PUNJAB STATE ELECTRICITY REGULATORY COMMISSION
PLOT NO. 3, SECTOR 18-A, MADHYA MARG, CHANDIGARH

Petition No. 54 of 2017
Date of Order: 17.01.2020

Present: Ms. Kusumjit Sidhu, Chairperson
Sh. S.S. Sarna, Member
Ms. Anjuli Chandra, Member

Petition for determination of Tariff under Sections 62 and 86 of the Electricity Act, 2003 read with (a) Punjab State Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff) Regulations, 2005; (b) the Central Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff) Regulations, 2014; and (c) Amended and Restated Power Purchase Agreement dated 26.05.2009 executed between Petitioner GVK Power (Goindwal Sahib) Limited and Punjab State Power Corporation Limited (formerly known as Punjab State Electricity Board).

AND

In the matter of: GVK Power (Goindwal Sahib) Limited, Paigarh House, 156-159, Sardar Patel Road, Secunderabad-540003.

……Petitioner

Versus

Punjab State Power Corporation Limited, The Mall, Patiala-147001 (Punjab)

……Respondent

ORDER

GVK Power (Goindwal Sahib) Limited (GVK) has filed the present petition for determination of tariff and approval of Capital Cost of the Project for the Financial Year 2016-17 in respect of the

supply of the entire capacity of the power generated by its 2x270 project situated at Goindwal Sahib to Punjab State Power Corporation Limited (PSPCL). The petition was admitted vide Order dated 13.10.2017 however, the Commission observed certain deficiencies in the petition which the petitioner vide letter dated 27.10.2017 was asked to rectify and provide clarification and documents in support thereof. GVK submitted the compliance report vide letter dated 29.12.2017 alongwith the copy of the Audited Annual Accounts of the Project for FY 2013-14, 2014-15, 2015-16 and 2016-17. GVK further filed an application for amendment of the petition in view of the deficiencies pointed out by the Commission in its communication dated 27.10.2017. The said amended petition was admitted by the Commission, vide Order dated 13.02.2018. The prayers in the petition were as follows:

a) Admit the petition and determine the tariff for supply of power.
b) Determine the provisional tariff for supply of power to PSPCL pending determination of tariff.
c) Approve the basis of calculation of Energy Charge Rate (ECR) as set out in paragraph 97 (b) of the petition.
d) Allow GVK to charge PSPCL, the energy charge on month to month basis based on the landed cost of fuel for the month on actual costs as set out in paragraph 97 (j) of the petition.
e) Allow GVK to claim fuel price adjustment due to change in price of secondary fuel oil.
f) Allow payment of incentive for generation and supply beyond 85% of Plant Load Factor (PLF) as set out in paragraph 96 (d) of the petition.
g) Allow pass through at actual any cess, duty, tax, government levy, royalty etc. applicable to the Petitioner for supply of power

to PSPCL.

h) Allow the recovery of the filing fees as and when paid to the Commission and also the publication expenses from the beneficiaries.

i) Allow the completed capital cost of Rs. 4441 crore (till COD)

j) Allow additional capital expenditure of Rs. 230 crore till Cut-Off Date

k) To pass such order(s) as the Commission may deem fit in the circumstances and facts of the present petition.

After admission of the petition, GVK was directed to file additional details/documents regarding date wise details of loan received from various lenders, date wise details of Capital Expenditure/ Investments made corresponding to the loan received, loan agreements with all the lenders, and documentary evidence to verify the interest rate fluctuations, within one week. PSPCL was directed to file a reply to the amended petition within three weeks. In the meanwhile the GVK filed an IA No. 01 of 2018 pleading financial stress and sought for urgent listing of the petition No. 54 of 2017. The IA was taken up for hearing on 07.03.2018 wherein after hearing the parties, the petition No. 54 of 2017 was fixed for hearing on 23.03.2018 further directing PSPCL to file reply to the amended petition by 21.03.2018 alongwith its comments and calculation sheet regarding provisional tariff as claimed by GVK. PSPCL filed reply to the petition vide memo No. 6619 dated 20.03.2018.

