Petition No. 1267 of 2017

BEFORE
THE UTTAR PRADESH ELECTRICITY REGULATORY COMMISSION
LUCKNOW

PRESENT:
Hon'ble Shri Raj Pratap Singh, Chairman
Hon'ble Shri Kaushal Kishore Sharma, Member
Hon'ble Shri Vinod Kumar Srivastava, member (Law)

IN THE MATTEROF: **Approval for the Completed Capital Cost and extension of the Commercial Operation Dates for Shrinagar Hydro Electric Project (4 X 82.5 MW) ("SHEP/Project") till the actual Commercial Operations Date of the Project under the Power Purchase Agreement dated 28.06.2006 between the Alaknanda Hydro Power Company Limited, the Petitioner and the UP Power Corporation Limited, the Respondent.**

Alaknanda Hydro Power Company Limited (AHPCL)
156-159, Paigah House, SP Road,
Secunderabad – 500003

Petitioner

AND

UP Power Corporation Limited,
(through its CMD),
7th Floor, Shakti Bhawan,
14 Ashok Marg, Lucknow

Respondent

The following were present:
1. Sri. P. V. Prasanna Reddy, CEO, AHPCL
2. Sri Vishrov Mukerjee, Advocate, AHPCL
3. Sri. E. Chandan, DGM, AHPCL
4. Sri T. Srinivas Reddy, GM, AHPCL
5. Sri Krishna Bhupal
6. Sri Rishab Mishra
7. Sri Sodekar Mannava
8. Sri Ashish Mittal

9. Sri Santosh Reddy, AHPCL
10. Sri Venkat Bhaskar Tadepalli, AHPCL
11. Sri Divyanshu Bhatt, Advocate, R.S. Awasthi
12. Sri R.S. Awasthi, Consumer Representative
13. Sri Bharat Jhunjhunwala, Consumer, Uttarakhand
14. Sri Avdhesh Verma, President, U.P. State consumer council
15. Sri Bhavesh Aswal, Consumer, Uttarakhand
16. Sri, Ankur Sood, Consumer, Uttarakhand
17. Sri Deepak Raizada, CE-PPA, UPPCL,
18. Sri Mohit Goyal, Consultant, UPPCL

Order
(Date of Public Hearing:02.06.2020)

1. The Petitioner, M/s Alaknanda Hydro Power Co. Ltd. (AHPCL) has filed the Petition No.1267/2017 before the Commission on 16.11.2017 for approval for the Completed Capital Cost and extension of the Commercial Operation Dates for Shrinagar Hydro Electric Project (4 X 82.5 MW) ("SHEP/Project") till the actual Commercial Operations Date of the Project under the Power Purchase Agreement dated 28.06.2006 between the Alaknanda Hydro Power Company Limited, the Petitioner and the UP Power Corporation Limited, the Respondent.

2. In this Petition, the Petitioner has stated that as the determination of completed cost of the Project is directly dependent upon the extension of COD up to the actual COD of the Project, the extension of COD of the Project needs to be dealt with at the first instance. Further, Petitioner has stated that their Power Purchase Agreement dated 28.6.2006 was approved by the Commission vide order dated 7th June 2006. The Petitioner has also stated that as per PPA, the Project was to be commissioned by 10th October 2010.

3. The Petitioner had approached this Commission earlier for 1st extension of Project COD to 31.03.2012 on account of various reasons viz; delays in acquisition or transfer of civil, forest and private land, execution of lease deed of already acquired land, permission to purchase additional private land, various Government Authorisations, Settlement of R&R issues and rehabilitation of Dhari Devi Temple. Commission vide order dated 12.05.2009 had extended the Project COD to 31st March 2012.

4. Subsequently, Petitioner had approached the Commission for seeking 2nd COD extension up to 31st May 2013 on account of litigations in courts including and involving MOEF Directives and delay in financial tie-ups etc. Commission vide order dated 02.07.2012 had extended the Project COD to 31st May 2013.

5. Further, Petitioner has stated that they could commission all the four Units of the Project only on 21.06.2015 on account of unprecedented flash floods in the State of Uttarakhand. **The said floods occurred due to the cloud burst and incessant rains at Chaurabari lake situated near Kedarnath located in the upper reaches of Himalayan region and in the Project, site surrounding areas.** The flash floods inundated the power-house complex of the Project on 17th of June 2013, bringing in heavy river silt and debris thereby causing severe damage to the equipment already installed in the power- house. The Completed capital cost of the Project has been stated to be Rs. 5533.37 Crs.

6. The Petitioner has made following prayers in the Petition:

   a. Allow the present Petition and extend SCOD dates of the Project from the dates of SCOD approved in its orders dated 02.07.2012 to the actual COD of each Unit of the Project detailed below:

Unit 1	on 23rd April 2015
Unit 3	on 02nd May, 2015
Unit 2	on 21st June 2015 and
Unit 4	on 21st June 2015

   b. Declare that the Project has achieved COD on 21.06.2015.

   c. Declare that the reasons behind the delay caused in achieving the COD in consonance with the order dated 02.07.2012 were due to the reasons not attributable to the Petitioner, that the same were beyond the control of the Petitioner and thus the same are *force majeure* and/or *change-in-law* events as per law;

d. That the Petitioner may kindly be allowed to approach this by the Hon'ble Commission for the determination and approval of the final Tariff of the Project by filing a separate Petition;

e. To consider the additional costs incurred by the Petitioner during the *force majeure* period; and declare the Completed Capital Cost of the Project as Rs.5,533.57 Crore;

f. Pending the adjudication of the present Petition, the Hon'ble Commission may be pleased to consider 95% of Rs. 5,533.57 Cr as the Provisional Completed Cost for the purposes of computation of Provisional Tariff, till this Hon'ble Commission determines the Completed Cost of the Project and Tariff of the Project;

Background of the Case:

7. In 1994, Government of Uttar Pradesh decided to entrust this Project for execution to the Private Sector. Accordingly, MOU was signed by Duncan Industries Limited with Govt. of UP on 27th August,1994, for the execution of the Project. Subsequently, Duncan entered into a shareholder agreement with Synergy Energy Inc. USA on 27th June 1998. A new Company to develop this Project was formed in the name of Duncans North Hydro Power Company Limited (DNHPCL). The power generated from the Project was to be purchased by UPSEB. PPA was signed between UPSEB and DNHPCL on 28th August 1998. Implementation agreement and water use agreement were also signed on 28th August 1998.

8. Consequent to bifurcation of UP State, a Restated Implementation Agreement (RIA) was signed between AHPCL, Govt of UP, UPPCL and Govt. of Uttarakhand (Then Uttaranchal), vide agreement dated 10th February,2006. **As per RIA, the Project was to be commissioned in 13 years from effective date of PPA (28th August 1998) i.e. 28th August 2011.** A restated and modified PPA was signed by AHPCL with Govt. of UP on 28th June 2006. **As per PPA dated 28th June 2006, the SCOD of the Project was agreed to be not later than 10th Oct 2010.**

9. **CEA accorded TEC dated 14th June 2000 for this Project with a capital cost of Rs. 1299.89 Cr + USD 95.054 million with exchange rate of Rs. 42.00. The total TEC cost including both domestic and foreign component is Rs. 1699 Crs approx.**

10. Tata Power Company took over DNHPCL and its name was changed to Alaknanda Hydro Power Company Limited (AHPCL), for implementation on BOOT (Build, own, operate and transfer) basis in October 2003.

11. **CEA transferred the TEC in favour of AHPCL on 14th July 2004 with the same terms and conditions.** CEA had also granted extension of validity up to 14.06.2005. CEA further extended the validity of TEC to 14.06.2006 vide its letter dated 20.07.2005 with the same terms and conditions.

12. MOEF issued environmental clearance vide letter dated 3-5-1985. This clearance was transferred in the name of DNHPCL vide letter dated 27-7-1999 and then transferred in the name of AHPCL vide letter dated 27-3-2006. **MOEF further clarified the capacity of 330 MW and other parameters vide letter dated 3-8-2011**.

13. UPERC had approved the Capital Cost of the project as Rs.1977.87 Crs vide its order dated 07.06.2006. Subsequently, vide order dated 16.10.2007 the revised Capital Cost of Rs. 2112.95 Crore was approved, due to increase in interest and financing charges and changes in foreign currency component. This cost was further revised to Rs.2438.26 crore vide order dated 23.06.2008 due to increase in raw material cost. Further the cost of Rs.2697.70 crore was approved vide Commission's order dated 10.12.2008 due to revised site-specific Seismic Design Parameters as approved by NCSDP. The Petitioner further approached the Commission vide Petition No. 702/2010 and Petition No. 710/2010 for revision of cost to 3200.70 Crs and Rs. 3675.16 Crs respectively.

Proceedings in Petition No.1267/2017:

14. UPPCL filed its counter affidavit dated 20.12.2017. UPPCL while not agreeing with the averments made regarding extension has made following submission:

(i) **Stop work order issued by Ministry of Environment and Forest (MOEF):**

NGT has in its order dated 05.11.2012 has categorically stated that " *order in question does not obstruct the applicant from carrying out the project work and the tenor of the order is to monitor the due compliance by calling for the MOEF to give status report about the two aspects state in the order which is sought to be reviewed and to call upon the project proponent to clarify the Muck Management status vis*

a vis progress of work". In light of order of the NGT, the contention of the Petitioner that it had to stall work does not stand ground and is liable to be rejected thus we request Ld. Commission that to reject request for allowing extension of COD from 30.05.2011 to 05.12.2012.

(ii) **Unprecedented flash flood on 17.06.2013:**
Petitioner was not required to stop work in view of NGT order, the original COD approved by Commission stands and thus claim is not tenable. Further, Petitioner is not able to substantiate why it took such a long time of one year to restore operations. M/s UPPCL requested LD. Commission that this may be evaluated by the Commission as part of prudence check as to reasons for such a long period in completing restoration.

(iii) The Construction Insurance premium for the period 30.09.2013 to project COD is Rs. 48.02 Crs as against Rs. 24.01 Crs, incurred till 30.09.2013. Amount seems excessive and needs to be explained by the Petitioner.

(iv) IDC has increased from Rs. 995.01 Crs. As on 30.09.2013 to Rs. 1800.08 Crs. As on date of COD. The step surge in amount needs to be explained by the Petitioner.

(v) Petitioner has stated that *"certified Audited Report"* from the statutory auditors has been submitted confirming the capital cost of Rs. 5533.57 Crs. In the certificate, it is mentioned that since the procedures performed in connection with certification of cost of the project up to 21st June 2015 do not constitute either an audit or a review made in accordance with the generally accepted auditing standards in India we do not express any opinion. *"As per Regulation 5 (3) actual capital expenditure incurred up to date of commercial operation needs to 'audited and certified by the statutory auditors."* The certificate submitted by the Petitioner is not audited and does not full the pre requirement. Petitioner may be directed to provide certificate by statutory auditors in compliance of Regulation 5 (3).

15. AHPCL vide its letter dated 16.02.2018 has submitted the following:

(i) Project got delayed due to stoppage of work on account of various litigations which are of Force Majeure nature and Petitioner is entitled for extension of COD for the period between 30.05.2011 to 05.11.2012. Further, regarding flash floods in June 2013, AHPCL submitted that it will substantiate its claim to the expert Committee through relevant material and position on ground. Commission further reiterated its earlier order for appointment of DIA.

(ii) Vested interest alleged that the project did not have environmental clearance to develop 330 MW project and the clearance granted was only for 200 MW. It was also alleged that the petitioner was illegally dumping muck on the banks of the Alaknanda River causing pollution to the environment and submerging Dhari Devi temple.

(iii) MOEF vide letter dated 30.05.2011 directed that it is reviewing the matter including compliance to the environmental clearance issue to the project by undertaking site inspection shortly. Therefore, till a final decision taken in the matter no other construction work other than safety and electrical works up to 200 MW should be under-taken.

(iv) MOEF issue notice dated 30.06.2011 under Section 5 of Environmental Protection Act, 1986 directed the Petitioner to undertake construction work only related to muck disposal and quarry restoration etc.

(v) The petitioner had to stall other construction activity of the project and carried out certain works in compliance with the notice.

(vi) The vested interest filed an appeal No. 9 of 2011 before NGT for review of the matter and taking necessary steps. NGT vide order dated 7th August 2012 permitted the Petitioner to carryout project works after four weeks if MOEF fail to take decision within that period. A review Petition was filed against the order dated 07.08.2012 seeking NGT to not allow the petitioner to carry out the projects which was dismissed by NGT vide order dated 27.09.2012.

