



भारत सरकार
Government of India
जल शक्ति मंत्रालय
Ministry of Jal Shakti
जल संसाधन, नदी विकास और गंगा संरक्षण विभाग
Department of WR, RD&GR
केन बेतवा लिंक परियोजना प्राधिकरण
Ken Betwa Link Project Authority



वसुधैव कुटुम्बकम्
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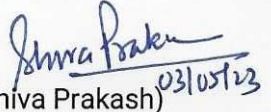
No: NWDA/CE(N)LKO/T-16/KBLPA/1526-49

Date: 03.05.2023

Sub: Minutes of 2nd Meeting of Technical Advisory Group of Ken Betwa Link Project Authority from 14.04.2023 -15.04.2023 at Khajuraho.

2nd meeting of Technical Advisory Group of Ken Betwa Link Project Authority (TAG-KBLPA) under the Chairmanship of Shri D. P. Bhargava, Former Director, (Technical), NHPC, Faridabad was held from 14.04.2023-15.04.2023 including site visit to Daudhan Dam at Khajuraho.

Minutes of Meeting duly approved by the Chairman, TAG is enclosed for kind information and further necessary action by all concerned.


(Shiva Prakash) 03/05/23
ACEO (HQ/P), KBLPA

To: All the Members of TAG of KBLPA

1. Shri D. P. Bhargava, Former Director (Technical), NHPC, Faridabad
2. Shri Y. K. Handa, Former Chief Engineer, CWC
3. The Chief Engineer, Designs (NW&S), CWC, New Delhi
4. Sh. V. K. Niranjana, Former HoD & E-in-C, I&WRD, UP
5. The Director (CSMRS) , New Delhi
6. The Director, Hydrology-Central, CWC, New Delhi
7. The Chief Engineer (Designs), WRD, Govt. of MP
8. The Chief Engineer (Designs), I&WRD, Govt. of UP
9. The Additional CEO (Head Works)/ (Canal), KBLPA

Copy for kind information to: -

1. The Additional Chief Secretary, WRD, Govt. of MP, Bhopal
2. The Member, D&R, CWC, New Delhi
3. The Principal Secretary, I&WRD, Govt. of UP, Lucknow
4. The Engineer-in-Chief, WRD, Govt. of MP, Bhopal
5. The Engineer-in-Chief & HOD, I&WRD, Govt. of UP, Lucknow

Special Invitee:-

1. The Chief Executive Officer, KBLPA, New Delhi.
2. The Chief Engineer (Tender), WRD, Govt. of MP
3. Shri P.K.Saxena (Ex. Commissioner, Indus, DoWR,RD&GR), Consultant, KBLPA, Bhopal
4. Shri Sanat Kumar, General Manager (Contract), NHPC, Faridabad
5. Shri O.P.Singh Kushwah, Expert Consultant, Water Resources Department, Govt. of MP.

Copy to the:-

1. The Director (Finance), KBLPA, New Delhi
2. The Superintending Engineer, NWDA, Gwalior
3. The Executive Engineer, KBLPA, Jhansi
4. The Executive Engineer, KBLPA, Bhopal
5. The Executive Engineer, KBLPA, Chhatarpur
6. KBLPA Cell, New Delhi

Minutes of 2nd Meeting of Technical Advisory Group of Ken Betwa Link Project Authority held on 14.04.2023 and 15.04.2023 at Khajuraho

The 2nd meeting of Technical Advisory Group of Ken Betwa Link Project Authority (TAG-KBLPA) was held on 14.04.2023 and 15.04.2023 at Khajuraho under the Chairmanship of Shri D. P. Bhargava, former Director, (Technical), NHPC, Faridabad to discuss the various issues. The list of participants is attached at **Annexure-I**.

At the outset, the Chairman welcomed all the participants and the meeting started with introduction of all the participants. Director General, NWDA/ CEO, KBLPA also warmly welcomed the Chairman of the TAG and all the members present in the meeting. CEO, KBLPA updated the Group about the previous meeting and requested Sh. P. K. Saxena, Consultant, KBLPA for taking up the agenda of tender document for discussion and modification. In the forenoon of 14.04.2023, a visit to Daudhan Dam site, Gangau weir and other structures was made by the TAG.

