

Clarification of queries raised during first pre-bid meeting held on 10.11.2008

Sl. No.	Queries raised	Clarification by BHPC
1.	Please let us know the source of investment for dam construction apart from the cost apportioned to the hydroelectric power project. As per the documents received us, the cost apportioned for dam to power project is 25% of the total cost.	This issue has been separately recorded and we would request your suggestions in writing on this issue. In this regard, we have communicated separately to you vide our letter dated 13 January 2009.
2.	Please share the methodology of irrigation benefit sharing.	The methodology is available in the DPR.
3.	Whether concurrence for the execution of the project has been given by the Governments of UP, Jharkhand & MP ? These states are stakeholders in the project as the total submergence area is shared by them.	This Indrapuri Reservoir Project has been planned in accordance with the provisions under the Inter-state Agreement executes for sharing of Sone Water between Co-basin States.
4.	What is the mechanism to ensure the release of water for this project by various upstream projects in different states with respect to the signed agreements?	The pattern of release of water for this Project is agreed to annually in a meeting of the Joint Operation Committee (JOC) for Rihand Reservoir, in which Govt. of Bihar is represented by the Water Resources department. The JOC is chaired by Member (WP&P), Central Water Commission.
5.	Please let us know if there is any provision for compensation on account of lost power due to releases for irrigation.	Indrapuri Reservoir Project is considered a Multipurpose Project as it envisages to support the already existing Sone Canal System, off-taking from Indrapuri Barrage, located about 70 km downstream on river Sone and it also envisages to harness the power potential available at proposed dam site. It is relevant to make it clear that the irrigation system is already in existence and construction of any component related to irrigation other than the dam, is not involved in this multipurpose project.

		<p>An inter-state agreement has already been executed between Co-basin State of Madhya Pradesh, Uttar Pradesh and Bihar (unified Bihar) for sharing water of Sone River Basin. The availability of water at the proposed dam site as well as its monthly distribution is also based on this interstate agreement.</p> <p>The power generation at the proposed dam site is based on the release pattern as required to the demand of water in the existing canal system.</p> <p>However, the generation of hydro-power at the proposed dam site may be optimised during rainy season taking into consideration the release for meeting the demand for irrigation, filling of the reservoir for use of water during lean period and discharge through the spill-way to provide safe passage to the flood water.</p>
6.	<p>Please clarify whether the FRL (173m) as indicated in the project report given to us as a part of RFQ documents is final and agreeable to upstream project(s).</p>	<p>Based on the Bansagar Agreement between the three states of Uttar Pradesh, Bihar and Madhya Pradesh, Bihar is entitled to a minimum annual quantity of water to the extend of 7.5 million acre feet (MAF).</p> <p>The present level of FRL of 173 m has been designed keeping this minimum level of water flow in mind.</p> <p>However, the selected developer would have the flexibility to alter / modify this level, provided the revised FRL would ensure this minimum level of water flow to Bihar.</p>
7.	<p>As per the tender documents, the cost estimate of the project was prepared in the year 1989 and was updated in the year 1994. Is there up to date cost estimate available for the project? If so, what is the value, and the year in which it was updated ?</p>	<p>The cost has not been updated since 1994.</p>
8.	<p>The rehabilitation and resettlement as per the 1994 estimate is of 4,229 families involving 49 villages in Bihar and UP with population of approximately 45,00 families. Has any other survey been carried out in the recent past to know the exact number of families who are to be rehabilitated?</p>	<p>The figures related to the information provided in the DPR based on a survey carried out during the DPR preparation stage. However, a fresh survey needs to be carried out in this regard. Interested Bidders may give their suggestions in writing in this regard, which would assist BHPC to take a decision in this regard.</p>