(vii) The Petitioner moved an application before the NGT with regard to starting of the project works and **NGT passed order dated**

05.11.2012 clarifying that the Order dated 07.08.2012 does not obstruct the applicant from carrying out the project works and tenor of the order is to monitor due compliance only with regard to muck management plant. Petitioner can continue with the project construction works and the Order dated 07.08.2012 directs the MOEF to verify the compliances made by the Petitioner.

(viii) The Petitioner filed Petition No. 579/2012 for extension of SCOD on the presumption that MOEF might revoke its direction for suspension of works before April 2012. The Commission vide order dated 02.07.2012 granted extension the COD of the project to 31.05.2013. As per the order increase in project cost due to force measure events shall be considered as per applicable provisions of PPA and earlier orders of the Commission as and when the same is brought before the Commission. Ultimately the matter was ceased by the Hon'ble Supreme Court order dated 13.08.2013 in C.A. No. 6736/2013 by declaring that the Petitioner complied with the necessary conditions imposed by MOEF. The Petitioner is entitled for extension of COD for the period between 30.05.2011 to 05.11.2012 and further during the period 05.11.2012 to 26.05.2014, the day when Generating Station was made ready for generating power after carrying out necessary repair works due to flash floods in June 2013.

(ix) The imposition of the notice and the occurrence of flash floods are two independent force majeure events and require to be adjudicated based on the facts related to the each of the said force majeure events. Only relation in between two force majeure events is that the impact of the said events on the execution of project works is continuous in nature.

(x) The Respondent has admitted that the stop work order and the notice are force majeure in nature as per the PPA and that the Commission's order dated 02.07.2012, wherein, the Commission also considered the imposition of stop work order, the notice and the ongoing litigation as force majeure and were beyond the Petitioner control, the said order has attained finality. At the same time the flash flood was an "Act of God" which was also beyond the control of the Petitioner and as such, the same is also a force majeure event as defined under Article 14 of the PPA.

Therefore, as envisaged by Article 14 of the PPA the Petitioner is entitled for extension of SCO by granting a day for day extension as sought in this regard; and that the Petitioner is also entitled for the additional capitalization of the Project in this regard.

(xi) The Petitioner submits that most of the debt was drawn by 30.09.2013 for the construction of the project and the interest during the construction got increased gradually as the construction progressed. As the Petitioner had almost drawn the entire debt for the project, the interest during construction must be paid on the total debt from its lenders.

16. Commission vide its order dated 01.05.2018 decided to appoint DIA (Designated Independent Agency) for prudence check of capital cost. During the hearing held on 12.06.2018, Commission directed AHPCL to prepare the bidding document and submit to commission. Commission also directed that bidding would be carried out by AHPCL as per CERC guidelines.

17. Subsequently, Commission vide Suo moto order dated 31.07.2018 decided to carry out the selection of DIA based on QCBS (Quality and Cost based selection) method by Commission itself. The Commission also held that after completion of selection process will appoint DIA for the prudence check of the capital cost of the Project.

18. Commission vide its LOI dated 11.03.2019 appointed M/s AF Consult, Switzerland limited as DIA for prudence check and determination of final capital cost of the project. The Draft report was submitted in Sept'2019 recommending a Completed Capital cost of the Project as Rs. 5290.46 Crs. During the presentation of Draft Report by DIA, UPPCL has also participated. Commission vide communication dated 18.10.2019 had made certain observations on Draft Report of Sept'19. The draft report was also shared with Shri Bharat Jhunjhunwala through RTI, a consumer representative in Uttarakhand, where Project is located, who also participated in earlier hearings of the Commission in the matter of Capital cost of AHPCL Project. Shri Bharat Jhunjhunwala submitted his comments on draft Report on 19.12.2019. The comments of Sh. Bharat Jhunjhunwala were forwarded to DIA for suitably addressing in its Final Report. Subsequently, DIA made a presentation before Commission on 8th January 2020. Commission communicated its comments and further details / information to be incorporated in the Final Report.

19. The Final report was submitted by DIA on 14.02.2020, recommending a final capital cost at Rs. 5198.61 Crs as on the date of COD i.e. 21.06.2015 after deducting Rs. 10.61 Crs towards undischarged liability and insurance claim of ALOP for Rs. 159.44 Crs. The DIA has highlighted following points:

a. Post TEC the detailed engineering has been done and final designs and construction designs were prepared. GSI was involved continuously during the installation and construction stages and their suggestions and recommendations have been incorporated in the design and accordingly variations have been incorporated in the awarded packages and hence cannot be termed as geological surprises. Only the changes in the strata met for underground works like HRT and intake tunnels which could not have been anticipated in the construction drawings can be considered as surprises. The CEA has also defined on any variations in underground work, as geological surprises in TEC. In the absence of geological surprises there is no increase in cost due to geological surprises, however, there is an increase of cost due to geological variations amounting to Rs.556 Cr.

b. The increase in cost due to changes in Scope of work was merely due to change in variations in topography and geological conditions from those considered at DPR stage. The increase in construction time was solely due to force majeure conditions and hence the developer cannot be held responsible for the same.

c. It is verified that all the stipulations in various clearances have been complied with.

d. Though there has been cost increase due to cost overrun as well as time overrun, the overall cost can be considered as still reasonable, considering the special constraints prevailing in Himalayans projects. The cost of civil & EM works is within the benchmark costs. The cost of R&R works was to be essentially incurred as per the site conditions and in line with NPRR 2007. The main cost increase was due to extended time related expenses like establishment, financial charges, and interest during construction period, which were due to force majeure conditions and could not have been avoided.

e. All construction materials, instruments, crushing machines, etc. were procured by AHPCL and issued to contractors as free. All major work executed through competitive bidding and subsequent negotiations, and the works awarded to the evaluated lowest bidders. About 67% of the Civil works were executed by GVK, ETCL a company owned by AHPCL and 33% of work covering supply of material were carried out by AHPCL themselves. However, the standard competitive procedures, as per prevailing industry practices in Hydro Power Projects have been followed, resulting into overall cost to be comparable with justified cost derived by other methods.

20. The Commission hosted DIA Report in three volumes, Shri Bharat Jhunjhunwala's comments dated 19.12.2019 and Commission's specific queries dated 8th January 2020 on its website for comments by stakeholders. Commission also sent an intimation to UPPCL, AHPCL and Shri Bharat Jhunjhunwala to provide their comments. Commission vide Public Notice dated 12.03.2020 in English and Hindi Newspaper invited Public comments and scheduled a Public hearing on 27th March 2020 to invite the objections/comments of the stakeholders.

21. However, due Covid'19 Pandemic and subsequent lockdown across country, the Public hearing through video conferencing could not be held and was rescheduled to 2nd June through a Public notice dated 17.05.2020. Further, Commission also arranged for necessary infrastructure and facilities at its office for Public representative who wanted to participate in the Public hearing.

22. During Public Hearing on 2nd June 2020, various stake holders participated. The comments of stakeholders are as follows:

Stakeholders Comments

A. Sh. Rama Shankar Awasthi, Consumer of UP through its Legal counsel Sh. Divyanshu Bhatt submitted as follows: -

i. **Complete documents have not yet been placed on record**
A lot of important documents have either not been placed on record or have not been inspected thoroughly including, but not limited to, PERT Chart, Progress reports submitted by the Petitioner to the state authorities, examination of the level of works executed until May, 2013, CEA standards applicable to the construction and

implementation of the Project, Form 5 E(ii) etc. Apart from that, the tariff forms, the main petition, and the prayers made before this Hon'ble Commission, none of these documents have been placed in public domain. Unless these documents are uploaded and available for public comments, the prudence check exercise cannot be complete.

It was clarified by the Commission that this Public hearing is related to Capital Cost of the Project and not the tariff for the same.

ii. **Issues related to Capital cost:**

The Petitioner's Project has significantly high capital cost and the maximum one in terms of per MW cost as compared to the power projects of around the same capacity. The comparison of such 11 hydro power lays exorbitant cost of the Project. Therefore, in-depth analysis is to be carried out by the DIA to ascertain the prudence of the costs, which has not done by the DIA.

There is an increase of 225.66% from the original capital cost of the Project, as approved by the CEA, vide its Techno Economic Clearance ("TEC"). A claim for the allowance of time overrun and cost overrun of such magnitude needs to be thoroughly scrutinized as any allowance granted by this Hon'ble Commission shall translate into a massive escalation in the resulting tariff.

iii. **Reasons for delay in Project Commissioning**

The major reasons provided for the same are: (a) Delay in executing land lease agreement; (b) Directives of MOEF (524 days) (c) Unprecedented flood occurrence; (d) Non-availability of transmission line facility ; (e) Agitation by villagers obstructing reservoir filling .

A lot of these issues have existed simultaneously. However, the DIA has neither assessed the number of days for which delay has been caused due to each of the issues, nor has the DIA scrutinized for how many days each of the issues caused the delay that was overlapping with the delay caused because of another issue that existed simultaneously.

iv. **Failure to give notice of Force Majeure:**

The Report has contended that the time overrun of such magnitude in completion of the Project is attributable to unforeseeable and

uncontrollable factors including floods in 2013, stop work order by MoEF, issues related to land acquisition for the Project, and stoppage of work by villagers at different times. Though the Project has been delayed by more than 4 and a half years, provision of a notice of Force Majeure is a mandatory pre-condition for claiming Force Majeure relief in accordance with Clause 14.0 of the PPA. As no notice of any of the Force Majeure events has been served on the party to the PPA, i.e. UPPCL, the Petitioner is not entitled to claim any Force Majeure relief.

v. Eligibility for Extension in COD

There appear to be incorrect interpretations of the orders that stopped work; the critical path of the Project has not been charted out; when the Project's COD was revised till May, 2013, which was before the floods happened, the Project should have been ready. However, no determination of works completed till May 2013 has been made by the DIA.

The DIA has assumed that all the extensions to COD that were given by this Commission vide their respective orders were actually the final determination and that there would be no further scrutiny at the time of approval of revised capital cost into these reasons that have allegedly "uncontrollably" delayed the implementation of the Project.

vi. Liquidated damages to be recovered from the Petitioner

While it is yet to be decided by this Hon'ble Commission as to whether the Petitioner is eligible for receiving any capital cost between 2013 and 2015 on account of not having secured any prior approval for extension of COD and whether the PPA survives in the absence of such extension, it is also to be noted that the Petitioner is liable to pay liquidated damages to UPPCL.

vii. Whether PPA survives

In fact, another important question that needs to be examined is that when the Petitioner abruptly chose to not seek any approval for extension of COD beyond May, 2013, does the PPA between the parties even survive or is it liable to be terminated. If it could be terminated, then did UPPCL exercise the option of terminating it, is also not known.

viii. **Prudence check not carried out in accordance with this Hon'ble Commission's Regulations**

It is not understood if any benchmarking norms have been followed properly. The DIA has mentioned that justified rates taken from the Schedule of rates published by Department of Water Resources, Karnataka for year 2012-13, have been used to work out the major costs of different components. Multiplication factors have been worked out for different components from the DPR costs to account for other miscellaneous items. The total costs thus derived have been taken as the justified cost of Civil works.

In this regard, several questions arise. Firstly, why the rates from Karnataka, Department of Water Resources? Why not the rates from Uttarakhand itself? Or any nearby state with a similar geographical and topological conditions?

ix. **Geographical and other Technical Constraints**

The investigations that have been carried out before the grant of TEC to the Project and the variations/ constraints pointed out by the Petitioner during the construction phase of the Project exhibit stark contradictions. It is submitted that either the investigation was not done correctly at TEC stage or at the construction stage. In the absence of proper scrutiny, there appears to be massive escalations in cost which cannot be burdened upon the consumer

x. **Rehabilitation and Resettlement**

Nowhere has there been any scrutiny in the Report regarding the basis of arriving at these figures of compensation payable. There is also no finding with respect to who decided the legitimacy of these amounts. Further, no comparison with any nearby Project who gave similar compensation has been done by the DIA.

The Petitioner, as per the Report, has given around Rs. 16 lakhs as scholarships, a separate 3 lakhs for education, Rs. 10 lakhs for supplying sewing machines, economic allowance of Rs. 20 lakhs, financial assistance to 60 handicapped people etc. Therefore, why should the general consumers be responsible for compensating the petitioner for the charities that were undertaken by the Petitioner? However, this aspect has not been scrutinised in the DIA.

xi. **Mitigation of excessive costs through BG Encashment and recovering of Liquidated Damages**

While there are clear findings in the Report that contracts were terminated and re-awarded for inefficient work or non-compliance of timelines, there is no evaluation and assessment of whether the loss caused due to the inefficient work of these sub-contractors resulted in any liquidated damages having been recovered from them or if any of their Bank Guarantees were encashed.

