



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



समृद्धि कृतमयम्  
BE BARTH • ONE FAMILY • ONE FUTURE

No: KBLPA/2023/ACO(HW)/548-570

Date: 31.07.2023

**Sub: Minutes of 5<sup>th</sup> Meeting of Technical Advisory Group (TAG) of Ken Betwa Link Project Authority held online on 25.07.2023, 17.30 Hrs through video conferencing.**

5<sup>th</sup> 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 online on 25.07.2023, 17.30 Hrs through video conferencing.

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

*Raj Kumar Mishra*  
31.07.23  
(Raj Kumar Mishra)  
ACEO (HW), 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 (HQ&P), KBLPA, Lucknow

**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

*KSLW*

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**MINUTES OF THE FIFTH MEETING OF THE TAG**

The fifth meeting of the Technical Advisory Group was held on 25 July 2023 at 5:30 pm through video conference. The list of participants is annexed.

ACEO(HW) made a presentation highlighting the need for the meeting. It was brought out that, in the meeting chaired by the Secretary DoWR, RD&GR, MoJS on 30.06.2023, it was decided that in the layout plan of Daudhan Dam, spillway in central portion of the river with low level orifice spillway, as proposed by CWC, may be adopted to reduce the excavation resulting in speedy construction and also to bring the advantage of sediment flushing to increase the longevity of the dam, besides reducing the gate size. It was also decided in the meeting that CWC shall modify the layout plan of the Daudhan dam and prepare the required tender drawings of the revised layout for incorporation in the tender document. Subsequently, two such options proposed by CWC were discussed by TAG in its 4th meeting held on 19.07.2023 and it was decided to adopt option (II) offered by CWC i.e. to provide left flanking structure as concrete NoF blocks.

Further, in the recent meeting of the stakeholders, held in Bhopal on 22 July 2023, a number of queries have been received for consideration of the TAG. These were also discussed.

**A. REVISED QUANTITIES**

The revised quantities for the dam were brought out for information of the TAG as below

<u>S No</u>	<u>Components</u>	<u>Old Proposal Side Spillway</u>	<u>New Proposal Central Spillway</u>
<b>EARTHWORK</b>			
1	<b>Excavation</b>		
a	Earth work in Excavation	2,44,742	86,549
b	Excavation in Spill channel	96,80,650	
c	Excavation in Diversion Channel	50,98,000	3,87,808
	<b>TOTAL EXCAVATION</b>	<b>1,50,23,392</b>	<b>4,74,356</b>
2	<b>Filling</b>		
a	Earth work in Filling	1,26,29,412	44,66,160
b	Filter, Fine	5,19,691	1,83,779
c	Filter, Coarse	5,64,639	1,99,674
d	Rock toe	1,72,247	60,912
	<b>TOTAL FILLING</b>	<b>1,38,85,989</b>	<b>49,10,525</b>
<b>CONCRETE</b>			
a	Concrete in NOF	4,61,676	12,47,018
b	Concrete in Spillway	9,47,426	15,47,501
	<b>TOTAL</b>	<b>14,09,102</b>	<b>27,94,519</b>

**B. MODIFICATION IN QUALIFYING REQUIREMENT**

It was highlighted that because of the change in type of dam from Embankment to concrete, the quantities for earthwork have been substantially reduced while that of concreting has been increased. In view of changes in quantities, following is the revised QR proposed in Para 3.1.2 – Specific Experience of ITB which was accepted by the TAG

*RAN*

- 1) Gross combined excavation reduced from 6 lakh cum to 4 lakh cum
- 2) Gross combined earth filling reduced from 40 lakh cum to 20 lakh cum
- 3) Gross combined concreting increased from 6 lakh cum to 9 lakh cum

It was opined that in view of the large quantity of concrete work, completion of the project would depend on the capability of the contractor to execute the concrete work at required pace. Concreting work (about 28 Lakh Cum) of dam has to be done in a period of 3 years to complete the whole project in schedule time of 6 years. Thus annually about 9 lakhs cum concrete placement would be needed. It was suggested that bidders should have executed annually 3 Lakh cum of concrete placement in a dam. CEO KBLPA expressed that such a criteria may be restrictive and many bidders would not be able to fulfil such condition. However, it was opined that such capability of the bidder is critical to complete the project in scheduled time and therefore needs to be kept initially. It may be modified if sufficient number of bidders express their inability to meet such QR. It may also be looked into by TEC.

### **C. PAYMENT FOR VARIATION WITH GBR IN THE ABSENCE OF CONTINGENCIES**

The TAG was informed that there has been unanimous demand from the bidders that in view of no provision for contingencies, the geological data provided with bidding document should be made as "Geological Baseline Report" (GBR) for designing the structures at bidding stage and any variation to this during detailed engineering and execution stage shall be suitably compensated, since bidder is in no position to have their own investigation during bidding stage.