The details of discussion carried out and points agreed are as under:

a) Brief about field visit of proposed Daudhan Dam and other sites of KBLP:

In the 1st meeting of Technical Advisory Group of Ken Betwa Link Project Authority (TAG-KBLPA) held on 24.02.2023 at New Delhi, it was agreed that the next meeting of the TAG will be convened near to proposed Daudhan Dam site alongwith field visit of proposed Daudhan Dam, Lower Level tunnel, Upper Level tunnel, Power houses, Bariyarpur PUW, Ken Main Canal etc. in April, 2023. Accordingly the 2nd meeting of Technical Advisory Group of Ken Betwa Link Project Authority (TAG-KBLPA) was held on 14.04.2023 and 15.04.2023 at Khajuraho with the site visit of proposed dam site and components. The group also visited Gangau weir and it's colonies/ offices etc which can be utilized at the time of construction of the project.

b) Tender document for Daudhan Dam:

Sh. P.K. Saxena, Consultant, KBLPA briefed the participants about the changes/ modifications that has been done in the tender documents on the basis of the decisions taken in the 1st meeting of the TAG. Then the tender document was discussed in depth. Following is the gist of discussion:-

Prequalification Criteria:

In the technical / specific experience:

1. Similar works experience as kept in the original tender prepared by NHPC may be relaxed to include wider participation. It was discussed whether to consider 80% of work as completed or not. CEO, KBLPA was concerned about the ambiguity in similar works definition.

2. Successful Experience as Sole Contractor or Partner of the JV or sub-contractor approved by the employer of having successfully or substantially completed, similar works during last 20 years ending last day of month previous to the one in which applications are invited should be either of the following:

- i. Three similar completed works costing not less than INR 700 crore OR
- ii. Two similar completed works costing not less than INR 1000 crore OR
- iii. One similar completed work costing not less than INR 1500 crore.

❖ The value of works shall be given weightage of 6% (in place of 10% proposed) per year to bring the same to the current price level.

(i) Earthwork and concreting

Completion of following components in infrastructure projects in the last 20 years from **maximum 5 projects**

- (a) gross combined surface excavation of 6 lakh m³ in place of 6.50 lakh m³ and
- (b) gross combined earth filling of 40 lakh m³ in place of 68.60 lakh m³ and
- (c) gross combined concreting of 6 lakh m³ in place of 6.20 lakh m³

The above works may be from the same or different projects but should necessarily include at least one Concrete Dam of minimum height 40 m and at least one Earthen/ Rockfill Dam of minimum height 35 m in place of earlier proposed Earthen dam of 40m.

(ii) Tunneling

Completion of tunnel excavation and concrete lining of at least one tunnel of minimum finished diameter of 5.5 m and length not less than 1000 m. For this purpose, experience of tunneling of Highway tunnel/ Railway tunnel/ Metro tunnel shall also be considered.

(iii) Hydro mechanical works : General Experience:

Prime/ JV qualification to be removed. It shall be kept in the Sub-contractor's qualification. However, it will not be taken in to consideration at Pre-qualification stage. Qualification requirement of HM Sub-contractor to be kept as it is, but needs to be satisfied during construction stage. if Prime contractor/ Joint Venture itself qualifies for HM works, then such documents will be furnished at the time of finalization of contract. The same methodology will be adopted for design & planning works.

3. Financial Capacity:

- i) **Turnover:** Minimum average annual construction turnover in the preceding 3 years shall be Rs.1,500 Crore in place of Rs. 2,000 crore. The turnover of the years prior to 2021-22 shall be given weightage of 6% in place of 10% per year to bring them to present price level. The weightage shall be as under:

| Sr. No. | Year | Weightage |
|---------|-----------|-----------|
| 1 | 2019–2020 | 1.19 |
| 2 | 2020-2021 | 1.12 |
| 3 | 2021-2022 | 1.06 |

The same was discussed and it was decided to revise annual construction turnover of atleast Rs.1500 Crores and exemption for the year 2020-21 may be given on grounds of Covid-19 pandemic.

Discussion on the average turn over for 5 years was also held, however in view of complexity and stringent norms, it was decided to have three years criteria with exception for 2020-21.