There is no reason to allow the Petitioner the escalation in cost that is a result of the inefficiency of its contractors and suppliers. It is not possible to even ascertain whether there was any scope of levying liquidated damages in the contracts that were awarded, especially to the related companies of the Petitioner that have executed a major chunk of the Project's civil works.

xii. Insurance claims for damages due to Flooding

While the DIA has arrived at a finding that the Petitioner received an insurance claim of around Rs. 147 Crores for the damage to the desilting basin and submergence of the powerhouse caused due to the floods, it has rendered no finding on the issue regarding why the insurance claim did not cover the complete damage.

xiii. Limited Tendering and Arm's Length Pricing of the Awarded Contracts

The escalation in cost about various packages is although provided in the Report, but the reasons behind the same have not been scrutinized. The DIA appears to have overlooked the extent of tendering and has not scrutinized whether adequate care was taken in arriving at the most optimum cost by competitive bidding on part of the Petitioner.

B. Sh. Bharat Jhunjunwala, as an intervener submitted as follows:

i. There is an APTEL Order dated 13.02.2014 that all cost to be examined and discussed in Public Hearing. It is observed that the DIA Report contains several blatant falsehoods and stands which needs to be rejected outright.

ii. DIA has acted as an Agent of the Petitioner, AHPCL.

iii. The weight of cement and steel is not verified by the DIA as it was required to assess the use of cement and steel during the alleged

period of stoppage of work due to the Stop Work Order. DIA has feigned as if checking of bills generally is sufficient to assess use of these materials during a period.

iv. The Muck Disposal Plan requires retaining walls to be made up to HFL. There is no mention of 3000 CUMECS therein. The project was designed for more than this according to DIA itself which is maximum of 17516 MCUM.

v. I have submitted the pictures and it can be observed that the damage was to the floor of the sedimentation tank having subsided and the water gushing out. The entire wall is fallen off and then there is a hole in the tank which proves that the construction was not up to the mark.

vi. Can UPERC accept any capital cost beyond TEC cost. The hydro plants are dealt in accordance with the Section 8 of the Electricity Act, 2003 and DIA is failed to make the distinction between Hydro and Thermal plant.

vii. DIA has provided that Forest land of 338 Ha was leased on 29.8.2009, however, it was only the non-essential land which was handed over in 2009. The possession of Forest Land was handed over in 2006 and construction had already been started. Hence, even if lease was signed later, it is of no consequence regarding delays. Therefore, it is falsehood that they could not get the land.

viii. The DIA has submitted that the private land could be acquired after GOUK Approval. However, it is observed that AHPCL purchased land directly from the sellers and there was no acquisition of land. Hence, no permission of GOUK was required for this.

ix. The DIA further has submitted that Dhari Devi Temple lead to force majeure condition. However, the Orders of Uttarakhand HC and SC were also applicable to work on Dhari Devi and the work continued despite MOEF order.

x. The contention of the DIA that the Coffer Dam breaks happen in monsoons is not true at all, the first break took place in winter of year 2008-09, which was not due to the monsoon. If I am given an opportunity, I can challenge the DIA on these facts.

xi. The Project has accepted the revised TEC in 2006 with project cost. Therefore, the cost was frozen that time and the Petitioner had agreed for no increase in the cost. The extension COD does not entitle them to increase the cost. Further, the delay due to Coffer Dam Break was due to bad works by IPP. Accordingly, the cost must be disallowed.

xii. It is stated by the DIA that the work Stopped due to Muck Disposal. The main problem was IPP violated the Muck Disposal Plan and the work had continued anyways. I have given the photographs showing the work had continued that time. There was no stoppage of work and in November 2011, High Court has mentioned that there is no order to stop the work and in January 2012 Supreme Court said that the work should continue without hindrance.

xiii. The submission is that the delay is caused due the deliberate actions of the IPP while violating the laws, therefore, the consumer cannot be made responsible for such delay.

xiv. Lastly it is proposed that either a short Committee may be constituted and include independent persons with Chartered Accountant to scrutinise the cost or the Commission can also appoint fair & independent DIA along with our participation and then the Commission can take a view on the report so produced.

C. Sh Avdhesh Verma of U.P. Rajya Upbhokta Parishad submitted as follows

i. The Commission has asked DIA to investigate certain specific issues, however, it is observed that the DIA has neither looked into such issues nor have incorporated them. This issues that DIA has not complied with the directions of the Commission and this issue need to be looked in seriously by the Commission.

ii. The Petitioner may be asked to file the revised Petition with correct and complete information as the cost is to be borne by the Consumers of the State in long run.

iii. It is observed that the project was commissioned in 2015, however, the Petitioner did not file the Petition till notice was issued by UPPCL.

The cost has been increased by 225%, which is required to be scrutinized by the independent consultants in fair and transparent manner.

iv. The DIA has not checked the balance sheet and P&L and only have looked into certain technical aspects. The DIA has not carefully looked into insurance claim, interest during construction etc. without which true and fair capital cost cannot be determined.

v. The capital cost proposed by the Petitioner is of Rs.15.5 MW/ crore, however it is observed that the DIA has not provided the benchmark cost of different similarly situated plants. However, it is found that the average capital cost of most of the plants is around Rs 8.73 Crs/ MW and there is only one project at Krishnganga whose capital cost is around Rs. 16 crore per MW due to the certain international dispute related to water with Pakistan. In that case, the matter was referred to the International Court of Justice for arbitration, which took some time and there was considerable delay. Thus, it is not appropriate to compare the same with the present case.

vi. Further, it is observed that the Petitioner without going into tending process has awarded the work to its sister concern. The work so allocated to the sister concern is on higher side and it is found that there is no process followed which would ensure competition as envisaged under the Electricity Act 2003. Therefore, it is proposed that enquiry may be setup against the Petitioner to unearth the scam.

vii. There are many conflicting statements in the Report shows that no financial scrutiny has been conducted.

viii. If the capital cost is allowed to the Petitioner, that means the consumers of the State of Uttar Pradesh will have to pay Rs.9 per unit for 300 MW plant for 35 years.

ix. Finally, it is proposed that the independent consultant may be appointed to conduct the prudence check of the capital cost and the present DIA should be booked under Section 142 of the Electricity Act 2003 as it has not complied with the directions of the

Commission. The Commission should not allow the high tariff and the government may be recommended to be setup the enquiry.

D. Sh Bhanesh Aswal, on behalf of local consumers of Shrinagar, Uttarakhand submitted as follows

Upon specific query of the Commission about his interest in the case, Sh. Aswal stated that he is a resident of Shrinagar, and the matter is related to the Power Plant situated at Alaknanda river in Uttarakhand. The Commission allowed to present his general comments. The following comments were presented:

The petitioner has submitted that the water entered in the power plant is due to the flood occurred. However, it is submitted that the same is not due to the floods but because of deliberate actions and carelessness of the Petitioner. The other point is related to Dhari Devi Temple which is already discussed by the Shri Bharat Jhunjhunwala in detail.

E. Sh Ankur Sood, legal counsel on behalf of local consumers of Shrinagar, Uttarakhand submitted as follows

Sh Sood informed the Commission that though he represented interest of consumers of Uttarakhand, yet several legal issues are to be brought before the Commission. The Commission allowed Sh. Sood to present his comments. The following comments were presented:

i. Section 8 of the Electricity Act starts with the non obstante clause, hence overriding the Section 7 of the Electricity Act 2003. The Section 8 provides that the capital cost incurred by the Hydro Power Plant, except it is lower than threshold as prescribed, shall be submitted to the CEA for the approval. It is pertinent to mention that as per Sub Section 2 of Section 8 of the Electricity Act, 2003, it is not possible to override the approval provided by the CEA.

ii. TEC guidelines of 2007 provide the CEA approval is mandatory for the purpose of the Capital Cost for any change in the design. There are significant changes in capital cost and design for which CEA approval is not sought.

iii. The Article 3.3 of the PPA deals with capital cost and provides that the capital cost shall be approved by the CEA and based on certain factors capital cost can be revised. Therefore, again it is the CEA who can approve the revised cost.

iv. The force majeure condition as per the PPA is the situation beyond the control; direct or indirect. There was a precondition regarding claim of force majeure. Sub clause 8 of Article 14 of the PPA, non-performance or delay on part of contractor will not attract the force majeure clause. Further, there are many judgements pertaining to that the notice is mandatory in case of force majeure event, which as per the information available is not given.

v. In view of above, capital cost claimed by the Petitioner should not be allowed.

F. Sh. Deepak Raizada, Chief Engineer, REPPA, UPPCL and Sh. Mohit Goyal, Consultant submitted as follows:

i. The capital cost of the Petitioner is too high as compared to other similarly situated projects. Most of the civil work has been awarded by the Petitioner is to its own sister concern, which is of grave concern. Therefore, the work award process along with details of liquidated damages received from them should be investigated more diligently. There are certain issues in R&R, which has been mentioned in our written submission.

ii. The time overrun events cannot be expected to be sequential and there is every possibility that there are overlaps in the time overrun elements. The Critical Path Analysis and Project Evaluation and Review Technique (PERT) chart is not provided to substantiate the delay in commissioning of the project.

iii. There is a significant divergence in the values stated in the report submitted by the DIA in September 2019 and now in December 2019. For example, the "TEC provision for Civil Works including infrastructure works and hydro mechanical works – (Base date March 1999) was stated to be Rs. 886.73 crore in the September 2019 report which has been restated to Rs. 983.95 crore in the December 2019 report. Similarly, the "cost to be added to TEC provision to take care of scope and statutory changes" has been revised from Rs. 580.16 crore in September 2019 to Rs. 655.28 crore in December 2019. There is no justification provided by the DIA in the report regarding all this.

iv. Further, as per the Report, the DIA has sought to justify the cost escalation in civil works. It has used three different indices for ascertaining the reasonableness of civil works costs namely "cost indices published by the RBI, cost inflation index published by Income Tax Dept., indices published by Construction Industry Development Council". However, in our view the said approach is erroneous on account of the following:

a. The DIA has used RBI cost index for "all commodities" wherein it has a weightage of only around 30% for articles such as concrete, cement, plaster, etc. Hence, an index where other commodities dominate the index should not be used for demonstrating the reasonableness of civil works.

b. The Cost Inflation Index published by IT Dept. is used to compute inflation adjusted long term capital gains on asset classes such as houses, shares, MFs, securities, etc. Hence, consideration of the same for civil works does not seem to be a correct approach.

c. The indices published by CIDC cannot be considered for justifying the increase in of electromechanical works, building, township, site development expenses, etc.

v. On query of the Commission, as to which Indices are suitable for cost escalation, the UPPCL Representative submitted that generally CPI and WPI indices are to be considered for the inflation index.

vi. The Report, details regarding Source of Funding, however, only details are provided, and no analysis is provided. It is mentioned that, again, to part finance the Project cost, AHPCL has also availed foreign currency loans to the extent of 40 million US Dollars (about Rs. 161 crores).

vii. No details are provided regarding the purpose of this foreign currency loan when in fact AHPCL has also availed Rupee loan from Axis bank Limited. Further, no details are provided regarding currency of foreign loan, rate of interest, whether the loan is hedged etc.

a. For the financial verification of the completed capital Schedule of rates published by the Department of Water Resources, Karnataka for the year 2012-13, have been used to work out

the major costs of different components. It may be clarified the reason for considering Karnataka rate schedules for 2012-13.

b. It is not clarified in the report that, whether component by component the capital expenditure incurred was reasonable or not?

c. Whether DIA verified all major EPC, Non-EPC & Services contracts or not? If yes, what were the observations? Were there any deviations observed?

d. Whether DIA verified the documentary evidence of a contract or not? If yes, why the details of the contract (such as date of signing, specific clauses regarding liquidated damages, performance guarantees, insurance, payment of fees and other important terms of the contracts) verified were not included in the Report?

e. Whether DIA conducted an analysis of invoices and actual payments on a sample basis or not? What were its observations? Were there any deviations observed?

viii. The details regarding the insurance policy is not highlighted in the report considering to what extent the project was covered under the same.

ix. The audited accounts have not been analyzed by the DIA in respect of year on year increase in capital cost attributable to the events.

x. The Petitioner has considered the debt: equity ratio of 80:20, in which the Interest During Construction (IDC) contributes approximately 32% of the total cost verified by DIA. However, no detailed analysis regarding whether the debt was drawn in optimal manner or not, rates of interest for debts and whether the amount drawn but lying idle with the Generating company was used for other purposes or not etc. need to be analyzed. However, no such analysis is done by the DIA. The DIA has simply attributed all delays to Force Majeure conditions beyond control of the generating company.

xi. There is no details of interest rate and penal charges of the project in the report by the DIA. UPPCL requests that excel model may be provided for further analysis. The DIA has conducted the technical

analysis, however the financial analysis is not looked upon by the DIA. Therefore, it is requested that the financial audit may be done by the Commission.

