi) Any other some due from the contractor to the Govt. on any account.
 - vii)Hire charges of Govt. machinery recoveries as advised by the Accounts Officer of finance audit.
33. All the documents correspondence, decisions and orders concerning the contract shall be considered as “ Confidential “.
34. This contract shall be Governed by the loss enforce in Jammu and Kashmir state.
35. No claim on account of increase in price index shall be entertained.
36. The contractor should make his all arrangement for construction of labour shed stores etc.
37. All disputes, differences or questions with regard to any matter in connection with this contract the decision of the Chief Engineer Generation PDC shall be final and binding upon the both parties.
38. The tender notice No. CMD/ LJHP / works / RMU/01/2009 dated: 26-05-09, endorsement No. CMD LJHP/ works / RMU/ 1056-1072 dated 26-05-09 shall form a part of this pre qualification tender document.

**ISSUED FOR AND ON BEHALF OF
J&K POWER DEVELOPMENT CORPORATION LTD,
SRINAGAR.**

**Executive Engineer,
Civil Maintenances Division,
LJHP Gantamulla Baramulla**

MAIN FEATURES OF LOWER JEHLUM HYDEL PROJECT

HISTORY:

The Lower Jehlum Hydel Project is located on the main river of the valley i.e. Jehlum at Gantamulla, Baramulla. The project is situated on the right bank of River Jehlum near 74^o – 15' Longitude East and 34^o – 11' Latitude north. The project is a run off the river scheme which has a catchment area of 4780 square meters upto the barrage with an average rainfall of 38 inches per annum. It was commissioned in the year 1978 with an installed capacity of 105 MWS having three units of 35 MWS each.

The project has a diversion at Gantamulla to enable the water flow via a Head Regulator and a water conductor of about 9 KM length upto the Forebay which is their connection with penstocks to the Power House where the three units of 35 MWS each generate the power. The main structure involved and proposed for the Reovation/ Restoration under the RMU scheme are:-

- 1. M.S Pipe Boom:** The log boom which was earlier constructed at Sheeri 3 Kms ahead of the barrage of LJHP has got totally damaged and it has been proposed to replace the same by M.S Pipe Boom at the same spot and the same will have the bearing capacity of higher impact and live loads. The main purpose of the pie boom is to arrest the trash logs and other planting material ahead of the barrage and thus prevent and ewe the valuable structure of the barrage and also avoid the off and on interruption to the flow of water to the Power House as the trash which accumulates in the trash racks at barrage as well as forebay forces us to clear the trash about 4 times a day which results in Generation Loss of about 2-3 hours daily. The proposal consists of fragmented mild steel closed tubes of 4mm thickness, each tube 1.83 m long and each fragment consisting of three sets welded laterally. The width so formed shall be covered with timber decking and mild railing to provide safe and smooth gangway. Inverse anchorage among different fragments shall be provided with steel ropes. Anchor Blocks shall be constructed at the two sides of river with pulley and counteract arrangements. The construction drawing for the same stands approved by the EWC New Delhi.
- 2. Barrage:** The Barrage of LJHP is situated at Gantamulla 10 Km away from District Headquarter Baramulla. It has been constructed in RCC. The total length of the barrage is 371 feet and consists of spill way, fish pan under knives and silt excludun. It has a capacity to accommodate 80000 cubes of flood discharge and a live pondage capacity of 250 Acre Feet. The barrage

structure carries on RCC bridge over it to take Class A-A loading with 22 feet roadway. There are seven bays in spillway and three under sluice. Each bay is 30 feet wide with steel gates. The crest level of spillway is 5110 feet & AMS level four tunnels each 6'x7' in the extreme right bay of the under sluice have been provided for silt exclusives. The whole barrage structure has suffered cracks in the longitudinal as well as lateral direction in the past few years. The CWC and CSMRS authorities have in their preliminary report attributed this problem to take action and have recommended to strengthen the structure by cement/ epoxy grouting. However the final proposal will be worked out after the proposed joint visit of CSMRS & CMC authorities.

The crest level of HR is 5112 feet and comprises of three bays with steel gates and rack structure and an RCC Bridge over it for class 19 loading.

- 3. Water Conductor:** The total water conductor length is about 9 KM having open lines trapezoidal channel of 6 KM in different reaches. The designed discharge is 7000 cusecs. There are about 22000 frames of 10'x10' size in the OLC excluding BR out of which 700 frames have been proposed to be dismantled and reconstruction in Phase – I of RMU. It is proposed to dismantle the damaged panels and construct new frames of 300mm thickness in RCC 1:2:4 over 450 mm stone pitching and invert filter.
- 4. Balancing Reservoir:**- The balancing Reservoir falls at RD 19392' – 22325' is provided for additional live pondage of 590 craft of water. It is an earthenware water reservoir 1036cm long (along cunnette C/C) with an average width of 183 m and FSD of 3 Qt M. The bed and sides are leveled with RCC. There is a side channel on H/side (inside the B/R) which can carry and discharge of 300 cusecs before the water starts spilling into the balancing reservoir. Presently huge silt has accumulated in the Balancing Reservoir ranging from 0.50m to 250m H from Baalancing Reservoir which has reduced the capacity of BR considerably. It is proposed to clear the silt from the Balancing Reservoir by way of deploying excavators and dumpers. The care needs to be taken during the clearance so that no damages are caused to the bed/ sides of the Balancing Reservoir.
As such it is proposed that the excavator with soft tyres may be deployed and the bottom layer of the Balancing Reservoir needs to be cleared manually to safeguard the bed lining.
- 5. Forebay:** The forebay is a small reservoir at the end of water conductor. The total storage capacity in the FB is 114 feet of which 51.50 feet is live pondage due to accumulation of huge mulba, the total capacity of FB has marginally decreased and thus there is every apprehension that the mulba

might slide with the penstock and thus damage the turbine. As such it is important to clear the silt/ mulba from the forebay.

6. **Spill Way:** The spillway is provided on LHS of the forebay having automatic steel gates which operate once the level in the Forebay touches 1558.30 M. The spillway connects to the river Jehlum and the surplus water flows to the river through the channel. The channel is constructed in RC bed and sides which has got damaged extensively at various spots. The tail portion of the channel connecting with the river Jehlum has got totally washed away. It is proposed to strengthen/ restore damaged portions and reconstruct the washed away portion afresh taking into account the high flood discharge of the river/ spillway.
7. **Canal Inspection Road:** The canal inspection road from Gantamulla Bazar to Power House and the National Highway of Chahla is in a deplorable condition as deep ditches have been created on the surface all along and it is very difficult to ply the vehicles and as such the supervision of the assets has become very difficult. It is proposed to make this surface smooth by filling the ditches and providing 50mm thick macadam over G-III layer to make the road traffic worthy.

**ISSUED FOR AND ON BEHALF OF
POWER DEVELOPMENT CORPORATION,
J & K SRINAGAR**

**EXECUTIVE ENGINEER
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