

Before

UTTARAKHAND ELECTRICITY REGULATORY COMMISSION

In the matter of:

Petition under Sections 62 and 86(1)(a) of the Electricity Act, 2003 read with the relevant provisions of UERC (Terms & Conditions for Determination of Tariff) Regulations, 2011, UERC (Terms & Conditions for Determination of Multi Year Tariff) Regulations, 2015 for determination of tariff for supply of power from the Petitioner's 70 MW Hydro Electric power project to UPCL.

AND

In the Matter of:

Petition seeking approval of the Business Plan under Sections 62 and 86(1)(a) of the Electricity Act, 2003 read with the Regulation 8 of UERC (Terms & Conditions for Determination of Multi Year Tariff) Regulations, 2015 and as per order dated 20.11.2015 passed by the Commission.

In the matter of:

M/s Greenko Budhil Hydro Power Pvt. Ltd.

...Petitioner

AND

In the matter of:

Uttarakhand Power Corporation Ltd. (UPCL)

...Respondent

CORAM

Shri Subhash Kumar Chairman

Shri K.P. Singh Member

Date of Order: November 30, 2016

This Order relates to the Petitions filed by M/s Greenko Budhil Hydro Power Pvt. Ltd. (hereinafter referred to as "the Petitioner" or "Generator" or "M/s GBHPPL") for determination of tariff for supply of power from its (2 units of 35 MW each) 70 MW Hydro Electric power project to UPCL and also for approval of the Business Plan for the Control Period from FY 2016-17 to FY 2018-19.

1. Background and Submissions

- 1.1 UPCL had filed a Petition before the Commission seeking approval of the PPA it proposed to enter with the Petitioner for procurement of power from its 70 MW Greenko Budhil HEP. The

Commission vide its Order dated 15.10.2015 directed the Petitioner to file its tariff Petition within 15 days.

1.2 Subsequently, the Petitioner filed the Petition dated 07.11.2015 under Section 62 and 86(1)(a) of the Electricity Act, 2003 read with the relevant provisions of UERC (Terms & Conditions for Determination of Tariff) Regulations, 2011 and UERC (Terms & Conditions for Determination of Multi Year Tariff) Regulations, 2015 for determination of tariff for supply of power from the its 70 MW Hydro Electric power project to UPCL.

1.3 Copy of the aforesaid Petition was forwarded to the Respondent (UPCL) for submission of its reply. Since the Respondent did not raise any issue on maintainability of the Petition the Commission vide its order dated 20.11.2015 admitted the Petition subject to the condition that the Petitioner shall provide/furnish any further information/clarifications as deemed necessary by the Commission during the processing of the Petition to the satisfaction of the Commission within the time frame as may be stipulated by the Commission failing which the Commission may proceed to dispose-off the matter as it deems fit based on the information available with it. The Commission vide its above mentioned Order also directed the Petitioner for resolving the following deficiencies as observed in the Petition:

- Filing of Business Plan in accordance with the Regulations.
- Submission of DPR and revised DPR, if any, approved by the appropriate authority.
- Submission of details related to acquisition of the said project from M/s Lanco Green Power Pvt. Ltd.
- Submission of component wise actual project cost vis-a-vis project cost depicted in the DPR alongwith details/justifications for variations in components wise project cost classifying them into controllable and uncontrollable factors.
- Copy of loan documents, details of receipt of loan, repayments, and interest paid from financial institutions alongwith the supporting documents.

1.4 The Petitioner was directed to submit the reply within one month on the deficiencies observed in its Petition. The Respondent was also directed to submit its comments on the Petition, if any, within one month of the date of the Order. The Petitioner vide its letters dated 18.01.2016 and 05.03.2016 submitted its reply.

1.5 During scrutiny of the Petition, further additional deficiencies were sent to the Petitioner vide the Commission's letters dated 16.03.2016, 27.04.2016, 10.05.2016 & 17.08.2016. The Petitioner had

submitted its reply on the deficiencies vide its letters dated 16.04.2016 and 14.05.2016.

- 1.6 A meeting was held with the representatives of the Petitioner on 19.05.2016, wherein, Petitioner was informed that the replies on the deficiencies pointed out by the Commission were partially submitted by the Petitioner with considerable delay. During the meeting submissions made by the Petitioner were also discussed and it was asked to furnish complete information latest by 03.06.2016. In response, the Petitioner vide its replies dated 27.05.2016 and 29.06.2016 made its submissions.
- 1.7 The Commission, to provide transparency to the process of tariff determination and give all the stakeholders an opportunity to submit their objections/suggestions /comments on the Petitions filed by the generator issued public notice in the following newspapers:

Table 1.1: Publication of Notice

S. No.	Newspaper Name	Date of Publication
1	Amar Ujala, Uttarakhand Edition	29.04.2016
2	Dainik Jagran, Uttarakhand Edition	29.04.2016

- 1.8 Vide the above notice, the stakeholders were requested to submit their objections/suggestions/comments latest by 30.05.2016 (copy of the notices is enclosed as **Annexure 1**). The Commission received in all 3 objections/suggestions/comments in writing on the Petition filed by the Petitioner. The list of stakeholders who have submitted their objections/suggestions /comments in writing in response to this public notice is enclosed as **Annexure-2**.
- 1.9 Further, for direct interaction with all the stakeholders and public at large, the Commission also held public hearing on the Petitions filed by the Petitioner on 07.06.2016. The list of participants who attended the Public Hearing is enclosed at **Annexure-3**. The objections/ suggestions/ comments, as received from the stakeholders through mail/post as well as during the course of public hearing were sent to the Petitioner for its response. All the issues raised by the stakeholders, Petitioner's response and the Commission's views thereon are detailed in Para 2 of this Order. In this context, it is also to underline that while finalizing this Order, the Commission has, as far as possible, tried to address the issues raised by the stakeholders.

2. Stakeholders' Objections/Suggestions, Petitioner's Responses & Commission's Views

The Commission has received 3 suggestions/objections on generator's Petitions for approval of the Business Plan and MYT Petition for the period from FY 2016-17 to FY 2018-19. For the sake of clarity, the objections raised by the stakeholders and responses of the Petitioner have been consolidated and summarised issue wise. In the subsequent Chapters of this Order, the Commission has kept in view

the objections/suggestions/comments of the stakeholders and replies of the Petitioner while deciding the Annual Fixed Charges (AFC) and tariff for the Petitioner.

2.1 Project Cost

2.1.1 Stakeholder's Comment

Energy Watchdog, NGO, vide letter dated 25.11.2015 and vide Para B3 of letter dated 30.05.2016 alleged that a massive kickback of upto Rs. 135 Crore was involved in securing the PPA with UPCL. The project was earlier owned by Lanco group's company. Greenko Group's company acquired 100% equity of the Lanco Budhil project. One of the conditions of the Share Purchase Agreement was that Lanco Budhil would be paid additional \$ 19,996,667 if they are able to secure a long term power purchase agreement at favourable prices.

Energy Watchdog, vide Para D1 of its submission dated 30.05.2016 submitted that Lanco Infratech Ltd. filed a draft red herring prospectus dated 07.08.2006 with SEBI for raising capital through public issue in which the project cost of Rs. 419 Crore had been considered. The project was appraised by ICICI Bank Ltd and the project cost was estimated at Rs. 419 Crore.

Further, Greenko's Tariff Petition at para 3(h) states that it received Techno-Economic Clearance (TEC) on 20.08.2010 from Directorate of Energy, Government of Himachal Pradesh (GoHP) for a total cost of the project at Rs 688.77 Crore. Energy Watchdog again vide Para D3 agitated the issue of considering project's cost as Rs 685.37 Crore when Greenko acquired the Budhil project from Lanco at Rs. 478 Crore.

2.1.2 Petitioner's reply

The Petitioner vide letter dated 29.06.2016 submitted that while the basis for tariff fixation is the actual project cost, the cost of acquisition of shares is irrelevant. The share prices, either on the stock exchange or determined through bilateral negotiations have no bearing on the project cost. The Petitioner also submitted that reference made to red herring prospectus was solely to mislead the Commission.

2.1.3 Commission's view

In the instant case, tariff is to be determined u/s 62 on cost plus basis based on the applicable MYT Regulations. Capital cost of the project as on date of commercial operation is a pre-requisite for determination of tariff for any power utility and has nothing to do with the share price acquisition unless the project is bought at a discount. Furthermore, any premium paid in acquiring the project does not form part of the capital cost and the buyer of the project has to absorb it. The Commission

has examined the prudence of the capital cost claimed by the Petitioner in this Order before approving the tariff.

2.2 Tariff Determination through Competitive bidding

2.2.1 Stakeholder's Comment

Energy Watchdog, NGO vide its letter dated 25.11.2015 & vide Para B4 of submission dated 30.05.2016 and Mr. J. P. Badoni, vide its letter dated 26.11.2015 submitted that long term PPA should be executed through tendering process and submitted that the Petition should be dismissed as there should be complete transparency in the procurement of power as per guidelines issued by GoI. UPCL should have invited bids from others also or at least asked for evidence from Greenko for the rates at which they had been supplying power to others in the preceding six months.

Energy Watchdog submitted that the regulator should encourage procurement through competitive bidding that will go long way in improving the viability / profitability for the discoms. In this case too, if Greenko is not agreeing for a reasonable tariff, then the procurement should be dropped as better options of procurement through portal is available with UPCL.

2.2.2 Respondent's Reply

UPCL, vide its letter dated 01.06.2016 submitted that the power purchase from M/s Greenko Budhil Hydro is on long term basis, i.e. 35 years wherein the rate is to be determined by the Commission as per the Section 62 of Electricity Act, 2003. That as per Section 62 of Electricity Act 2003 there is no provision for procurement of power through tendering process. Also as per the National Tariff Policy 2006 which was subsequently amended vide Resolution dated 8th July 2011 provided as:

"Provided that a developer, of a hydroelectric project, would have the option of getting the tariff determined by the appropriate commission..."

Moreover, UPCL is facing continued power shortage throughout the year and has to depend on short term power purchase by undertaking power purchase through short term tenders and banking arrangement with utilities. UPCL also has to purchase power from IEX on day ahead basis where the rates are volatile and power availability is not firm.

2.2.3 Commission's view

With regard to point raised for directing UPCL to invite bids for long term PPA, the Commission would like to clarify that even the National Tariff Policy, 2016 has exempted Hydro Power Projects from competitive bidding till 2022 subject to fulfilment of certain conditions. Further, the Respondent being a state distribution licensee has to plan procurement of power preferably on

long term as well as medium term so as to ensure reliable supply of power to its consumers at viable rate. Moreover, UPCL was facing a situation that it was deficit in power in summers as well. Hence, it is imperative for the licensee to have a tie up of power on a long/medium term basis to meet the demand which is increasing every year. Moreover, there are numerous Judgments of Hon'ble ATE which states that power can also be procured under Section 62 of the Act.

The State Commission has plenary power under Section 86(1)(b) to regulate procurement of power as opposed to limited authority and approve the PPA between the parties. There is no ambiguity with regard to the power of Commission to regulate/ approve electricity purchase and procurement process of Distribution Licensee. This power of the Commission is unconditional and is not restricted in any way. Moreover from the plain reading of Section 86(1)(b) of the Act, it is amply clear that the Commission has to regulate the electricity purchase and procurement process including the price at which electricity shall be procured. Moreover, Section 86(1)(b) of the Act does not confer upon the Commission the power to fix tariffs as the same is governed by Section 62 and 63 of the Act.

Accordingly, so far as mode of tariff determination is concerned, tariff is being determined u/s 62 of Electricity Act, 2003. However, PPA with the Petitioner would only be approved if the Commission views the tariff determined as reasonable.

2.3 Free Power

2.3.1 Stakeholder's Comment

Mr. J. P. Badoni vide its submission dated 26.11.2015 submitted that the Petitioner is required to give free power to GoHP as royalty and the burden of this free power will be on Uttarakhand consumers. Energy Watchdog, NGO, has also raised the similar issue.

2.3.2 Respondent's Reply

UPCL vide its letter dated 01.06.2016 submitted that it is purely regarding procedure/method of tariff determination of the project which is in the ambit of the UERC. UPCL also submitted that the burden of free power should not be passed on to the consumer of the Uttarakhand.

2.3.3 Commission's view

In accordance with the Regulation 54 of MYT Regulations, 2011 and Regulation 50 of MYT Regulations, 2015, the Annual Fixed Charges of Hydro Generating Station shall be computed on annual basis, based on the norms specified under these Regulations, and recovered on monthly basis under capacity charge (inclusive of incentive) and Energy Charge, which shall be payable by the

beneficiaries in proportion to their respective percentage share/allocation in the saleable capacity of the generating station, i.e. in the capacity excluding the free power to the home State.

Moreover, the Commission wonders as to how UPCL being a licensee could submit such an irrational comment on provision of free power when its treatment in Tariff determination process has been explicitly specified in the MYT Regulations.

The proceeding for determination of Annual Fixed Charges has been carried out in accordance with the provisions of Regulations and Electricity Act. Furthermore, similar provisions are in place for tariff determination of projects owned by NHPC/SJVNL, etc. where the State also has a share. The burden of free power to the home State from these projects is shared by other beneficiaries.

2.4 *Signing of PPA*

2.4.1 *Stakeholder's Comment*

Mr. J.P. Badoni vide letter dated 26.11.2015 and Energy Watchdog, vide its letter dated 30.05.2016 submitted that the Commission has shown hurry in issuing order when there will be comparatively less generation in the winter season and in summer season state generating plants are sufficient to meet the requirement. If UPCL wanted to procure power on urgent basis it could procure it from power exchange.

2.4.2 *Petitioner's reply*

The Petitioner vide its submission dated 29.06.2016 submitted that Long term power purchase planning for RTC power by a State cannot be done through a short term spot market. Further, the rate of power in exchange fluctuates depending upon demand and supply. In addition to fluctuating price, purchasing power from power exchange for such a large quantum and for such long period entails risks of corridor unavailability and supply shortage, and tedious regulatory approval.

2.4.3 *Commission's view*

With regard to the objection raised on the Commission's order dated 20.11.2015, it is pertinent to mention that Tariff determination is a long procedure and requires 3 to 4 months for issuance of the Order after carrying out the prudence check. Further, if the Commission waits till March, the Licensee would be required to procure power from any short term arrangements which is being considered as relatively less reliable as compared to the long term PPA ensuring the availability of power for life of the project.

2.5 Public Notice on PPA

2.5.1 Stakeholder's Comment

Mr. J. P. Badoni vide letter dated 26.11.2015 submitted that No comments or suggestions has been sought from public by the Commission on the issue of power procurement from the Petitioner by Licensee and tariff has been fixed at Rs. 4/kWh.

2.5.2 Commission's view

It is pertinent to mention that the rate fixed vide the order dated 20.11.2015 was on provisional basis and would be finalised on the determination of tariff as per UERC (Terms & Conditions for Determination of Tariff) Regulations, 2011 (hereinafter referred to as "MYT Regulations, 2011) and UERC (Terms & Conditions for Determination of Multi Year Tariff) Regulations, 2015 (hereinafter referred to as "MYT Regulations, 2015). Further, as per the Act or Regulations there was no requirement for conducting a public hearing for approval of provisional tariff, however, the Commission has carried out necessary regulatory proceedings as discussed above.

2.6 Tariff Rate

2.6.1 Stakeholder's Comment

Mr. J. P. Badoni vide letter dated 26.11.2015 submitted that the provisional tariff fixed by UERC vide its Order dated 20.11.2015 should be revised to Rs 2.42 per unit, which is the tariff at which Greenko sold its power on IEX prior to selling to UPCL w.e.f. 01.12.2015.

Energy Watchdog, NGO, vide its letter dated 30.05.2016 submitted that assuming the agreed tariff @ 4.50/unit for 35 years of contract period, total contract price will be Rs. 3624 Crore calculated considering 12% & 18% free supply to GoHP and this works out to be an extra payment of Rs. 2108 Crore to the Petitioner over and above what Haryana had agreed to pay to Lanco Through PTC vide a PPA dated 21.09.2006.

Energy Watchdog further vide Para C of the submission dated 30.05.2016 stated that the Petitioner has been operating 12 operating Hydro Plants in HP and out of them the tariff for 11 plants are in the range of Rs. 2.17 to Rs. 2.95 per unit, while for the 12th plant (Budhil) it is selling through IEX at Rs. 2.42 per Unit. It further added that the tariff & cost figures and methodology used in the Haryana PPA and agreed by Haryana Commission should be the basis for determining the tariff for UPCL. CERC based inflation rates, beyond the original scheduled commissioning period till the actual CoD, may be allowed to Greenko, if such delays are not on the part of Lanco.

The stakeholder also objected upon provisional tariff of Rs. 4.00/Unit stating that the said

charges is being considered for power purchase from central generating station which also includes variable charges.

2.6.2 *Petitioner's reply*

The Petitioner vide its submission dated 29.06.2016 replied that PTC is a trading licensee which has an independent agreement with Greenko (erstwhile Lanco). The said tariff was not determined by a regulatory Commission. Further, generating companies can contract power with trading licensee under distress so as to service debt, however, the same cannot be a benchmark for determining tariff under Section 62 of the Act as the same is determined in accordance with the principles of Section 61 of the Act read with the tariff regulations of the Commission. Further, Provisional tariff will be adjusted on fixation of final tariff from 01.12.2015.

The Petitioner, in reply to Para C1 of Energy Watchdog, submitted that other 11 projects are un-comparable in size, time of construction and scheme of the projects vis-à-vis their Grenko HEP. Those PPAs were signed prior to 2005 based on generic tariff approved by the relevant State Commission.

2.6.3 *Commission's view*

Tariff determination of a generating company is a long and time taking procedure which requires prudence check of the capital cost in accordance to the applicable Regulations. It will be impractical to wait till the finalisation of the tariff to get the applicable tariff per unit. As the generator requires funds for the smooth operation of the plant as well as for servicing the debt, provisional tariff is allowed which is subject to the adjustments as per final tariff. Further, as far as Provisional Tariff Rate is concerned it is clearly mentioned in the Commission's order dated 20.11.2015 that the Petitioner was allowed to supply power generated from its 70 MW Hydro Electric Power Project to UPCL (the Respondent) w.e.f. December 01, 2015 to be purchased at a provisional tariff of Rs. 4.00/kWh being the rate specified by the Commission in its Tariff Order dated 11.04.2015 for UPCL for FY 2015-16 for purchase of power from new central generating stations for FY 2015-16. However, the above mentioned rate shall be replaced by the final tariff determined by the Commission. In this regard, it would also be relevant that the Respondent did not realise that in Tariff Order dated 11.04.2015 for UPCL, Rs. 4.00/kWh was the rate considered by the Commission for all the new generating stations including Thermal and Hydro. Moreover, in accordance with the MYT Regulation, tariff for Hydro Generating Stations is also two part, i.e. recovery of AFC is done through capacity charges and energy charges.