- ii) Net worth:** Net worth (paid up share capital + reserves & surplus) of the bidder (and each partner of JV in case of JV) of last 3 financial years should be positive and Net Worth of the bidder or JV of last Financial Year should not be less than 450 crore.
- iii) No suffer Loss-** The bidder (and lead partner in case of JV) should not have suffered loss in more than one financial year during last 3 financial years due to any reasons whatsoever.

It was discussed to remove the above criteria.

- iv) Working capital:** The working capital (current assets minus current liabilities) shall be at least INR 200 crore.

After discussion, it was decided to retain the working Capital as Rs. 200 crore, based on the cash flow required for the project.

4. Nature of Bidder : Joint Venture/ Consortium bidders:

- (i) The Lead Partner to fully meet the following:
- General construction experience criteria specified for the tender.
 - Average annual turnover not less than 51% of the criteria specified under financial capacity,
 - Working Capital criteria,
 - Specific Experience Criteria for the Dam (at least one Concrete Dam of minimum height 40 m or at least one Earthen/ Rockfill Dam of minimum height 35 m)
- (ii) The other partner(s) to individually meet the requirements of average annual turnover not less than 20% of the criteria specified under financial capacity.

5. Bidders with Sub-contractors

The bidder can engage sub-contractors, subject to the approval of Authority, at later stages as per the requirement of the Approved Work Programme/Plan .

Sub-contractor/ Manufacturer shall submit Performance Bank Guarantee equivalent to **1% value of work** in place of 3% of value of Work sublet in addition to the Performance Bank Guarantee for the whole contract submitted by the Bidder on award of Work

It was decided that as per DOE, the overall sub-contracted work amount may be capped at 25% of the total cost and the sub-contracting shall be carried out after approval of Competent Authority.

In view of above, condition of the number of sub-contractors/manufacturers not to exceed four (4) for meeting the specific experience criteria shall be removed from the Tender.

- 6.** The period of approval of design & drawing by review consultant may be kept as 30 days in place of 45 days. NHPC informed that they are following 28 days.

7. Diversion Flood:

Discussion on the hydrology were also held. Diversion flood for 1 in 100 years is taken in case of earthen dam and either 1 in 25 years or maximum of 25 years non-monsoon season flood for Concrete dam. It was intimated that the hydrology has been finalized by CWC and NIH. The flood event has not exceeded as reported earlier. Therefore the review of hydrology may not be needed.

In the tender document the values of PMF and 1 in 100 year flood may be provided .

Further the Diversion Scheme during construction stages would be left to the contractor. However scheme for flood diversion would be submitted by the bidders along with construction planning/ sequence. This shall be part of technical evaluation .

8. Issue of Quarry and Dumping Sites:

It was desired by the TAG members to clearly mention the details of quarry and dumping sites, whether it will be in the scope of KBLPA or the Bidder. Further, whether the disposal of material outside the forest area will be allowed or not.

The disposal of muck shall be carried out by the contractor as per discussion with the local authority. After discussion it was agreed that the potential muck disposal sites shall be mentioned in the bid document.

9. Rockfill Dam in place of Earth Dam:

Further, the possibility of usage of material locally can also be explored. In case proposal of rockfill dam in place of earth dam is being considered, then excavated material can be used in the rock fill dam to some extent. CSMRS stated that the quality/suitability of material is to be ensured before taking any decision in this regard.

10. Deviation/ Variation/ Extra Item:

No variation in Tunneling may be allowed. Since the concrete dam foundation is extensively investigated, not much variation in the foundation levels are expected. Therefore provision regarding Payment for Deviation in quantity can be deleted. Extra items will be allowed only if there is a change in the scope due to the owners requirement. Additional payment would only be due to increase in scope of work not covered in the tender documents.

11. Advance Payment:

The KBLPA, upon the request of the Contractor, will make an interest bearing advance payment to the Contractor exclusively for the costs of mobilization in respect of the Works for an amount not exceeding 10 (ten) percent of the Contract Price in two equal installments.

A condition to be added regarding release of first installment. First installment of 5% will be released after submission of work plan by the Contractor and approval of the same by the owner. Chairman, TAG suggested that clause-6 of SCC may be linked with the condition of advance i.e. Contractor must get the work programme approved before release of first advance.