2. The petition was taken up for hearing on 23.03.2018 wherein the Commission directed GVK to file a consolidated statement of various components of project capital cost incurred up to the date of COD, details of the loan(s) taken for the project up to the COD

and the draw down schedule/ actual draw down for the same from the banks/financial institutions and similar information in respect of promoter's equity. GVK was further directed to file an affidavit, submitting as to how the project would become NPA in case the provisional tariff based on the project capital cost submitted in the petition is not allowed by the Commission immediately.

2.1 In compliance to the Order dated 23.03.2018, GVK filed an affidavit during the hearing on 26.03.2018. After hearing the parties the Commission vide Order dated 28.03.2018, considering the stringent stipulations under the new RBI guidelines and the financial hardship of the petitioner, without prejudice to the final determination of Tariff for FY 2016-17 on merits, allowed the provisional tariff of the project with capacity charges as Rs 2.20 per kWh and the energy charges based upon the common Order dated 01.02.2016 passed in petition No. 33 of 2015 and 65 of 2013.

2.2 The petition was heard on 03.05.2018 and vide Order dated 07.05.2018 PSPCL was directed to examine/verify the details submitted by GVK with respect to capital cost of the project and IDC cost and submit its report within 4 weeks.

2.3 PSPCL in compliance of the Order dated 28.03.2018 and 07.05.2018, filed an affidavit vide memo No. 6921 dated 21.05.2018 regarding examination/ verification of the details submitted by GVK with respect to capital cost of the project and IDC cost. The Commission vide memo no. PSERC/RE-255/Pet. 54 of 2017/765-766 dated 06.07.2018 sought information from PSPCL regarding the tender documents through which International Competitive Bidding was invited in 1996, the conditionalities regarding Supply of Coal and Schedule of

Completion of the Project and copy of the LOI placed by PSEB on GVK Power to implement this project. GVK was also directed to furnish certain information vide memo no. PSERC/RE-255/Pet 54/2017/768 dated 06.07.2018. PSPCL submitted the information vide memo no. 5316 dated 20.07.2018. GVK submitted the information vide letter dated 25.07.2018 and in the mean time the counsel for GVK vide letter dated 10.07.2018 also filed the compilation of documents relied upon by GVK in support of its arguments. PSPCL further filed its reply vide memo No. 5385 dated 03.08.2018, enclosing a report on the Capital Cost of the project and the IDC cost submitting that the Commission may allow expenditure on account of IDC of Rs. 365.19 Crore upto SCOD only as per the PPA and as approved by Hon'ble Appellate Tribunal for Electricity (APTEL). The Commission vide order dated 23.08.2018 directed both PSPCL and GVK to supply the copies of the above information to each other for comments/reply if any.

2.4 The Commission vide Order dated 04.09.2018 directed both PSPCL and GVK to appoint respective auditors of their organizations to jointly certify the actual capital cost of the project in terms of the definition of capital cost given in the Amended and Restated PPA dated 26.05.2009. Directions were also given that the capital cost expenses should be matched with the different heads under which the expenditure in the capital cost has been approved in principle by the Commission and Hon'ble APTEL and provided in Schedule 11 of the PPA. The Commission further directed that the audited capital expenditure should be bifurcated year wise upto the SCOD and thereafter for each quarter.

2.5 A public notice inviting objections/comments/suggestions from the general public/ stake holders in respect of petition no. 54 of 2017 was published in The Tribune (English), Ajit (Punjabi) and Ajit Samachar (Hindi) on 17.08.2018 inviting objections by 14.09.2018. It was further mentioned in the public notice that the hearing in the petition as well as the public hearing will be held on 19.09.2018. However, later on, there being a probability of 19.09.2018 being declared as a public holiday, the hearing in the instant petition as well as the public hearing, after due intimation to the parties, was held on 20.09.2018. No objection was received in response to the public notice and none appeared from the public during the public hearing.