9.	Rivers in India sometimes change their course. Is the present course of river is same or is there any change. In case of any change, has the submerged area of reserve forest in 3 states - MP, UP & Bihar - have been reassessed?	There is no change in the course of the river in this case.
10.	This is basically a River Valley project and power is by product with a plant load factor of 19.19%. In such cases, normally the cost of irrigation component is to the tune of 20-30% and the States gets the benefit of this facility from this project. To what extent the states will contribute towards the cost of the project for irrigation component ?	This is available in the DPR.
11.	Since it involves a lot of rehabilitation and reassessment of the families, will Govt. of Bihar take the responsibility of doing the rehabilitation work ?	The R&R implementation will be carried out by the BHPC / or any other agency. However, the Bidder needs to assess the requirement for R&R and adequately provide for it in its bid. This will be further detailed in the Request for Proposal (RFP) document in the subsequent stage of the bidding process.
12.	Keeping the above in view, will Govt. of Bihar compensate or bear the cost of rehabilitation and resettlement package as per the latest notified rehabilitation scheme approved by Govt. of India?	The cost of R&R. is the part of the cost of dam and would need to be borne in proportion to the methodology prescribed in the DPR.
13.	Up to what percent of power will be purchased by the Bihar State Govt. out of total power generated from the project?	In the RFQ document, BHPC had provided the Bidder the entire flexibility on selling the power on its own. However, BHPC would welcome any suggestions from Bidders in this regard, as to what would be an optimum mix between the merchant capacity that the Bidders would like to retain with themselves. Based on feedback to be received from the Bidders, BHPC will take a decision and this will be communicated to all prospective Bidders at the RFP stage.
14.	What will be the basis of calculation of the cost of power to be purchased by the Govt. of Bihar?	The tariff for the percentage of power that would be purchased by Bihar (apart from the free component of 13%) would be decided by the Bihar Electricity Regulatory Commission.

15.	Since the project involved a lot of rehabilitation and is having major component in irrigation, what are other facilities and cost that will be provided by the State of Bihar to implement the project?	BHPC will provide all necessary support of interacting with various state and central government agencies as required and as feasible. However, the selected bidder would need to approach CEA directly for its clearance on the project. In addition, BHPC would also provide assistance to the selected bidder in terms of implementation of the R&R policy. However, the selected Bidder would need to pay for the R&R costs, as per the applicable scheme.
16.	Is any special incentive is given by State of Bihar to the IPP?	No other incentive is envisaged at this stage. However, should the Govt. of Bihar come out with any such scheme applicable to the project, BHPC would communicate such incentives and details of such schemes to all prospective Bidders and provide all necessary assistance and documentation to enable the Project receive such benefits.
17.	As to what would be the status of project after project period of 40 years.	The Project will be handed back to BHPC / State Govt. of Bihar at the end of the contract period, at a residual value.
18.	As to how the sharing of cost of Dam would be effected by other users : <ul style="list-style-type: none"> ▪ User Type and % of sharing? ▪ Modalities of infusion of capital cost during construction of the project? ▪ In case, it is to be infused by the State Govt., what would be the modalities? ▪ In case, the same is to be infused by Private Sector Company/ies, what would be the modalities? 	Please refer to Clause 1 of this table.
19.	Reservoir operation : As to whether the reservoir operation will be in the interest of Power or in the interest of Irrigation/other users?	The Water Resources Department, Govt. of Bihar has prepared the DPR for Indrapuri Reservoir Project after undertaking topographic, hydrological, geological and other necessary investigations involving irrigation component. BHPC has prepared the DPR for harnessing the hydro power potential available at proposed dam site, based on the investigations carried out by Water Resources Department, Govt. of Bihar and other details available in the DPR prepared by Water Resources Department, Govt. of Bihar.

		<p>The Obra H.E. Project (situated in Uttar Pradesh) is located upstream of the proposed Indrapuri Reservoir and the tail water level at Obra H.E. Project is affected by the back water of Indrapuri Reservoir. In order to resolve the issue of any adverse impact on generation of hydro-power at Obra H.E. Project, the Survey of India (Sol) has been entrusted the job of fixation of Bench Marks and undertaking topographic survey for preparation of contour map with one meter contour interval for the submergence area between RL 169.0 to 173.0m. Sol has already started the work and the fixation of benchmarks has been completed and the topographic survey for preparation of the contour map is currently in progress. The interested parties may visit the site, with adequate advance request in writing for such visit to BHPC to familiarize themselves with the present situation.</p>
20.	<p>As we understand the project has been conceptualized based on sharing of water from Bansagar, U.P. through an inter-state Agreement. A copy of the Agreement may be provided to enable us to analyze the inflow of water in the reservoir of the instant project in terms of the above mentioned Agreement.</p>	<p>A copy of the agreement is enclosed.</p>
21.	<p>As to what would be the location of measurement of 13% of the energy as royalty to the state?</p>	<p>The 13% free power to be supplied to the state from the Project would be based on measurements from the station switchyard of the Project.</p>
22.	<p>Whether the DPR prepared by the selected developer require approval by CWC/CEA?</p>	<p>Approval by CWC/CEA is a statutory requirement and the Selected Bidder would necessarily need to formally approach the CEA for such clearances and concurrences.</p>
23.	<p>As to what would be the Time Schedule for the Project?</p>	<p>The DPR provides the time period for completion of ninety (90) months and this would be the minimum time period provided for completion of the entire project. However, the actual time period for completion would be detailed in the RFP.</p>