G. Sh. Prasanna Reddy, Representative of AHPCL through its Counsel Sh. Vishrov Mukerjee submitted as follows:

i. In connection with the approval of the completed capital cost claimed by Alaknanda Hydro Power Company Limited, Commission is pleased to hold a public hearing on 02.06.2020. In this regard, we were given link to join in the public hearing through a video conference. The said link was provided by the Hon'ble Commission through its confirmatory email dated 02.06.2020 along with certain documents supposedly filed by certain people who desires to participate in the hearing to be held today.

ii. The various stakeholders who are present in the hearing and who have offered their comments have vested interest and some of them are not even consumers of the State. The detailed comments have been filed before the Commission regarding the report submitted by the DIA. Therefore, an opportunity may be provided to file the counter in respect of the issues raised by the various stakeholders as it is necessary to address the same.

iii. AHPCL objected about the people named hereunder in participating the public hearing:

a) Bhoopal Chaudhary Add: Gola Bazar Shrinagar
b) Rajiv Kumar Add: Gola Bazar Shrinagar
c) Bhanesh Aswal Add: Garhwal Marg Shrinagar
d) B B Chamoli Add: Srikot Shrinagar
e) Sameer Raturi Add: Shrinagar
f) Anjana Ghildiyal Add: Ghashyamadari Shrinagar
g) Uma Ghildiyal Add: Uma Sadan Shrinagar
h) Suman Nautiyal Add: Srikot Ganganali Srikot
i) Vishweshri Devi Add Srikot Shrinagar

It is also observed from the correspondence shared by the Commission that one Mr. Ankur Sood and Mr Bhanesh Aswal were authorized to represent some / all the above-named persons. AHPCL submitted that the above-named people are not consumers of the State of Uttar

Pradesh and are in no way related to the Shrinagar Hydro Electric Project being operated by AHPCL.

AHPCL requested the Commission to be pleased to permit only the public/consumers who are within the jurisdiction of the Commission and any objections from the non-consumers of the State of Uttar Pradesh may not deserve any consideration and that the same may not be taken on record in the present matter.

Sh. Reddy, the developer requested Commission to grant three-four weeks' time to file response on the issues raised during the Public Hearing by the various stakeholders.

Commission viewed that whatever comments of Petitioner must be presented on the day of Public hearing itself. However, looking into detailed comments presented during the hearing by various stakeholders, Commission allowed two-week time to Petitioner. Commission directed to place comments of the Petitioner on Commission's website www. Uperc.org and allowed those stakeholders who have participated in Public hearing today to file their comments, if any, within next two weeks. The Commission decided to conclude the matter accordingly.

23. Commission uploaded above compilation of comments on its website and sent electronic communication to all earlier participated stakeholders. AHPCL vide has submitted following comments electronically on 18.06.2020.

Escalation of cost beyond TEC:

Section 8 of the Electricity Act, 2003 envisages prior approval of CEA for setting up of hydro- electric generating stations to verify the design from safety perspective and to ensure equitable distribution of resources amongst the other generators that may be operating on the same river. Further, the prior approval of the CEA is sought to determine design energy / capacity etc. alone.

Rehabilitation and resettlement

Given that State of Uttarakhand had no R&R Policy at the time of land acquisition for the Project, Petitioner carried out the R&R work as per National Policy on Rehabilitation & Resettlement, 2007 ("**NPRR 2007**"). AHPCL to fulfill the requirement of NPRR 2007, allotted R&R works to

various agencies and communicated the R&R expenditure to Hon'ble Commission vide it Petition No 710 of 2010 filed on 15.12.2010.

Pertinently, on 16.06.2011 and 17.06.2011, a committee comprising of Dr. J.K. Sharma, Ms. Sanchita Jindal and Shri. G.L. Bansal visited the Project Site of AHPCL ("**J.K. Sharma Committee**") constituted by Ministry of Environment, Forests and Climate Change ("**MoEFCC**")_to investigate alleged violation of Directions under Section 5 of the Environmental Protection Act, 1986 issued by MoEFCC on 30.06.2011 and review the compliance various environmental condition at the Project Site. With respect to R&R, the said committee noted as under:

> *"viii. Since there are no R&R issues at all, rather local people are happy with the facilities provided through the project and there is not at all any opposition from any quarter, except a miniscule group of people having no stake in the project, the construction work for the project may be resumed at the earliest else it will further deteriorate*
> *the environment and can create law and order problem in the area ...."*

Breaking of coffer dam:

The purpose of a cofferdam is to temporarily divert the water stream to facilitate the building of foundation of Dam in non-monsoon seasons. Pertinently, the Cofferdam being temporary is different from actual dam and is prone to breaking during the monsoon season due to excess water flows.

Force majeure event occurred after 30.12.2010:

The Project was delayed on account of the following factors:

i. Delay due to Land Lease Agreement (February 2006-May 2009)
ii. Delay due to Stop Work Order dated 30.05.2011 ("***Stop Work Order***") and Notice under Section 5 of the Environment (Protection) Act, 1986 on 30.06.2011 ("***Section 5 Notice***") directing AHPCL to stop the project work and rehabilitation of Dhari Devi Temple i.e. without lifting the idol, the reservoir could not have been filled.
iii. Delay due to unprecedented Flash Floods in the State of U'khand in June 2013
iv. Delay in providing Transmission Line and Inter Connection Facilities by UPPTL.
v. Delay due to obstruction from the Villagers from filling the reservoir

Notice of force majeure:

AHPCL has filed the following Petitions before this Hon'ble Commission whereby intimation of force majeure was given:

(a) Petition No. 605 of 2009 re. issue of delay in land acquisition.

(b) Petition No. 799 of 2012, re. issue of Stop Work Order and Ma Dara Devi Temple

(c) Petition No. 881 of 2013 re. issue of Stop Work Order and for approval of revised financial package.

(d) Petition No. 952 of 2014 re. issue of Stop Work Order and for approval of provisional tariff.

(e) Petition No. 1043 of 2015 re. issue of floods, delay in transmission line
and villager protests

Furthermore, AHPCL has intimated UPPCL force majeure events as under: -

i. Occurrence of damage due to flood was intimated vide letter dated 19.06.2013.

ii. Obstruction by villagers to reservoir filling was intimated to UPPCL vide letter dated 12.01.2015.

Unprecedented flooding of 2013:

Floods in 2013 were on account of the unprecedented discharge of about 13,000 against the normal discharge of 2,000 as well as that of the 4,500 of water discharged occurred in the year 2012. This is beyond the control of AHPCL and is an event of force majeure.

In this regard the following observation of DIA at Page 100 of Report is noteworthy: -

"From historical data it has been observed that normal maximum discharge in the Alaknanda River is around 2000 Cumecs. However, in the year 2013, an abnormal flood discharge of about 13000 Cumecs occurred.

No Plant would have designed the structures considering such high margin of flood discharge. So, blaming AHPCL for the flood

damages may not be justifiable. In any case, the expenses due to flood damages were met out of the insurance claim for the material damage. Hence no cost has been added on this account to the Capital Cost of Shrinagar Project."
(SHEPs design discharge is 9,200 as per the EIA and DPR)

Villagers unrest:
Due to villager's protest AHPCL was prevented from raising the water level to a level which was necessary for conducting the synchronization test. DIA has also pointed out AHPCL did not file any FIR against the protesters as it chose to resolve the matter amicably.

Insurance claim:
AHPC had taken "Construction all Risk" cover from National Insurance Company for the project extending the insurance cover for Advance Loss of Profits insurance (ALOP). ALOP covered interest on term loan, O & M Expenses, Insurance, and interest on working capital.

The claim of Rs. 159.44 Crs was settled after deducting time excess of 60 days. The insurance cover has covered the entire damage due to flood and payment was made after deducting initial 10% damage to be taken by the owner as per policy conditions.

High per MW cost of power:
The reason behind the increased per MW Cost of Power of at AHPCL project is essentially due the delays cause due to force majeure events. It should be noted that a major portion of the Completed Capital Cost is Interest During Construction ("**IDC**"). The increase in IDC is a direct result of the delay caused due to force majeure events which is beyond the control of AHPCL.

At the time when MoEFCC issued its Second Stop Notice around 70% of the project construction was over and AHPCL proposed to commission the first unit of power generation by December 2011. The period of time from 31.05.2011 to 13.08.2013 was lost on account of persons with vested interests' futile efforts to somehow stop the Project works and no delay can be attributable to AHPCL.

Further, the terms envisaged under Articles 8 and 14 of the PPA as well as the UPERC Tariff Regulations, 2014 envisage that the additional capital cost incurred due to force majeure events faced by the project developer that were beyond their control shall be allowed.

DIA Failure to scrutinize work up to May 2013:

AHPCL always kept UPPCL informed about the progress of work which it had achieved through Monthly Progress Report. Apart from these, several Committees have undertaken site inspection of the Project Site of AHPCL in order to learn the extent of completed and balance work. The Joint Committee appointed by the Hon'ble Supreme Court had submitted its Report to the Hon'ble Supreme Court as well as to the MOEF on 03.05.2013. The said report had considered the physical and financial progress of work of Project site of AHPCL until 31.03.2013. The relevant portion of the Report at Page 13 has been reproduced below:

"AHPCL has provided the statement of physical and financial progress of various work of the Shrinagar project as on March 31, 2013 and is giving at Annexure 4. The summary of the same is as below: -

Civil works: diversion tunnel, coffer dams, dams and spillway, head race tunnel, forebay tank and bypass channel, bridge on the channel, penstock, power house building, switchyard are 100% completed. The cross drainage works of Munjh Kot nallah are 93 % completed.

Hydro- mechanical works : dams and spillway, head race tunnel, forebay and bypass and draft tube are 100% completed

Electromechanical works: 3 units are 100% completed whereas unit 4 is under progress"

Capital cost cannot be ascertained without extension of COD:

Petition No. 1267 of 2017 is the third petition seeking extension of SCOD subsequent to the order dated 02.07.2012 where the SCOD was extended till 31.05.2013. In Petitions 1043 of 2015 and the present Petition, AHPCL has even sought the Hon'ble Commission to determine the completed capital cost. It is pertinent to note that Ld. UPERC vide Order dated 29.03.2016 had directed AHPCL to seek extension of SCOD at the time of determination of completed capital cost

Transmission line:

On 26.05.2014 AHPCL wrote to UPPCL informing that the Generating Unit I and III have been ready for testing and UPPCL may arrange the Associated Transmission and interconnection Facilities by 30.06.2014. However, UPPCL failed to provide the Transmission Line to AHPCL until Nov 2014 which prevented AHPCL from conducting the wet tests.

Therefore, as per Article 8.1 of PPA, AHPCL is entitled for extension of COD. Generating Units can only be tested after inter connection and transmission liens are arranged as AHPCL has to evacuate through the said facilities, the infirm power generated by it. Each Unit has to be tested and it should generate continuously for 72 hours. As such, the turbines/generating units can't be made ready on the same day the transmission lines and inter connection facilities are arranged. Further, as it is a hydro power project, from the day the transmission lines and the inter connection facility are made ready, three months/90 days' time will be given to impound the reservoir and to test the Units. Mr. Bharath Jhunjhunwala's comments in this regard reflects his lack of technical knowledge and are made by ignorance to the terms of the PPA

Stop work order:

Persons with vested interests have complained about the alleged illegal dumping of muck at a very initial stage of the Project. In view of this complaint, MoEFCC had initially issued Stop Work Order and after a site visit, on 30.06.2011 MoEFCC has issued a notice under the Section 5 of Environmental (Protection)Act, 1986 by imposing conditions to be complied with in regard to muck dumping ("**Section 5 Notice**"). There were no conditions imposed on muck dumping in the Environmental Clearance given for the Project. AHPCL, of its own accord fulfilling its social responsibility, had a Muck Disposal Plan prepared and got it approved by the State Forest Department of Uttarakhand. AHPCL had implemented the muck dumping guidelines provided in the said plan.

Some of the gabion walls constructed by AHPCL got washed away due to floods. This fact was also recorded by the MoEFCC in its site visit reports. As such, the implementation of the conditions by MoEFCC were to be complied with only after 30.06.2011. Further, AHPCL was directed not to carry out further project construction work till submission of an agreeable plan by all the stake holders in connection to the upliftment and rebuilding of Maa Dhari Devi Temple at a higher elevation.