2.6 During the hearing on 18.10.2018 the counsel for GVK filed IA No. 12 of 2018 submitting that the Order dated 04.09.2018 passed by the Commission to appoint auditors to certify the actual capital cost of the project was not in consonance with the definition of capital cost in the Amended and Restated PPA dated 26.05.2009 as well as section 141 of the Companies Act, 2013 and the same needs to be clarified. PSPCL filed reply to the IA vide memo No. 5915 dated 26.10.2018.

2.7 The petition was taken up for hearing on 31.10.2018 wherein the counsel for GVK and PSPCL agreed to appoint the auditors from the empanelled list of auditors of CAG to jointly certify the actual capital cost of the project. Accordingly the Order dated 04.09.2018 wherein the Commission directed PSPCL and GVK to appoint respective auditors of their organizations to jointly certify the actual capital cost of the project was modified vide Order dated 02.11.2018. Further, GVK was directed to furnish additional

information along with the capital cost details duly audited by the joint auditors. GVK submitted the additional information through affidavit on 18.12.2018. However, the capital cost as audited by the Joint Auditors was still not made available.

2.8 PSPCL filed IA No. 14 of 2018 for modification of the Order dated 02.11.2018 and requested the Commission to appoint the auditors required for certification of the capital cost of GVK's Power Plant. The Commission vide order dated 07.02.2019 observed that it is for the parties to appoint the auditors and it is for GVK to submit the accounts so audited to the Commission for approval and dismissed the IA No. 14 of 2018 being without any merit. The Commission further directed GVK to submit the capital cost of the project upto the date of COD as certified by the auditors appointed jointly by GVK and PSPCL within a month. GVK was also directed to provide point wise information vide notice dated 02.04.2019 and Order dated 11.04.2019. GVK filed the said information vide letter dated 14.06.2019. The report of the auditors was still not made available to the Commission.

2.9 The Commission during the hearing on 02.05.2019 directed GVK to file an affidavit certifying that the expenditure on development of the captive coal block at Tokisud North sub-block and any other block allocated to the project in terms of the PPA, including the mine site development, railway siding at mine end, construction of quarters for Rehabilitation and Resettlement (R&R) of local people and staff, compensatory afforesation etc. or any other expenditure on mine development, has not been included in the claimed capital expenditure. The parties were further directed to ask the joint auditor for certification of actual capital cost of the

project, to verify from the record and confirm that no expenditure on development of mine(s) has been booked in the account books of the Project.

2.10 The Commission vide Order dated 19.07.2019 observed that there are discrepancies in the amounts claimed as capital cost of the project which was evident from the various affidavits and information filed by GVK. The Commission, therefore, keeping in view the interest of the Consumers was constrained to revise the provisional fixed charges from Rs.2.20 to Rs.1.926 per kWh with immediate effect till the final decision of the petition. This order of the Commission was stayed by the Hon'ble APTEL vide its Order dated 26.07.2019.

2.11 During the hearing on 10.04.2019 and 18.07.2019, the Commission raised certain queries and in response to the queries GVK filed affidavits dated 14.06.2019 and 01.08.2019. PSPCL vide memo dated 09.09.2019 filed its reply to GVK's affidavits. During the hearing on 21.08.2019, PSPCL submitted a copy of the proposal received from GVK for negotiation of levelised capacity charges wherein GVK, subject to certain terms and conditions, made an offer of a levelised capacity charge of Rs. 1.99/KWh for the balance period of 22 years beginning from the FY 2019-20. PSPCL stated that a committee was constituted to consider the proposal and the proposal given by GVK has been declined.

2.12 The Petition was heard on 25.09.2019 and GVK was directed vide Order dated 01.10.2019 to submit a fresh petition for true up of FY 2016-17 based on the Regulations applicable at that time.

2.13 GVK vide letter dated 17.10.2019 submitted the report dated 14.10.2019 given by M/s B. Rattan and Associates jointly appointed by the two parties as an auditor to certify the actual capital cost of the project wherein an amount of Rs. 4103.83 Crore has been allowed as Capital Cost. PSPCL vide memo no. 5903 dated 01.11.2019 submitted a report prepared by the officials of PSPCL regarding of capital expenditure alongwith IDC from the records submitted by GVK.