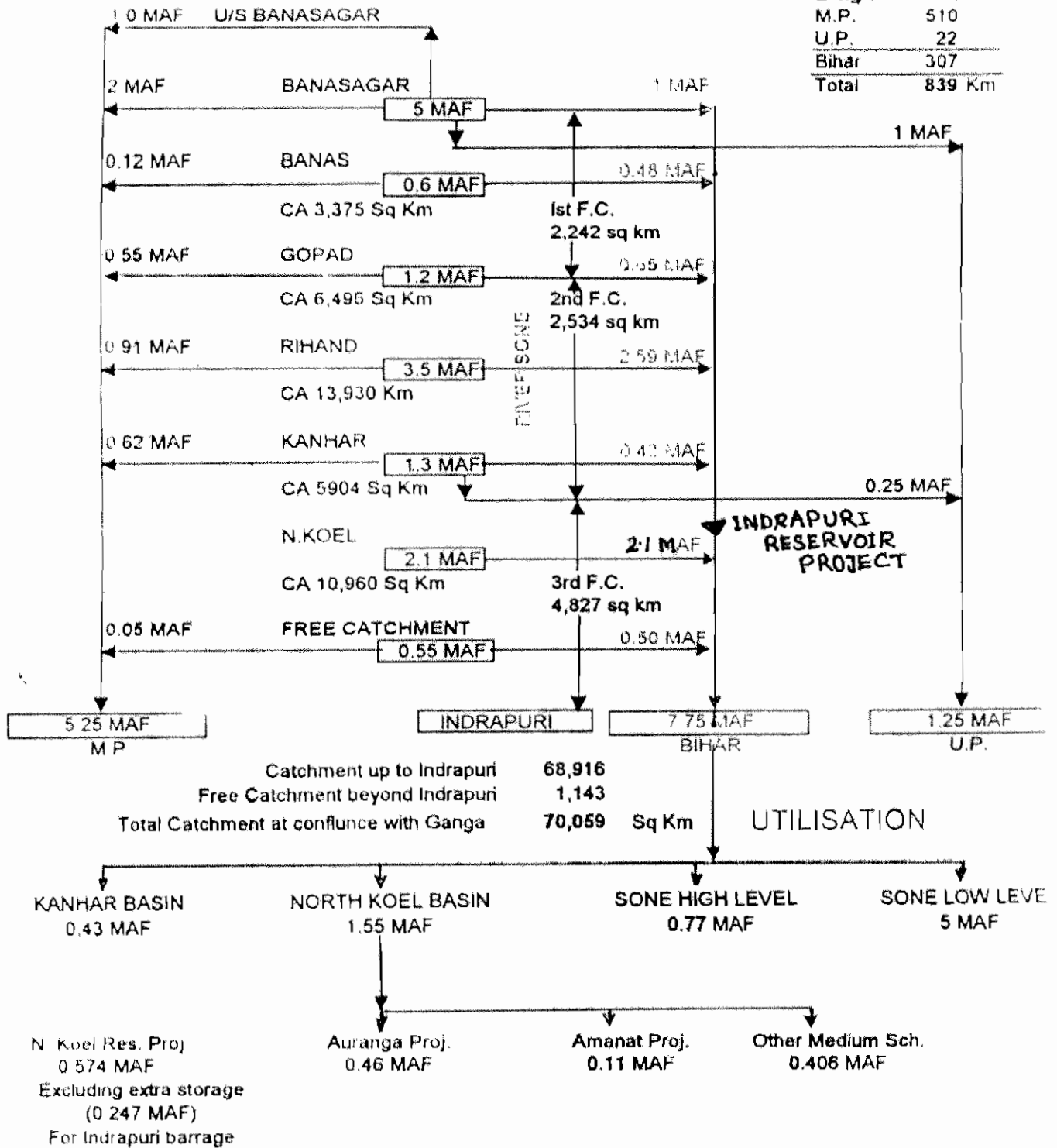
24.	Land Requirement	This will have to be assessed finally after approval of the project. However, the land has been demarked based on survey by Survey of India (Sol).
25.	As to what would be the evaluation criteria at RFP Stage (upfront payment or Tariff or a combination of these with other criteria)?	This is currently being discussed with various bidders. Suggestions in this regard are welcome from prospective bidders. The amended National Tariff Policy specifies that one of the requirements for fixation of tariff on a cost-plus basis is that the Selected Bidder be selected on the basis of a one single quantifiable parameter. This will be communicated at the RFP stage.
26.	Condition regarding sale of power within the State / Outside?	Please refer to Clause 13 of this table above.
27.	Please explain the meaning of "Development of Project". Can item rate construction contract can also be considered as completed project for technical criteria.	The development of projects means the construction of the project, along with the construction of the dam.
28.	Please consider technical credentials of each member of consortium for jointly meeting the technical qualification rather than credential of only the lead member.	The technical and financial qualification requirements have been fixed based on the Ministry of Power documentation. However, given the importance of a sound technical partner for any generation project, the technical requirements need to be met by the Lead Member in full, in case of the Lead Member.
29.	Please confirm the concession period whether it is 30 years (as specified in NIT) or 40 years (as specified in Clause 1.2).	The concession period is 40 years as specified in clause 1.2 of the RFQ. This is in line with the modified National Tariff Policy, which will provide the Selected Bidder the flexibility of opting for cost-plus based tariffs, provided all other conditions are met.
30.	What is the status of environmental clearance and land acquisition for the project? Has any process been initiated so far in this regard.	A study has been undertaken earlier by a consultant under WRD, Govt. of Bihar, but the same is yet to be finalized. However, BHPC is currently initiating the process of filing for environmental clearance.
31.	Are there any inter-state issues since project is located at the border of Bihar, Jharkhand, UP and MP?	An inter-state agreement has already been executed by the co-basin states of UP, MP and Bihar.