The same persons created hindered the Maa Dhari Devi Temple design finalization. Thus, MoEFCC also imposed a condition on AHPCL that it cannot carry out the construction till an amicable plan is submitted. All these issues were taken time in complying with the said conditions. As the works to be done to comply with the conditions under the Section 5 Notice were not originally envisaged in the Project development plan.

The conditions in terms of the Section 5 Notice being statutory in nature,

AHPCL was mandated to comply with the same. As such, the obligations under Section 5 notice were new, not originally envisaged the said impositions were beyond the control of AHPCL. Thus, the imposition of Section 5 Notice was a force majeure. As such, it cannot be alleged that Section 5 was imposed because of AHPCL's acts.

AHPCL has taken all steps to adhere to the MoEFCC direction as per the Stop Work Order and Section 5 Notice. In this regard it should be noted that after Stop Work Order and Section 5 Notice MoEFCC constituted various committees to look into the progress of work at the Project Site of AHPCL.

On 16.06.2011 and 17.06.2011, the J.K Sharma Committee constituted by MoEFCC to investigate alleged violation of Directions under Section 5 of the Environmental Protection Act, 1986 issued by MoEFCC on 30.06.2011 visited the Project site to review the compliance of various environmental conditions at the Project Site. The J.K. Sharma Committee has found that AHPCL has not violated any of the terms of MoEFCC stop notice and the work was restricted to 200 MW which was within the permissible limit. The relevant portion of the Report at page no. 13 has been reproduced below: -

> *No violation in undertaking the Project construction works there is no evidence and truth that the Project developers have violated the Direction of MOEF. The construction work undertaken is for the safety of already constructed projects components, people and their property Works related to assembling of scroll casing stator/ rotor in powerhouse etc. are electrical activities restricted to 200 MW (2 units of 82.5 MW). Hence this does not lead to any violation of the directions issued under Section 5 of Environment Protect Act, 1986 issued by the Ministry. Further, Project Proponent had earlier informed MOEF regarding safety works being taken up by them"*
>
> *No Violations in undertaking construction works related to lifting of Dhari Devi Temple: Since the project proponent has already submitted the plan provided by INTACH for Dhari Devi Temple. The plan has also been agreed by the Temple Committee and the Priests. Therefore, as per para 14 (ii) of the Directions dated 30.06.2011 of MOEF, there seems no violation of this Order.*
>
> *Compliance of Directions for Muck Dumping Sites: For whatever sites the team could visit; AHPCL has complied with the Ministry's Directions. However, during this monsoon plantations should be raised in taking deep pits and filling it with a mixture of sand soil*

cow dung mixture in all the dumping sites which are very close to the river. It is recommended that for planting on Muck Disposal sites, only tall plants should be used. Wherever the gradient is high, coir mats should also be used not the plastic nets as done earlier.

5. ...

6. ...

The bridges required for providing access to local people near power channel should be constructed immediately to facilitate the villagers to cross power channel.

Since there are no R&R issues at all, rather local people are happy with the facilities provided through the project and there is not at all any

The main reason for delay in completing the Project work was due to parallel litigation filed against AHPCL by persons with vested interests. One way they have challenged the validity of Environmental Clearance (EC) granted to the Project and on the other hand they have complained about the purported violations of the conditions imposed under the EC. The validity of EC was dealt by the Hon'ble High Court of Uttarakhand in the original stage and at the second appellate stage by the Hon'ble Supreme Court. By its interim order dated 30.01.2012, the Hon'ble Supreme Court had permitted the project construction to go without any hindrance, without knowing the fact about the imposition of stop work order under the Section 5 Notice by the MoEFCC. Even the said Section 5 Notice was challenged by the said vested interests before the NGT, New Delhi alleging that the conditions imposed thereunder were inadequate. As such, parallel litigation was going on in legal fora and AHPCL could not carry out the project works though the Hon'ble Supreme Court had permitted it to continue with the works by its order dated 30.01.2012, due to the subsistence of Section 5 Notice conditions. When this issue was brought before the Hon'ble Supreme Court, the Court was pleased to get the said case pending before the NGT transferred to itself, adjudicated on its own and disposed of both the litigations with regard to the validity of the EC as well as the Section 5 Notice, in one go by its order dated 13.08.2013.

24. Sh. Bharat Jhunjhunwala and Sh. Rama Shankar Awasthi have submitted their reply to the above comments of Petitioner on 22nd July and 29th July 2020 in which they have reiterated their averments raised during Public hearing on 2nd June 2020.

25. COMMISSION'S DECISISON AND ANALYSIS

While analysing the admissibility of final cost to the Petitioner, it is necessary to deal with the sequence of events and the indulgence of this Commission in dealing with various Petitions filed by the Petitioner from time to time for time extension and increase in the capital cost.

(i) Petition No. 327/2006: The Petition was filed by UPPCL for approval of PPA dated 28.06.2006 and revised completion cost of the Project. Commission vide its order dated 7th June 2006 had approved the PPA. AHPCL had proposed completion cost of Rs. 1977.87 Crs on account of increase of cost of Civil works, E & M works, land and environmental requirements, R&R, taxes and duties etc. The Commission approved the proposed completion cost of Rs. 1977.87 Crs subject to prudence check. Subsequently, vide order dated 16th Oct 2007, Commission allowed increased capital cost of Rs. 2112.95 Crs on account of increase in interest and financing charges subject to Prudence check.

(ii) Petition No. 585/2008: Keeping in view the safety of the Project, Commission vide order dated 10.12.2008 approved revised cost estimate of Rs. 2697.07 Crs as proposed by AHPCL due to revised site-specific seismic parameters approved by "National Committee on Seismic Design Parameters" (NCSDP), Govt of India. The Petitioner confirmed that the Project was progressing as per schedule and changes in parameters would not affect commissioning of the Project.

(iii) Petition No. 605/2009:The Petition was filed by AHPCL for extension of commercial operation date of the Project to 31st March 2012 manly on account of delay in acquisition / transfer of various types of lands, execution of lease deed of already acquired land and permission to purchase additional private land etc. The Commission vide order dated 12th May 2009 allowed Project COD extension up to 31st March 2012 basis the Petitioner confirmation that land would be available by June 2009. The Petitioner had also confirmed that there was no delay by its contractors. Commission also stated that no further extension would be allowed.

(iv) Petition No. 702 of 2010: The Commission while approving Revised Capital Cost of Rs. 3200.70 Crs reiterated that the final completion cost of the project shall be approved in accordance to the provisions given in

Techno Economic Clearance (TEC) dated 14.06.2000 and earlier orders of the Commission.

(v) Petition No. 710 of 2010: AHPCL filed this Petition for approval of revised provisional capital cost of Rs. 3675.16 Cr. which is Rs. 977.46 Cr. more than the earlier approved provisional capital cost of Rs. 2697.07 Crs for the project. The Petitioner attributed the increase in capital costs to the reasons as detailed below:

a. On account of additional quantities required based on the final designs and drawings duly adopting the site-specific design parameters approved by NCSDP (National Committee on Seismic Design Parameters) and due to geological surprises encountered during the implementation of the project.
b. On account of Force Majeure conditions such as due to flash floods causing major damages / complete wash out of cofferdams.
c. On account of delay in handing over of pockets of land resulting in deployment of special machinery and additional manpower for acceleration of the works as explained under each project component subsequently explained for timely completion of the project.
d. To meet the expenditure for additional works which were not originally envisaged.
e. To meet the requirements in respect of Resettlement and Rehabilitation costs.
f. To meet the additional expenditure of Environment & Ecology.
g. To meet the additional expenditure on account of land to be acquired for submergence areas.

While UPPCL suggested for appointing third party expert for verification of technical and financial details, AHPCL pleaded that Commission's approval is required for urgent financial tie-up of funds so that Project could become operation by 31st March 2012. Commission vide order dated 26.05.2011 accepted revised estimated cost of Rs. 3675.16 Crs subject to prudence check at appropriate time.

(vi) Petition No. 799 of 2012: AHPCL filed this Petition for further extension of COD of Project to 31st May 2013 on account of MOEF Directives in relation to Environmental Compliance and capacity of Project. Commission vide order dated 02.07.2012 granted extension of Project COD to 31st May 2013. However, increase in Project cost due to Force Majeure events was to be considered as per applicable provisions of PPA.

(vii) Petition No. 881 of 2013 and 952 of 2014: AHPCL had filed these Petitions for approval of additional terms loans & revised means of finance and approval of provisional tariff for 330 MW Shrinagar HEP based on estimated capital cost of Rs. 4573.53 Crs as on 31.03.2014.

Basis Govt. of UP and UPPCL letter, Commission had appointed an Expert Committee on 12.01.2012 comprising of the following persons:

1. Sri R.D. Gupta, Ex-Member, UPERC
2. Sri G.K. Pharlia, Ex-Member (Hydro) CEA
3. Sri Ajesh Tuli, Chartered Accountant

The Expert Committee submitted its report in February 2014 and recommended the Provisional Capital Cost of Rs. 4218.80 crore as on 30.09.2013. After the Expert Committee submitted the Report, keeping in view the substantial increase in capital cost, a letter was sent to the Secretary CEA enquiring that in view of the fact that the Capital Cost has increased much more than what is approved in techno-economic clearance, whether any approval of CEA was required, particularly the escalation being due to geological surprises and geological variations. It was also enquired from the CEA that where intimation to CEA by AHPCL was mandatory in case of geological surprises and whether such and intimation was given by the developer? CEA vide their letter dated 30.06.2014 informed that no intimation was sent by the developer to CEA. Further, it was stated that as per Para 3(ix) of TEC, CEA need to be made a member of the Committed on geological surprises. The CEA had clarified that Expert Committee needs to examine and recommend the enhanced cost., however, examination and approval of cost by CEA is not mandatory.

UPPCL vide their letter dated 15.12.2014 also made submissions on Expert Committee Report and the letter of CEA dated 30.6.2014. The points raised are as follows:

a. That the PPA was executed and signed on 12.11.2006 based on approval accorded by UPERC vide its order dated 07.06.2006. The CEA had revalidated the TEC up to 14.06.2006 and according to the PPA the plant was to be commissioned in 2010. Since the cost approved in TEC could not be freezed at 2006 rates, therefore the Commission had approved the revised Capital Cost of Rs.1977.87 up to 2010 subject to Prudence Check. The Commission vide its

order dated 26.5.2011 accepted the revised estimated cost of Rs.3675.16 crore which included the additional cost on account of geological surprises and many other factors which were brought to the notice of the Commission from time to time.

b. Despite time extension up to May 2013 given by the Commission, none of the Units could achieve commissioning resulting into increase in IDC along with other escalations. They further stated that there is an impact of IDC to the tune of Rs. 995.01 crore, which is 23% of the Capital Cost and in past also UPPCL had categorically opposed for non-admissibility of IDC because of prolonged delay in execution.

c. The Expert Committee was supposed to analyse and evaluate the cost impact due to geological surprises. But the Expert Committee Report did not elucidate this aspect. Regarding damages incurred due to flooding in June 2013, the Expert Committee did not deal with that, but the procurer should not be responsible to bear the loss due to floods and other accidents and those should be claimed by developer from the insurance Company.

d. That AHPCL did not request Government of UP to constitute an Expert Committee pursuant to Para 3(IX) of TEC to look into revision of cost due to geological surprises and change in DPR.

26. It is evident from above that scheduled date of commercial operation of the Project being 10.10.2010 as per PPA dated 28.06.2006 and Petitioner has approached Commission on various occasions through different Petitions for approval of revised cost estimates and time extensions on various grounds. Commission keeping in view the assurance by the Petitioner that the Project has been progressing as per schedule and assertion that approval of the Commission was necessary timely completion of Project, accorded revised cost approvals subject to prudence check and granted time extensions through various orders.