2.14 PSPCL filed an affidavit vide memo no. 5919 dated 07.11.2019 submitting that there are huge differences in the amounts assessed by the Auditors, in the Audit report and the amounts assessed by the officers of PSPCL. The Commission, vide Order dated 08.11.2019, directed PSPCL to file a reply on the affidavit within two days and further directed GVK to reply to the joint verification report sent by PSPCL, provide the documents to substantiate the claim of foreign exchange rate variation, provide details of the incomplete and deferred works as on 16.04.2016 alongwith their costs in respect of works covered under BTG, BOP, Non-EPC etc, clarify overlap, if any, in list of incomplete/left of works, justification regarding enhancement in the rates as well as quantities due to change in scope of civil works in 2011-12 under Non-EPC, supply the final drawings as approved by Railway authorities for Khadur Sahib railway station and to clarify as to whether the amount of Rs. 1.26 crore claimed as codal charges under the head non EPC works is included in Rs. 2.58 crore claimed as codal charges.

2.15 In compliance of the above, GVK filed its reply vide an affidavit received on 27.11.2019. Further, the Commission vide

order dated 29.11.2019 raised queries on the issue of change of scope of rates of electrical works and buildings after vibro-compaction. GVK was also directed to submit the details and proof regarding the demand raised for vehicles and computers etc by Railways and to submit the estimation, vouchers/receipts of codal charges and details of any other charges paid to the Railways. In reply to the said queries, GVK filed its affidavit on 04.12.2019. GVK further submitted an affidavit dated 05.12.2019 in response to the Joint verification report submitted by PSPCL and an affidavit dated 06.12.2019 detailing the responses to the Joint Auditor Report filed on 14.10.2019.

2.16 The petition was taken up for final hearing on 11.12.2019 wherein the counsel for GVK argued the matter and the counsel appearing for PSPCL requested for an adjournment as the senior counsel conducting the matter was not available. The hearing was continued on 13.12.2019 wherein the counsel for the parties argued the matter. GVK and PSPCL filed their respective written submissions. After hearing the parties order was reserved further directing GVK to file final submissions, if any, by 16.12.2019 and PSPCL to file additional submissions on what was discussed during the hearing. GVK submitted an affidavit dated 13.12.2019 and 17.12.2019 in reply to the queries raised during hearing on 11.12.2019. PSPCL vide memo no. 6118 dated 16.12.2019 filed its short reply to the queries raised by the Commission during hearing on 13.12.2019 regarding the phenomenon of soil liquefaction warranting vibro compaction of land and its consequential impact on cost.

3. **Submissions by GVK**

3.1 GVK submitted that GVK Power (Goindwal Sahib) Limited (GVK) is a company incorporated under the provisions of the Companies Act, 1956 with the object of engaging in the business of establishing, maintaining and operating a 540 MW coal based thermal power Station at Goindwal Sahib in the State of Punjab for supply of electricity from the said project entirely to the Punjab State Power Corporation Limited (PSPCL). In 1996, the Government of Punjab (GoP) undertook an international competitive bidding process with the objective of selecting a party to establish and operate a coal fired Thermal Power project at Goindwal Sahib in the State of Punjab, and supply the entire electricity generated from the said power project to PSEB. Pursuant to the Competitive Bidding process initiated by the Government of Punjab, GVK Industries Limited, Hyderabad was selected to build, own and operate the coal based generation station of capacity 2x250 MW at Goindwal Sahib. Subsequently, GVK and erstwhile PSEB executed a PPA on 17.04.2000 providing for the terms, conditions, norms and parameters including tariff for the sale of electricity by the petitioner to PSEB. GVK thereupon incorporated GVK Power (Goindwal Sahib) Ltd. as a special purpose vehicle to develop the project. Subsequently, negotiations were held between PSEB and the Petitioner whereby PSEB sought better norms and parameters and tariff for the purchase of electricity from the Project consistent with the norms and parameters notified by the Central Electricity Regulatory Commission under its Tariff Regulations. On 08.02.2006, pursuant to negotiations between GVK and PSEB, a Memorandum of

Understanding (MoU) was executed revising certain norms and parameters for supply of power by GVK to PSEB, which:

a) Substantially reduced the tariff for generation of power;

b) Enhanced the capacity of the Project from 2x250 MW to 2x270 MW (+20%).