32.	Hydrology data to determine power capacity of the project is taken from SRC report. Is there any modification in hydrological data after the construction of Bansagar and other upstream projects?	The details of hydrological data are available in DPR.
33.	Please explain whether Indrapuri project will be a multipurpose project or exclusively a power project. If it is a power project, who will construct the Dam whether WRD or the successful bidder?	It is multipurpose project. But the instant project does not include the construction of any component of irrigation system. The irrigation system is already exists. The dam will have to be constructed by the selected Bidder as part of the Project.
34.	Format 4.10 of RFQ: Requirement for Statutory Auditor's Signature on the format is not required since it is only a format for use of the credentials of Parent / Affiliate	We have reviewed the request and agree to the suggestion. The revised format will be put up on BHPC's website (www.bshpcld.com) shortly.

1.	Sharing of the Irrigation Component of the Project:	The existing DPR for Indrapuri envisages a sharing of the cost of the dam in the ratio of 72:28 in favour of irrigation and power components respectively. In the absence of updated project cost estimates, we would like to seek proposals from the private parties on the manner in which cost of the dam can be factored in the bid process. It is clarified that the entire dam has to be constructed by the selected bidder, with GOB / BSHPC providing the shared component of the project cost on a phased basis, on mutually agreed time lines / milestone-linked basis.
2.	Flexibility of entering into power purchase agreements	The present structure of sale of power from the Indrapuri hydroelectric project, apart from the minimum 13% of free power to be made available to the host state, has been left to the discretion of the selected bidder. However, during discussions based on the queries raised by the bidders, it is apparent that they are open to entering into long term power purchase contracts with Bihar / Jharkhand. We would, therefore welcome your views regarding the ideal mix between such powers to be sold on long term arrangements vis-à-vis allocation of merchant capacity that would be attractive to the interested bidders.