So far as the issue of tariff & cost figures and methodology used in the Haryana PPA and

agreed by Haryana Commission be considered as the basis for determining the tariff for UPCL, there is no locus standi to adopt the tariff & cost figures considered by Haryana Commission, where the proceedings under section 62 and 64(5) are being conducted by the Commission. Accordingly, project Cost and Tariff would be determined as per the applicable Tariff Regulations, based on the methodology specified in the MYT Regulations issued by the Commission from time to time. Moreover, the benchmark price prevailing in the power exchange to be used as a basis for determination of tariff is of no relevance as price is determined on the exchange based on the demand and supply of electricity. If demand exceeds supply the price is bound to be higher and in case demand falls short of supply price would be low. However, keeping in view the long term scenario of 30 years, it is nearly impossible to predict the cost of power in the exchange. Hence, to avoid any uncertainty it is always better to have some indication of tariffs in the future.

Moreover, Hon'ble Supreme Court vide its Judgment dated July 05, 2016 in Civil Appeal No. 5875 of 2012 has held that the tariff provided in PPA can be modified during the life of the project. Relevant extracts are given hereunder:

...In the case of Junagadh Power Projects Pvt. Ltd. the learned Appellate Tribunal even went to the extent of holding that if in the changed scenario occasioned by a drastic alteration of the facts and circumstances surrounding the determination of tariff, a review is declined/refused the power producer will be left with no option but to shut down its plants. Therefore, a review of the tariff in exercise of the statutory power vested in the State Regulatory Commission would be fully justified. It is the correctness of the aforesaid view that has been assailed in the present appeals under Section 125 of the Act.

...On the other hand Section 86 which deals with the functions of the Commission reiterates determination of tariff to be one of the primary functions of the Commission which determination includes, as noticed above, a regulatory power with regard to purchase and procurement of electricity from generating companies by entering into PPA(s). The power of tariff determination/fixation undoubtedly is statutory and that has been the view of this Court expressed in paragraphs 36 and 64 of Transmission Corporation of Andhra Pradesh Vs. Sai Renewable Power Pvt. Ltd. (supra)...

...When the tariff order itself is subject to periodic review it is difficult to see how incorporation of a particular tariff prevailing on the date of commissioning of the power project can be understood to bind the power producer for the entire duration of the plant life (20 years) as has been envisaged by Clause 4.6 of the PPA in the case of Junagadh. That apart, modification of the tariff on account of air cooled condensers and denying the same on account of claimed inadequate pricing of biogas fuel is itself

contradictory.

... All the above would suggest that in view of Section 86(1)(b) the Court must lean in favour of flexibility and not read inviolability in terms of the PPA insofar as the tariff stipulated therein as approved by the Commission is concerned. It would be a sound principle of interpretation to confer such a power if public interest dictated by the surrounding events and circumstances require a review of the tariff.

Hence, stakeholder's contention regarding continuing with the same tariff as decided under earlier PPAs is not tenable.

2.7 Other Comments

2.7.1 Stakeholder's Comment

- (i) Energy Watchdog vide Para 5 of letter dated 25.11.2015 submitted that to get the additional Rs. 133 Crore, Lanco has tied up at the highest political level of the Uttarakhand Government, besides UPCL and UERC promising them huge share of total kitty for kickbacks. Further, vide Para B5 of letter dated 30.05.2016 stated that On 15.10.2015, a three Member bench (Mr. Subhash Kumar, Chairman; Mr CS Sharma, Member; and Mr KP Singh, Member) of UERC issued an order admitting UPCL's petition. Thereafter, on 20.11.2015, a two Member bench (Mr Subhash Kumar, Chairman; and Mr KP Singh, Member) of UERC allowed UPCL to take power supply from 01.12.2015 from Greenko Budhil at a provisional rate of Rs 4 per unit, as Mr CS Sharma deliberately stayed away from this hearing. Thus a company, Greenko Budhil, which has been supplying power at much lower tariff to various customers, suddenly got enriched at the cost of UPCL and consumers.
- (ii) Energy Watchdog, NGO, vide Para C3 of the submission dated 30.05.2016 stated that Lanco entered into a 35 years PPA dated 30.03.2005 with PTC India for selling 100% of the power generated from the project at fixed rates for each of the 35 years. PTC, being a trader, in turn sold the entire power to Haryana Power Generation Corporation Ltd. "through a separate PPA signed on 21.09.2006 after keeping its margin as per CERC norms.

2.7.2 Petitioner's reply

Petitioner vide Para 4 (b) of letter dated 29.06.2016 submitted that the Petitioner had terminated PPA with PTC which was signed before start of Project on negotiated tariff basis. It is relevant to note that Budhil has not signed any PPA with Haryana as per Section 62 where tariff was determined as per Section 61 of the Act. It was PTC which offered power to Haryana as a trader and included power from Budhil in its offer. The same was validated in the APTEL order dated 09.08.2012

clearly observing that there is no nexus between the PPA signed between Lanco and PTC and the PSA signed between PTC with Haryana. However, the Petitioner has terminated the PPA with PTC on valid grounds. Therefore, the tariff agreed with PTC in 2005 can't be compared with present tariff fixation as per Commission's Regulations. There are no judicial orders against the termination or stay of the termination of the PPA. It is absurd to compare the tariff in the terminated PPA with the present tariff and submit improper and irrelevant comparisons.

2.7.3 Commission's views

The Commission does not find any merit on the allegation of the stakeholder regarding undue favour to the Petitioner made by this Commission since determination of annual fixed charges has been carried out in accordance with the due regulatory proceedings as per regulations and under the Electricity Act, 2003. Further, presence / absence of any member on the date of hearing are coincidental circumstances based on their own personal reasons. The stakeholder appears to be biased and has made frivolous allegations without any fact.

With regard to PPA with PTC and considering the tariff specified in the same by this Commission, the Commission has already dealt with the same on preceding Paras.

2.8 Other Comments

2.8.1 Stakeholder's Comment

Energy Watchdog vide Para D2 of submission dated 29.06.2016 submitted that Greenko's Tariff Petition at para 3(h) states that it received Techno-Economic Clearance (TEC) on 20.08.2010 from Directorate of Energy, Government of Himachal Pradesh (GoHP) for a total cost of the project at Rs 688.77 Crore. It also claimed that it was able to complete the project at a capital cost lower than what had been approved. Further, as per the Section 8(1) of The Electricity Act, the States are not empowered to clear such projects having valuation of more than Rs. 500 Crore. This limit was enhanced to Rs. 1,000 Crore on 28.01.2014.

2.8.2 Petitioner's reply

Budhil Project was constructed with all required approvals and approval of CEA was not applicable for this project. As per CEA norms, once a Project is envisaged as a project with State Agency cost approvals, any cost revision shall also be approved by the same State Agency. There are many projects with revised costs accordingly.

Therefore, the averment made by Energy Watchdog lacks from correct interpretation of the project approval guidelines. Sub-section (1) of clause 8 of the Electricity Act, 2003 (Act 36 of 2003)

dealing with the subject of concurrence of the Hydro Electric scheme has been reproduced below:

“Notwithstanding anything contained in section 7, any generating company intending to set-up a hydrogenerating station shall prepare and submit to the Authority for its concurrence, a scheme estimated to involve a capital expenditure exceeding such sum, as may be fixed by the Central Government, from time to time, by notification.”

The above sub-section clearly suggests that the concurrence from Central Electricity Authority for a Hydro Generating Station scheme is sought based on the estimated capital expenditure of the project at the project planning stage. Since the same is estimated, the actual cost may vary.

Further, Budhil project developer developed the project DPR and submitted the same to HPSEB in the year 2005 for Techno-Economic Clearance of the project from the state statutory authority. It is stated that the Ministry of Power notification regarding threshold capital expenditure limit for concurrence of the Hydro Generation Scheme from CEA was for the first time introduced only on 18.04.2006. Moreover, the estimated capital expenditure of Budhil Hydro Project as per Detailed Project Report of the project was Rs. 418.8 Crore compared to threshold capital expenditure limit of Rs 500 Cr for concurrence from CEA, the project sought the project TEC concurrence from the Himachal Pradesh State Electricity Board (HPSEB), the then state statutory authority for the same. As such the allegations made by Energy Watchdog are entirely misplaced and misleading.

As “Guidelines for Formulation of Detailed Project Reports for Hydro Electric Schemes, their Acceptance and Examination for Concurrence” released by CEA in compliance of provision of Section 8(1) of EA, 2003, suggests guidelines for preparation of project DPR including capital cost estimate for concurrence of CEA. The guidelines suggest concurrence from CEA based on capital cost estimated in the DPR and does not suggest CEA concurrence requirement in case capital cost of the project during construction exceeds the threshold capital expenditure limit fixed by the Central Government for CEA concurrence.

The project developer post completion of detailed design and engineering of the project, submitted the estimated revised project cost to Directorate of Energy (DoE), Government of Himachal Pradesh (GoHP), statutory authority, for approval of the same.

2.8.3 Commission's views

This 70 MW Hydro Eclectic Project does not fall under the ambit of section 8 of the Electricity Act, 2003 and therefore, does not require any prior concurrence from CEA on its estimated capital expenditure since GoI has already prescribed a threshold expenditure of 1000 Crore vide its Order dated 28.01.2014 beyond which such concurrence is necessary. However, since this matter of capital

cost of the project, a vital cost element, the Commission will consider the actual capital expenditure incurred in the project subject to prudence check in accordance with the principles laid down in the MYT Regulations.

2.9 Other Comments

2.9.1 Stakeholder's Comment

Energy Watchdog, vide Para D4 of its submission dated 30.05.2016 submitted that to get about \$20 million incentive payment from Greenko, Lanco/Greenko are using fraudulent means to obtain higher tariff by inflating cost of the project. The first hearing in UERC on this instant petition took place on 15.10.2015. After this hearing, they have obtained a false and misleading certificate dated 07.11.2015 from a Chartered Account for the valuation of project as of May 2012 thereby substantially inflating the cost. The FY13 balance sheet at Note-11 gives the details of the project expenses. Upto March 31, 2012, it shows cumulative "interest" expenses of Rs. 127.71 Crore. But, in FY13, the "Interest" outgo shows a sharp dip (Rs. 7.29 crore). Further, page 42 of Annexure-1 of Greenko's Tariff Petition discloses the fact that during the relevant period (FY13), there was no equity infusion and also there was no substantial decline on drawdown. Assuming that the loan amounts mentioned in the CA's certificate from the Banks & FIs were true, then the "interest" outgo should have been about Rs. 32.86 Crore for the FY13. On the other hand, if interest of Rs. 7.36 Crore is taken as true, then the drawdown amount should have come down to Rs. 48.26 Crore in FY13. There are several such substantial inherent contradictions in the Balance Sheets filed by Greenko with UERC along with its Petition which cannot be relied upon for deciding the tariff. This requires forensic auditing of the entire accounts.

Further vide Para D5 of the same letter submitted that under the category of "Incidental Expenditure during Construction", Greenko/Lanco have claimed for many high and unjustified costs. These include employee cost of Rs. 19.17 Crore; donations and other activities of Rs. 25.68 Crore; Consultancy & other professional services of Rs. 12.37 Crore, etc. Lanco had awarded the civil work contracts on turnkey basis to its own companies and hence high employees cost / consultancy services are unjustified.

2.9.2 Petitioner's reply

Petitioner vide Para 5 of the submission dated 29.06.2016 submitted that Project got commissioned in the last week of May 2012 and the Project Cost includes interest only till commissioning of the project. So, the interest of Rs. 7.29 Crore represents interest for two months only for FY 2012-13. The balance interest gets charged to the Profit and Loss Statement. The Petitioner

further added that actual project cost presented to the Commission is based on the records verified by the Statutory Auditors of the Company from time to time.

2.9.3 Commission's views

The above comments of the stakeholder relates to the capital cost of the project which has appropriately been dealt in the subsequent paragraph of this Order.

3. Petitioner's Submissions, Commission's Analysis, Scrutiny and Conclusion on Business Plan for the Control Period

- 3.1 The Petitioner filed a Petition dated 14.01.2016 seeking approval of the Business Plan for the Control Period FY 2016-17 to FY 2018-19 under Section 62 & 86 (1)(a) of the Electricity Act, 2003 read with the Regulation 8 of UERC (Terms & Conditions for Determination of Multi Year Tariff) Regulations, 2015 and in compliance with the Commission's order dated 20.11.2015. The Respondent vide its letter dated 25.02.2016 also filed further submissions on the above mentioned Petition.
- 3.2 The Commission held a hearing on 26.02.2016 in the matter. Vide Order dated 26.02.2016, the Petitioner was directed to submit reply on the issues raised by the Respondent within one week from the date of Order. However, no reply was submitted by the Petitioner in the specified time. The Commission vide its letter dated 19.04.2016 again directed the Petitioner for submission of reply in the matter within a week. In the meantime, the Petitioner vide its reply dated 05.04.2016 submitted the requisite information which was received at the Commission's office on 22.04.2016.
- 3.3 Capital works related to the Control Period as submitted by the Petitioner are as follows:

**Table: 3.1: Capital Investment Plan proposed by the Petitioner during FY 2016-17 to FY 2018-19
(Rs. in Crore)**

Sl. No.	Description of items	Total	FY 2016-17	FY 2017-18	FY 2018-19	Shutdown period
1	Laying 3 extra runs per phase of 11KV XLPE (Cross-linked polyethylene) cable Between Generator and transformer	0.40	0.40	-	-	-
2	Canopy on cable bridge where the cables cross the Ravi river	0.01	0.01	-	-	-
3	Thermal lagging on cooling water headers for preventing the condensation.	0.03	0.015	0.015	-	-
4	Replacement of existing 4 Nos. centrifugal pumps by submersible type pumps in drainage system & replacement of its existing pipeline with new ones.	0.10	0.05	0.05	-	-
5	Proper flooring in GIS (Switchyard) & Machine hall at Budhil-end	0.10	0.05	0.05	-	-
6	Installation of brake dust collector	0.025	0.025	-	-	-
7	Installation of fresh air & ventilation system in Power House & cable tunnel	0.20	-	0.20	-	-
8	Provision of standby 220V DC, 850Ah lead acid battery bank for Power House and GIS	0.10	-	0.10	-	-
9	Automatic flushing system in cyclone separator	0.005	0.005	-	-	-
10	Installation of DC pump for drainage system at powerhouse	0.03	-	0.03	-	-
11	Installation of new or modification of existing TGB (Turbine Guide Bearing) heat exchanger	0.02	0.02	-	-	-
12	Installation of mechanical and electrical system from operator desk	0.002	0.002	-	-	-
	Total	1.022	0.577	0.445	-	-

**Note: Other than item no. 1 above (11 KV cable laying), other works are still at an initial stage, detailed designing or cost estimates are not available, and therefore, the preliminary estimates, have been provided above.*

The overall additional capitalisation proposed by the Petitioner for the Control Period is about Rs. 1.02 Crore. The expenditure on major item has been analysed details of which are as follows:

(i) Laying 3 extra runs per phase of 11 kV XLPE (Cross-linked polyethylene) cable between Generator and transformer: The Petitioner submitted that this work is required to support running of the units on overload capacity upto 40.25 MW (15% overload).

The Petitioner was enquired as to why the works necessary to enable overloading of units are being taken up since the projects are, in general, designed and constructed to operate at certain overload capacity. In this regard, the Petitioner during the meeting held on 13.05.2016 submitted that the generating station has actually been constructed with an overload capacity, however, the cables connected with the generating units for carrying of power need to be strengthened by installing additional cables. The Petitioner submitted that the material procurement in respect of the aforesaid work has been done from M/s Havels India Ltd. and designing & installation has been carried out by the Petitioner. Moreover, cable for unit 1 has already been installed and the trial run for 40.25 MW loading has been completed on 09.03.2.2016. The Purchase order dated 07.09.2015 submitted by the Petitioner depicts price of the cable as Rs. 33.03 Lakh having additional provision of excise duty @ 12.50% and 1% CST which works to around Rs. 37.50 Lakh. The Commission, considering the benefits of laying of cable allows a capital expenditure of Rs. 40 Lakh, however, the same would be approved on furnishing of actual expenditures at the time of

truing up exercise.

(ii) **Installation of fresh air & ventilation system in Power House & cable tunnel:** The Commission noted that the 70 MW HEP of the Petitioner is an underground power house, hence, proper ventilation system should have been in place by the date of commissioning of project. Accordingly, the Petitioner was enquired about its proposal for installation of fresh air & ventilation system in Power House & cable tunnel after a delay of about 4 years from CoD. In this regard, the Petitioner submitted that fresh air & ventilation system is already there in the power house, however, existing system is not adequate enough to obviate temperature rise inside the cable tunnels due to Heat generated in cables, affecting the cable insulation adversely and leading to damages to the cable. The Petitioner submitted that inadequate fresh air & ventilation system also leads to breathing problem to the personnel working in the powerhouse. The Petitioner submitted that so as to ensure safety to cables, to reduce the ambient temperature inside the powerhouse and to prevent breakdown, additional fresh air & ventilation system would be required. The Petitioner has proposed installation of above mentioned system with total expenditure of Rs. 20.00 Lakh in FY 2017-18. The Commission, considering the need of fresh air & ventilation system for power house allows a capital expenditure of Rs. 20.00 Lakh, however, the same would be approved on furnishing of actual expenditures at the time of truing up exercise.

The plan for remaining capital works, as proposed by the Petitioner are of routine nature and/or of relatively lesser amount. Hence, the same are being allowed, subject to prudence check during the truing up exercise based on the actual expenditure incurred.

With regard to shutdown requirement for carrying out the above mentioned activities the Petitioner submitted that the shutdown was required only for two activities namely (i) thermal lagging over the water pipelines and (ii) to replace automatic flushing system. The Petitioner submitted that shut down would be required for 1 unit at a time. Therefore, these activities would be carried out during the lean period (November – February), to avoid loss of power generation.