GVK entered into an Amended and Restated Power Purchase Agreement (PPA) on 26.05.2009 with the erstwhile PSEB for the supply of power from GVK's 2x270 MW Coal based Thermal Power Project, conceptualizing the Project as a captive coal mine based Project. The Commission passed an Order on 29.04.2008 in Petition no. 4 of 2007 approving the Capital Cost of Rs. 2,622.487 crore as against the proposed Capital Cost of Rs. 2,987.86 crore proposed by GVK for its 2x270 MW Coal based Thermal Power Project. On 08.04.2009, the Hon'ble APTEL in Appeal No. 104 of 2008 filed by GVK challenging the findings of this Commission allowed the appeal of GVK and approved the Capital Cost of Rs. 2,963.8 crore subject to correction in BHEL price & forex fluctuation at actual. The final cost of BTG contract was Rs. 1213.39 crore and accordingly the final approved cost of the project computes to Rs. 3076.2 crore. The SCOD for Unit I was 36 months from the date of financial closure and for Unit II was 6 months thereafter.

3.2 The financial closure for the project was achieved by GVK on 21.05.2010. Accordingly, SCOD for the first unit was 20.05.2013 and for the second unit was 20.11.2013. After the commencement of construction of the Project, there were significant delays in completion and achieving COD. Petition No. 65 of 2013 was filed seeking extension of the SCOD of the Project on account of the

following Force Majeure and Change in Law events:

a) Delays in approvals pertaining to the Railway Siding at the Project site;

b) Delays in approvals pertaining to the railway siding at the Tokisud Coal Mine;

c) Delay in procurement of land for railway corridor;

d) Delay in handing over forest land for Tokisud Coal Mine; and

e) Delays in construction of the Project due to:

i) Poor soil conditions which required treatment using Vibro Compaction as per the Indian Standard Criteria for Earthquake Resistant Design of Structures.

ii) Shortage of aggregates due to a ban imposed by the Punjab and Haryana High Court necessitating procurement from neighboring States.

iii) Delay in supply of equipment by Bharat Heavy Electricals Ltd.

iv) Increase in number of bays (i.e. from 4 to 6) at the request of PSPCL in respect of the Switchyard.

3.3 Petition No. 33 of 2015 was filed by GVK before the Commission seeking declaration of the stated Change in Law and Force Majeure events in terms of Article 12 & 13 of the Restated PPA due to cancellation of the Coal Blocks (Tokisud and Saregarha Block) pursuant to the judgment dated 25.08.2014 of the Hon'ble Supreme Court in the case of Manohar Lal Sharma vs. The Principal Secretary & Ors. and the subsequent Order dated 24.09.2014 and Promulgation of the Coal Mines (Special Provisions) Second Ordinance, 2014 and the auction of the Tokisud Coal Block which has been allocated to Essar Power MP Limited.

3.4 On 12.08.2015, the Commission referred all disputes in relation to Force Majeure and Change in Law resulting in a delay

of SCOD in Petition Nos. 65 of 2013 and 33 of 2015 for arbitration. On 01.02.2016, the Commission passed an Order in Petition Nos. 65 of 2013 and 33 of 2015 allowing GVK to procure coal from alternate sources to supply power once the Project was commissioned. Pursuant to the aforesaid Order, GVK declared COD for the Project as 16.04.2016 using coal allocated to the Project for commissioning activities from Eastern Coal Fields and Central Coal Fields. Thereafter, on 10.04.2017, the Arbitral Tribunal constituted by the Commission allowed extension of SCOD till Actual COD achievement i.e. 16.04.2016. Some of the claims in Petition No. 65 of 2013 were allowed and SCOD extended from 04.01.2010 to 25.06.2014. The Claims in Petition No. 33 of 2015 were allowed and SCOD extended from date of coal order till actual COD was achieved.