75% Dependable Flow of River SONE & its distribution at various points and among Co-basin States

Length of River	
M.P.	510
U.P.	22
Bihar	307
Total	839 Km



AGREEMENT ON BANSAGAR PROJECT

Bansagar Project serves some of the worst drought areas and therefore, requires implementation immediately so that the recurring damage due to famine and scarcity conditions may cease.

In Bansagar Project a storage of 2 MAF would be for the use of Madhya Pradesh. They may utilise waters up to a total of 2.0 MAF at this site for irrigation both present and future.

Madhya Pradesh will also use 1.0 MAF in the areas up-stream of Bansagar for irrigation.

Madhya Pradesh will also use 2.25 MAF for irrigation in the areas of Sone Basin in their state down-stream of Bansagar Dam.

Madhya Pradesh can develop power at the foot of the the Bansagar Dam and in the lower reaches of the Sone in their territory. They can also generate power at Chachai falls making use of the diverted waters which are intended eventually for irrigation.

In Bansagar Project a storage of 1.0 MAF will be for Uttar Pradesh. Uttar Pradesh will use 1.25 MAF of Sone waters for irrigation out of which 0.25 MAF would be from Kanhar river and upto 1 MAF from the Bansagar dam, and by lifting from Sone river down-stream of Bansagar. The Govt. for Uttar Pradesh will decide the relative proportions of the use of this latter 1 MAF.

In Bansagar Project a storage of 1 MAF will be for Bihar. The allocation of water from Sone river agreed to would be for Bihar 7.75 MAF while it is 2.25 MAF for M. P. and 1.25 MAF for U. P., Bihar's irrigation requirement are accepted as 8.00 MAF. Therefore about 0.25 MAF will be supplemented by pumping from the Ganga. Project in the Sone Basin depending on the availability of 8.00 MAF will be sanctioned for Bihar.

The cost of Bansagar including cost of rehabilitation will be shared approximately in proportion to the water at the site to be utilised by the three states i.e. 2:1:1, i.e. 50 percent, 25 percent, 25 percent.

7. Rules for regulation of filling and use of Bansagar Reservoir will be drawn up by a Committee consisting of Chairman, Central Water & Power Commission and Chief Engineer of Irrigation of the three states.
8. If the annual flow in the river is less or more than 14.25 MAF there will be pro-rata cut or increase in the use of Sone waters by the three states in proportion to the allocation for the various states as above after deducting requirements of old irrigation under the Sone barrage assessed at 5 MAF which will receive water as priority. The proportion of cut or increase would therefore be 5.25:2.75:1.25 for Madhya Pradesh, Bihar and Uttar Pradesh respectively. In planning the National Water Grid priority will be given for irrigating the scarcity areas of Sone river basin.
9. As the hydrology of the river Sone and its tributaries is not well established and as Ganga water are abundantly available for utilisation by lift, the three states agree that the Govt. of India may set up a special river commission for study of Sone river and draw up a comprehensive plan for the region taking into account any re-adjustments in the use of waters considered necessary by the states. These studies may be made available in 5 to 10 years. Based on these studies further planning of irrigation and other benefits to the region will be undertaken after discussion and agreements between the states.
10. These agreements will not be a precedent for any other inter state river basin disputes.

(Sd/-)
ABDUL GAFOOR
Bihar

(Sd/-)
P.C. SETHI
Madhya Pradesh

(Sd/-)
AKBAR ALI KHAN
Uttar Pradesh

Delhi
the 16th September 1973

AGGREEMENT DATED 16th SEPTEMBER, 1973
BETWEEN THE GOVERNMENT OF BIHAR AND
UTTAR PRADESH ON RIHAND

1. Rihand Reservoir built in 1982 is being used by Uttar Pradesh for power generation. The annual flow varies generally from 3 MAF to 4 MAF, and in some years it goes down to 1.9 MAF and in some years it goes up beyond 6 MAF upto 9 MAF.

Bihar requests that 0.3 MAF of the Rihand storage may be reserved for use for additional waters for irrigation under Sone Barrage in October.

Detailed studies are to be made by a team of Engineers from Bihar and Uttar Pradesh states to draw up detailed recommendations including financial aspects for consideration by the Governments of Bihar and Uttar Pradesh.