3.4 Trajectory of the Performance Parameters

With regard to trajectory of performance parameters the Petitioner submitted that it had been selling power on single part tariff, and, hence, it has not had an occasion to declare its capacity previously. The Petitioner submitted that Availability data is not applicable to the Petitioner. The Petitioner also submitted that auxiliary consumption has been considered as per the regulations. **The Commission, while considering Petitioner's submission for current proceedings, clarifies that for all future financial years requisite details has to be maintained by the Petitioner and shall be required to furnish in accordance with the Regulations.**

3.5 NAPAF

The Petitioner in its petition did not submit the plant availability factor for FY 2015-16 and for the Control Period. The Commission asked the Petitioner to furnish the plant availability factor alongwith the detailed computation of the same in accordance with the regulations and also the relevant details in this regard from CoD. In response, the Petitioner submitted that in accordance with the regulation 50(1) & 50(2) of the UERC Tariff Regulations, 2015, recovery of the Capacity Charge component is based on PAFM (Plant Availability Factor achieved during the month), where the PAFM itself is linked to DC (Declared Capacity) of each day during the month. Thus, the Petitioner submitted that the PAFM and DC are relevant only when there is a two-part tariff structure and the recovery of Capacity Charge is linked to the Declared Capacities (DCs) during the month. However, the Petitioner submitted that since it was selling power in the merchant market on single part tariff, it did not declare its capacity previously. The Petitioner submitted that the sought data requirement was not applicable to it, and requested exemption from submission of details in this regard. The Petitioner also submitted that the remaining period of FY 2015-16 during which energy generated from its HEP would be supplied to UPCL is a lean period, hence, it would be difficult to recover the capacity charges based on the NAPAF in accordance with the regulations. The Petitioner, in this regard, requested to allow single-part tariff for FY 2015-16 so that applicable AFC would be recovered by it. Relevant Regulations 54(1) & 54(2) of the MYT Regulations, 2011 provide that:

“(1) The Annual Fixed Charges of Hydro Generating Station shall be computed on annual basis, based on norms specified under these Regulations, and recovered on monthly basis under capacity charge (inclusive of incentive) and Energy Charge, which shall be payable by the beneficiaries in proportion to their respective percentage share/allocation in the saleable capacity of the generating station, that is to say, in the capacity excluding the free power to the home State.

(2) The capacity charge (inclusive of incentive) payable to a hydro generating station for a calendar month shall be:

AFC x 0.5 x NDM / NDY x (PAFM / NAPAF) (in Rupees)

Where,

AFC = Annual fixed cost specified for the year, in Rupees.

NAPAF = Normative plant availability factor in percentage

NDM = Number of days in the month

NDY = Number of days in the year

PAFM = Plant availability factor achieved during the month, in Percentage

(3) The PAFM shall be computed in accordance with the following formula :

$$N \text{ PAFM} = 10000 \times \sum DC_i / \{ N \times IC \times (100 - AUX) \} \% \quad i=1$$

Where,

AUX = Normative auxiliary energy consumption in percentage

DC_i = Declared capacity (in ex-bus MW) for the ith day of the month which the station can deliver for at least three (3) hours, as certified by the Uttarakhand State Load Despatch Centre after the day is over.

IC = Installed capacity (in MW) of the complete generating station

N = Number of days in the month

(4) The Energy Charge shall be payable by every beneficiary for the total energy supplied to the beneficiary, during the calendar month, on ex-power plant basis, at the computed Energy Charge rate. Total Energy Charge payable to the Generating Company for a month shall be :

(Energy Charge Rate in Rs. / kWh) x { Energy (ex-bus)} for the month in kWh} x (100- FEHS)/100

(5) Energy Charge Rate (ECR) in Rupees per kWh on ex-power plant basis, for a Hydro Generating Station, shall be determined up to three decimal places based on the following formula:

$ECR = AFC \times 0.5 \times 10 / \{ DE \times (100 - AUX) \times (100 - FEHS) \}$

Where,

DE = Annual Design Energy specified for the hydro generating station, in MWh,. FEHS = Free Energy for home State, in percent, as applicable"

From the above and similar provisions specified in MYT Regulations, 2015 it is apparent that the 50% of AFC is allowed to be recovered from energy charges and remaining 50% of AFC is to be recovered through 50% capacity charges. The Petitioner initiated supply of power w.e.f. December, 2015, i.e. during lean period of FY 2015-16, hence, it would not be appropriate to apply regulations for the recovery of AFC by way of energy charge and capacity charge since it would be difficult in achieving PAF equivalent to NAPAF while considering supply from Hydro Project during the lean period only. Accordingly, the Commission while relaxing the relevant regulations, allows recovery of AFC for FY 2015-16 through a single-part tariff, i.e. based on total AFC and saleable energy only. However, for the ensuing control period FY 2016-17 to FY 2018-19, recovery of AFC shall be carried out in accordance with the regulations based on the stipulated NAPAF of 85%.

3.6 Tie-Line Losses

For the purpose of energy charge rate, the Petitioner has derived saleable energy after deducting the tie-line losses also upto the delivery point of the beneficiary from ex-bus energy and free energy to State. However, in accordance with Regulations as mentioned above, saleable energy is determined from the design energy after deducting allowable normative auxiliary consumption as per the Regulations and free energy to the State. Further, deduction of energy in lieu of tie-line losses, as submitted by the Petitioner, is not in accordance with the Regulations, hence, the same is not being considered for computation of saleable energy and corresponding energy charge rate.

4. Petitioner's Submissions, Commission's Analysis, Scrutiny and Conclusion on Capital cost and Tariff determination for the Project for FY 2015-16

4.1 *Design Energy*

DPR of the project stipulates the design energy of the Budhil HEP as 313.33 MUs. The Petitioner has claimed design energy as 280 MUs. The Commission asked the Petitioner the basis of claiming design energy and corresponding saleable energy in deviation to the DPR. The Petitioner submitted that the design energy of 313.33 MUs in the DPR was based on the energy generation in 90% dependable year, with 70 MW installed capacity, at 15% overload. However, the Petitioner has applied three corrections on the same as follows:

- i) 95% of installed capacity i.e. 66.50 MW has been considered in place of 70 MW;
- ii) No overload has been considered; and
- iii) Statutory minimum environment discharge of 0.91 Cumecs has been reduced from design discharge.

Accordingly, the Petitioner has considered all the other data and assumptions as per the DPR and based on the above three corrections, has recalculated the Design Energy as below:

Table 4.1: Computation of Design Energy submitted by the Petitioner

Period		Days	Cumecs (as per DPR Table 6.5)	Cumecs (net of Environment Flow)	Power (MW)		Energy (MU) without Overload
					Un-restricted	Restricted to (Installed Capacity * 95%)	Restricted to (Installed Capacity * 95%)
JUN	I	10	23.52	22.61	48.99	48.99	11.76
	II	10	22.77	21.86	47.37	47.37	11.37
	III	10	35.37	34.46	74.67	66.50	15.96
JUL	I	10	40.05	39.14	84.81	66.50	15.96
	II	10	39.43	38.52	83.47	66.50	15.96
	III	11	39.59	38.68	83.81	66.50	17.56
AUG	I	10	35.87	34.96	75.75	66.50	15.96
	II	10	32.04	31.13	67.45	66.50	15.96
	III	11	27.10	26.19	56.75	56.75	14.98
SEP	I	10	22.04	21.13	45.79	45.79	10.99
	II	10	19.24	18.33	39.72	39.72	9.53
	III	10	16.28	15.37	33.31	33.31	7.99
OCT	I	10	14.16	13.25	28.71	28.71	6.89
	II	10	12.51	11.60	25.14	25.14	6.03
	III	11	10.90	9.99	21.65	21.65	5.72
NOV	I	10	10.03	9.12	19.76	19.76	4.74
	II	10	9.63	8.72	18.90	18.90	4.54
	III	10	9.00	8.09	17.53	17.53	4.21
DEC	I	10	8.10	7.19	15.58	15.58	3.74
	II	10	7.78	6.87	14.89	14.89	3.57
	III	11	7.68	6.77	14.67	14.67	3.87
JAN	I	10	7.18	6.27	13.59	13.59	3.26
	II	10	8.88	7.97	17.27	17.27	4.15
	III	11	8.64	7.73	16.75	16.75	4.42
FEB	I	10	6.06	5.15	11.16	11.16	2.68
	II	10	6.85	5.94	12.87	12.87	3.09
	III	8	6.92	6.01	13.02	13.02	2.50
MAR	I	10	6.74	5.83	12.63	12.63	3.03
	II	10	7.06	6.15	13.33	13.33	3.20
	III	11	9.08	8.17	17.70	17.70	4.67
APR	I	10	9.40	8.49	18.40	18.40	4.42
	II	10	10.27	9.36	20.28	20.28	4.87
	III	10	11.97	11.06	23.97	23.97	5.75
MAY	I	10	14.59	13.68	29.64	29.64	7.11
	II	10	21.86	20.95	45.40	45.40	10.90
	III	11	17.62	16.71	36.21	36.21	9.56
Total							280.90 Or say 280

Regulation 3(25) of UERC (Terms and Conditions for Determination of Multi Year Tariff) Regulations, 2015 and also MYT Regulations, 2011 defines Design Energy as follows:

“Design Energy” means the quantum of energy which can be generated in a 90% dependable year with 95% installed capacity of the hydro generating station;”

In accordance with the above provision of the Regulations, corrections in computation of design energy made by the Petitioner is appropriate since design energy has to be based on 95% of the installed energy and without any overloading of the machines. Further, the Commission has also noted that subsequent to the preparation of the DPR in February, 2005, Government of Himachal Pradesh vide its notification dated 16.07.2005 mandated for Hydro Power Projects to release and maintain minimum flow to downstream of the diversion structure at 10% of the minimum inflows observed in the lean season. Thereafter, vide notification dated 09-09.2005, the Department of Pollution Control, Government of Himachal Pradesh increased the “Statutory Minimum Environment Flow” to 15%. The Commission

observed that the Petitioner has reduced the available discharge during the monsoon period also. However, the same is incorrect since during the monsoon period discharge of water need not be required to be released from the Petitioner's HEP as there would be sufficient influx remain available during this period. Considering the above submissions of the Petitioner and applying the corrections as discussed above the Commission has computed design energy of HEP as 283.54 MUs against 280 MUs consider by the Petitioner.

4.2 *Saleable Energy*

In accordance with Regulation 54(5) of UERC Tariff Regulations, 2011, the Energy Charge Rate has to be worked out based on the Design Energy applying the normative auxiliary consumption and free energy to home State. The relevant extract of the Regulations is reproduced herein:

"54...

(5) Energy Charge Rate (ECR) in Rupees per kWh on ex-power plant basis, for a Hydro Generating Station, shall be determined up to three decimal places based on the following formula, subject to the provisions of sub-Regulation (7):

$$ECR = AFC \times 0.5 \times 10 / \{DE \times (100 - AUX) \times (100 - FEHS)\}$$

Where,

DE = Annual Design Energy specified for the hydro generating station, in MWh,

FEHS = Free Energy for home State, in percent, as applicable..."

In accordance with the implementation agreement signed by the Petitioner with GoHP in respect of the project there is provision of free power to the State of Himachal Pradesh at 12% of deliverable energy which shall be applicable for the first 12 years from the CoD of the project. Similarly, royalty of 18% shall be applicable after 12 years of the CoD. Further, normative auxiliary consumption for the under ground stations is 1.2% as per the Regulation. Hence, in accordance with the above mentioned Regulations saleable energy in respect of the HEP is worked out as 246.52 MUs and 229.71 MUs for the first 12 years from CoD and after 12 years from CoD respectively.

4.3 *Capital Cost*

Regulation 23 of Tariff Regulations, 2011 provides that:

"23. Capital Cost and capital structure

- (1) In case of a Generating Company, Transmission Licensee, Distribution Licensee and SLDC, investments made prior to 1.4.2013 shall be accepted on the basis of investments approved by the Commission in the previous Orders.*
- (2) ...*
- (3) The approved Capital Cost shall be considered for tariff determination and if sufficient justification is provided for any escalation in the Project Cost, the same may be considered by the Commission subject to prudence check:*

Provided that in case the actual capital cost is lower than the approved capital cost, then the actual capital cost will be considered.

Provided that prudence check of capital cost may be carried out based on the benchmark norms to be specified by the Commission from time to time;

Provided further that in cases where benchmark norms have not been published, prudence check may include scrutiny of the reasonableness of the capital expenditure, financing plan, interest during construction, use of efficient technology, cost over-run and time over-run, and such other matters as may be considered appropriate by the Commission for determination of tariff;

Provided also that the Commission may issue guidelines for vetting of capital cost of projects by independent agency or expert and in that event the capital cost as vetted by such agency or expert may be considered by the Commission while determining the tariff;

Provided also that in case, the site of a hydro generating station is awarded to a developer (not being a State controlled or owned company), by a State Government by following a two stage transparent process of bidding, any expenditure incurred or committed to be incurred by the project developer including premium paid/payable for getting the project site allotted shall not be included in the capital cost:

Provided also that the capital cost in case of such hydro generating station shall include:

a) Cost of approved rehabilitation and resettlement (R&R) plan of the project in conformity with National R&R Policy and R&R package as approved; and

b) Cost of project developer's 10% contribution towards Rajiv Gandhi Grameen Vidyutikaran Yojana (RGGVY) project in the affected area:

(4) The actual capital expenditure on date of capitalization based on audited accounts of the company, limited to original scope of work, may be considered subject to prudence check by the Commission.

(5) Where power purchase agreement or transmission or wheeling agreement provides for a ceiling of capital cost, the capital expenditure admitted by the Commission shall take into consideration such ceiling for determination of tariff.

(6) The capital cost may include capitalised initial spares which may be as follows:

...

c) Upto 1.5% of original capital cost in case of hydro-generating stations;

..

(7) Impact of revaluation of assets shall be permitted during the Control Period, provided it does not result in increase in tariff of Generating Company, Transmission Licensee and Distribution Licensee. Any benefit from such revaluation shall be passed on to persons sharing the capacity charge in case of a Generating Company and to long-term Intra-State open access customers of Transmission Licensee or Distribution Licensee, or retail supply consumers in case of Distribution Licensees, at the time of Annual Truing Up.

(8) Restructuring of capital in terms of relative share of equity and loan shall be permitted during the tariff period provided it does not affect tariff adversely. Any benefit from such restructuring shall be passed on to persons sharing the capacity charge in case of a generating company and to long term intra-State open access customers of Transmission or Distribution Licensee or consumers in case of such Licensees."

Accordingly, capital cost approved by the Commission shall be considered for the purpose of the determination of tariff. The Petitioner vide its Petition submitted that Regulation 23 (1) of UERC's Tariff Regulations, 2011, stipulates that in case of a generating company, "investments made prior to 1.4.2013 shall be accepted on the basis of investments approved by the Commission in the previous Orders" and

that the Petitioner was seeking determination of tariff for the first time by this Commission and, therefore, there was no previous order approving Petitioner's capital investments. In view thereof, the Petitioner, relying on Regulation 23 (4) of Regulations, 2011 sought a de novo determination of its capital cost on the basis of audited financial statements and other relevant data.

4.3.1 *Petitioner's submissions and the Commission's views on the capital cost*

As per audited financial statements for FY 2012-13 (the financial year in which the Project was commissioned), the Gross Fixed Assets as on 31st March 2013 was Rs. 686.41 Crore. However, for the purpose of tariff determination, the Petitioner claimed a capital cost of Rs. 685.37 Crore, being the project cost capitalized as on the date of commissioning, i.e., 30th May 2012. The Petitioner submitted the break up of major heads of capital expenditure as per the following details:

Table 4.2: Details of the Capital Assets submitted by the Petitioner (Rs. in Crore)

S. No.	Capital Assets(Gross Block)	Amount(Rs. Crore)
1.	Freehold Land	0.87
2.	Buildings	60.52
3.	Plant & Equipment	623.98
Total		685.37

The Petitioner submitted that as per the Techno-Economic Clearance (the "TEC") dated 20.8.2010, the Directorate of Energy, Government of Himachal Pradesh (GoHP) had approved the revised cost of the project at Rs. 688.77 Crore.

The Commission vide its Order dated 20.11.2015 had directed the Petitioner to submit:

- (i) Component wise actual project cost vis-a-vis project cost depicted in DPR alongwith details/ justifications for variations in project cost classifying them into controllable and uncontrollable factors, and
- (ii) Complete Original DPR approved in 2005.

The Petitioner vide its submission dated 18.01.2016, in reply to above query submitted that (i) the construction of the Project started in second half of the year 2009. The actual date of commissioning/completion of the Project was 30.05.2012 against the scheduled completion date of April, 2009. However, with respect to component wise actual project cost vis-à-vis DPR cost alongwith reasons for variations, if any, classifying them into controllable and uncontrollable factors the Petitioner requested the Commission to allow additional time till 31.01.2016 to submit the cost break-up. Further, in response to the query (ii), Petitioner submitted the DPR.

From the DPR it was observed that the total estimated capital cost of the project was considered as Rs. 418 Crore which was approved in Feb., 2005. However, supporting cost estimate

abstracts was not provided and some of the tables under Chapter-6 of the DPR were also missing. Accordingly, the Commission vide letter dated 16.03.2016 directed the Petitioner to submit the complete DPR. In the meantime, Petitioner vide submission dated 05.03.2016, instead of submitting component wise comparison of DPR cost to actual cost, submitted the actual capital cost details comparing it with the revised cost estimates which was approved on 20.08.2010 by GoHP along with the reasons for cost overrun. Since Regulation 23(4), as reproduced above, provides for actual capital expenditure on the date of capitalization based on the audited accounts of the company, limited to original scope of work subject to prudence check by the Commission. Accordingly, the Commission insisted upon submission of complete DPR and reasons for cost overrun vis-a-vis cost estimated in the original DPR.

It was observed that the Petitioner had not submitted the information sought within the stipulated timeline. Accordingly, the Commission vide letter dated 10.05.2016 directed the Petitioner to submit the followings information:

- i) to submit the complete original DPR as well as the revised DPR alongwith the necessary approval of the same from appropriate authority.
- ii) to submit the component wise actual project cost vis-a-vis project cost depicted in DPR alongwith reasons for variations, if any, classifying them into controllable and uncontrollable factors.

Subsequently, a meeting was also held with the staff of the Commission and the Petitioner on 19.05.2016 in order to expedite the proceedings for determination of tariff. During the meeting the queries raised by the staff of the Commission on the Petitions and the replies submitted by the Petitioner were discussed in detail. Since the DPR is the underlying document for scrutiny of capital cost and other related parameters, therefore, the staff of the Commission emphasised upon submission of the complete original DPR and revised DPR. The Petitioner agreed to provide the same latest by 27.05.2016. The Petitioner agreed to submit the component wise actual project cost vis-a-vis project cost depicted in the DPR alongwith the reasons for variations latest by 03.06.2016 classifying them into controllable and uncontrollable factors. A Format "Cost Variation Abstract" which was already provided to the Petitioner was also discussed. The Petitioner agreed to submit the details on the same also latest by 03.06.2016. However, reply to queries were submitted on 04.07.2016 vide the Petitioner's letter dated 29.06.2016.

In response to the query regarding submission of the complete DPR, the Petitioner submitted the same alongwith the break-up of the project cost.