3.5 This petition has been filed for the determination of tariff for Contract Year 2016-17 in respect of the supply of the entire capacity of the power generated to PSPCL, considering the completed capital cost of the project as of 16.04.2016 which was the Commercial Operation Date (COD) of the project. This petition has been filed under Section 62 read with Section 86 of the Act, Regulation 4 of the Punjab State Electricity Regulatory Commission (Terms and Conditions for Determination of Generation, Transmission, Wheeling and Retail Supply Tariff) Regulations, 2005, Article 11 read with Schedule 6 of the Restated PPA and Central Electricity Regulatory Commission (Terms & Conditions of Tariff) Regulations, 2014.

3.6 GVK has submitted inter-alia that the capital cost has increased on account of the force majeure events as well as delay

in commissioning which have been allowed by the Arbitral Award. The completed cost of the Project as on COD is Rs. 4,441 crore. The capital cost as on the cut-off date (31.03.2019) is Rs. 4773 crore which includes additional capital expenditure of Rs. 230 crore and Rs. 102 crore towards margin money for working capital. The completed cost of the project is an outcome of the four cost overruns during the construction period. The cost overruns and the corresponding revised projects costs are as under:

(a) Initially the Project Cost was approved by the Lenders – Rs. 2,400 crore
(b) First cost overrun: Rs. 800 crore
(c) Second cost overrun: Rs. 122 crore
(d) Third cost overrun: Rs. 451 crore
(e) Fourth cost overrun: Rs. 200 crore

Hence, the final Project Cost approved by the lenders with COD in April, 2016 is Rs. 4,773 crore. While the first cost overrun is mainly due to revisions in the scope of work of the BoP and Non-EPC contracts, the second, third and fourth costs overruns are primarily on account of increase in IDC and pre-operative expenses.

3.7 The summary of delays which have affected the project are set out below:

Table 1: Time overrun allowed by Arbitral Tribunal

S. No.	Force Majeure Event	Start Date	End Date	Time over run	Allowed by Arbitral Tribunal
1	Poor Soil conditions requiring vibro compaction	04.01.2010	22.07.2011	Effective delay is 6 months	Yes
2	Shortage of aggregates	17.05.2010	31.12.2010	Effective delay about 4 months	No
3	Supply of BHEL materials	18.02.2010	25.09.2013	Effective delay 8 months delay	No

4	Increase in number of bays from 4 numbers to 6 numbers	06.09.2010	Construction completed - 20.09.2012. Commissioning pending due to non-availability of transmission lines to be provided by the procurer	Effective delay about 6 months	No
5	Railway corridor land	25.05.2010	09.02.2013	33 months 15 days	Yes
6	Railways approval (Goindwal Project Site)				
A	DPR	29.07.2009	05.05.2011	19 Months	No
B	ESP	16.06.2011	22.02.2012	5 Months	No
C	SIP Drawing	05.07.2012	24.07.2013	9 Months	No
D	Station building drawing	20.06. 2012	24.02.2014	17 Months	No
E	Land Licensing Agreement	16.03.2012	23.01.2014	19 Months	Yes
7	Railways approval(Tokisud Coal Mine Site Railway Siding)				
A	ESP	22.09.2009	11.05.2011	16 Months	
B	Box Culverts Drawing	04.01.2012	22.02.2013	10 Months	No
C	SIP Drawing	08.07.2012	21.11.2012	1 Months	No
D	Station Building	17.08.2012	10.05.2013	6 Months	No
E	Cost Estimates	12.03.2012	11.12.2013	18 Months	No
Tokisud Land					
8	Land License Agreement	18.05.2011	25.06.2014	34 Months	Yes
9	CA land of 271.66 Acres acquired in Giridh District, Jharkhand	03.11.2009	12.06.2013	Effective Delay 24 Months	Yes
10	CA land of 99.67 Ac. Acquired in Hazaribagh District, Jharkhand	22.03.2011	18.09.2013	Effective Delay 24 Months	Yes
Fuel Supply Related Delays					
11.	Cancellation of the captive coal block	24.09.2014	01.02.2016	Effective Delay 15 Months	Yes