Second installment of remaining 5% shall become eligible for release only after Engineer has physically verified all the details submitted by the Contractor. Further, the agreed mobilization schedule shall form the basis for verification of advance by the Engineer as above.

As decided in the meeting, it was agreed that the 2nd installment of 5% can be released against hypothecation of new machinery also.

12. 1st running bill is to be paid after establishment of Quality Control Labs and their certification by the Authority.

13. The interest rate shall be Long term (three years) MCLR of SBI + 150 basis points above MCLR as applicable on the Base Date, which shall be charged on monthly rest basis in place of MCLR of SBI + 375 basis points as prescribed by NHPC.

14. GM (Contract), NHPC suggested that estimated cost may not be provided with the tender as it is EPC.

15. Price and Taxes:

All the taxes, royalty, duties etc.- 28 days before the date of submission of bids shall be included in the quoted price by the bidder. Any change in tax after this date will be adjusted by the Authority/ Contractor.

16. It was suggested that Payment to the contractor would be made through Escrow Account, to be opened by the contractor immediately after award of work. It was further agreed that the payment above threshold limit will only be made through Escrow Account. Contractor would submit statement of transactions done in this account on monthly basis. Details of Escrow Account clause may be shared by the NHPC for inclusion in the tender document.

17. Monthly Progressive Payment Regulation

Following methodology would be adopted for monthly payment regulation.

Bidder will submit the detailed Bill of Quantities(BOQ) after award of work/ signing of agreement to the Authority. Authority will compute the estimated cost of each items as per BOQ submitted by the contractor and the prevalent DSR of Madhya Pradesh. The total contract price as per the Agreement and the total estimated cost computed as per the DSR will be compared for % above or below the estimated cost. Price of each item of the BOQ will be adjusted as per this percentage variation .Monthly payment will be regulated as per this computed price for the executed BOQ. Payment for each item would be limited upto the quantities given by the contractor. Savings in any item due to reduced BOQ can be paid for the other item executed in excess of submitted BOQ. This will avoid the front loading by Contractor and safeguard the interest of bidder.

BOQ can be revised as per the progress of work/ changes, however the total contract price will remain fixed and will be paid to the contractor in the end.

This methodology would avoid front loading. It will facilitate detailed cost planning and cash flow projection during various stages of construction of the project, giving the client a clear idea of how much they should be expected to pay at different stages.

18. Detailed specification of Lift shall be provided as large number of lift manufactureres are available. Authority may mention the make, load, size of lift for maintaining the quality.

19. Penalty for delay

Contractor shall pay Liquidated damages to the Owner @ 0.05% of the aggregate Contract Price of all Contracts per day of delay.

20. Compensation for delay to the Contractor on account of Owner :

If after the mobilisation by the contractor at site, the work is substantially stopped for 7 continuous days solely due to the reason attributable to the owner including the provisions in the Force Majeure, then agency will be paid @10% of average daily turnover for each day of delay. Average daily turnover would be computed as per the following formula;

Average daily turnover = total contract price / total contract period in days

This will minimize the scope of arbitration and litigation. However, proper record (Daily Hindrance Register) shall be maintained by the parties to calculate delay period.

Engineer-in-Chief, WRD, MP and NHPC mentioned that the such type of conditions are not in practice in their tenders and should not be incorporated.

However, the members after preliminary calculation intimated that the compensation paid to the contractor will be much less than the amount which is being paid by the various Organisations on this account in the arbitration. Further, the bidders will know that for any fault of owner at least they will get the idle expenses, which are being incurred by them in case the work is halted.

21. Different escalation formulas for different types of work shall be incorporated in the tender ,as being prescribed by NHPC. NHPC may provide such formulae.
22. Regarding mismatch in Geological Foundation levels of Concrete dam and those mentioned in Civil Drawings, it was decided that foundation levels mentioned in civil drawings would be deleted and bidder may refer geology chapter of the bid document to fix the foundation level. However foundation level of Dam Blocks shall be approved by the Owner/ GSI.
23. NHPC further intimated that provisions related to “Make in India” and “Countries sharing Border” etc. may also be included in the Tender.
24. During the course of discussion issue of approach path, quarry sites, Borrow Area, working schedule-single shift/ two shift/ three shift, Power, infrastructure, Electric supply, space for workshop, labor colony, camp, muck disposal, restriction to work in PTR, option of blasting etc.were also raised as these will largely affect the contract price and time schedule etc. These issues to be taken care of in the bid document.