27. The summary of various timelines as per PPA and time extensions approved by Commission through various orders are tabulated as under:

Summary of time extension granted by Commission

Unit No.	As per RIA dated 10.02.2006	As per PPA dated 28.6.2006	Approved by the Commission vide order dated 12.5.2009	Revised COD as per order dated 02.07.2012	Actual COD
I	**28.08.2011 (13 Years from effective date i.e. 28th August 1998)**	10.07.2010	31.12.2011	31.03.2013	23.04.2015
II		10.08.2010	31.01.2012	31.03.2013	21.06.2015
III		10.09.2010	28.02.2012	31.05.2013	02.05.2015
IV		10.10.2010	31.03.2012	31.05.2013	21.06.2015

Summary of provisional capital cost approved by Commission subject to Prudence check

S. No.	Description	Provisional Capital cost (Rs. / Crs)
1	TEC approved cost	Rs. 1699.12 Crs (Rs. 1299.89 Crs + 95.054 US$@ US$=Rs. 42.00)
2	Commission order dated 07.06.2006	1977.87 on account of civil works and E&M
4	Commission order dated 16.10.2007	2112.95 on account of increase in interest and financing charges
5	Commission order dated 23.06.2008	2438.26 on account of raw material cost
6	Commission order dated 10.12.2008	2697.70 on account of site-specific seismic design parameters

7	Commission order dated 26.05.2011	3675.16 on account of additional items of work, quantities for geological surprises, Force majeure conditions such as flash floods, damage to cofferdam, land acquisition, R&R, additional works not envisaged earlier, environment and ecology, land acquisition for submergence area
8	AHPCL estimated capital cost as on 31.03.2014	Rs. 4573.53 Crs in Petition No. 952 of 2014 for purpose of tariff determination
9	Expert Committee Report dated Feb'14	Rs. 4218.80 Crs as on 30.09.2013
10	AHPCL completed cost as on 21.06.2015	Rs. 5533. 37 Crs in Petition No. 1267 of 2015

The Commission after having gone through the documents on record and comments of stakeholders during public hearing has framed following issues to be dealt with:

I. Can Commission accept capital cost beyond TEC cost

28. AHPCL's TEC dated 14.06.2000 was granted under the erstwhile Electricity (Supply) Act, 1948. As per Section 185 of the Electricity Act, 2003, any approval under the repealed law will be deemed to have been done under the corresponding provisions of the Electricity Act in terms of Section 185. Section 8 of the Electricity Act, 2003 envisages prior approval of CEA for setting up of hydro- electric generating stations to verify the design from safety perspective and to ensure equitable distribution of resources amongst the other generators that may be operating on the same river.

29. CERC vide order dated 30.03.2017 in Petition No. **434/GT/2014, Himachal Baspa Power Company Limited vs. PTC India Limited and Ors., has held as** as under:

> *"57. It is observed that as against the TEC completion cost of Rs. 5909.59 crore, DIA has finally recommended completion cost of Rs. 6759.66 crore. As such, there is significant variation between the completion cost vetted by DIA and the TEC approved capital cost. It*

is pertinent to mention that the Commission while determining/revising the tariff of Central Government owned hydro generating stations of NHPC, SJVNL, THDC (after considering the report of DIA) has directed the Central Government owned hydro generating stations to seek revised cost estimates/completion cost of the project approved by the Central Government and place the same on record. In the process of approval of the revised cost estimates, the Central Government invariably consults and seeks recommendations from CEA and therefore, the capital cost of the hydro projects gets vetted by the CEA. ***The petitioner being a private company, its completion cost does not require the approval of the Central Government and therefore, CEA would not be involved to vet its capital cost.*** *Accordingly....."*

30. CEA, in its response to Commission's letter dated 02.09.2015, vide letter dated 15.12.2015, has clarified that as per provisions of Electricity Act, 2003 notified after the accord of TEC of the said Project, the examination and approval of enhanced cost on account of geological changes and surprises is not mandatory. It was also clarified that though CEA need to be a member of the expert committee constituted by State Govt. on request of project developer. The letter also stated that there is no information regarding intimation made by Developer in this regard.

31. **Commission has also gone through Section 73 of Electricity Act 2003 describing functions and duties of Authority as below:**

Section 73: Functions and duties of Authority- the authority shall perform such functions and duties as a central government may prescribed or direct and in particular to –

a...

b... specify the technical standards for construction of electrical plants, electric lines and connectivity to the grid.

c... specify the safety requirement for construction, operation and maintenance of electrical plants and connectivity to the grid.

d....

32. Factually, CEA's Techno economic clearance dated 14.06.2000, which was transferred to Petitioner on 14.07.2004, prescribes safety features, some of which are reproduced below:

Annexure – III

1. LOCATION

State	*Uttrakhand*
District	*Tehri/Pauri/Garhwal*
Tehsil	*Kirtinagar/Pauri*
Longitude	*78′ 50′ E*
Latitude	*30′ 14′ N*
Nearest rail head	*Rishikesh*

2. HYDROLOGY

Catchment area	*11110 Sq km*
Snow bound catchment area	*2640 Sq km*
Maximum Probable Flood (PMF)	*26400*
Standard Project Flood (SPF)	*19200*

3. DIVERSION TUNNEL

Length	*500 m*
Diameter	*10 m*
Shape	*Circular*
Diversion discharge	*700*

4. DIVERSION DAM

TYPE	*Concrete Gravity*
Length	*248 m*
Maximum height of dam from deepest Foundation	*90 m*
Height of dam from deepest riverbed	*66 m*
Number and size of spillway bays	*8 bays of 14.0 m width each*
Crest elevation	*584.50 m*
Full Reservoir Level (FRL) 605.50 m	
Minimum Draw Down Level (MDDL)	*603.00 m*
Gross storage	*78 m cum*
Live storage	*8 m cum*
Dead storage	*70 m. cum*
Energy dissipation device	*Solid bucket*
Road level on top of dam	611.0 m

33. The TEC, also mandates the following instructions of CWC/CEA on civil aspects etc...:

> *"3. Hydrology*
>
> *It is essential to take necessary precautionary measures to keep the intake safe from getting silted during feasible service period of 70 years as specified in IS-12182 (1989).*
>
> *Hydrograph recommended by the Hydrology Div. of CWC earlier and hence the hydrograph in the present DPR with a peak of 26400 may be adopted for planning purposes."*

Therefore, Commission is of the view that CEA only approves baseline cost of the Project and thereafter the same baseline is used when considering increase in costs due to force majeure and change in law events. The concurrence of CEA of Hydel Projects is essentially in terms of issues relating to inter-state water rights, dam design, safety and seismicity.

II. Progress of work during 2011-12 & 2012-2013

34. The Petitioner in the Petition has stated that statutory impositions under the MOEF's Notice gravely affected the implementation of the Project and that the Petitioner could not meet the time schedules approved by this Hon'ble Commission vide its order dated 02.07.2012. Further, Petitioner has stated that though Petitioner had substantially completed the Project works and brought to a stage for doing the pre-commissioning activities.

35. The Petitioner in its comments dated 18.06.2020 has submitted that The Joint Committee appointed by the Hon'ble Supreme Court had submitted its Report to the Hon'ble Supreme Court as well as to the MOEF on 03.05.2013. The said report had considered the physical and financial progress of work of Project site of AHPCL until 31.03.2013. The relevant portion of the Report has been reproduced below:

> *"AHPCL has provided the statement of physical and financial progress of various work of the Shrinagar project as on March 31, 2013 and is giving at Annexure 4. The summary of the same is as below: -*
>
> *Civil works: diversion tunnel, coffer dams, dams and spillway, head race tunnel, forebay tank and bypass channel, bridge on the channel, penstock,*

powerhouse building, switchyard are 100% completed. The cross drainage works of Munjh Kot nallah are 93 % completed.

Hydro- mechanical works : dams and spillway, head race tunnel, forebay and bypass and draft tube are 100% completed

Electromechanical works: 3 units are 100% completed whereas unit 4 is under progress"

36. Commission has gone through the Annual accounts of the Petitioner for various years as tabulated below which make it evident that not only major portion of work, about 1/3rd was completed, but substantial loan was also drawn during 2011-12 and 2012-13:

Financial Year	CWIP (Rs. / Crs)	Loan Drawl (Rs. / Crs)
2006-07	7.19	10.74
2007-08	122.62	231.87
2008-09	334.09	475.79
2009-10	442.25	483.05
2010-11	741.93	541.46
2011-12	681.75	501.83
2012-13	434.18	887.85
2013-14	191.76	448.47
2014-15	24.31	394.85

37. Commission has also gone through Hon'ble High court of Uttarakhand order dated 28.08.2011 in W.P. 68/2011, placed on record by Shri Bharat Jhunjhunwala comments dated 19.1.2.2019 during capital cost Prudence Check process. The said order states that at no stage there was any objection to the construction of Project. Subsequently, NGT vide order dated 05.11.2012 also held that there was not stay on Project construction

activities and tenor of MOEF notice dated 30.06.2011 was that of compliance of environmental conditions. Further, Hon'ble Supreme Court order dated 13.08.2013 has recorded as follows:

"....

i...Stop Work order: As informed by AHPCL that in view of NGT order of M.A. No. 103/2012 in Appeal No. 9 of 2011 dated Aug 7, 2012 they are continuing the construction of work."

38. Commission has also noted that MOEF vide letter dated 3rd August, 2011 referring to the order dated 19.04.2011 of the Hon'ble High Court of Uttarakhand, Nainital in W.P. No. 137/2009 approved the final parameters of the project and also clarified that the transfer of environmental clearance from DHPCL to AHPCL vide Ministry's letter dated 27.03.2006 is for 330 MW capacity with the following parameters:

i. Submergence area – 324.074 ha
ii. Forest land for diversion – 338.86 ha
iii. Capacity – 330 MW (4X82.5MW)
iv. Dam height from the deepest foundation – 90 M
v. Dam height from the river-bed level – 66 M
vi. FRL – EL 605.5 M
vii. Dam top road level 611.0 M

39. **Commission, in view of Hon'ble Supreme Court directions dated 30.01.2012 that the construction of the dam may go on without any hindrance project, delay in financial tie ups, Ma Dhari Devi temple related issues had granted 2nd extension to Project COD from 31.03.2012 to 31.05.2013 and Project cost was subject to Prudence check. The Petitioner has claimed that it could complete substantial part of the Project and brought to Pre-commissioning stage.**

40. **The PPA casts certain obligations on the Petitioner about Project commissioning activities and evacuation of power through associated transmission system to be made available by UPPCL. The PPA also provides benefit of deemed commissioning to the Petitioner in case it is not able to evacuate power due to non-**

availability of associated transmission system. These PPA provisions have been dealt in succeeding paragraphs.

III. Status of Notice of Synchronization by AHPCL

41. The generating company seeking connection of his new generating plant to the grid is required to enter into connection agreement with the STU in order to ensure the objective of safe operation, integrity, and reliability of the grid in accordance with CEA (Technical standards for connectivity to grid) Regulations 2007 read with UPERC (Grant of connectivity regulations) 2010.

42. There may be mismatch in commissioning in Generating Plant and associated evacuation system owing to various reasons such as land acquisitions and other clearances etc. As per Article 8.3, Company was to keep UPPCL informed as to the progress of the construction of the Project from time to time so that UPPCL is in a position to further co-ordinate with its own programmes of works with regard to transmission facilities. It is also not clear that when the Petitioner started water impounding and what is the estimated time taken for impounding. The Petitioner was required to intimate Project readiness three months in advance and give at least thirty-day notice of scheduled synchronisation date of each unit. Further, PPA in terms of Article 6.7 provides for deemed commissioning of unit if any part of the associated transmission system were not completed and operational on the scheduled date of a unit.

However, Petitioner could not place on record any

(i) **Test Certificates jointly signed by Petitioner and EPC contractor to the effect of performing SCC & OCC Tests**

(ii) **Installation report of completing 400 kV Switchyard along with its control panels and awaiting charging of switchyard**

(iii) **Details as to when it started impounding of water, time taken for water impounding and also the reservoir level**

(iv) **Communication proposing that even one unit is ready for synchronization as Commission vide its order dated 02.07.2012 granted Unit wise extension of COD to the Project.**

43. **Petitioner could place on record only letter dated 07.03.2013 to UPPCL requesting to render initial letter of credit and identify revenue streams for Escrow Account. It is only in May 2014 that after completion of construction work, the water conducting system from the main dam -power canal -up to penstock was charged, Petitioner sent the scheduled synchronization notice dated 26.05.2014 and entered into connection agreement dated 20th Oct 2014.**

Therefore, Commission, is not inclined to accept the contention of Petitioner that three units were ready for commissioning. The only conclusion that can be drawn is that Petitioner could not complete the Project within time extension granted i.e. by 31st May 2013.

