



भारत सरकार  
Government of India  
विद्युत मंत्रालय  
Ministry of Power  
केन्द्रीय विद्युत प्राधिकरण  
Central Electricity Authority  
जल परियोजना आयोजन एवं अन्वेषण प्रभाग  
Hydro Project Planning & Investigation Division

No.81/3/2020-HPP&I/

Date: 23.04.2020

Chief Engineer,  
Project Appraisal,  
Central Water Commission, Sewa Bhawan,  
New Delhi.

**Sub: PFR of Bodhghat Multipurpose Project of Chhattisgarh state – regarding.**

Sir,

This has reference to email received from PA (C) Dte., CWC dated 22.04.2020 along with enclosures on the above subject. In this connection, it is to mention that as per the procedure for Formulation of DPRs and accord of concurrence to Hydro-Electric Projects having likely cost of more than Rs. 1000 Crs., S&I/DPR preparation is to be carried out following a *Consultation Process* with the appraising agencies like CEA, CWC, GSI and CSMRS etc. The developer is required to submit the relevant chapters of the DPR indicated at Sl. No. II of the Annexure for examination to the concerned Directorates/Divisions/Organizations of CEA, CWC, GSI & CSMRS under intimation to HPP&I Division, CEA. HPP&I Division shall hold a *Consultation Meeting* after the submission of relevant documents/chapters to Concerned Appraising agencies. Further, nine clearances as mentioned in **Annex** are to be obtained prior to submission of the DPR to CEA for its concurrence.

It is further to mention that, in case, there is no change in location of dam or power house and other civil structure and no significant investigations are envisaged, the same may be clearly brought out to avoid fresh appraisal.

Encl.: As above.

Yours sincerely,

Sd/-  
(Manoj Tripathi)  
Director

Copy to:

1. SA to Member (Hydro), CEA.

### **New Procedure of S&I/preparation of DPR for submission to CEA for concurrence**

DPRs are now taken under examination in CEA under the new procedure only, in which the apprising agencies (CEA, CWC, GSI and CSMRS) are associated in the course of DPR preparation so that quality DPRs are prepared and submitted for concurrence of CEA. In the new procedure, the developer is required to get clearances on 9 aspects before submitting the full DPR to CEA for concurrence as following: -

#### **I. Clearances to be taken before submission of DPR to CEA for concurrence: -**

The following aspects of the DPR are to be submitted and got approved by the developer from concerned agencies before the full DPR is actually submitted to CEA for concurrence: -

Sl. No.	Aspects	Clearances to be taken from Directorates./Divisions/Organizations
1.	Hydrological Studies	Concerned Hydrology Directorate , CWC
2.	Power Potential Studies	Hydro Project Appraisal Division , CEA
3.	Foundation Engineering and Seismic Aspects	FE&SA Directorate, CWC
4.	General Layout (partly) of the project	Concerned Design Dte.(s),CWC and HE&TD Division , CEA
5.	Geological aspects	Geological Survey of India
6.	Construction material aspects	Central Soil and Material Research Station
<b>In addition, clearance on the following aspects are also required to be taken</b>		
1.	Standing Technical committee (STC) on Storage Vs. ROR	HEPR Division,CEA
2.	Inter-state matters	ISM Directorate , CWC
3.	International aspects	MOWR

#### **II. Consultation meetings for facilitating clearances on the above aspects: -**

- After signing MOA with State Govt., the developer shall carry out topographical survey & geological surface mapping of the project, hydrological observations, Power Potential studies and submit the studies, proposed layout of the project and detailed investigation plans to concerned Divisions/Directorates/Organizations of CEA, CWC, GSI and CSMRS as indicated below for appraisal under intimation to HPP&I Division, CEA with the request to hold the consultation meeting: -

Sl. No.	Chapters/Report	To be submitted to Directorates./Divisions/Organizations
1.	Hydrological Studies	Concerned Hydrology Directorate , CWC
2.	Power Potential Studies	Hydro Project Appraisal Division , CEA
3.	Foundation Engineering and Seismic Aspects	FE&SA Directorate , CWC
4.	General Layout (partly) of the project	-Concerned Design Dte.(s) ,CWC – 2 Copies, - FE&SA Directorate ,CWC – 1 Copy, - Concerned Hydrology Dte , CWC – 1 Copy, - HE&TD Division , CEA – 1 Copy.
5.	Geological aspects	Geological Survey of India
6.	Construction material aspects	Central Soil and Material Research Station

- CEA along with other agencies shall hold **first consultation meeting** with developer to finalize different alternatives of the project layout for which investigations are to be

carried out by the developer along with detailed investigation plan to be carried out in first phase.

- After completion of the first phase investigations, the developer shall submit the results to concerned Divisions/Directorates/Organizations of CEA, CWC, GSI and CSMRS with a copy to HP&I Division, CEA. CEA along with other agencies shall hold **second consultation meeting** with the developer for finalization of project layout and final phase-II investigations to be carried out by the developer.
- The clearances on the above 9 aspects are to be obtained by the developer from the concerned agencies.
- All the communications related to forwarding of Comments/Replies/Clearances on these aspects shall be between the developer and the concerned Divisions/Directorates/Organizations under intimation to HPP&I Division, CEA.
- The DPR of the project is to be submitted to CEA for concurrence only after obtaining these clearances.