In response to the query regarding component wise actual project cost vis-a-vis project cost depicted

in the DPR alongwith the reasons for variations, the Petitioner submitted the component wise actual project cost alongwith the justification for cost overrun and the same has been discussed in the subsequent Paras. Detail of the cost comparison is as follows:

Table 4.3: Details of Capital Cost as submitted by the Petitioner (Rs. in Crore)

Sl. No.	Particulars	Original TEC	Revised Cost Approval	Actual	Difference (Actual - TEC)
1	Land	5.00	8.71	8.03	3.03
2	Civil Works + Hydro Mechanical* (H&M) (excluding Rs 10.84 Cr Establishment charges in DPR) (refer note below the table)	225.60*	341.69	315.15	89.89
3	E&M + Trx line (excluding Rs 5.24 Cr Establishment charges in DPR) (refer note below the table)	104.69*	143.50	147.18	42.49
4	<u>New head added:</u> Establishment charges (as approved under Civil + H&M and E&M)	(10.84+5.24=16.08)	23.45 (16.28+7.17)	24.78	8.70
5	Design, Engg., Const. supervision	4.15	5.25	13.62	9.47
6	Pre-operative expenses				
	a. LADA	2.09	10.33	6.30	4.21
	b. HPSEB Survey & Investigation	-	9.69	10.66	10.66
	c. PWD roads	-	4.00	4.00	4.00
	d. Admin & other charges	1.90	1.90	2.13	0.23
7	Preliminary expenditure	9.69	9.69	10.09	0.40
	IDC & other Bank Charges				
8	a. IDC	36.01	103.37	135.07	99.06
	b. Other Bank charges	2.93		7.19	4.26
9	Working capital margin money	3.78	6.20	-	(3.78)
10	Contingency	6.89	6.89	-	(6.89)
11	HP Entry Tax	-	7.31	0.17	0.17
12	Construction Cess (BOCW)	-	6.80	1.01	1.01
	Total	418.80	688.78	685.37	266.57

Notes:

1. In the Cost Approval, the Establishment charges were approved as 5% of Civil + H&M and E&M charges except EMP, CAT and T&P cost. Essentially, Establishment charges denote accompanying expenses during construction such as salaries, staff welfare, provident fund, project allotment expenses, rates, taxes, etc. The Petitioner has shown the Establishment expenses separately in the above table by carving out from Civil + H&M and E&M charges);
2. The items where remarks are provided above, have been elaborated in the subsequent sections hereunder;
3. Insurance cost, travel & conveyance cost and insurance proceeds received, which were shown as EDC (expenditure during construction) in the audited financial statements of FY 2012-13, have been shown under Civil + HM and E&M for the purpose of above table.

The Petitioner submitted that there was an overall variation of Rs. 266.57 Crore in the Project cost as against the estimated capital cost in the DPR. The Petitioner vide its various replies submitted that the variation in the project cost was due to improper estimation at the time of preparation of the DPR, Geological surprises, delay in approval from the Govt authorities which led to the time overrun of 32 months for the commissioning of the project.

Since escalation in capital cost of the project is a combined effect of escalation due to spilling over of

the project beyond the scheduled date of commissioning and increase in cost due to inflation in market prices. Accordingly, the Commission has analysed the overall increase in cost due to time overrun as well as cost overrun in the following Paras.

4.3.2 *Time overrun*

As per DPR, the project was to be commissioned within 42 months from the financial closure. The date of financial closure of the project was 13.03.2006 and accordingly, the project was scheduled to be commissioned by September, 2009. However, the actual commissioning date of the project is 30.05.2012. Accordingly, there is delay of 32 months in commissioning of the project.

The Petitioner, vide its submission dated 18.01.2016 submitted that the construction of the Project started in second half of the year 2009. The scheduled date of completion as per the original DPR was April 2009. Subsequently, the Petitioner vide its submission dated 05.03.2016 submitted that the construction of the Project started in the right earnest during FY 2006-07. The Petitioner also stated that the scheduled date of completion as per the revised cost approval dated 20.08.2010 ("Cost Approval") by GoHP was December, 2010. The Commission takes note of the contradictions in Petitioner's submissions in respect of those important dates. Moreover, the Commission has found that it is pertinent to mention that in the Revised Cost approval of GoHP, nothing is mentioned about the schedule completion date. In order to analyse impact of individual activity on the overall delay in execution of project, the Commission asked the Petitioner for submission of Pert Chart (Base line as well as, CPM, and actual completion schedule) in respect of the project depicting all the major activities and milestones. In response, Petitioner submitted that the DPR was generally based on the standard timeframe provided for construction of Hydro Projects and detailed Pert Charts are typically not provided as a part of DPR. However, the Petitioner submitted the Pert Chart based on the actual timelines of the activities/milestones achieved. As stated by the Petitioner, since the aforesaid Pert Chart was not being prepared during the construction of the project, it has now been prepared by the Petitioner based on its annual accounts and reports procured from CEA. It is well known fact in the field of construction and commissioning of any project, the Pert Chart is a very useful technique for monitoring the actual progress of the project vis-à-vis scheduled programme besides it helping determination of expected project completion time giving probability of completion before the schedule dates. The Commission wonders as to why such an important chart was not being prepared at that point of time and in the absence of the same how evaluation of time overrun could be decided. Admittedly, from Petitioner's submission it is apparent that, somehow they missed the seriousness towards planning as well as necessary monitoring during the development/ implementation stages of the project. However, the Petitioner's submissions on time overrun in its various replies have been discussed in following paragraphs:

(i) Delays due to frequent changes in finalization of evacuation scheme for Budhil

The Petitioner submitted that project execution was significantly delayed due to the frequent changes in the evacuation scheme by the Central Electricity Authority (“CEA”), Power-grid Corporation of India Ltd. (“PGCIL”), the Government of Himachal Pradesh, and Himachal Pradesh Power Transmission Corporation Ltd (“HPPTCL”) which is the State Transmission Utility of Himachal Pradesh. Due to the complexity of developing the scheme, there were as many as 5 changes during the period of 4 years between June 2005 and June 2009. Due to frequent changes in the evacuation scheme, the Petitioner could approach the MoP for approval of the tie-line u/s 68 of the Electricity Act, 2003 in February, 2008 which was granted in June 2008. The scheme was finalised in June 2009 and the Petitioner applied for Forest clearance in July, 2009 and the approval for the same granted in March, 2010. The work for tie-line started after the approval and the same could be completed in April, 2012.

The Commission noted that the evacuation Scheme of the Budhil HEP was decided in the 23rd Standing Committee meeting held on 16.02.2008 which was approved by MoP on 27.06.2008 u/s 68 of the Electricity Act, 2003, for laying the 220 kV tie-line from Budhil to Chamera III HEP, LILO of the same was to be carried into the Chamera III HEP to Chamba PSS line. Further, in March, 2009 HPPTCL considered the above referred Scheme as an interim arrangement, however, the same was again confirmed by CEA on 17.06.2009. From the Pert Chart submitted by the Petitioner it has been observed that the work for the tie-line was started from April, 2010. However, in the absence of baseline Pert Chart it cannot be said about actual time overrun in implementation of tie-line related work. Moreover, construction of evacuation line is an independent activity, in no way it is dependent on the progress of the main power project related works which are two distinct activities in terms of scope and location. Accordingly, the Commission is of the opinion that delay on this account is due to the reasons attributable to the generator.

(ii) Delay in construction of additional bay at NHPC Chamera III HEP switchyard for termination of Budhil tie-line :

The Petitioner submitted that as per the CEA meeting dated 13.11.2009, Budhil was required to construct an additional bay at GIS switchyard of NHPC Chamera III HEP. The bay was required to be constructed by NHPC through an MoU. Budhil requested for space and the draft MoU vide its letter dated 03.02.2010, however, after repeated follow ups by Budhil with NHPC at the highest management level, a draft MOU was shared by NHPC in June, 2010 with a cost proposal of Rs. 21.17 Crore, however, the MoU was finally signed only on 21.10.2010. After conclusion of scope of work with NHPC, purchase order and work order were placed by the Petitioner on Areva for works at NHPC Chamera III HEP in February, 2011 with a delivery period upto January, 2012. The Petitioner submitted that PGCIL system was commissioned (evac. System beyond Chamera III HEP) in November, 2011.

From the Pert Chart submitted by the Petitioner, it has been observed that the work of PGCIL system was commissioned in November, 2011. However, in the absence of baseline Pert Chart it cannot be said about actual time overrun in implementation of additional bay work beyond tie-line of Budhil HEP. Again, as discussed above, construction of Bay in the switchyard of NHPC Chamera III is an independent activity and in no way it is dependent on the progress of either main power project related works or the line work. All these three activities are distinct activities in terms of scope and location.

Accordingly, the Commission is of the opinion that delay on this account is due to the reasons attributable to the generator.

(iii) Delay in signing of Implementation Agreement:

The Petitioner submitted that there was a delay of 6 months in signing the implementation agreement beyond the date of MoU between the Petitioner and GoHP on account of policy changes by Govt. of Himachal Pradesh, for minimum environment discharge and LADA. In this regard, the Commission is of the view that signing of Implementation Agreement with Government is the primary requirement for initiation of project activity and when the MoU in respect of the Petitioner's generating station was executed in September, 2004 it should have proactively taken up matter with the appropriate Government authority soon after the execution of MoU. Moreover, the schedule period of completion of the project was 42 months from the date of financial closure of the project i.e. March, 2006 as per the original programme of the implementation of the project. Hence, even if signing of Implementation Agreement on 22.11.2005, i.e. after a lapse of 6 months of execution of MoU with the GoHP has no relevance since the scheduled zero date of start of construction post financial closure was March, 2006 only, i.e. almost 2 years after the signing of Implementation Agreement. The signing of Implementation Agreement never overlapped with the start date of either Civil and E&M contracts etc. and also not with the start of loan disbursement date. Hence, it is relevant to mention that incidence of Capital Cost including cost of equipment, IDC & financing cost of the project started after the date of financial closure.

Accordingly, the Commission is of the opinion that delay on this account is due to the reasons attributable to the generator.

(iv) Delays in grant of Forest Diversion Approval:

The Petitioner submitted that at the time of DPR preparation, the type of land was not well known, thus estimating the requirement as 38 HA Private land and 24 HA Govt/Private land proved incorrect. At the time of actual execution however, a vast majority of the land was found to be forest land (62.08 HA out of ~64 HA for the main plant + tie line to Chamera III HEP). The Petitioner submitted that, forest land acquisition is a time consuming and tedious process, requiring involvement of multiple agencies (State

forest department offices, Ministry of Environment & Forests, Govt. of India), and multiple activities (scope fixation, rate fixation, and payments). Budhil had applied for diversion of forest land for the main plant on 04.08.2005, which was finally granted on 19.04.2006.

On the issue of the delay in getting the forest clearance (for other than evacuation issues) is concerned, it has been observed that the Petitioner has not submitted any correspondence between the Petitioner and the concerned department except payment and lease charges related document to substantiate its claim in this regard. The Commission is of the view that Govt. of H.P. has a system to provide requisite clearances in a time bound manner through a single window mechanism and the procedures are thereof have been laid down to facilitate the project developers. Further, being a project developer all such procedure and formalities related to Government authorities should have been duly considered at the time of preparation of DPR by the Petitioner.

Accordingly, the Commission is of the opinion that delay on this account is due to the reasons attributable to the generator.

(v) Delay by HP-PWD in widening of road from Chamba to Budhil project site (from 2007 to 2010):

The Petitioner submitted that the project roads were not conducive for safe and compliant project construction. It was decided that HP-PWD shall widen and upgrade the road, upon deposit of cost by Budhil. However, the Petitioner has stated that despite making the necessary payments to the HP-PWD and sending reminder requests for expediting the work, the road widening by HPPWD took a long time. A letter sent to HP-PWD has also been submitted alongwith the Photographs of the road, minutes of the SEAMC and receipts of payments made to PWD. The road was fully upgraded only by year 2010, causing significant delays in material movements, further aggravated by bad weather and landslides.

The Commission observed that the Petitioner vide letter dated 13.09.2016 also submitted the CEA Monthly Status reports of the Hydro Electric Projects under execution. From these reports it has been noticed that till April 2009, CEA has not mentioned anything regarding widening of HP-PWD Road for the supply of equipments. In the monthly report for May, 2009, CEA in the remark columns has mentioned that the transportation of heavy packages of E&M equipments was held up due to non-completion of widening of road by HPPWD. Further, as per the said report it has been observed that the works related to E&M Works was awarded to M/s Dongfong Electric Corporation Limited, China and 80% supply was completed. The last time CEA in this report dated March, 2010 included the process of HP-PWD road, wherein it was mentioned about the Overhanging structure over HP PWD Road. Further, as per CEA monthly status reports it has been observed that the supply of E&M remained at 80% till November, 2010. Further, the Petitioner has mentioned about the meeting dated 17.01.2006, of the State Level Environment Impact Assessment & Monitoring Committee (SEAMC). The Petitioner submitted the minutes of the

meeting alongwith the Demand letter from HP-PWD and letter from the Petitioner to HP-PWD requesting for early construction of the roads. From the Pert Chart submitted by the Petitioner it has been noted that the work related to widening of the road was completed in June, 2010.

As per the minutes of the meeting held on 17.01.2006, the Petitioner was required to deposit Rs. 4 Crore for widening of the road. The Petitioner submitted that despite making the necessary payments to the HP-PWD and sending reminder requests for expediting the work, the road widening by HPPWD took a long time. However, it has been observed that as per HP-PWD letter dated 10.06.2011, the Petitioner was required to make the payment to the PWD in advance for widening of the road. Relevant extract of the letter is as follows:

"..... that against the total projection cost of Rs. 6 crore for subject as cited work, a sum of Rs. 4 crore will be provided by your department/company in advance..."

The Petitioner vide its submission dated 29.06.2016 also submitted as follows:

"Subsequently, as informed earlier in para 8.f above, vide the meeting dt. 17th January 2006, of the State Level Environment Impact Assessment & Monitoring Committee (SEAMC), it was decided that HP-PWD shall widen and upgrade the Bharmaur to Thalla bridge road, at a cost of Rs. 4.00 Cr, upon deposit of cost by Budhil."

(Emphasis added)

It is amply clear from the submission of the Petitioner and extract of the letter of HP-PWD to the Petitioner that the construction work for widening the road was to be started upon the payment to the Department. Although, the Petitioner had made a payment amounting to Rs. 90.00 Lakh till 13.12.2007 and thereafter the Petitioner had made a payment of Rs. 50 Lakh on 27.07.2009, i.e. after a gap of almost one and a half year. Another one Crore payments made by 03.06.2010. However, till 10.06.2011, an amount of Rs. 60 Lakh remained still unpaid. Moreover, the Petitioner requested HP-PWD in August, 2009, i.e. just one month before the Schedule commissioning date of its project vide its letter dated 20.08.2009 to expedite the work of widening the road as the 70% of the construction work was completed and some of the E&M equipments were lying near Chamba as some of the areas of the road was narrow. The Commission has observed that between the year 2006 and 2009 no correspondence were apparently made by the Petitioner with HP PWD whereas it should have continuously flowed up with the concerned department after the decision on the construction of road taken up in the meeting held on 19.01.2006. Admittedly the Petitioner itself had not made due follow-up with the concerned authority besides itself making delayed advance payments to the HP-PWD which the Petitioner ought to have deposited in advance after the 17.01.2006 meeting and could be in a position to persuade the HP PWD to expedite the work related to widening of the road resulting in timely arrival of the equipments and completion of the project related work.

Accordingly, the Commission is of the opinion that delay on this account is due to the reasons attributable to the generator.

(vi) Delay due to geological overbreak, increase in length of HRT:

The Petitioner submitted that due to the Project being highly tectonised, the tunnel excavation encountered severe overbreaks which could not have been reasonably anticipated during DPR or even detailed engineering stage. This factor contributed to significant delays in construction of HRT and De-silting tank.

Since the baseline Pert Chart were not prepared by the Petitioner beforehand i.e. prior to start of project development & construction activity, so as to arrive at the prudence analysis of time overrun in completion of HRT and De-silting tank related works the Commission has examined the contract agreement no. LGPPL/LITL/CIVL/002 dated 26.12.2005 executed with civil contractor namely, M/s Lanco Infratech Ltd. The scope of work stipulated under the aforesaid contract was major civil related works such as Cofferdam & Concrete Gravity Dam, Intake structure, Feeder Tunnel, Desilting Chamber, Head Race Tunnels (HRT), Surge Shaft and Pressure Shaft etc. The Article 4 of the Contract provided the timeline of completion of all the works latest by 30.04.2008 and date of start of works was from the date of Contract. From the implementation Chart (proposed after actual execution of activities) submitted by the Petitioner it has been observed that all the major civil work were actually initiated from the month of May, 2006, i.e. with a delay of 5 months as provided in the Contract. The work of HRT, in accordance with the Pert Chart submitted by the Petitioner, got completed in November, 2011 whereas scheduled date of commissioning of the HEP was September, 2009. The Petitioner has submitted that due to geological overbreaks and other geological obstacles length of the HRT got increased from 6028 meters to 6265 meters. The Commission taken note of the fact that there was an increase in length of HRT by 237 metres only. However, delay in completion of HRT related works by more than 42 months cannot be accepted on account of merely 237 meter increase in HRT length. Moreover, when the entire HEP itself was planned to be constructed in the same time duration.

Accordingly, the Commission is of the opinion that delay on this account is due to the reasons attributable to the generator.

(vii) Delays due to miscellaneous external factors (through-out the project construction period):

The Petitioner submitted that delay in achieving CoD of its project was also on account of frequent weather interruptions, non-availability of adequate good quality aggregate in the project area, breakdown of the batching plant; occasional protests by local people; occasional labour shortages; occasional shortage of cement and bureaucracy and red tape. In this regard, the Commission is of the view that such factors are

in general considered during the pre-development, development and planning stage in any prudent project programme and duly incorporated at the time of preparation of DPR. Hence, this reason forwarded by the Petitioner is also not maintainable.

Accordingly, the Commission is of the opinion that delay on this account is due to the reasons attributable to the generator.

4.3.3 Cost overrun

For the purpose of scrutiny and arriving at the allowable capital cost, the same has been segregated in two parts, i.e. hard cost and soft cost. Hard cost consists of expenditure incurred on land, civil works & Hydro Mechanical and electro mechanical equipments whereas, soft cost constitutes establishment charges, design, engineering & supervision cost, pre-operative expenses, interest during construction, bank charges, HP Entry Tax and Construction cess.

(A) HARD COST

(i) Land

The Petitioner submitted that the Land Cost estimated in the Original DPR was Rs. 5 Crore which was further revised to Rs. 8.71 Crore vide revised cost estimates dated 20.08.2010. The Petitioner has claimed total cost of Rs. 8.03 Crore for land out of which leasehold land is Rs. 7.16 Crore and freehold land is Rs. 0.87 Crore.