IV. Whether June 2013 floods can be referred to Force Majeure / Act of God

44. As per PPA Article 14.1 **"Force Majeure Event"** shall means **any event of circumstances, or a combination of events or circumstances, which are beyond the reasonable control, either directly or indirect,** of a Party claiming Force Majeure that materially and adversely affect the performance by such affected party or its contractors or subcontractors of its obligation under or pursuant to this agreement,, provided, However, that such material and **adverse effect could not have been prevented, bypassed, overcome, or remedied by the affected party through the exercise of the due diligence and reasonable care or its compliance with prudent industry Practice.**

45. The Petitioner has stated in its Petition that during the month of June 2013, another Force Majeure event had occurred in the form of unprecedented flash floods in the State of Uttarakhand. **The said floods occurred due to the cloud burst and incessant rains at Chaurabari lake situated near Kedarnath located in the upper reaches of Himalayan region and in the Project site surrounding areas.** The flash floods inundated the power- house complex of the Project on 17th of June 2013, bringing in heavy river silt and debris thereby causing severe damage to the equipment already installed in the power-house. The Turbines and Generator installed in the power- house for the Units I, II, & III were severely damaged and made the entire power- house dysfunctional. Complying with the obligations envisaged under the PPA, the Petitioner vide its letter dated 19.06.2013, intimated the Respondent

about the occurrence of the said flash floods and the damages caused to the power house, denoting the said event as a Force Majeure event as required under Article 14 of the PPA.

46. Petitioner has claimed June 2013 flood of 13000 level was unprecedented, however, nothing on record is available as to what preventive measures were taken in respect of Hydrology of the area viz; Maximum Probable flood level of 26, 400 and Standard Project Flood of 19,200 . Even CWC in its observations has mentioned that peak flood level of 26,400 be adopted for planning purposes.

47. The Commission has gone through NGT order dated 19.08.2016 annexed to Sh. Bharat Junjhunwala comments dated 15.03.2019. NGT, in its order dated 19.08.2016 in Application No. 03/2014 in the matter of compensation by AHPCL for the damage suffered by the Members of Shrinagar Bandh Aapda Sangharsh Samitir has dealt with the contention of AHPCL declaring the floods in June 2013 as "Act of god"/ force majeure conditions beyond control.

> *".....Para 28... Shrinagar hydroelectric project is located upstream of Shrinagar town on the Alaknanda River in the lesser Himalaya. the report of April 2014 on* ***"Assessment of Environmental degradation and impact of hydroelectric projects during June, 2013 disaster in Uttarakhand"*** *reveals that Shrinagar valley is dominated by two major lithologies namely Quartizite above the barrage and phyllite downstream of it (R.N. Srivastava and A. Ahmad (1979): Geology and structure of Alaknanda river valley, Garwal Himalaya, Himalayan Geology 9: 225-254). The report further reveals that the phyllite dominated muck (47% to 23%) was generated from digging the tunnel and the canal and power- house excavation and was kept at 10 locations along the river bank. The report further observed that out of these substantial muck erosion occurred at the muck dumping site 9 (university stadium) and 10 near the power house and the Shrinagar project officials accept that contribution from the muck also led to raising the river bed.*
>
> *29..... the following conclusion have been drawn in the said report of April, 2014:*
>
> *i.....*
>
> *ii....*
>
> *iii. The Shrinagar hydro power project officials appear to have been*

unable to retain the muck which got washed into the river and assisted in aggravating the damage in the lower reaches of Shrinagar town. A significant contribution to the flood sediment was made locally available by the muck disposal sites No.6 to 10 (flg. 3.19). the geochemical analysis indicates that the phyllite contribution (muck) in the June, 2013 flood varied from 47% (proximal to the barrage) to 23% (distal location below Kirtinagar), Flg 3.19.

iv.....

32..... ***Next question arises is as to the source of muck*** *..... the geo-chemical analysis of the samples of the river bed sedimentation do point out contribution of phyllite, a product generated from digging the tunnel, canal and power house excavation."*

48. The NGT after referring to observations of the expert committee (constituted after order of Hon'ble High Court of Uttarakhand) report dated 19.06.2011, based on site visit on 06/07.06.2011, and expert committee report of MOEF who visited the project site on17.02.2012 and 29th& 30th August 2012, has concluded as follows:

"It is undisputed that June, 2013 flood were due to cloud burst in upper reaches of Alaknanda river unlike floods in 1894 and 1970, 'vide note on Geological Analysis ' in the Main Report-part II of April 2014 titled "Assessment of environmental degradation and impact of hydroelectric projects during June 2013 disaster in Uttarakhand" published by MOEF. However, it was within the knowledge of AHPCL that is project is situated in geologically sensitive area of Himalaya, where cloud burst is not a rare phenomenon and ..... ***MOEF vide its direction dated 13.06.2011has sounded an alarm regarding muck disposing. Having regard to these known condition, human foresight could have reasonably anticipated that laxity in taking timely protective majors such as slop dressing, terracing, toe walls covering the topsoil at the permanent muck disposal sites would prove disasters to the environment. .....material before us points out the laxity on the part of the Respondent No. 1 Alaknanda Hydro Power Co. Ltd. in relation to taking adequate safety majors for muck disposal sites.***

We, therefore, reject the plea of respondent no.1 that the damage caused to the residential area was the result of "Act of

God"-Vis.Major"

49. Commission has also noted the following observations made by MOEF in its Notice dated 30.06.2011 and Hon'ble Supreme Court in its order dated 13.08.2013:

> ***MOEF Notice dated 30.06.2011***
>
> *"The notice also refers that two teams visited the sites on 6th and 7th June 2011 and submitted two reports – one by Dr. B.P. Das and Ms Sanchita Jindal and other by Dr. Nayanjot Lahiri to review the status of re-location of Dhari Devi Temple, muck management plan of disposal, compliance to the environmental conditions and review the EC for the increased capacity under order of Hon'ble High Court of Uttarakhand in W.P. No. 137/2009.* ***The two reports have been accepted by the Ministry and it was noted that the issue of muck disposal and the pollution of Alaknanda River and surrounding environment is crucial, that AHPCL track record on this issue has been extremely poor, that its own muck management plan prepared by IIT Roorkee have been ignored. It also noted that the quarried area is being used for storing building material and no treatment of query work has so far been started."***

Muck Management and Disposal (Hon'ble Supreme Court order dated 13.08.2013)

Construction of SHEP involving excavation of earth and rock has generated large quantum and with the objective to protect the disposal areas from further soil erosion and develop the surrounding areas in harmony with the environment, the muck disposal plan is formulated. Muck disposal plan gives quantification of muck, identifies location and activities wherein muck is generated, during excavation and blasting operation and quantifies muck generated from the activities with relevance to disposal areas. The Das Committee visited the project site and submitted a status report on 29-30 August, 2012 which has dealt with muck disposal, details of which have already been dealt with in the earlier part of the Judgment. ***Report of the Joint Committee dated 03.05.2013 also refers to the AHPCL's action plan regarding muck management and disposal and recommended that remaining work, particularly, of the permanent site No.8 and 9 be carried out at the earliest. AHPCL has given the details of the work carried out for muck disposal.***

Failure of removal of muck from the project site may also cost flooding of the project areas, causing destruction to the environment and to the life of property of the people. MoEF and State Government and all other statutory authorities would see AHPCL takes proper action and steps for muck management and disposal"

50. **Commission, in view of the above, is not inclined to accept the argument of Petitioner that June 2013 floods were Force Majeure in nature and beyond reasonable control. The Petitioner did not take proper action and steps for muck management and disposal. The flood scoured the muck disposed by Petitioner's Project and scoured material got deposited in front of the power- house leading to raising the level of water.**

51. Regarding flooding of the power house in 2013, the DIA has mentioned in its report that the height of side walls of tail race channel had been fixed at EL 538 meter considering normal flood discharge of 2500 to 3000 Cumecs hence there is no point in keeping the top level of protection bund also above 538 meter level. However, during the 2013 flood with discharge of 13000 Cumecs, the river water level rose to about 541 meters near tail race channel and over topped the protection bund and side walls. The report also states that though three units were ready, water might have entered through fourth draft tube vent and reached machine hall and rose to EL 540 meter submerging the erected equipment of all units (generator floor at EL 533.8 Meter and operating floor is at EL 537.5 meter). Complete turbines, generator, main inlet valves and their auxiliaries including major equipment and balance of plants up to operating floor level of all the four units was under the silted water. Further the E&M store located on riverbank was washed away during the above floods losing some equipment of the fourth unit. The water easily entered the powerhouse and AHPCL had to carry out the cleaning process to start the project later. The DIA has mentioned the flood as a force majeure event. DIA Report has not dealt with the safety and security measures taken against the flood levels mentioned in the TEC. **The Commission has seen a video footing (available in public domain** https://www.youtube.com/watch?v=f0fG19Obeqs&feature=youtu.be**) of flood water entering the project. The video clearly shows that on the exit of the tail race channel only loose muck was accumulated and there was no pucca bund as such was made. Even the safety wall is also not visible when the flood water is entering the project.**

52. While justifying the height of tail race bund and the side wall the DIA has not supported its statement based on any guideline or past flood history. It is also not proved whether the AHPCL had constructed the side wall and the bund of adequate height to meet the contingency of flood. DIA has not substantiated its finding that the bund of 538-meter height was constructed. Further the DIA has mentioned that before the floods only three units were completed but has failed to place on record any evidence.

53. **When the Commission had given the machine wise date of commissioning it was the duty of AHPCL to give a notice to UPPCL for commissioning of at least three machines before 31.05.2013, details of water impounding and level of reservoir, test certificates of dry and wet test and switchyard installation report to prove that their unit(s) were ready for synchronization but they did not do that. If AHPCL would have been ready with project as per time schedule given by the Commission, they could have claimed deemed commissioning from UPPCL in terms of PPA for not providing the evacuation system. As per the Regulations and the PPA the financial implication of non-availability of transmission system cannot be considered in the project cost. At best, AHPCL could have claimed the benefit of deemed commissioning from UPPCL for which they did not take any action.**

54. **The developer of the project, AHPCL gave the commitment to the Commission that the project would be completed in 2011 but they failed to honor their commitment and delayed the project due to their own slackness. Thy did not observe the norms of MOEF in disposing the muck resulting into stoppage of work at the end of 2011. The MoEF embargo was also lifted in 2012 and the Commission on their Petition dated 26.03.2012 had extended the COD of last machine from 31.3.2012 to 31.05.2013. It is thus clear that the Commission had already extended the COD taking into account all the force majeure conditions and there is no reason to extend the COD of last machine beyond 31.05.2013.**

Final capital cost of the Project

55. AHPCL also filed petition No.952 of 2014 for approval of provisional tariff and subsequent a revised petition no.1093/2016 on the same issue. AHPCL also filed Petition no.1043 in 2015 for approval of the revised CODs to which UPPCL categorically opposed.

56. The **Commission on the basis of mutual agreement of both AHPCL and UPPCL agreed to fix the provisional tariff on the basis of 95% of Rs.4218 Crore vide its order dated March 29, 2016. Subsequently,** Petitioner and Respondent entered an MOU dated 15.02.2019 and reached a consensus as to the provisional tariff payable to the Petitioner w.e.f. 01.04.2019. The Commission allowed provisional tariff for the year 2019-20 vide order dated 08.05.2019 in Petition No. 1428/2019 based on 95% of the recommended capital cost of Rs. 4218 Crs by Expert Committee in Feb'14.

57. Commission vide its communication dated 13th January 2020 had sought following details to be included in the Final Report:

SHRINAGAR HEPP (330 MW)

Minutes of Meeting on the 3RD Presentation on 8th January 2020

Venue, Date & Time:

Venue	Date	Time
UPERC OFFICE, GOMTINAGAR, LUCKNOW	8th January 2020	15:30 PM to 17:30 PM

Minutes of Meeting:

During and after the presentation, members of UPERC wanted AF Consult to emphasize more on the following points.