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Hydro Project Appraisal Division

**Sub: PFR of Bodhghat Multipurpose (500 MW) Project of Chhattisgarh State – regarding**

Reference is invited to PA(C) Directorate, CWC e-mail dated 22.04.2020 on the subject cited above forwarding therewith the Pre-Feasibility Report (PFR) of Bodhghat Multipurpose Project in Chhattisgarh State for examination.

The Power Potential Studies (PPS) chapter has been examined and comments/ observations are offered as under:

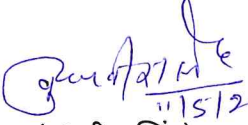
- 1) Earlier Bodhghat Project was accorded TEC by CEA as a storage Hydro-Electric Scheme. Now, as per Pre-Feasibility Report (PFR) received from CWC, the project is proposed as a multipurpose project (proposing irrigation releases, industrial water uses and drinking water uses). In the PFR, the volume of water proposed for industrial and drinking purpose is mentioned, however, the volume of water for irrigation purpose is not mentioned. It is presumed that the TEC layout of project has been retained in the present proposal and water for irrigation and other purposes will be drawn after power generation in the power house. It is not clear whether a balancing reservoir of sufficient capacity will be available to balance out the releases from power house after power generation and meet the irrigation and other purposes requirement. Therefore, to finalize installed capacity of hydroelectric power project in a multi-purpose project, it is very much essential to finalize the releases for all purposes, layout of project components and priorities of meeting the purposes. In the present proposal the irrigation releases are not given, hence, it is not possible to finalize installed capacity of the project.

The developer is requested to finalize the irrigation releases and submit the power potential studies incorporating irrigation releases for vetting.

- 2) A copy of Hydrological studies of the project (from year 1970-71 to year 1999-2000) in 10-daily series along with releases for irrigation, industrial uses and drinking uses of water from the reservoir, duly approved by CWC may be furnished.
- 3) The volume of water used for industrial purpose and drinking purpose is mentioned in the salient features but while carrying out the Power potential studies, these component have not been taken into account. The same may be taken into consideration while carrying out PPS.
- 4) A copy of evaporation losses and seepage losses duly approved by CWC may be furnished.
- 5) A copy of Head losses in the water conductor system and combined efficiency of the Turbo-Generator set duly approved by CEA/CWC may be furnished.
- 6) Inter-state issue with the project, if any, duly vetted by Central Water Commission (CWC) may be furnished.
- 7) E-flow releases, if any, mandated by MoEF or State Government may be taken into account while carrying out the PPS and a copy of the MoEF or State Government order may also be furnished.

- 8) A comparative statement of project features as approved earlier during Techno-economic clearance and as proposed now may also be furnished.
- 9) Detailed power optimization studies for fixation of installed capacity and calculation of design energy in the soft copy in excel sheet may be furnished.

In view of above, the power potential studies chapter may be treated as returned .Further it is advised that fresh PPS chapter may be reframed considering above observations and submitted to CEA for its approval as per CEA Guidelines and incorporate it in the Detailed Project Report prior to submission of the same to CWC.

  
(बुधबीर सिंह)

उपनिदेशक (एच.पी.ए.)

Director [PA(C)], CWC

No.: 302/24/2001/HPA/ 499-501

Date: 11.05.2020

- Copy to:
- 1). Chief Engineer (HPP&I)- in reference to letter No.: 81/3/2020-HPP&I/ dated 24.04.2020
  - 2). Director (PAC), CEA



सत्यमेव जयते

To,

The Chief Engineer, Mahanadi Project,  
Water Resources Department,  
G.E. Road, Shaheed Bhagat Singh Chowk,  
Raipur, Chhattisgarh

**Sub: Bodhghat Multipurpose Project, Chhattisgarh – Request for updating the PFR - reg.**

**Ref: File No.T-28017/3/2020-PA(C) DTE dated 22.05.2020**

Sir,

As you are aware, In-principle consent for preparation of DPR of Bodhghat Multipurpose project, subject to the terms and conditions mentioned in the minutes of the meeting of Screening Committee, has been granted about a month back.

In this regard, I would like to draw your attention to the following paras of the Minutes of the meeting of the Screening Committee of DoWR, RD & GR:

- (i) **Para k :** State Government has to supplement the firmed-up data of project, as base data for PFR with respect to all factors including power, components wise water allocation, dam location, irrigation command, drinking and industrial uses etc., so as to have basic project data at the time of PFR for better understanding of the proposal and finalizing the DPR.
- (ii) **Para l :** State Govt has to submit a copy of PFR to CWC by incorporating all correct relevant data and layout of project as discussed in the meeting, within 10 days.