3.8 The summary of increase in capital cost is set out below:

Table 2: Capital Cost claimed in this petition

(Rs.crore)

S. No.	Item	Original estimate of GVK at the time of submission of Petition no. 04 of 2007	Approved by PSERC in its Order dated 29.04.2008	Approved by APTEL in its Order dated 08.04.2009	Expenses incurred till COD of the Project i.e. 16.04.2016
1	2	3	4	5	6
1.	Land	75.61	109.35	109.35	123.77
2.	Rehabilitation & resettlement	5.00	5.00	5.00	-
3.	Prelim expenses (investigation and site development)	0.25	0.25	0.25	0.25
4.	Boiler-Turbine Generator Package	857.50	1,070.58 (including Taxes & Duties)	1,070.58	1,166.48
5.	Balance of Plant	444.87	1,005.00 (including Taxes & Duties)	955.00	927.40
6.	Engineering, erection, civil works	624.13	Included in BTG BOP contracts	Included in BTG BOP contracts	Included in BTG / BOP contracts
7.	Taxes & Duties	245.52	Included in BTG BOP contracts	Included in BTG BOP contracts	Included in BTG / BOP contracts
8.	Recommended Spares under BTG and BOP Package	During the course of proceedings provided relevant clarifications & requested for approval of Rs. 39.65 crore	Included in BTG & BOP Contracts	39.65	13.79

9.	Non EPC (including site grading & Ash pond, payments to Railway Contractor)	86.00	86.00	86.00	337.31
10.	Site grading & Ash pond		-	49.00	Included as part of Non EPC in point (9)
11.	Start-up Expenses	15.00	Set off against sale of infirm power	15.00	Included as part of Pre-operative Expenses in point (14)
12.	Power & water for construction	12.00	Included in BTG & BOP contracts and Non EPC works	12.00	Included as part of Pre-operative Expenses in point (14)
13.	Consultancy & engineering	7.50	7.50	7.50	Included as part of Pre-operative Expenses in point (14)
14.	Pre-operative expenses	50.00	15.00	50.00	279.69
15.	Operator training & mobilization	5.00	5.00	5.00	Included as part of Pre-operative Expenses in point (14)
16.	Insurance	11.44	11.44	11.44	Included as part of Pre-operative Expenses in point (14)
17.	Capital Cost excluding IDC, Financing Charges & Contingency	2,439.82	2,315.12	2,415.77	2848.70
18.	Interest During Construction	365.19	286.36	365.19	1,474.84
19.	Financing charges	70.00	16.00	70.00	31.99

20.	Contingency	66.85	5.00	66.85	28.00
21.	Estimated Project Capital Cost excluding WCM	2,941.86	2,622.48	2,917.81	4,383.54
22.	Working Capital Margin	46.00	Pass through in tariff	46.00	107.52
23.	Estimated Project Capital Cost	2,987.86	2,622.48	2,963.81	4,491.06

3.9 Commission's Observations on the above table

3.9.1 The Commission observes that it had determined the estimated project capital cost in its Order dated 29.04.2008 in petition no. 04 of 2007. GVK filed an Appeal (No. 104 of 2008) in Hon'ble APTEL against the same, aggrieved by the reduction or non consideration of the following elements in the estimated capital cost of the project:

a) Non-inclusion of the cost of initial recommended spares in the capital cost of BTG package;
b) Non-inclusion of the cost of initial recommended spares in the capital cost of BOP package;
c) Disallowance of site Grading and Ash Pond Development costs;
d) Disallowance of start up expenses;
e) Disallowance of expenses towards power and water for construction;
f) Reduction of pre-operative expenses;
g) Treatment of interest during construction;
h) Reduction of contingency expenses;
i) Reduction of financing charges and
j) Disallowance of working capital margin

After the Judgment dated 08.04.2009 wherein Hon'ble APTEL gave its findings on the above issues, GVK signed the Amended

and Restated PPA on 26.05.2009 with PSPCL wherein Schedule-11 contains the itemized capital cost accepted by the Commission and modified as per Hon'ble APTEL's said Judgment Order. As such, the heading of column 4 of the table above i.e. 'Approved by APTEL in its Order dated 08.04.2009' is a misnomer and should have been mentioned as 'Estimates of Capital Cost as per Schedule-11 of the PPA'.