(Sd/-)
ABDUL GAFOOR
Bihar

(Sd/-)
P.C. SETHI
Madhya Pradesh

(Sd/-)
AKBAR ALI KHAN
Uttar Pradesh

New Delhi
Dated the 16th September 1973

AGREEMENT ON SHARING OF KANHAR WATER

1. The sharing of Bihar, Madhya Pradesh and Uttar Pradesh in the utilisation of Sone water in accordance with the Agreement reached amongst the states of U-P, Bihar and Madhya Pradesh on 16th September, 1973 shall remain unchanged.
2. It is agreed that at Baradih dam site proposed by Bihar on the border of Madhya Pradesh and Bihar, the available of Water is 0.90 MAF whereas the total water availability of Kanhar river upto its confluence with the Sone river is 1.30 MAF.

It is hereby agreed that the share of Bihar in Kanhar Waters at Baradih shall be 0.43 MAF. The share of M. P. shall be 0.47 MAF upto Baradih dam site and 0.15 MAF between Baradih and M. P., U. P. border. The shares of U. P. at the Anwar dam site proposed by U. P. shall be 0.15 MAF and between this dam site and the confluence of the Kanhar river with the Sone river 0.10 MAF.

It is agreed that Baradih dam may be constructed by Bihar to utilise its share of 0.43 MAF. Madhya Pradesh, if it so desires may take a proposal within seven months at the latest to utilise some waters out of its total share of 0.62 MAF from Baradih Reservoir in which case the reservoir shall be planned for the combined utilisation of Bihar and Madhya Pradesh. The Central Water Commission shall decide the height of Baradih dam as proposed by Bihar for utilisation of 0.43 MAF within one month at the latest.

The norms of rehabilitation of persons displaced by the construction of dams of Baradih and Anwar shall be mutually decided amongst the concerned State Government

Bihar and Madhya Pradesh agree to the construction of a dam near village Anwar as proposed by U. P. for utilising 0.15 MAF

(2)

All the three state Governments are free to use their shares of Karmar water in the best manner they like

If the availability of water as assessed above is more or less, the shares of the states shall change pro-rata

(Sd/-)
(Anun Singh)
Chief Minister
Madhya Pradesh

(Sd/-)
(Vishwanath Pratap Singh)
Chief Minister
Uttar Pradesh

(Sd/-)
(Dr. Jaganath Misra)
Chief Minister
Bihar

Signed in presene of

Delhi on 20th February' 82

(Sd/-)
Kadar Pandey
Union Minister for Irrigation

GOVERNMENT OF INDIA
CENTRAL ELECTRICITY AUTHORITY
SEWA BHAWAN, R.K. PURAM
NEW DELHI - 110066

No. 2/BHR/10/98-PAC/11840-47

Dated the 3rd December, 1998

Shri Hare Krishna,
Managing Director,
Bihar State Hydroelectric Power Corpn. Ltd.,
Sone Bhawan, Birchand Patel Marg,
PATNA - 800001

Subject: Sankh H.E. Project Stage-II (2x90 MW + 2x3 MW) in Bihar
by M/s. Bihar State Hydroelectric Power Corporation
Ltd. - Techno-Economic Clearance - regarding.

Reference: Your letter No. Civil/Tender/14-1/93-IV/3116 dated 16.11.98.

Sir,

The Detailed Project Report (DPR) of the subject proposal as mentioned above was received in CEA in December, 1997 for Techno-Economic Clearance in favour of Bihar State Hydroelectric Power Corporation Limited under State Sector. The Report has been under detailed examination in CEA and CWC for techno-economic appraisal of its various aspects. The various comments of CEA/CWC in this regard have also been forwarded from time to time to the project authority for compliance. M/s. BHPC vide their letter as referred above have now intimated that the pre-qualification bids have been invited from prospective entrepreneurs for implementing the scheme on Build, Own, Operate and Maintain (BOOM) basis. As the scheme is now intended to be established in Private Sector and not in State Sector, all statutory clearances are required to be obtained in the name of the successful bidder who will be required to submit the DPR afresh. As such no useful purpose will be served in continuing with the examination presently being carried out in CEA and CWC in respect of techno-economic clearance in its present form in State Sector. The DPR for the scheme is therefore not pursued any further at our end and may be treated as returned.

Yours faithfully,


(VIJOY KUMAR)
SECRETARY, CEA