From the Balance Sheet of FY 2011-12 and FY 2012-13 it has been observed that only Rs. 0.87 has been capitalised under the head of Freehold Land whereas the Petitioner has claimed capital cost of Rs. 8.03 Crore for Land. In this regard, the Petitioner was asked to submit the justification for the discrepancies in the cost of land. In its reply Petitioner vide letter dated 29.06.2016 submitted that private land purchased directly from various land owners was worth Rs. 0.87 Crore, as depicted in the audited financial statements of FY 2012-13. As regard forest land, a total of Rs. 7.16 Crore was paid towards various charges to the Forest department of the Government of Himachal Pradesh and the Ministry of Environment & Forest, Government of India. Further, annual lease rent for the forest land part is yet to be finally communicated by the GoHP. The Petitioner further submitted that due to lease rental being excessively high, it has sought relaxation of the same from Tehsildar, Bharmaur. The lease amounts are yet to be finally decided and communicated. Therefore, the Petitioner has not proposed the lease charges in its original tariff petition. However, the Petitioner will approach the Commission upon finalisation of the annual lease charges for inclusion in the AFC.

The Petitioner vide its letter dated 29.06.2016 submitted the details of the payment made in respect of forest clearance to the concerned authorities which work out to Rs. 7.16 Crore. Further, as

mentioned in the above Para, as per Balance Sheets of FY 2012-13, the Land cost is only Rs. 0.87 Crore. Therefore, it has been presumed that the charges paid to forest department, GoHP and MoEF, GoI toward lease hold land must have been charged to either Civil works or to Plant and Machinery head. Hence, based on the information submitted by the Petitioner in this regard, Leasehold land has been considered separately. Accordingly, Freehold Land and Leasehold Land of Rs. 0.87 Crore and Rs. 7.16 Crore respectively has been considered for the purpose of the determination of tariff.

(ii) Civil Works and Hydro Mechanical works

The Commission vide its Order dated 20.11.2015 and subsequent letters dated 10.05.2016 and 23.05.2016 directed the Petitioner to submit the component wise comparison between actual cost incurred and cost approved in DPR. The Petitioner vide its submission dated 29.06.2016 has claimed total amount of Rs. 315.15 Crore on account of Civil works & Hydro Mechanical and submitted the contracts pertaining to the Civil works & Hydro Mechanical. Further, Petitioner has submitted the break-up of the same as follows:

Table 4.4: Details of Civil and Hydro Mechanical works as submitted by the Petitioner (Rs in Crore)

Particular	TEC / DPR	Actual
1. Civil	209.76	269.23
2. H&M (Hydro Mechanical)	8.50	31.36
3. CAT (Catchment Area Treatment) Plan + EMP (Environment Management Plan)	7.34	7.27
4. Insurance cost, travel & conveyance cost and insurance proceeds received (totaling to Rs. 7.38 Cr), which were shown as capitalized CWIP (Capital Works in Progress) in Schedule 11 of the audited financial statements of FY 2012-13, have been allocated to Civil + H&M (67%, that is, Rs. 4.94 Cr) and with E&M (33%, that is, Rs. 2.43 Cr)	-	4.94
5. Other petty works	-	2.33
Total	225.60	315.15

With regard to further break-up of the above individual cost element, the Petitioner vide its reply dated 29.06.2016 submitted the break-up of the actual expenditure incurred on the Civil Work. However, further Break-up of Civil Work & Hydro Mechanical cost included in the DPR could not provided. The Commission again vide its letter dated 17.08.2016 directed the Petitioner to submit the information in a designed format so as to enable analysis of the variation in cost. However, the same could not be provided by the Petitioner. In the absence of further break-up of costs it is not possible to compare various components of the Civil Work & Hydro Mechanical works expenditures claimed by the Petitioner vis-à-vis the cost of these estimated in the DPR. Hence, the Commission decided to examine all the contracts pertaining to Civil Works & Hydro Mechanical works.

From the analysis of the contracts of the Civil Works and Hydro Mechanical, it has been observed

that total contract of Rs. 269.23 Crore (inclusive of Rs. 71.50 Crore of Price escalation) were submitted by the Petitioner. Subsequently, the Commission vide its letter dated 17.08.2016 directed the Petitioner to submit the contracts of the balance amount along with the justification for price escalation and the copies of the bills for price escalation raised by the respective contractor alongwith the computation of the same based on the original contract latest by 31.08.2016. In response, the Petitioner vide its affidavit dated 13.9.2016 submitted the details of Rs. 45.90 Crore pertaining to the H&M, CAT, Insurance, travel & conveyance and Other petty works. Detail of the same is as follows:

Table 4.5: Details of Hydro Mechanical works as submitted by the Petitioner (Rs. in Crore)

Particulars	TEC / DPR	Actual
H&M	8.50	31.36
CAT (Catchment Area Treatment) Plan + EMP (Environment Management Plan)	7.34	7.27
Insurance cost, travel & conveyance cost and insurance proceeds received (totaling to Rs. 7.38 Cr), which were shown as capitalized CWIP (Capital Works in Progress) in Schedule 11 of the audited financial statements of FY 2012-13, have been allocated to Civil + H&M (67%, that is, Rs. 4.94 Cr) and with E&M (33%, that is, Rs. 2.43 Cr)	-	4.94
Other petty works	-	2.33
Total	15.84	45.90

In respect of common costs/overheads namely insurance cost, travel & conveyance cost and insurance proceeds received, the Petitioner has submitted that total costs, as indicated in the Balance Sheet of FY 2012-13 for these items, have been segregated among Civil & Hydro Mechanical and Electro-mechanical in the ratio of 67:33.

As discussed above, the Petitioner has submitted the contracts for Rs. 268.73 Crore. It has been observed that one of the Contract No. LGPPL/LITL/BUDHIL/CIVIL/002 dated 15.12.2005 has been amended vide amendment no. 1 of the Contract No. LGPPL/LITL/BUDHIL/CIVIL/002 dated 15.12.2005 and then vide amendment dated 08.01.2010 wherein, an amount of Rs. 71.50 Crore has been added towards compensation pertaining to price escalation. In respect of inclusion of price escalation of Rs. 71.50 Crore in the contract agreement, the Petitioner reiterated the justifications submitted vide letter dated 29.06.2016 and did not submit the bills for price escalations raised by the contractors and the computation of the same based on the main contract agreements. Moreover, the amendment of the contract was carried out after the date of scheduled commissioning of the project and also after the passage of timeline of completion of scope of work provided in the contract. Since the reasons submitted by the Petitioner are not tenable, hence, the price variations, if any, have been allowed only upto scheduled completion date and the price variations paid in respect of contract amended beyond the scheduled completion date have been disallowed.

Accordingly, capital cost pertaining to Civil and H&M considered for the purpose of the determination of the tariff is as follows:

Table 4.6: Cost of Civil and Hydro Mechanical Works approved by the Commission (Rs. in Crore)

Particulars	Actual
Civil contracts Rs. 269.23 Less: Price escalation Rs. 71.50	197.73
H&M	31.36
CAT (Catchment Area Treatment) Plan + EMP (Environment Management Plan)	7.27
Insurance cost, travel & conveyance cost and insurance proceeds received (totaling to Rs. 7.38 Cr), which were shown as capitalized CWIP (Capital Works in Progress) in Schedule 11 of the audited financial statements of FY 2012-13, have been allocated to Civil + H&M (67%, that is, Rs. 4.94 Cr) and with E&M (33%, that is, Rs. 2.43 Cr)	4.94
Other petty works	2.33
Total	243.63

(iii) E&M (Electro Mechanical) works including transmission lines

Despite issuing formats for submission of desired information, the Petitioner has not submitted the component wise further break-up E&M works costs both for actual cost incurred and for cost approved in the DPR. The Petitioner vide its submission dated 29.06.2016 has claimed total amount of Rs. 147.18 Crore pertaining to E&M works including transmission lines and submitted the contract agreements pertaining to the E&M works including transmission lines. Detail of the same is as follows:

Table 4.7: Cost of Electro- Mechanical Works submitted by the Petitioner (Rs. in Crore)

Particulars	TEC / DPR	Actual
1. E&M (excl. Rs 5.24 Cr Establishment Charges)	104.69	131.39
2. Insurance cost, travel & conveyance cost and insurance proceeds received (totaling to Rs. 7.38 Cr), which were shown as capitalized CWIP (Capital Works in Progress) in Schedule 11 of the audited financial statements of FY 2012-13, have been allocated to Civil + H&M (67%, that is, Rs. 4.94 Cr) and with E&M (33%, that is, Rs. 2.43 Cr)	-	2.43
3. Customs duty	-	3.55
4. Repair of damaged transformers	-	5.30
5. Other petty contracts / payments	-	4.51
Total	104.69	147.18

As the component wise comparison of E&M works costs for actual expenditure vis-à-vis DPR cost is not possible in the absence of the information in the prescribed format, the Commission decided to go through all the contracts to determine the admissible capital cost pertaining to the E&M works including transmission lines.

On examination of the contracts, total amount corresponding to the E&M works including transmission lines works out to Rs. 146.15 Crore. Accordingly, the same has been considered for the purpose of determination of tariff.

(B) SOFT COST

While arriving at the allowable soft cost, time overrun has been taken into account. Accordingly, soft cost has been categorized into two parts. One is independent of time and other that is dependent on time.

Soft Costs independent of time factor

Soft cost independent of time includes expenditure incurred on account of LADA, HPSEB Survey & Investigation, PWD Roads, HP Entry Tax, Other Bank charges and Construction Cess (BOCW). All the expenditures as claimed by the Petitioner, except HPSEB Survey & Investigation related expenditure, have been considered for the purpose of determination of capital cost since these were mandatory under statutory requirements. However, in case of HPSEB Survey & Investigation related expenditure it has been observed from the Petitioner's submission dated 29.06.2016 that the Petitioner was required to make the payment within 3 months from the financial closure with cumulative interest of 10% p.a. whereas, due to non-remittance/short-remittance of charges by the Petitioner till FY 2010-11 the said amount accumulated to Rs. 10.66 Crore. Had the Petitioner paid the amount within 3 months from the date of financial closure, it would have to required to pay only Rs. 6.17 Crore. Therefore, only Rs. 6.17 Crore has been allowed and the balance amount paid due to additional interest burden has not been considered. Further, the other Bank charges has been considered based on the Capital Cost approved against the Capital Cost proposed by the Petitioner.

Detail of the soft cost independent of time factor claimed by the Petitioner and allowed is as follows:

Table 4.8: Soft Cost independent on time factor approved by the Commission (Rs. in Crore)

Particulars	Claimed	Allowed
LADA	6.30	6.30
HPSEB Survey & Investigation	10.66	6.17
PWD Roads	4.00	4.00
HP Entry Tax	0.17	0.17
Other Bank Charges	7.19	5.30
Construction Cess (BOCW)	1.01	1.01
Total	29.33	22.95

Soft cost dependent on time

Soft costs dependent on time have been considered only upto the scheduled COD. All the expenditures grouped under the two head namely establishment charges and Design, Engineering, Construction & Supervision. Establishment Charges are easily identifiable from the Balance Sheet of FY 2009-10. Accordingly, actual expenditure incurred upto scheduled COD have been considered. However, in case of Administration & other charges and Preliminary expenses, it is not possible to identify the accounts from the Balance Sheet of FY 2009-10 due to re-grouping of the accounts. Accordingly, expenditure to be considered upto schedule COD has been determined on pro-rata basis. Detail of the expenditure claimed and considered as part of the Capital Work for the tariff determination are as follows:

Table 4.9: Soft Cost dependent on time factor approved by the Commission (Rs. in Crore)

Soft Cost dependent on time factor	Claim	Admissible Expenditure upto SCOD
Establishment charges	24.78	13.56
Design, Engg, Cons & Supervision	13.62	4.51
Admn. & Other charges	2.13	1.21
Preliminary expenses*	10.09	5.38
Total	50.62	24.66

*Preliminary expenses include an amount of Rs. 0.61 Crore pertaining to Donation. The same has been deducted from the total claim while determining the admissible expenditure upto Schedule COD on pro-rata basis.

Interest During Construction (IDC)

The Petitioner has claimed interest during construction amounting to Rs. 135.07 Crore which is 24.54% of the Gross Fixed Assets (GFA) of Rs. 550.31 Crore (excluding IDC). Further, as per DPR (Feb 2005) the IDC was Rs. 36.01 Crore which is approximately 9.41% of the Hard cost of GFA i.e. Rs. 382.80 Crore.

The Petitioner vide Commission's Daily Order dated 20.11.2015, was directed to submit the details of sanctions letters of Financial Institutions along with supporting documents of actual receipts and repayments of loans, interest paid to Financial Institutions from the date of 1st drawl. The Petitioner, vide reply dated 18.1.2016, submitted the Financial Institutions' loan agreements. However, supporting documents of the actual receipts and repayments of loans, interest paid to the Financial Institutions from the date of 1st drawl and onwards have not been submitted. The Petitioner in its reply clearly stated its inability to submit the relevant information. Relevant extract of the Petitioner's reply in the matter is as follows:

"the Petitioner has already submitted the audited financial statements and the sought information in format 4, format 6.4, format 6.7, format 8, format 9.1, format 9.2, and format 9.3 alongwith the original tariff petition, and also a Chartered Accountant firm's certificate on means of finance as on commissioning date. The same are submitted again, annexed hereto and marked as Annexure 5. The information sought above is available in these documents.

Due to the project SPV being an acquired one, the due diligence and takeover was carried out considering different perspective, not a power sale on cost-plus in future. To this limited extent, the Petitioner is unable to file further information, and therefore craves leave of the Hon'ble Commission in this regard."

The Petitioner was again vide Commission's letter dated 16.03.2016 directed to submit the detailed computation of IDC in a workable excel format clearly indicating month-wise, financial institution wise schedule of loan drawl, repayment, applicable interest rate and actual interest paid alongwith the

supporting documents. However, the Petitioner vide its letters dated 16.04.2016 and 29.06.2016 submitted the details of interest and outstanding loans on the basis of the Balance Sheets. Thereafter, the Petitioner vide its email dated 10.10.2016 submitted the statement of draw down schedule of the loan of the main Banks namely ICICI, PNB, HUDCO and IFC.

On analysis of Bank Statements submitted by the Petitioner, it has been observed that till scheduled date of commissioning i.e. September, 2009 total interest accumulated in respect of all the above mentioned Banks was Rs. 40.34 Crore. Since time overrun beyond the scheduled date of commissioning is not being allowed, hence, considering that all the Capital Expenditure have been incurred till the scheduled date of commissioning the interest during construction (IDC) is being allowed on prorata basis of the Capital Cost approved by the Commission.

Based on the above discussions in the Capital Cost section, detail of the capital cost claimed by the Petitioner as on COD and that allowed by the Commission for the purpose of determination of tariff is as follows:

Table 4.10 : Capital Cost approved by the Commission (Rs. in Crore)

Particulars	Capital cost claimed	Admissible Cost
Land	8.03	8.03
Civil Works & Hydro Mechanical Works	315.15	243.64
E&M works inc. transmission lines	147.18	146.15
Establishment charges	24.78	13.56
Design, Engg, Cons. & Supervision	13.62	4.51
Pre-operative expenses		
a. LADA	6.30	6.30
b. HPSEB Survey & Investigation	10.66	6.17
c. PWD Roads	4.00	4.00
d. Admn & Other charges	2.13	1.21
Preliminary expenses	10.09	5.38
IDC & Other Bank Charges		
a. IDC	135.07	59.79
b. Other Bank Charges	7.19	5.30
HP Entry Tax	0.17	0.17
Construction Cess (BOCW)	1.01	1.01
Total	685.38	505.22

4.4 Tariff

4.4.1 Effective date for applicability of tariff

The project of the Petitioner has been commissioned on 30.05.2012 and as per the draft PPA signed between the Petitioner and UPCL, the electricity is being supplied to the UPCL from 01.12.2015. Here it is pertinent to mention that prior to the signing of the PPA with UPCL, the project was not under the

regulatory regime of the Commission and it came under the jurisdiction of this Commission only from 01.12.2015. Hence, the tariff will be applicable from 01.12.2015. However, the tariff has been determined considering the costs and revenues for the entire FY 2015-16 to applicable from 01.12.2015.

4.4.2 Gross Fixed Asset

Based on the above discussions, detail of the capital cost claimed as on COD and allowed for the purpose of determination of tariff is as follows:

Table 4.11: Gross Fixed Asset Approved by the Commission (Rs. in Crore)

Particulars	Capital cost claimed	Admissible Cost
Land	8.03	8.03
Civil Works & Hydro Mechanical Works	315.15	243.64
E&M works inc. transmission lines	147.18	146.15
Establishment charges	24.78	13.56
Design, Engg, Cons & Supervision	13.62	4.51
Pre-operative expenses		
a. LADA	6.30	6.30
b. HPSEB Survey & Investigation	10.66	6.17
c. PWD Roads	4.00	4.00
d. Admn & Other charges	2.13	1.21
Preliminary expenses	10.09	5.38
IDC & Other Bank Charges		
a. IDC	135.07	59.79
b. Other Bank Charges	7.19	5.30
HP Entry Tax	0.17	0.17
Construction Cess (BOCW)	1.01	1.01
Total	685.38	505.22

All the common overhead costs and soft costs have been apportioned among Civil Work, Hydro Mechanical works and Electro-mechanical (E&M) works including transmission line. Asset wise detail of the GFA as on 30.05.2012 is as follows:

Table: 4.12 Gross Fixed Asset Approved by the Commission (Rs. in Crore)

Particulars	Rs. in Crore
Land:	
<i>Freehold Land</i>	0.87
<i>Leasehold Land</i>	7.16
Civil Works & Hydro Mechanical Works	303.37
E&M works inc. transmission lines	193.82
Total	505.22

Further, it has been observed that after COD of the project till 31.03.2015 the Petitioner has made additional capitalisation/ de-capitalisation as follows:

Table: 4.13 Details of additional capitalization/de-capitalization considered by the Commission (Rs. in Crore)

Particulars	FY 2013-14	FY 2014-15
Capitalization	0.04	0.09
De-Capitalization	0.09	0.00
Net Capitalization	(0.06)	0.09

Accordingly, admissible Gross Fixed Assets as on 01.04.2015 works out to Rs. 505.25 Crore.

4.4.3 Additional Capitalisation

Regulation 24 of UERC Tariff Regulations, 2011 specifies that:

1) *The following capital expenditure within the original scope of work actually incurred or projected to be incurred after the date of commercial operation and up to the cut-off date may be admitted by the Commission, subject to prudence check:*

- a. *Undischarged liabilities;*
- b. *Works deferred for execution;*
- c. *Procurement of initial capital spares within the original scope of work, subject to the provisions of Regulation 23(6);*
- d. *Liabilities to meet award of arbitration or for compliance of the order or decree of a court; and*
- e. *On account of change in law.*

Provided that the details included in the original scope of work along with estimates of expenditure, deferred liabilities and the works deferred for execution shall be submitted along with the application for determination of tariff.