However, inspite of about a month passing in between, the above compliance is awaited from your side. It is therefore, requested to submit the PFR, complete in all respect, at the earliest so as to complete the appraisal process on ePAMS portal by uploading the relevant documents.

yours sincerely,

(Rajiv Kumar)  
Director

Copy to:

1. Secretary (WR, PHE & Religious Trusts Endowment Deptt.), Mahanadi Bhawan, Mantralaya, Atal Nagar, Naya Raipur, 492002, Chhattisgarh.
2. Engineer- in Chief, WRD, Shivnath Bhawan, Sector-19, North Block, Naya Raipur, Atal Nagar, Chhattisgarh.



I/21262/2020

Σजलसंरक्षण-सुरक्षितभविष्यΣ



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ΣConserve Water- Save LifeΣ

**OFFICE OF THE CHIEF ENGINEER  
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Telephone : +91 7712423307, Fax : +91 7712427357, e-mail : cemrp@cgwrd.in

**Memo No. 17579/W/Bodhghat Multi.Pro./2019/**

3619

**Raipur Dated /6/06/2020**

To,

Shri Rajiv Kumar,  
Director,  
Central Water Commission,  
New Delhi

**Subject :- In Principal clearance for Pre feasibility report of Bodhghat multipurpose project, Chhattisgarh.**

**Ref :-** Government of India, Ministry of Jalshkti, Dept. of water resources RD&GR, CWC, Project appraisal (Central) Directorate No. T-28017/3/2020-PA(C) DTE Dated 22.05.2020

\*\*\*\*\*

Sir,

With reference to above firm up data for PFR stage of Bodhghat Multipurpose Project are enclosed for perusal and further needful please.

**Encl. :- As above.**

  
**Chief Engineer**

**Mahanadi Project Raipur (C.G.)**

**Endt. No. 17579/W/Bodhghat Multi.Pro./2019/**

**Raipur Dated /06/2020**

**Copy Forwarded to :-**

1. Engineer-in-Chief, Water Resources Department, Shivnath Bhawan, North Block, Sector-19, Atal Nagar, Nawa Raipur for information please.
2. The superintending Engineer, Indravati Project Circle, Jagdalpur for information.

**Encl. :- Nil.**

  
**Chief Engineer**

**Mahanadi Project Raipur (C.G.)**



## Comparison of Salient Data

The salient data which are changed now at PFR stage are given below in tabular from

S.No.	Description	Previously Proposed	Now Proposed
1	2	3	4
(i)	Kharif Irrigation	111075 Ha.	171075 Ha
(ii)	Rabi Irrigation	111075 Ha.	131075 Ha.
(iii)	Summer crop	44430 Ha.	644430 Ha.
(iv)	Total Irrigation	266580 Ha.	366580 Ha.
(v)	C.C.A.	137912 Ha.	212409 Ha.
(vi)	G.C.A.	207743 Ha.	319961 Ha.
(vii)	Irrigation intensity	193%	173%
(viii)	Power generation	500 MW	300 MW
(ix)	Water reserved for drinking water purpose	30 MCM	30 MCM
(x)	Water reserved for Industrial purpose	500 MCM	500 MCM
(xi)	Water reserved for Electricity generation	3185.4 (+inflow)	3185.4 (+inflow)
(xii)	Water reserved for irrigation	1206.19 MCM	1693.6 MCM

**Note :-**

Above salient feature are given as per latest planning. These data may change after different alternative planning at DPR stage. Other data which are given earlier will remain unchanged.

  
Chief Engineer

Mahanadi Project Raipur (C.G.)

I/23656/2020(2)

भारत सरकार

जल शक्ति मंत्रालय

जल संसाधन नदी विकास एवं गंगा संरक्षण विभाग

केंद्रीय जल आयोग

परियोजना मूल्यांकन (मध्य) निदेशालय

Government of India

Ministry of Jal Shakti

Dept. of Water Resources, RD&amp;GR

Central Water Commission

Project Appraisal (Central) Directorate

To,

The Chief Engineer, Mahanadi Project,  
Water Resources Department,  
G.E. Road, Shaheed Bhagat Singh Chowk, Raipur  
Chhattisgarh

**Subject: Preparation of DPR for Bodhghat Multipurpose Project – reg.**

Sir,

This has reference to letter vide File No.T-28017/3/2020-PA(C) DTE dated 22.05.2020, whereby in-principal consent for preparation of DPR for Bodhghat Multipurpose Project, was communicated.

Further, as you are aware, the DPR is to be made in consultative mode, as per the latest guidelines of CWC, to facilitate early approval of the DPR, as and when it is submitted.

In view of the above, CWC would like to review the progress made in preparation of DPR, and also progress reg. Statutory clearances, through Video Conference meeting. You are requested to indicate the convenient date and time for the same.

An early response in this regard will be appreciated.

(Rajiv Kumar)  
Director

Copy to:

1. Secretary, Water Resources, Public Health Engineering And Religious Trusts Endowment Department, Mahanadi Bhawan, Mantralaya, Atal Nagar, Naya Raipur- 492002, Chhattisgarh.
2. Engineer- in Chief, Water Resources Department, Shivnath Bhawan, Sector-19, North Block, Naya Raipur, Atal Nagar, Chhattisgarh.

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ईमेल: [pacent@nic.in](mailto:pacent@nic.in)

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