After detailed deliberations, TAG found it appropriate to include such provision only for the concrete portion. If the variation in quantities of excavation and concreting due to GBR variation goes beyond  $\pm 3\%$  from the quantities arrived in BOQ in concrete portion, such variation shall be admissible for payment to the contractor or recovery from contractor, at the rates computed as per the methodology specified in the Bid Document, for the actual quantities executed. This conditions may be incorporated suitably in the bid document.

### **D. PROVISION FOR SPILLAGE OF WATER THROUGH NOF ABOVE EL 288.50M**

It was discussed that due to some reason, few of the spillway gates may become non functional during flood time. This probability is more in low level sluice gates, which may get jammed due to silt. There are instances of such incidences in the past and during current monsoon season as well. It may cause water overtopping the earthen dam, which may lead to its catastrophic failure. To minimise such possibility, it was desired by Chairman TAG to keep concrete NoF portion at just 0.5m above FRL (say EL 288.5m) and make a bridge over it with top level at EL 293 m. This would allow additional water spillage in the event of non opening of some gates at the time of heavy flood. Shri Y.K. Handa agreed to discuss the issue with CWC. In case CWC is in agreement with the proposal, such provision can be stipulated in the specification suitably. However, tender drawing may not be modified at this stage to save the time.

### **E. OTHER QUERIES AND SUGGESTIONS OF THE PROSPECTIVE BIDDERS**

1. It was suggested by a prospective bidder that in the financial qualifications in Para 3.1.1 (b), only Water Resources/ Hydropower projects during last 20 years may be considered and not the infrastructure projects. Also only two projects may be considered instead of five for meeting the specific experience.

After the deliberations, it was decided to not make any such change in the QR.

2. It was suggested in the meeting that in the specific experience criteria, apart from Concrete Dam of Height >40 m and Earthen Dam >35 m, barrage with length not less than 1000 m may also be considered.

After deliberations, TAG decided that the experience in construction of barrage is not so relevant in the present contract and the suggestion may not be accepted.

3. It was suggested, by a prospective bidder, that in the specific experience criteria completion of one concrete dam / barrage having minimum Storage capacity of 100 MCM may also be considered.

The TAG, however, held that storage capacity does not capture the work involved in the project. In view of the size of the dam and work involved, this dilution in QR is not warranted.

4. One of the prospective bidders had suggested to include the condition that "The bidder / each member of JV should be profit making after tax over 3 years out of last 5 Financial Years".

After deliberation, the TAG decided not to include such restrictive clause particularly when there is already a provision for sufficiently high working capital and Net Worth.

5. TAG decided to retain the Bid Validity Period of 270 days against the requested 180 days but agreed to reduce the validity of Bid Security after LOA to 90 days in place of 180 days.

6. On proposal of a prospective bidder to consider the "Commencement date of the project from handing over of Encumbrance free land, access to site and working permission to the Contractor", the TAG unanimously held that such a condition is impractical and decided to retain the original formulation.

7. The ACEO(HW) informed the TAG that in view of 5% amount allocated to O&M works, condition of complete repayment of the advance along with interest by the time 90% value of work is certified is proposed to be changed to 80 percent. Further, in the condition of complete recovery of advances before elapsing 90% of completion time, following may be removed;

"without considering any extension of time due to any reason".

TAG accepted this formulation

8. On suggestion of a prospective bidder to increase the idle charges compensation to 25% of the average turnover instead of present 10%, the TAG decided to retain the original compensation of 10%.

The meeting ended with the vote of thanks to the Chair

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## LIST OF PARTICIPANTS

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|---|---|----------|
| 1 | <b>Shri D.P. Bhargava</b> , Former Director (T) NHPC                              | In Chair |
| 2 | <b>Shri Y.K. Handa</b><br>Retired CE (Designs, CWC, New Delhi)                    | Member   |
| 3 | <b>Shri G.P. Soni</b><br>Chief Engineer, MPWRD                                    | Member   |
| 4 | <b>Shri Vinod Kumar Niranjana</b><br>Retired Engineer in Chief, I&WRD, Govt of UP | Member   |
| 5 | <b>Shri Raj Kumar Mishra</b><br>ACEO (HW), KBLPA                                  | Member   |

## SPECIAL INVITEES

- |   |  |
|---|--|
| 1 | <b>Shri Bhopal Singh</b><br>CEO, KBLPA                               |
| 2 | <b>Shri Shiv Prakash</b><br>ACEO, KBLPA, Lucknow                     |
| 3 | <b>Shri PK Saxena</b><br>Consultant Level 1, KBLPA, Bhopal           |
| 4 | <b>Shri Narayan Prasad Sahu</b><br>Executive Engineer, KBLPA, Bhopal |