2) *The capital expenditure of the following nature actually incurred after the cut-off date may, in its discretion, be admitted by the Commission, subject to prudence check:*

- a) *Liabilities to meet award of arbitration or for compliance of the order or decree of a court;*
- b) *Change in law;*
- c) *Deferred work related to ash pond or ash handling system within the original scope of work.*
- d) *In case of hydro generating stations, any additional expenditure which has become necessary on account of damage caused by natural calamities (but not due to flooding of power house attributable to the negligence of the generating company), including due to geological surprises after adjusting for proceeds from any insurance scheme, and expenditure incurred due to any additional work which has become necessary for successful and efficient plant operation; and*
- e) *In case of transmission and distribution system any additional expenditure on items such as relays, control and instrumentation, computer system, power line carrier communication, DC batteries, replacement of switchyard, equipment due to increase of fault level, emergency restoration system, insulators cleaning infrastructure, replacement of damaged equipment not covered by insurance and any other expenditure which has become necessary for successful and efficient operation of transmission or distribution system:*

Provided that in respect to sub-clause d) & e) above, any additional expenditure on acquiring minor items/assets like tools and tackles, furniture, air-conditioners, voltage stabilizers, refrigerators, coolers, fans, washing machines, heat convectors, mattresses, carpets, etc. brought after the cutoff date shall not be considered for additional capitalization for determination of tariff w.e.f. 1.4.2013.

The Petitioner has further submitted that it has incurred additional capital expenditure of Rs. 0.12 Crore during FY 2015-16 upto September, 2015. The same has been considered for the purpose of tariff determination. However, it will be reviewed at the time of truing up.

4.4.4 Capital Structure

Regulation 22 of UERC Tariff Regulations, 2011 specifies that:

“(1) For a project declared under commercial operation on or after 1.4.2013, debt-equity ratio shall be 70:30. Where equity employed is more than 30%, the amount of equity for the purpose of tariff shall be limited to 30% and the balance amount shall be considered as normative loan. Where actual equity employed is less than 30%, the actual equity would be used for determination of Return on Equity in tariff computations.

In case of Generating Company, Transmission Licensee, Distribution Licensee, or SLDC where investments have been made prior to 1.4.2013, Debt: Equity Ratio shall be as approved by the Commission in the previous Orders.

....
”

In accordance with the above mentioned regulation, debt-equity ratio shall be considered as 70:30. The amount of equity for the purpose of tariff determination shall be limited to 30% and equity in excess of 30% shall be considered as normative loan. Since, equity and promoters contribution is in excess of 30%, accordingly, equity has been restricted to 30% and balance has been treated as loan.

Capital structure as on 01.04.2015 and additional capitalization for FY 2015-16 is as follows:

Table: 4.14 Financing of GFA for FY 2015-16

Particular	As on 01.04.2015		Additional Capitalisation FY 2015-16	
	(Rs. in Crore)	%	(Rs. in Crore)	%
Debt	353.68	70.00	0.08	70.00
Equity	151.57	30.00	0.04	30.00
Total	505.26	100.00	0.12	100.00

4.4.5 Depreciation

Regulation 29 of UERC Tariff Regulations, 2011 specifies as follows:

“(1) The value base for the purpose of depreciation shall be the capital cost of the asset admitted by the Commission.

Provided that depreciation shall not be allowed on assets funded through Consumer Contribution and Capital Subsidies/Grants.

(2) The salvage value of the asset shall be considered as 10% and depreciation shall be allowed up to maximum of 90% of the capital cost of the asset.

(3) Provided that in case of generating stations, the salvage value shall be as provided in the agreement signed by the developers with the State Government for creation of site;

Provided further that the capital cost of the assets of the generating station for the purpose of computation of depreciable value for the purpose of determination of tariff under these regulations shall correspond to the percentage of sale of electricity under long-term power purchase agreement at regulated tariff.

(4) Land other than the land held under lease and the land for reservoir in case of hydro generating station shall not be a depreciable asset and its cost shall be excluded from the capital cost while computing depreciable value of the asset.

(5) Depreciation shall be calculated annually based on Straight Line Method and at rates specified in Appendix - II to these Regulations.

Provided that, the remaining depreciable value as on 31st March of the year closing after a period of 12 years from date of commercial operation shall be spread over the balance useful life of the assets.

(6) In case of the existing projects, the balance depreciable value as on 1.4.2013 shall be worked out by deducting the cumulative depreciation as admitted by the Commission upto 31.3.2013 from the gross depreciable value of the assets. The difference between the cumulative depreciation recovered and the depreciation so arrived at by applying the depreciation rates as specified in these Regulations corresponding to 12 years shall be spread over the remaining period upto 12 years. The remaining depreciable value as on 31st March of the year closing after a period of 12 years from date of commercial operation shall be spread over the balance life.

(7) Depreciation shall be chargeable from the first year of commercial operation. In case of commercial operation of the asset for part of the year, depreciation shall be charged on pro rata basis."

The Petitioner has submitted that Regulations provides two depreciation rates for Hydro Power Projects (straight line method) i.e. 3.34% and 5.28% for Civil and Hydro Mechanical & Electro Mechanical respectively. The Petitioner has also submitted that the break-up between Civil, Hydro Mechanical and Electro-mechanical assets is not available in the audited financials. Even in the cost approval dated 20th August 2010 by the Govt. of Himachal Pradesh, the break-up between Civil, H&M and E&M assets was not provided, as H&M assets has been clubbed with Civil, and E&M has been approved as a separate head. Therefore, in the absence of break-up of cost between Civil, H&M and E&M assets, the Petitioner has segregated the Civil, H&M and E&M in 60:40 ratio, as below:

Table: 4.15 Break up of GFA as submitted by the Petitioner (Rs. In Crore)

Particular	Rs. in Crore
Total project cost	685.37
Less: Land under ownership	0.87
Depreciable project cost	684.50
Civil (60%, assumed)	407.98
H&M + E&M (40%, assumed)	276.52

Accordingly, annual depreciation calculated by the Petitioner for FY 2015-16 is as below:

$$(407.98 \times 3.34\%) + (276.52 \times 5.28\%) = \text{Rs. 28.23 Crore}$$

It has been observed from the details of civil contract submitted vide submission dated 29.06.2016, most of the work pertains to Dams, Spillways, Weirs, Canals, Reinforced concrete flumes and siphons, Reinforced concrete pipelines and surge tanks, steel pipelines, sluice gates, steel surge tanks, hydraulic control valves and hydraulic works. Accordingly, the Commission has decided to charge the depreciation

on such civil work @ 5.28%.

Further, for the purpose of depreciation, the Commission has relied on the Balance Sheet and the admitted capital cost as on actual COD. As discussed above, the Commission has admitted Capital Cost of only Rs. 505.22 Crore. Further, As per Balance Sheet for FY 2012-13, opening GFA was 2.08 Crore and considering the cost of Leasehold land of Rs. 7.16 Crore as on 01.04.2012 the total GFA as on 01.04.2012 works out to Rs. 9.24 Crore.

As mentioned above, the Commission has admitted a GFA of Rs. 505.22 Crore as on actual COD, i.e. 30.05.2012 and considering the opening GFA of Rs. 9.24 Crore, balance amount, i.e. Rs.495.98 Crore has been considered as capitalised during the year. Further, under the head of Capital cost, Civil Works & Hydro Mechanical works is of Rs. 303.37 Crore and as per Balance Sheet for FY 2012-13, there is a capitalisation of Rs. 60.52 Crore pertaining to Buildings. Therefore, Balance amount of Rs. 242.85 Crore (Rs. 303.37-60.52 Crore) has been considered as total of Hydro Mechanical works and other Civil work. Further, segregation of expenditure incurred on Hydro Mechanical works and other Civil work has been carried out based on the Petitioners submission that the total expenditure on Civil work and Hydro Mechanical work was Rs. 269.25 Crore and Rs. 31.36 Crore respectively. Accordingly, for the purpose of computation of deprecation allowable expenditure on other Civil work and Hydro Mechanical work was Rs. 211.13 Crore and Rs. 31.72 Crore respectively. The balance amount of admitted capital cost, i.e. Rs. 193.82 Crore has also been considered part of Plant and Machinery. Asset wise detail of GFA is as follows:

Table: 4.16 Asset wise GFA considered by the Commission (Rs. Crore)

Particulars	2012-13		
	Opening GFA	Capitalization during the year	Closing GFA
Freehold Land	0.87	0.00	0.87
Leasehold Land	7.16	0.00	7.16
Civil Works			
Buildings	-	60.52	60.52
Other Civil Works		211.13	211.13
Hydro Mechanical Works	-	31.72	31.72
E&M	0.14	192.61	192.75
Lines & Cable Network	-	0.00	-
Vehicles	0.32	0.00	0.32
Furniture and Fixtures	0.23	0.00	0.23
Office Equipment	0.51	0.00	0.51
Computers	-	0.00	-
Computer Software	0.01	0.00	0.01
Total	9.24	495.98	505.22

As discussed at Para 4.4.2, there was an additional capitalisation as well as de-capitalization of Rs. 0.04 Crore and Rs. 0.10 Crore respectively in FY 2013-14 and an additional capitalisation of Rs. 0.09 Crore in FY 2014-15, accordingly, closing GFA for FY 2014-15 works out to Rs. 505.26 Crore. The cumulative depreciation on the de-capitalized GFA has been deducted from the cumulative depreciation of the

respective asset.

Table: 4.17 GFA considered by the Commission upto FY 2014-15 (Rs. Crore)

Particulars	FY 2012-13	FY 2013-14	FY 2014-15
Opening GFA	9.24	505.22	505.16
GFA Addition	495.98	0.04	0.09
De capitalization	-	0.09	-
closing GFA	505.22	505.16	505.26

Based on the capitalization of assets as discussed above, depreciation for FY 2015-16 is as follows:

Table: 4.18 GFA and Depreciation considered by the Commission for FY 2015-16 (Rs. Crore)

Particulars	Rate of Depreciation	GFA as on CoD	Addition(+)/ deletion(-)		Opening GFA	Addition during	Closing GFA	Allowable Depreciation
			FY 2013-14	FY 2014-15	FY 2015-16	FY 2015-16	FY 2015-16	FY 2015-16
Freehold Land	0.00%	0.87			0.87		0.87	-
Leasehold Land	3.34%	7.16	0.02		7.18		7.18	0.24
Buildings	3.34%	60.52			60.52		60.52	2.02
Other Civil Works	5.28%	211.13			211.13		211.13	11.15
Hydraulic Mech Works	5.28%	31.72			31.72		31.72	1.67
Electro Mechanical	5.28%	192.75			192.75	0.11	192.86	10.18
Lines&Cable Network	5.28%	-			-		-	-
Vehicles	9.50%	0.32	-0.09		0.23		0.32	0.02
Furniture and Fixtures	6.33%	0.23			0.23		0.23	0.01
Office Equipment	6.33%	0.51	0.02	0.08	0.61		0.61	0.03
Computers	15.00%	-		0.01	0.01		0.01	-
Computer Software	15.00%	0.01			0.01		0.01	0.00
		505.22	-0.06	0.09	505.26	0.11	505.37	25.34

Accordingly, as per the Regulations depreciation works out to Rs. 25.34 Crore for FY 2015-16.

4.4.6 Return on Equity

Regulation 27 of the UERC Tariff Regulations, 2011 specifies as follows:

“27. Return on Equity

(1) Return on equity shall be computed on the equity base determined in accordance with Regulation 22.

Provided that, Return on Equity shall be allowed on amount of allowed equity capital for the assets put to use at the commencement of each financial year.

(2) Return on equity shall be computed on at the rate of 15.5% for Generating Stations, Transmission Licensee and SLDC and at the rate of 16% for Distribution Licensee on a post-tax basis.

...”

The Petitioner has claimed Return on Equity amounting to Rs. 31.87 Crore for FY 2015-16, considering 30% of the claimed capital cost as normative equity. As per the above Regulation, the Commission has allowed Return on Equity at the rate of 15.50% on the opening admissible normative

equity of Rs. 151.57 Crore which works out to Rs. 23.49 Crore for the complete FY 2015-16.

4.4.7 Interest on Loans

The Petitioner has submitted that Normative loan of Rs. 479.76 Crore as on COD (70% of project cost Rs. 685.37 Crore) has been considered for the purpose of determination of tariff and the depreciation of Rs. 28.23 Crore has been considered as normative repayment of loan as per applicable Tariff Regulations, 2011 for FY 2015-16. Further, for the purpose of determination of the interest on loan for FY 2015-16, the Petitioner has calculated the normative repayment for FY 2012-13, based on the UERC Tariff Regulations, 2004 and for FY 2013-14 & FY 2014-15 based on the UERC Tariff Regulations, 2011. The Petitioner submitted that the Rupee term loan from the original consortium of Indian Banks was replaced with Rupee-denominated Non-Convertible Debentures (NCDs) with effect from the allotment date 26th of August 2014. The NCDs carry 11% fixed coupon interest rate. Further, the Petitioner has considered the same interest rate of 11% p.a. of the non-convertible debentures issued during FY 2014-15 and FY 2015-16. Detail of the Interest on Loan claimed by the Petitioner is as follows:

Table: 4.19 Interest on loan claimed by the Petitioner (Rs. in Crore)

Financial Year	Normative loan pending	Normative Loan repayment	Actual Interest rate	Normative loan closing	Normative Interest on Loan
FY 2012-13	479.76	36.80	-	442.96	Not applicable
FY 2013-14	442.96	28.23	-	414.73	Not applicable
FY 2014-15	414.73	28.23	11%	386.50	44.07 (although not applicable)
FY 2015-16	386.50	28.23	11%	358.28	40.96

As discussed earlier, the Petitioner's project was not regulated by the Commission prior to 01.12.2015, accordingly, prevailing regulations at the time of commissioning of the project cannot be applied prior to 01.01.2015. As per costing and accounting principles, depreciation is a non-cash item and in electricity sector it is assumed that the same shall be utilised for repayment of Loan. Therefore, depreciation computed till 31.03.2015, under the head of Depreciation, has been considered as cumulative repayment upto 31.03.2015. Regulation 28 of the Tariff Regulation, 2011 specifies as follows:

"Interest and finance charges on loan capital and on Security Deposit

- (1) *The loans arrived at in the manner indicated in Regulation 22 shall be considered as gross normative loan for calculation of interest on loan.*
- (2) *The normative loan outstanding as on 1.4.2013 shall be worked out by deducting the cumulative repayment as admitted by the Commission up to 31.3.2013 from the gross normative loan.*
- (3) *The repayment for each year of the Control Period shall be deemed to be equal to the depreciation allowed for that year.*
- (4) *Notwithstanding any moratorium period availed by the Generating Company or the Transmission Licensee or the Distribution Licensee or the SLDC, as the case may be the repayment of loan shall be considered from the first year of commercial operation of the project and shall be equal to the annual depreciation allowed.*
- (5) *The rate of interest shall be the weighted average rate of interest calculated on the basis of the actual loan*

portfolio at the beginning of each year applicable to the project:

Provided that if there is no actual loan for a particular year but normative loan is still outstanding, the last available weighted average rate of interest shall be considered:

Provided further that if the generating station or the transmission system or the distribution system, as the case may be, does not have actual loan, then the weighted average rate of interest of the generating company or the Transmission Licensee or the Distribution Licensee as a whole shall be considered.

- (6) The interest on loan shall be calculated on the normative average loan of the year by applying the weighted average rate of interest.
- (7) The Generating Company or the Transmission Licensee or the Distribution Licensee, or the SLDC as the case may be, shall make every effort to re-finance the loan as long as it results in net savings on interest and in that event the costs associated with such re-financing shall be borne by the beneficiaries and the net savings on interest shall be shared between the beneficiaries and the Generating Company or the Transmission Licensee or the Distribution Licensee or the SLDC, as the case may be, in the ratio of 50:50.
- (8) The changes to the terms and conditions of the loans shall be reflected from the date of such re-financing.
- (9) Interest shall be allowed on the amount held as security deposit by the Distribution Licensee from consumers, at the rate as may be decided by the Commission from time to time. "

Accordingly, normative loan worked out under "Capital structure" as on 01.04.2015 has been considered as opening normative loan for FY 2015-16 and cumulative depreciation upto 31.03.2015 amounting to Rs. 61.41 Crore has been considered as cumulative repayment of normative loan. Further, interest rate of 11% p.a. as claimed by the Petitioner has been considered for calculating the interest. Detail of the interest on normative loan claimed by the Petitioner and approved by the Commission for FY 2015-16 is as shown in the table given below:

Table: 4.20: Interest on loan approved by the Commission for FY 2015-16 (Rs. in Crore)

Particular	Claimed	Approved
Opening Normative Loan	479.76	353.67
Cumulative Repayment	93.26	63.49
Net Opening Normative Loan	386.50	290.18
Additional Capitalization	0.00	0.08
Normative Repayment of loan	28.23	25.34
Net Closing Normative Loan	358.28	264.92
Average Normative Loan	372.39	277.55
Rate of Interest	11.00%	11.00%
Normative Interest	40.96	30.53

Accordingly, the Commission has approved interest on loan for FY 2015-16 as Rs. 29.59 Crore.

4.4.8 Operation & Maintenance (O&M) Expenses

Regulation 52 of UERC Tariff Regulations, 2011 specifies as follows:

"(1) Operation and Maintenance (O&M) expenses shall comprise of the following:-

- (a) salaries, wages, pension contribution and other employee costs;
- (b) administrative and general expenses including insurance charges if any;

- (c) repairs and maintenance expenses;
- (2).....
- (3) For Generating Stations in operation for less than 5 years in base year:

In case of the hydro electric generating stations, which have not been in existence for a period of five years in the base year of FY 2011-12, the operation and maintenance expenses for the base year of FY 2011-12 shall be fixed at 1.5% of the capital cost as admitted by the Commission for the first year of operation and shall be escalated from the subsequent year in accordance with the escalation principles specified in sub regulation (6) below. “

The Commission vide its letter dated 16.03.2016 directed the Petitioner to submit justification for claiming O&M expenses @ 2% of Capital Cost whereas Regulation 52(3) of MYT Regulations, 2011 provides for O&M expenses @ 1.50% of capital cost. The Petitioner vide letter dated 16.04.2016 submitted that Regulation 48 of Tariff Regulations, 2015 provides as follows:

“48. Operation and Maintenance Expenses

.....

(2) For Hydro Generating Stations

(a) For Generating Stations in operation for more than five years preceding the Base Year

.....