S.No.	Points	Discussion	Remarks
1	Eligibility for COD	AF Consult (AFC) stated that the Project Authority (AHPCL) will be eligible for COD as the later of the following two options: a) Originally approved time of 8th October 2010 which finally got revised to May 2013, b) 6 months from the date of availability of Transmission	To justify any time extension beyond May 2013, the Commission advised AFC to carry out the following: i) Study and compare all the project construction schedule (PERT charts of Civil, HM and EM contracts) and compared with

S.No.	Points	Discussion	Remarks
		lines, as per PPA i.e. up to 11th May,2015 However, the Commission did not agree to this interpretation as the PPA had another clause regarding the power plant being ready in all respect before the transmission line which is the responsibility of UPPCL in which case AHPCL can claim the deemed loss in revenue generation instead of applying for time extension.	the actual physical progress, ii) Verify the progress reports submitted by AHPCL to the state authority, iii) Revisit the orders of MoEF, NGT, Supreme Court and the Commission for appropriate interpretation. iv) Inspect joint Protocol signed by all the contractors (i) Precision (ii) BHEL and (iii) NCC_GVKPTSL v) What was the reservoir level in March'13 /May'13? All the above documents need to be submitted with report. The main aim of the above activities is to ascertain what was the actual physical progress of work at site as in May 2013.
2	Stop Work Order by MoEF and subsequent orders by NGT, Supreme Court and the Commission	AFC's interpretation of all these orders are as follows: • MoEF Order dated 30-6-2011, restricted further Project Civil Works and E&M works on 3rd & 4th units, which was released only after Supreme Court Order in August 2013 dismissing all the cases.	UPERC asked AFC to go through all the relevant orders again. UPERC reiterated that the second time extension (till 31.05.2013) was given considering all the force majeure conditions prevailing at that point

S.No.	Points	Discussion	Remarks
		However, the Commission interprets it in the following manner: COD was further extended to 31.05.2013 by UPERC vide order dated 02.07.2012. The following reasons were mentioned as force majeure: i) Dhari Devi Temple rehabilitation ii) MoEF oder dated 30.05.2011 iii) Delay in financial tie up due to MoEF order iv) UPERC order dated 02.07.2012 refers to Hon'ble Supreme Court order dated 31.01.2012 clarifying the construction of the dam may go on. Earlier to this, Uttarakhand HC order dated 03.11.2011 also held that at any time there was no objection to project construction. NGT order dated 05.11.2012 also clarified that MoEF order did not obstruct the project work. Finally, SC vide order dated 13.08.2013 disposed of the above matter holding that there was no reason to hold up the project.	of time including the stop work order by MoEF.

S.No.	Points	Discussion	Remarks
3	Powerhouse Protection Wall	UPERC raised a point regarding the powerhouse protection wall. Why was this not designed for higher floods? For example, the spillway is designed for approximately 26,400 Cumecs. Could the flooding of powerhouse be a result of bad muck management? AFC pointed out that spillway is a permanent structure designed to manage the Probable Maximum Flood likely to occur in a very long period say **1000** years or so. Hence it's design flood is much higher as compared to any other structure. Where as a temporary river diversion is generally designed for much lower floods particularly in case of a concrete dam. It is generally 1 in 25 year return period (non-monsoon) flood. For embankment dams, it is 1 in 100 year (monsoon) flood. In case of Shrinagar Project, the temporary diversion flood is in the order of **700** Cumecs while the unprecedented flood of 2013 was in the order of 13000 Cumecs. So, there is every likelihood that it would have overtopped the protection wall, designed to withstand normal flood of 2500 to **300** Cumecs. Effect of muck	DIA is required to check these figures in bold and explain what is the CEA standard applicable to construction of concrete dam? DIA is also required to examine whether damage on account of flood was due to error on part of AHPCL viz; muck disposal etc.

S.No.	Points	Discussion	Remarks
		management in the downstream stretch cannot be ascertained at this stage.	
4	Tail Race gates and safety valves in powerhouse units	Commission wanted AFC to verify why the tail race gates and safety valves could not prevent entry of water into machine hall.	DIA is required to find out the height of safety valve and tail gates and when these were commissioned?
5	Safety Clearance of the Switchyard	UPERC wanted to know if any competent authority has given "Safety Clearance" for the switchyard. If yes, then documentary evidence should be included in the report.	AFC will seek documentary evidence from AHPCL to ascertain commissioning of powerhouse switchyard and attach it with report.
6	Audited Account with Schedule of Note	The Certificate attached in AFC Report states that the details do not constitute either an audit or a review made in accordance with the generally accepted auditing standards of India. Hence AFC was asked to include all the Audited Accounts with Schedule of Note.	AFC will request AHPCL to provide the audited details and include the same in the Report and verify the expenditure incurred out of these audited accounts. All audited accounts from 2007-08 onwards along with schedule of notes need to be submitted along with report.

S.No.	Points	Discussion	Remarks
7	Tender Documents along with evaluation report	UPERC desires that all the copies of Tender Documents along with the Tender Evaluation Reports be included in the Annexure.	AFC will examine all these documents and include its comments on the same from the view-point of related party transactions. The scan copies of the documents must be included in the Annexure to the report.
8	Measurement Book of the Civil Works	Members of the Commission raised the question about the authenticity of the Measurement Books (MBs) of the civil works. AFC opined that it is practically not possible to verify the correctness of the measurements taken during the progress of works because so many items have already gone underground or embedded within the concrete. So, we have to rely on the measurements/quantities indicated in the work bills.	
9	Detail calculation of the IDC	UPERC wanted AFC to provide the IDC calculations in EXCEL Sheets. AFC stated that IDC calculation was done quarter wise and the detailed calculation will be shared in excel format.	DIA is required to match the IDC with that in the audited books after considering interest earned on any surplus funds available.

S.No.	Points	Discussion	Remarks
10	Comments of the Commission to be incorporated in the revised report	AFC was asked to revisit and incorporate all the comments given by the Commission on the following dates: i) Dated 14th Oct 2019 ii) Dated 2nd January 2020 iii) Dated 7th January 2020. iv) Bharat Jhunjhunwala comments , on interim report as shared with the DIA. AFC will do the needful.	
11	Filling up of Forms required by UPERC	UPERC asked AFC to fill up some of the forms like Form 5. AFC stated that these Forms will be studied whether it is really required at this stage or to be filled up at the time of tariff petition. AFC will do the needful accordingly.	DIA is required to fill Form 5E(ii) in particular which is meant for projects having time overturn.
12	Increase in height of dam from deepest riverbed	Commission wanted AFC to verify whether AHPCL had taken approval from competent authority for this increase. AFC clarified that the riverbed profile is a continuously varying profile, falling at some height above the foundation level and measuring height of dam from that is not correct. The height of dam shall be measured from foundation level to the top of the dam, which is reduced from 90m approved to 87 m actual.	

S.No.	Points	Discussion	Remarks
13	Revised approval of TEC/updated DPR		

58. **The DIA in its report of February 20 has attributed all the delays to force majeure conditions but as pointed out by various stake holders during the course of public hearing, DIA has not examined the progress of the work as stipulated in the original PPA and the PERT (Program Evaluation Review Technique) chart, if any, prepared by AHPCL.**

59. **DIA in its Report has furnished only the Construction schedule from Feb 2006 to June 2015 mentioning the various reasons of delay as the Project has progressed. The PERT chart breaks down the individual tasks of a project with scheduled time- lines from the date of start of work and is a must for time-based analysis for determining the impact of any delay in execution of the work. Further, DIA in its report has not furnished complete details / information sought by Commission during meeting dated 08.01.2020 at Commission's office. Commission is not impressed with quality of DIA Report and therefore not inclined to accept the recommended completed cost of Rs. 5198.61 Crs.**

60. The AHPCL had started the work in the year 2006 and they approached the Commission from time to time, as detailed herein above, for approval of the revised cost on account of various reasons including the geological surprises, increase in raw material price, change in interest rates , implication of exchange rate variation and other hindrances. The Commission decided the Petitions filed by AHPCL on merits to ensure the timely completion of the project. In the hearing on 24.05.2011 Sri PV Prasanna Reddy, CEO of AHPCL categorically committed that the project will become operational in December 2011. Despite the objections of UPPCL, the Commission revised the cost of the project so that the developer may not face any difficulty in raising the resources to complete the project by December 2011.

61. The first Expert Committee appointed by the Commission had considered all the cost implications due to revised design parameters, geological surprises, increase in fuel cost and all force majeure events, except the implication of flood of June 2013. Even the implication of directives of MoEF and Dhari Devi Temple had also been considered. As per the report of earlier Expert Committee, huge variations had taken place in the quantities of works and the committee had agreed with various changes made in the design parameters, as stated by various stakeholders in the public hearing on DIA Report. As has been pointed out by various stakeholders, the Petitioner was supposed to inform about the changes and the cost implications to UPPCL before going ahead with the revised drawings and design. The revised DPR should have been submitted to CEA or at least one member of CEA should have been made a member of the Committee which finalised the working drawings and revised estimates of the project. AHPCL did not obtain any approval from the procurer before embarking on the execution of the work as per the revised DPR. This is a very major lapse on the part of AHPCL. AHPCL was under an obligation to give a notice to UPPCL for various force majeure conditions which occurred during the execution of the project. The Commission after considering all the obstacles had in its order dated 02.07.2012 allowed the time for COD of the last machine as 31.05.2013 but the contractors engaged by AHPCL did not stick to their time schedule and the project was delayed.

62. The earlier Expert Committee report also includes a comparative statement of expected expenditure as submitted before the Commission up to 15.12.2010 and the incurred cost up to 30.09.13. As per Petition dated 15.12.10 total cost of Rs.3675.16 Crore was expected on the project till COD and as per Expert Committee report up to 30.09.13, the total expenditure incurred was Rs.4323.47 crore out of which recommended expenditure was Rs.4218.80 crore. When we compare the expected expenditure submitted by the Petitioner up to 15.12.2010 and the verified expenditure up to 30.09.13, we find that there is a variation of only Rs.43.22 crore in major Civil Works and the expenditure on hydro mechanical works, plant and equipment, taxes and duties etc. are less than what was envisaged in 2010. The major increase is in overhead, approximately Rs.125 crore and interest during construction increasing from Rs.464.93 Crore to Rs.995.01 Crore. The earlier Expert Committee had disallowed some expenditure and has pegged the cost to Rs.4218.80 Crore as on 30.09.2013.

63. From this statement it appears that the Petitioner was confidant of completing the project within the cost submitted in 2010. It appears that after 2010 AHPCL slowed down its work and did not try to achieve the COD by 2011 as promised by them. When they got the concurrence of the Commission on the cost of RS. 3675.16 crore which was revised to Rs.4218.80 crore, they could not raise necessary finances on time and delayed the project. They could not commission the project even on the revised date of COD of last machine which was 31.05.2013. The DIA in its report has mentioned that before the flood came in June 2013 three units of the plant were complete and work was going on 4th unit.

64. The AHPCL is not entitled to any addition in cost beyond 31.05.2013 as it was its obligation to declare the unit(s) as ready for commissioning and claim the charges admissible for not availability of evacuation system. They were also under obligation to complete the fourth unit before 31.05.2013 and declare that also as ready for commissioning. The final Commissioning dates were fixed as per the request of AHPCL only. Since all their prayers for extension of time have already been entertained from time to time, no further time extension can be granted for the delay in commissioning due to floods in June 2013 or delay in availability of evacuation system.

65. Flood is a calamity and it can occur any time and the developer is required to safeguard its interest by taking proper safety margins and measures. For all the happenings around the project, the incidental cost cannot be added to the project cost. The Commission does not find any reason to extend the COD beyond 31.05.2013 therefore while computing the admissible project cost only the expenditure incurred up to 31.05.2013 would be admissible.

66. The earlier Expert Committee has recommended the cost of Rs.4218.80 crore which includes IDC, Rs.995.01 crore and Overheads, Rs.475.10 crore up to 30.9.2013. AS per Para 18 above the AHPCL is entitled to IDC and Overheads up to 31.05.2013. Therefore, The IDC and the overheads for 4 months are to be reduced from the recommended cost of RS. 4218.80 crore.

67. We have examined the annual accounts of the Company for FY 2013-14 which show the IDC and Overheads for the whole year. The admissible IDC and Overheads for two months are computed hereunder:

IDC for whole year (FY.2013-14)	Rs. 405.19 crore
IDC for four months (Prorate)	**Rs.135.06 crore**
Overheads for whole year (FY. 2013-14)	Rs. 65.33 crore
Overheads for four months (Prorate)	**Rs. 21.77 crore**

68. Based on above computation IDC of Rs.135.06 crore and Overheads of Rs. 21.77 crore need to be deducted from recommended cost of Earlier Expert Committee. Thus, the net admissible cost up to the approved date of COD i.e. 31.05.2013 works out to Rs. 4061.96 crore, which the Commission approves as final capital cost of Alaknanda Hydro Electric Project. **As the Commission has disallowed IDC and Overheads beyond the earlier approved SCOD of 31st May 2013, the insurance claim (ALOP) receipt of Rs. 159.44 Crs has not been reduced while computing Completed Capital Cost of the Project.**

69. The Petitioner (AHPCL) is directed to file the amended Tariff Forms as per UPERC Generation Tariff Regulations 2014 based on this approved cost for fixation of final tariff.

70. The Petition No.1267/2017 is accordingly disposed of.

(Vinod Kumar Srivastava)	(Kaushal Kishore Sharma)	(Raj Pratap Singh)
Member	**Member**	**Chairman**

Place: Lucknow

Date: 24.08.2020