25. CSMRS may propose the provisions needed in the Tender document regarding establishment of quality control lab, tests needed.
26. Provision of Contingency may be removed from the financial bid as it is on EPC. Anyhow the bids are to be evaluated on the consolidated basis.
27. During general discussion, it was intimated that the bidders may like to see the bore holes drilled by the Authority during S&I. Accordingly the KBLPA may preserve the Core with proper marking. KBLPA, Jhansi may take necessary action in this regards.
28. It was suggested to include Shri Sanat Kumar, GM (Contract), NHPC in future meeting also.

The meeting ended with vote of thanks to Chair and all the members present.

Annexure-I**List of Participants of the 2nd Meeting of Technical Advisory Group (TAG) of KBLPA held on 14.04.2023 & 15.04.2023 at Khajuraho**

| S. No. | Name (Shri/Smt.) & Designation | |
|-------------------------|---|------------------|
| 1 | Shri D.P. Bhargava Former Director(Tech), NHPC | Chairman, TAG |
| 2 | Shri Anil Jain, Chief Engineer, Designs (NW&S), CWC, New Delhi | Member |
| 3 | Dr. R. Chitra, Director, CSMRS, New Delhi | Member |
| 4 | Shri Goverdhan Prasad, Director, Hydrology(C), CWC, New Delhi | Member |
| 5 | Shri G. P. Soni, Chief Engineer, BODHI, WRD, Govt. of MP, Bhopal | Member |
| 6 | Shri Anil Kumar Niranjana, SE(Designs), I&WRD, Govt. of UP, Lucknow - Representing CE(Designs), I&WRD, Govt. of UP | Member |
| 7 | Shri Shiva Prakash, ACEO (HQ/P), KBLPA, Lucknow | Member Secretary |
| Special Invitees | | |
| 1 | Shri Bhopal Singh, CEO, KBLPA & DG, NWDA, New Delhi | |
| 2 | Shri Sanat Kumar, General Manager (Contract), NHPC, Faridabad | |
| 3 | Shri Pradeep Kumar Saxena, Consultant, KBLPA, Bhopal | |
| 4 | Shri O.P. Singh Kushwah, Consultant, WRD, Govt. of MP, Bhopal | |
| Other Officials | | |
| 1 | Shri M.S. Dawar, E-in-C, WRD, Govt. of MP, Bhopal | |
| 2 | Shri Shishir Kushwaha, CE (Tender) WRD, Govt. of MP, Bhopal | |
| 3 | Dr. Manish Gupta, Scientist E, CSMRS, New Delhi | |
| 4 | Shri D.K. Khare, SE, WRD, Govt. of MP, Chhatarpur | |
| 5 | Shri N.P. Sahu, SE, NWDA, Gwalior | |
| 6 | Shri N. Goswami, EE, WRD, Govt. of MP, Chhatarpur | |
| 7 | Shri Ashish Singh Kushwaha, EE, KBLPA, Jhansi | |
| 8 | Shri Raghvendra Gupta, Consultant, KBLPA, Jhansi | |
| 9 | Shri D.K.Mishra, SDO, WRD, Govt. of MP, Khajuraho | |
| 10 | Shri Sangam Jhajhri, AD (BODHI), WRD, Govt. of MP, Bhopal | |
| 11 | Shri Hari Om Varshney, AE, NWDA, Lucknow | |
| 12 | Shri P.K. Rathor, AE, KBLPA, Bhopal | |
| 13 | Shri Anshul Jain, AE, KBLPA, Jhansi | |
| 14 | Shri S.C. Chaudhary, AE, KBLPA, Chhatarpur | |
| 15 | Shri Ashish Swami, AE, KBLPA, Jhansi | |
| 16 | Shri Vivek Mittal, AE, KBLPA, Chhatarpur | |