(b) For Generating Stations in operation for less than 5 years preceding the base year:

In case of the hydro-electric generating stations, which have not been in existence for a period of five years preceding the base year, i.e. FY 2014-15, the operation and maintenance expenses for the base year of FY 2014-15 shall be fixed at 2.0% of the capital cost as admitted by the Commission for the first year of operation and shall be escalated from the subsequent year in accordance with the escalation principles specified in clause (e) below.

(c) For Generating Stations declared under commercial operation on or after 1.4.2016

.....

(d)

(e) O&M expenses determined in sub-Regulation 2(b) & 2(c) above, shall be escalated for subsequent years to arrive at the O&M expenses for the control period by applying the Escalation factor (EFk) for a particular year (Kth year) which shall be calculated using the following formula:

$$EFk = 0.55 \times WPI \text{Inflation} + 0.45 \times CPI \text{Inflation}$$

(f)

The Petitioner has proposed the O&M expenses as 2% of proposed capital cost, i.e. Rs. 685.37 Crore x 2% = Rs. 13.71 Crore has been considered for the Base Year i.e. FY 2014-15. As per Regulations escalation factor for FY 2015-16 works out to 6.77%. Accordingly, O&M for FY 2015-16 has been proposed with 6.77% escalation over the O&M for FY 2014-15, that is, Rs. 13.71 Crore + 6.77% of 13.71 Crore = Rs. 14.64 Crore. The Commission accepts the justification given by the Petitioner for considering 2% for computation of O&M expenses for the Base year i.e. FY 2014-15. The Commission has computed the O&M expenses for the FY 2015-16 in accordance with Tariff Regulations, 2015. In accordance with the Tariff Regulations, 2015, 2%

of the capital cost admitted by the Commission has been considered as O&M expenses for the first year of HEP, further, the same has been escalated to arrive at O&M expenses for base year i.e. FY 2014-15 which works out to Rs. 11.95 Crore. The same has been escalated with the “k” factor, which worked out to 6.77% in accordance with the above mentioned regulation. The O&M expenses for FY 2015-16 works out to Rs. 12.76 Crore.

4.4.9 Interest on Working Capital

The Petitioner has claimed that it has computed the working capital for the project in accordance with the provisions of the Regulations on normative basis. Further, the Petitioner submitted that in addition to the normative components of working capital, it has proposed to include “Restricted deposit with Banks” which is deposited by the Petitioner with banks and is locked towards margin money for letters of credit and Bank Guarantees. As per audited financials for FY 2014-15, the said amount is Rs. 3.69 Crore. The rate of interest considered by the Petitioner for computing interest on working capital for FY 2015-16 has been considered as 14.05% on the basis of the PLR of State Bank of India.

In respect of the interest on working capital, Regulation 34 of the UERC Tariff Regulations, 2011 specifies as under:

“34. Interest on Working Capital

Rate of interest on working capital shall be on normative basis and shall be equal to the State Bank Advance Rate (SBAR) of State Bank of India as on the date on which the application for determination of tariff is made.

(1) Generation:

...

c) In case of hydro power generating stations, working capital shall cover:

(i) Operation and maintenance expenses for one month;

(ii) Maintenance spares @ 15% of operation and maintenance expenses; and

(iii) Receivables for sale of electricity equivalent to two months of the annual fixed charges calculated on normative capacity index.

...”

One Month O&M Expenses

The Commission, has approved O&M expenses of Rs. 12.76 Crore for FY 2015-16, accordingly, one month’s O&M expenses for determining the working capital requirement works out to Rs. 1.06 Crore.

Maintenance Spares

The Commission has determined maintenance spares requirement of Rs. 1.91 Crore which is 15% of the approved O&M Expenses for FY 2015-16.

Receivables

The Regulations envisage receivables equivalent to two months of fixed charges for sale of electricity as an allowable component of working capital. Annual Fixed Charges (AFC) for the Petitioner includes O&M expenses, depreciation, interest on loan, return on equity and interest on working capital. The Commission has considered the receivables for two months based on the AFC of Rs. 94.00 Crore for FY 2015-16. Further, as proposed by the Petitioner for considering “Restricted deposit with Banks” as part of working capital since the same is not covered under the Regulations and hence, no separate allowance under this head can be allowed. Accordingly, receivable for two months works out to Rs. 15.79 Crore.

As regards the interest on working capital, Regulation 34 of the UERC Tariff Regulations, 2011 specifies rate of interest on working capital to be taken equal to the State Bank Advance Rate (SBAR) of State Bank of India as on the date on which the application for determination of tariff is made. As the Tariff Petition was filed in November, 2015, the Commission has considered the prevailing State Bank Advance Rate (SBAR) of State Bank of India for computing the Interest on Working Capital.

Accordingly, the normative interest on working capital for FY 2015-16 as approved by the Commission is as shown in the Table below:

Table: 4.21 Interest on working capital approved by the Commission (Rs. in Crore)

Particular	Claimed	Approved
O&M Expenses	1.22	1.06
Maintenance spare	2.20	1.91
Receivables	19.92	15.79
Margin Money	3.69	-
Total	27.02	18.77
IWC @ 14.05%	3.80	2.64

4.4.10 Non Tariff Income

Regulation 47 of the UERC Tariff Regulations, 2011 specifies as follows:

“47. Non Tariff Income

The amount of non-tariff income relating to the Generation Business as approved by the Commission shall be deducted from the Annual Fixed Charges in determining the Net Annual Fixed Charges of the Generation Company.

Provided that the Generation Company shall submit full details of its forecast of non tariff income to the Commission in such form as may be stipulated by the Commission from time to time.

The indicative list of various heads to be considered for non tariff income shall be as under:

- a) Income from rent of land or buildings;*
- b) Income from sale of scrap;*
- c) Income from statutory investments;*
- d) Income from sale of Ash/rejected coal;*

- e) Interest on delayed or deferred payment on bills;
- f) Interest on advances to suppliers/contractors;
- g) Rental from staff quarters;
- h) Rental from contractors;
- i) Income from hire charges from contractors and others;
- j) Income from advertisements, etc.;
- k) Any other non- tariff income."

The Petitioner has submitted that the non-tariff income of the project is Rs. 0.76 Crore. Accordingly, the same has also been considered by the Commission.

4.4.11 Annual Fixed Charges for FY 2015-16

Based on the above analysis, the Commission has worked out the approved figures of Gross AFC for FY 2015-16. The summary of Gross AFC for FY 2015-16 is as shown in the Table below:

Table: 4.22: Annual Fixed Charges for FY 2015-16 approved by the Commission (Rs. in Crore)

Particulars	As claimed by the Petitioner	As approved by the Commission
Depreciation	28.23	25.34
Interest on Loan	40.96	30.53
Return on Equity	31.87	23.49
O&M Expenses	14.64	12.76
Interest on Working Capital	3.80	2.64
Less: Non-Tariff Income	0.76	0.76
Total	118.74	94.00

Accordingly, Net Annual Fixed Charges approved by the Commission for FY 2015-16 works out to Rs. 94.00 Crore.

Since for FY 2015-16 AFC is to recovered from single part tariff as discussed in Chapter 3 of this Order, accordingly, based on the approved AFC and Saleable Energy recovery of the same shall be allowed at the rate of Rs. 3.81/kWh.

Further, the Petitioner has initiated supply of energy w.e.f. December, 2015 at the provisional tariff of Rs. 4.00/kWh. Since the provisional tariff was higher than the tariff approved now for FY 2015-16, it is apparent that the Petitioner would have made excess recovery. For the purpose of adjustment of excess amount remitted by UPCL to the Petitioner, **UPCL is hereby directed to adjust the aforesaid excess payment made to the Petitioner in three equal installments in 03 consecutive generation bills starting from bills of November, 2016.**

5. Commission's Analysis, Scrutiny & Conclusion on MYT for the second Control Period from FY 2016-17 to FY 2018-19

5.1 GFA and Additional Capitalisation

The Commission, in the approval of Business Plan for the second Control Period as discussed in section 3 has approved the additional capitalisation as claimed by the Petitioner. The Commission has considered the year wise capitalization for the second Control Period from FY 2016-17 to FY 2018-19 as approved in the Business Plan. The GFA base approved by the Commission for the second Control Period from FY 2016-17 to FY 2018-19 is as shown in the Table below:

Table: 5.1 GFA base approved for the second Control Period from FY 2016-17 to FY 2018-19 (Rs. Crore)

Particular	FY 2016-17		FY 2017-18		FY 2018-19	
	Claimed	Allowed	Claimed	Allowed	Claimed	Allowed
Opening GFA	686.56	505.37	686.56	505.95	686.56	506.40
Additional Capitalization	0.00	0.58	0.00	0.45	0.00	0.00
Closing GFA	686.56	505.95	686.56	506.40	686.56	506.40

5.2 Means of Finance

The Petitioner has not considered additional capitalization claimed in the Business Plan for second Control Period for the purpose of tariff determination. However, since the Commission has approved the Business Plan proposed by the Petitioner and considered the capitalisation for the second Control Period, accordingly, the same has been considered for the purpose of tariff determination. Financing of additional capitalisation for the ensuing financial year has also been considered in accordance with the Regulations, i.e. debt and equity considered in the ratio of 70% & 30% respectively. However, any variation in actual capitalisation from that of proposed in its Business Plan by the Petitioner shall be reviewed at the time of truing up exercise of corresponding financial year subject to prudence check by the Commission.

Based on the above and closing balance of GFA for FY 2015-16, the Commission has determined the debt and equity component for FY 2016-17 to FY 2018-19. Detail of the same is as follows:

Table: 5.2 Financing of Additional Capitalisation for FY 2016-17 to FY 2018-19 (Rs. Crore)

Particular	FY 2016-17		FY 2017-18		FY 2018-19	
	Claimed	Allowed	Claimed	Allowed	Claimed	Allowed
Opening GFA	686.56	505.37	686.56	505.95	686.56	506.40
Additional Capitalization	0.0	0.58	0.0	0.45	0.0	0.00
Debt	0.00	0.40	0.00	0.31	0.00	0.00
Equity	0.00	0.17	0.00	0.13	0.00	0.00
Closing GFA	686.56	505.95	686.56	506.40	686.56	506.40

5.3 Annual Fixed Charges for the second Control Period

5.3.1 Depreciation

Regulation 28 of the UERC Tariff Regulations, 2015 specifies as follows:

“28. Depreciation

(1) The value base for the purpose of depreciation shall be the capital cost of the asset admitted by the Commission.

Provided that depreciation shall not be allowed on assets funded through Consumer Contribution and Capital Subsidies/Grants.

(2) The salvage value of the asset shall be considered as 10% and depreciation shall be allowed up to maximum of 90% of the capital cost of the asset.

...

(4) Depreciation shall be calculated annually based on Straight Line Method and at rates specified in Appendix - II to these Regulations.

....”

As already discussed under Depreciation in Para 4 of this Order, the Petitioner has segregated the Civil, Hydro Mechanical and Electro-mechanical Work in the ratio of 60:40 and applied the depreciation rate as specified in the Tariff Regulations, 2015 and has claimed depreciation accordingly.

The Commission has determined the depreciation based on the segregation of the assets in line with the computation of depreciation for FY 2015-16. Detail of the depreciation claimed and approved for the second Control Period is as follows:

Table:5.3 Depreciation approved by the Commission for FY 2016-17 to FY 2018-19 (Rs. in Crore)

Particulars	FY 2016-17		FY 2017-18		FY 2018-19	
	Claimed	Approved	Claimed	Approved	Claimed	Approved
Depreciation	28.23	25.36	28.23	25.39	28.23	25.34

5.3.2 Return on Equity

Regulation 26 of the UERC Tariff Regulations, 2015 specifies as follows:

“26. Return on Equity

(1) Return on equity shall be computed on the equity base determined in accordance with Regulation 24.

Provided that, Return on Equity shall be allowed on account of allowed equity capital for the assets put to use at the commencement of each financial year.

(2) Return on equity shall be computed on at the base rate of 15.50% for thermal generating stations, transmission licensee, SLDC and run of the river hydro generating station and at the base rate of 16.50% for the storage type hydro generating stations and run of river generating station with pondage and distribution licensee on a post-tax basis.”

The Petitioner has submitted that it has claimed RoE in accordance with the aforesaid Regulations at the rate of 16.50% for the project. The Petitioner further submitted that income tax be allowed to be claimed as an additional reimbursement, based on the above-quoted regulations.

The Commission has allowed RoE at the rate of 16.50% for FY 2016-17 to FY 2018-19 in accordance with the UERC Tariff Regulations, 2015. Further, with regard to recovery of income tax paid, the Commission is of the view that the Regulation 35 of UERC Tariff Regulations, 2015 allows recovery of actual tax paid, subject to submission of documentary proof. Regulations 35 of UERC Tariff Regulations, 2015 stipulates as follows:

“Income Tax, if any, on the income stream of the regulated business of Generating Companies, Transmission Licensees, Distribution Licensees and SLDC shall be reimbursed to the Generating Companies, Transmission Licensees, Distribution Licensees and SLDC as per actual income tax paid, based on the documentary evidence submitted at the time of truing up of each year of the Control Period, subject to the prudence check.”

Therefore, the Petitioner is entitled to claim the same at the time of truing up as per the actuals in accordance with the Regulations 35 of UERC Tariff Regulations, 2015.

Detail of the Return on Equity claimed and approved for second Control Period is as follows:

Table: Table: 5.4 Return on Equity approved by the Commission (Rs. in Crore)

Particular	FY 2016-17		FY 2017-18		FY 2018-19	
	Claimed	Approved	Claimed	Approved	Claimed	Approved
Return on Equity	33.93	25.02	33.93	25.04	33.93	25.07

5.3.3 Interest on Loans

Regulation 27 of the UERC Tariff Regulations, 2015 specifies as follows:

“27. Interest and finance charges on loan capital and on Security Deposit

(1) The loans arrived at in the manner indicated in Regulation 24 shall be considered as gross normative loan for calculation of interest on loan.

(2) The normative loan outstanding as on 1.4.2016 shall be worked out by deducting the cumulative repayment as admitted by the Commission up to 31.3.2016 from the gross normative loan.

(3) The repayment for each year of the Control Period shall be deemed to be equal to the depreciation allowed for that year

...

(5) The rate of interest shall be the weighted average rate of interest calculated on the basis of the actual loan portfolio of the previous year after providing appropriate accounting adjustment for interest capitalised:

Provided that if there is no actual loan for a particular year but normative loan is still outstanding, the last available weighted average rate of interest shall be considered.

Provided further that if the generating station or the transmission system or the distribution system or SLDC, as the case may be, does not have actual loan, then the weighted average rate of interest of the generating company or the Transmission Licensee or the Distribution Licensee or SLDC as a whole shall be considered.

(6) The interest on loan shall be calculated on the normative average loan of the year by applying the weighted average rate of interest.

...”

As discussed above, the Petitioner submitted that the Rupee term loan from the original consortium of Indian Banks was replaced with Rupee-denominated Non-Convertible Debentures (NCDs) with effect from the allotment date 26th of August 2014. The NCDs carry 11% fixed coupon interest rate. Further, Petitioner has considered the same interest rate of 11% p.a. of the non-convertible debentures issued during FY 2016-17 to FY 2018-19. The same has been considered for the computation of interest on normative loan. Further, approved depreciation of the respective year has been considered as repayment of normative loan in accordance with the UERC Tariff Regulations, 2015. Detail of the interest claimed and approved on the normative loan is as follows for second Control Period is as follows:

Table:5.5: Interest on Loan approved by the Commission for FY 2016-17 to FY 2018-19 (Rs. in Crore)

Interest on Normative Loan	FY 2016-17		FY 2017-18		FY 2018-19	
	Claimed	Approved	Claimed	Approved	Claimed	Approved
Opening Normative Loan	479.76	353.76	479.76	354.16	479.76	354.47
Cumulative Repayment	121.48	88.84	149.71	114.20	177.94	139.58
Net Opening Normative Loan	358.28	264.92	330.05	239.96	301.82	214.89
Additional Capitalisation	-	0.40	-	0.31	-	0.00
Normative Repayment of loan	28.23	25.36	28.23	25.39	28.23	25.34
Net Closing Normative Loan	330.05	239.96	301.82	214.89	273.59	189.55
Average Normative Loan	344.16	252.44	315.94	227.43	287.71	202.22
Rate of Interest	11.00%	11.00%	11.00%	11.00%	11.00%	11.00%
Normative Interest	37.86	27.77	34.75	25.02	31.65	22.24

5.3.4 Operation and Maintenance expenses

With regard to Operation and Maintenance expenses, Regulation 48(2) of the UERC Tariff Regulations, 2015 stipulates as follows:

“48 Operation and Maintenance Expenses

...

(2) For Hydro Generating Stations

(a) For Generating Stations in operation for more than five years preceding the Base Year

The operation and maintenance expenses for the first year of the control period will be approved by the Commission taking in to account the actual O&M expenses for last five years till base year, based on the audited balance sheets, excluding abnormal operation and maintenance expenses, if any, subject to prudence check and any other factors considered appropriate by the Commission.

(b) For Generating Stations in operation for less than 5 years preceding the base year:

In case of the hydro electric generating stations, which have not been in existence for a period of five years preceding the base year, i.e. FY 2014-15, the operation and maintenance expenses for the base year of FY 2014-15 shall be fixed at 2.0% of the capital cost as admitted by the Commission for the first year of operation and shall be escalated from the subsequent year in accordance with the escalation principles specified in clause (e) below.

(c) For Generating Stations declared under commercial operation on or after 1.4.2016.

In case of new hydro electric generating stations, i.e. the hydro electric generating stations declared under commercial operation on or after 1.4.2016, the base operation and maintenance expenses for the year of commissioning shall be fixed at 4% and 2.5% of the actual capital cost (excluding cost of rehabilitation & resettlement works) as admitted by the Commission, for stations less than 200 MW projects and for stations more than 200 MW respectively.

- (d) *Post determination of base O&M Expenses for the base year, i.e. FY 2014-15, the O&M expenses for the nth year and also for the year immediately preceding the Control Period, i.e. 2015-16 shall be approved based on the formula given below:-*

$$O\&M_n = R\&M_n + EMP_n + A\&G_n$$

Where –

- *O&M_n – Operation and Maintenance expenses for the nth year;*
- *EMP_n – Employee Costs for the nth year;*
- *R&M_n – Repair and Maintenance Costs for the nth year;*
- *A&G_n – Administrative and General Costs for the nth year;*

The above components shall be computed in the manner specified below:

$$EMP_n = (EMP_{n-1}) \times (1+G_n) \times (1+CPI_{inflation})$$

$$R\&M_n = K \times (GFA_{n-1}) \times (1+WPI_{inflation}) \text{ and}$$

$$A\&G_n = (A\&G_{n-1}) \times (1+WPI_{inflation}) + \text{Provision}$$

Where –

- *EMP_{n-1} – Employee Costs for the (n-1)th year;*
- *A&G_{n-1} – Administrative and General Costs for the (n-1)th year;*
- *Provision: Cost for initiatives or other one-time expenses as proposed by the Generating Company and approved by the Commission after prudence check.*
- *‘K’ is a constant to be specified by the Commission %. Value of K for each year of the control period shall be determined by the Commission in the MYT Tariff order based on Generating Company’s filing, benchmarking of repair and maintenance expenses, approved repair and maintenance expenses vis-à-vis GFA approved by the Commission in past and any other factor considered appropriate by the Commission;*

Provided that for the projects whose Renovation and Modernisation has been carried out, the R&M expenses for the nth year shall not exceed 2% of the capital cost admitted by the Commission.

- *CPI_{inflation} – is the average increase in the Consumer Price Index (CPI) for immediately preceding three years;*
- *WPI_{inflation} – is the average increase in the Wholesale Price Index (CPI) for immediately preceding three years;*
- *GFA_{n-1} – Gross Fixed Asset of the Generating Company for the n-1th year;*
- *G_n is a growth factor for the nth year. Value of G_n shall be determined by the Commission in the MYT tariff order for meeting the additional manpower requirement based on Generating Company’s filings, benchmarking and any other factor that the Commission feels appropriate*

Provided that in case of a existing generating station governed by Government pay structure, the Commission may consider allowing a separate provision in Employee expenses towards the impact of VIIth Pay Commission.

Provided that repair and maintenance expenses determined shall be utilised towards repair and maintenance works only.

- (e) *O&M expenses determined in sub-Regulation 2(b) & 2(c) above, shall be escalated for subsequent years to arrive at the O&M expenses for the control period by applying the Escalation factor (EF_k) for a particular year (Kth year) which shall be calculated using the following formula:*

$$EF_k = 0.55 \times WPI_{\text{Inflation}} + 0.45 \times CPI_{\text{Inflation}}$$

- (f) *In case of multi-purpose hydroelectric stations, with irrigation, flood control and power components, the O&M expenses chargeable to power component of the station only shall be considered for determination of tariff."*

As discussed in Para 4, the O&M expenses for FY 2015-16 has been computed by escalating the O&M expenses of base year, i.e. FY 2014-15 with escalation factor of 6.77%. The same escalation factor has been considered for computing the O&M expenses for the second Control Period as shown in the Table below:

Table:5.6 O&M expenses for FY 2016-17 to 2018-19 approved by the Commission (Rs. Crore)

Particular	FY 2016-17		FY 2017-18		FY 2018-19	
	Claimed	Approved	Claimed	Approved	Claimed	Approved
O&M expense	15.63	13.62	16.68	14.54	17.81	15.53

5.3.5 Interest on Working Capital

The Petitioner has submitted that the interest on working capital for the second Control Period from FY 2016-17 to FY 2018-19 has been proposed in accordance with Regulation 33 of UERC Tariff Regulations, 2015.

Regulation 33 of UERC Tariff Regulations, 2015 specifies as follows;

"Rate of interest on working capital shall be on normative basis and shall be equal to the State Bank Advance Rate (SBAR) of State Bank of India as on the date on which the application for determination of tariff is made.

...

In case of hydro power generating stations and transmission system and SLDC, the working capital shall cover:

- (i) Operation and maintenance expenses for one month*
- (ii) Maintenance spares @ 15% of operation and maintenance expenses*
- (iii) Receivables equivalent to two months of the annual fixed charges"*

The Petitioner has further submitted that it has considered the rate of interest on working capital equal to SBI PLR of 14.05% in accordance with the Regulations.

The Commission has determined the interest on working capital for the second Control Period in accordance with the aforesaid Regulations as discussed below.

One Month O&M Expenses

The annual O&M expenses approved by the Commission are Rs. 13.62 Crore, Rs. 14.54 Crore and

Rs. 15.53 Crore for FY 2016-17, FY 2017-18 and FY 2018-19 respectively. Based on the approved O&M expenses, one month's O&M expenses work out to Rs. 1.14 Crore, Rs. 1.21 Crore and Rs. 1.29 Crore for FY 2016-17, FY 2017-18 and FY 2018-19 respectively.

Maintenance Spares

The Commission has considered the maintenance spares as 15% of O&M expenses in accordance with UERC Tariff Regulations, 2015, which work out to Rs. 2.04 Crore, Rs. 2.18 Crore and Rs. 2.33 Crore for FY 2016-17, FY 2017-18 and FY 2018-19 respectively.

Receivables

The Commission has approved the receivables for two months based on the approved net ARR of Rs. 94.42 Crore, Rs. 92.64 Crore and Rs. 90.82 Crore for FY 2016-17, FY 2017-18 and FY 2018-19 respectively, which works out to Rs. 15.74 Crore, Rs. 15.44 Crore, Rs. 15.14 Crore for FY 2016-17, FY 2017-18 and FY 2018-19 respectively.

Based on the above, the total working capital requirement of the Petitioner for FY 2016-17, FY 2017-18 and FY 2018-19 works out to Rs. 18.92 Crore, Rs. 18.83 Crore, and Rs. 18.76 Crore respectively. The Commission has considered the rate of interest on working capital as 14.05% equal to State Bank Advance Rate (SBAR) as on the date of filing of the MYT Petition and, accordingly, the interest on working capital works out to Rs. 2.66 Crore, Rs. 2.65 Crore, and Rs. 2.64 Crore for FY 2016-17, FY 2017-18 and FY 2018-19 respectively against the claim of the Petitioner of Rs. 3.83 Crore for FY 2016-17, Rs. 3.81 Crore each for FY 2017-18 and FY 2018-19. The interest on working capital for FY 2016-17 to FY 2018-19 approved by the Commission for the second Control Period from FY 2016-17 to FY 2018-19 is as shown in the Tables below:

Table: 5.7 Interest on Working Capital approved by the Commission (Rs. in Crore)

Particular	FY 2016-17		FY 2017-18		FY 2018-19	
	Claimed	Approved	Claimed	Approved	Claimed	Approved
1 month of O&M Expenses	1.30	1.14	1.39	1.21	1.48	1.29
Maintenance Spares@15% of O&M	2.34	2.04	2.50	2.18	2.67	2.33
2 months Receivables	19.91	15.74	19.57	15.44	19.24	15.14
Margin Money	3.69		3.69		3.69	
Total Working Capital	27.25	18.92	27.15	18.83	27.08	18.76
Interest on Working Capital @ 14.05%	3.83	2.66	3.81	2.65	3.81	2.64

5.3.6 Non-Tariff Income

Regulation 46 of UERC Tariff Regulations, 2015 specifies as follows:

"46. Non Tariff Income

The amount of non-tariff income relating to the Generation Business as approved by the Commission shall be deducted from the Annual Fixed Charges in determining the Net Annual Fixed Charges of the Generating Company.

Provided that the Generating Company shall submit full details of its forecast of non tariff income to the Commission in such form as may be stipulated by the Commission from time to time.

The indicative list of various heads to be considered for non tariff income shall be as under:

- a) Income from rent of land or buildings;*
- b) Income from sale of scrap;*
- c) Income from statutory investments;*
- d) Interest on delayed or deferred payment on bills;*
- e) Interest on advances to suppliers/contractors;*
- f) Rental from staff quarters;*
- g) Rental from contractors;*
- h) Income from hire charges from contractors and others;*
- i) Income from advertisements, etc.;*
- j) Any other non- tariff income.*

Provided that the interest earned from investments made out of Return on Equity corresponding to the regulated business of the Generating Company shall not be included in Non-Tariff Income."

The Petitioner has not proposed any non-tariff income for the second Control Period of FY 2016-17, FY 2017-18 and FY 2018-19 accordingly, no non-tariff income has been adjusted by the Commission as of now. However, the same is subject to correction during the truing up proceedings.

5.3.7 Annual Fixed Charges, Capacity Charge and Energy Charge Rate (ECR) for FY 2016-17, FY 2017-18 and FY 2018-19

Based on the above analysis for all the heads of expenses of AFC, the Commission has approved the Annual Fixed Charges (AFC) of the Petitioner for the second Control Period attributable to its beneficiary.

Regulation 50 of UERC Tariff Regulations, 2015 specify as follows:

"50. Computation and Payment of Capacity Charges and Energy Charges for Hydro Generating Stations

- (1) The Annual Fixed Charges of Hydro Generating Station shall be computed on annual basis, based on norms specified under these Regulations, and recovered on monthly basis under capacity charge (inclusive of incentive) and Energy Charge, which shall be payable by the beneficiaries in proportion to their respective percentage share/allocation in the saleable capacity of the generating station, i.e. in the capacity excluding the free power to the home State.*
- (2) The capacity charge (inclusive of incentive) payable to a hydro generating station for a calendar month shall be:*

$$AFC \times 0.5 \times NDM / NDY \times (PAFM / NAPAF) \text{ (in Rupees)}$$

Where,

AFC = Annual fixed cost specified for the year, in Rupees.

NAPAF = Normative plant availability factor in percentage

NDM = Number of days in the month

NDY = Number of days in the year

PAFM = Plant availability factor achieved during the month, in Percentage

- (3) The PAFM shall be computed in accordance with the following formula:

$$PAFM = 10000 \times \sum_{i=1}^N DCi / \{N \times IC \times (100 - Aux)\} \%$$

Where,

AUX = Normative auxiliary energy consumption in percentage

DCi = Declared capacity (in ex-bus MW) for the ith day of the month which the station can deliver for at least three (3) hours, as certified by the Uttarakhand State Load Despatch Centre after the day is over.

IC = Installed capacity (in MW) of the complete generating station

N = Number of days in the month

- (4) The Energy Charge shall be payable by every beneficiary for the total energy supplied to the beneficiary, during the calendar month, on ex-power plant basis, at the computed Energy Charge rate. Total Energy Charge payable to the Generating Company for a month shall be:

$$(\text{Energy Charge Rate in Rs. / kWh}) \times \{\text{Energy supplied (ex-bus)}\} \text{ for the month in kWh} \times (100 - FEHS) / 100$$

- (5) Energy Charge Rate (ECR) in Rupees per kWh on ex-power plant basis, for a Hydro Generating Station, shall be determined up to three decimal places based on the following formula, subject to the provisions of sub-Regulation (7):

$$ECR = AFC \times 0.5 \times 10 / \{DE \times (100 - AUX) \times (100 - FEHS)\}$$

Where,

DE = Annual Design Energy specified for the hydro generating station, in MWh.,

FEHS = Free Energy for home State, in percent, as applicable"

In accordance with the above Regulations, the Annual Fixed Charge (AFC), for the second Control Period as claimed and approved by the Commission is shown in the Tables below:

Table: 5.8 Annual Fixed Charges approved by the Commission for FY 2016-17 to FY 2018-19 (Rs. in Crore)

Annual Fixed Charges	FY 2016-17		FY 2017-18		FY 2018-19	
	Claimed	Allowed	Claimed	Allowed	Claimed	Allowed
Depreciation	28.23	25.36	28.23	25.39	28.23	25.34
Interest on Loan	37.86	27.77	34.75	25.02	31.65	22.24
Return on Equity	33.93	25.02	33.93	25.04	33.93	25.07
O&M Expenses	15.63	13.62	16.68	14.54	17.81	15.53
Interest on Working Capital	3.83	2.66	3.81	2.65	3.81	2.64
Total	119.46	94.42	117.40	92.64	115.42	90.82
Non Tariff Income	0.00	0.00	0.00	0.00	0.00	0.00
Net AFC	119.46	94.42	117.40	92.64	115.42	90.82

The summary of Capacity Charge and Energy Charge Rate (ECR) for the Petitioner's project for the second Control Period is as given in the Table below:

Table: 5.9 Capacity Charge and Energy Charge Rate approved by the Commission for FY 2016-17 to FY 2018-19

Particular	FY 2016-17	FY 2017-18	FY 2018-19
Net AFC (Rs. Crore)	94.42	92.64	90.82
Saleable Energy (MU)	246.52	246.52	246.52
Capacity Charges (Rs. Crore) (50% of AFC)	47.21	46.31	45.40
Energy Charges (Rs./kWh) (50% of AFC)	1.91	1.88	1.84

In accordance with the provisions of the Regulations, the secondary energy rate shall be equal to rate derived based on the saleable energy subject to a cap of 90 paise per unit and shall be applicable when actual saleable energy exceeds the Saleable Energy (DE-(100-Auxiliary Consumption)-FS).

Ordered Accordingly.

(K.P. Singh)
Member

(Subhash Kumar)
Chairman

Public Notice



उत्तराखण्ड विद्युत नियामक आयोग
 'विद्युत नियामक भवन' निकट आई.एस.बी.टी., पो0ऑ0-माजरा, देहरादून,
 PH. 0135-2641115 FAX- 2641314 Website www.uerc.gov.in E-mail- secy.uerc@gov.in

सार्वजनिक सूचना
निम्न याचिकाओं पर जन सुनवाई

1. Petition under Sections 62 and 86(1)(a) of the Electricity Act, 2003 read with the relevant provisions of UERC (Terms & Conditions for Determination of Tariff) Regulations, 2011, UERC (Terms & Conditions for Determination of Multi Year Tariff) Regulations, 2015 for determination of tariff for supply of power from the Petitioner's 70 MW Hydro - electric power project to UPCL.
2. Petition seeking approval of the Business Plan U/s 62 & 86 (1)(a) of the Electricity Act, 2003 read with the Regulation 8 of UERC (Terms & Conditions for Determination of Multi Year Tariff) Regulations, 2015 and as per Commission's order dated 20.11.2015.

M/s Greenko Budhil Hydro Power Pvt. Ltd. द्वारा उपरोक्त विषयों पर दो याचिकाएं आयोग के समक्ष दायर की गई हैं। उक्त याचिकाएं आयोग की वेबसाईट www.uerc.gov.in पर उपलब्ध हैं। उक्त याचिकाओं पर सुझाव/आपत्तियाँ प्रेषित करने की अन्तिम तिथि 31.05.2016 थी।

उपरोक्त याचिकाओं के सम्बन्ध में आयोग द्वारा कार्यालय के उपरोक्त पते पर दिनांक 07.06.2016 को 11.30 बजे जन-सुनवाई आहूत की गई है। यदि कोई भी व्यक्ति इस सम्बन्ध में अपने मत आयोग के समक्ष प्रस्तुत करना चाहता है तो वे उक्त निर्धारित जन-सुनवाई में उपस्थित होकर अपना मत आयोग के समक्ष प्रस्तुत कर सकता है।

वि0सं0: 05/2016-17

सचिव



UTTARAKHAND ELECTRICITY REGULATORY COMMISSION
 Vidyut Niyamak Bhawan', Near ISBT, PO- Majra, Dehradun-248171
 PH. 0135-2641115 FAX- 2641314 Website www.uerc.gov.in E-mail- secy.uerc@gov.in

PUBLIC NOTICE
Public Hearing in the matters of:

1. Petition under Sections 62 and 86(1)(a) of the Electricity Act, 2003 read with the relevant provisions of UERC (Terms & Conditions for Determination of Tariff) Regulations, 2011, UERC (Terms & Conditions for Determination of Multi Year Tariff) Regulations, 2015 for determination of tariff for supply of power from the Petitioner's 70 MW Hydro - electric power project to UPCL.
2. Petition seeking approval of the Business Plan U/s 62 & 86 (1)(a) of the Electricity Act, 2003 read with the Regulation 8 of UERC (Terms & Conditions for Determination of Multi Year Tariff) Regulations, 2015 and as per Commission's order dated 20.11.2015.

M/s Greenko Budhil Hydro Power Pvt. Ltd. has filed two Petitions in the above referred matters before the Commission. The aforesaid Petitions have been posted at the Commission's website www.uerc.gov.in. Comments on the aforesaid petitions were required to be submitted by 31.05.2016.

The Commission has decided to hold a public hearing in the above referred matters on 07.06.2016 at 11.30 AM in the Commission's office on the above mentioned address. Any person, who wishes to put his views on the subject before the Commission, is invited to appear before the Commission and make the submission in the above hearing.

Advt. No. 05/2016-17

Secretary

List of Respondents

Sr. No.	Name	Designation	Organisation	Address
1.	Sh. M.A. Khan	Director (Finance)	Uttarakhand Power Corporation Ltd.	Victoria Cross Vijeta Gabar Singh Bhawan, Kanwali Road, Dehradun.
2.	Sh. Anil Kumar	Secretary	M/s Energy Watchdog	B-5/51, Paschim Vihar, New Delhi-110063
3.	Sh. J.P. Badoni	-	-	177, Gusain Gali Chowk, Bheemgauda, Haridwar-249401

List of Participants

Sr. No.	Name	Designation	Organisation	Address
1.	Sh. Anil Kumar	Secretary	M/s Energy Watchdog	B-5/51, Paschim Vihar, New Delhi-110063
2.	Sh. Manoj Tanwar	Sr. General Manager	M/s Greenko Budhil Hydro Power Pvt. Ltd.	Plot No. #1366, Road no. 45, Jubilee Hills, Hyderabad-500033
3.	Sh. Sunil Kundu	General Manager	M/s Greenko Budhil Hydro Power Pvt. Ltd.	Plot No. #1366, Road no. 45, Jubilee Hills, Hyderabad-500033
4.	Sh. Hemant Singh	Advocate	M/s Greenko Budhil Hydro Power Pvt. Ltd.	Plot No. #1366, Road no. 45, Jubilee Hills, Hyderabad-500033
5.	Sh. Jeet Sachdeva	Technical Manager	M/s Avani Bio Energy Pvt. Ltd.	PO Tripuradevi, Via Berinag, Distt. Pithoragarh, Uttarakhand-247666
6.	Sh. P.J. Singh	Ex-NTPC	-	9369, Street No. 8, Sadar Thana Road, Pahadganj, New Delhi-110055
7.	Sh. Devender Berry	Managing Director	Lakemist Resort	Kempty Fall Road, Mussoorie, Dehradun
8.	Sh. Ashok Gulati	Chartered Accountant	M/s Gulati & Co.	22, New Road, Dehradun
9.	Ms. Meera	Educationalist	-	19/2, Teg Bahadur Road, Dehradun
10.	Sh. Gopal Singh	-	-	Village-Banglaundi Kandi, Post Off.-Kaindi, Via Mussoorie, Distt. Tehri Garhwal, Uttarakhand
11.	Sh. Rajendra Prasad Nautiyal	-	-	Village-Banglaundi Kandi, Post Off.-Kaindi, Via Mussoorie, Distt. Tehri Garhwal, Uttarakhand
12.	Ms. Sangeeta Devi	-	-	-