4. ITEM-WISE SUBMISSIONS, ANALYSIS & DECISION

4.1 The Commission has gone through the petition, replies of PSPCL and other submissions/documents. The observations, findings and decision of the Commission for each item as per Schedule 11 of the PPA are as under:

5. Land (Item 1 of Schedule 11 of the PPA)

5.1 GVK's submissions

5.1.1 GVK has claimed Rs. 123.77 crore for land for the project stating that there has been an increase of Rs. 14.42 crore in the cost of land over and above the in-principle approval of Hon'ble APTEL of Rs. 109.35 crore upto the COD of the project i.e. 16.04.2016. The said increase of Rs. 14.42 crore was attributed to the acquisition of land for the railway siding and water pipeline and acquisition of land in the main project area in order to ensure that the land was contiguous. GVK acquired 1114.13 acres of land out of which 715 acres was designated for the main project whereas the balance 399.13 acres (mentioned wrongly as 359.73 acres) was for the expansion of the project proposed at the time of obtaining in-principle approval. GVK had purchased 54 acres of land (being part of the main plant area) at a cost of Rs. 2.60 crore,

in the year 1999. Thereafter 1014 acres, 2 kanal and 11 marla was acquired as a result of an award dated 12.08.2008 issued by Govt. of Punjab under the Land Acquisition Act, 1894 for the project. Another 37 acres, 7 kanal and 18 marla was awarded vide award dated 15.07.2011 for the railway siding and water pipeline corridor. The Commission vide Order dated 29.04.2008 in petition no. 04 of 2007 has considered 715 acres of land for setting up of the project. GVK submitted that it is not claiming the cost of additional land demarcated for the expansion project. The area of 715 acres does not include the land required for water pipelines and railway siding. Although the land award came in July 2011, GVK received the Land Possession Certificate only on 03.04.2013. This delay was caused because the farmers of the villages of Hansawala, Hothian and Biharipur had demanded parity in terms of the price of land with that of the Khadur Sahib village. An additional payment of Rs. 1.35 crore was made on this account on 08.06.2012 and Rs. 60,000/- on 05.10.2012. GVK further submitted that it had paid Rs.1.4 crore for 6.73 acres and 1.09 acres of land which was missing in the award for the main plant and railway siding respectively. This land was acquired so as to have a contiguous land for the project to avoid any interruptions from the farmers at a later stage such as seeking right of way for water pipelines etc. GVK prayed that the expenditure of Rs. 123.77 crore be allowed for purchase of land.

5.1.2 In the Interim Order dated 02.11.2018 GVK was asked for justification for utilizing 244 acres for the Ash Dyke against the requirement of 125 - 150 Acres as per MoEF/CEA norms for 2x270 MW TPS along with audited total expenditure made on

development of Ash Pond/Dyke/Bund up to 16.04.2016. In its response dated 17.12.2018, GVK submitted that in terms of clause 3(vii) of the Environmental Clearance dated 09.05.2008, 100% of the fly ash generated at the project must be utilized by the 9th year of operations. The ash pond requires bunds to sustain the pressure of unused fly ash as well as the bottom ash fill. Therefore, in order to store the volume of ash generated at the project, the area of 176.79 acres comprising 135.04 acres for the pond area and 41.8 acres for the bund area was provisioned for the Ash Pond area. In addition to 176.79 acres, 40 acres were used for the still water pond and 27.21 acres was kept for the additional green belt. Thus the total area for the ash pond comes to 244 acres for 25 years operation of the project. Thus, for compliance of the Environmental Clearance dated 09.05.2008, 244 acres of land has been utilized. GVK further submitted that as per the CEA's "Report on the land Requirement of Thermal Power Stations" dated December 2007, the land required for the ash pond/dyke for a plant size of 2x500 MW thermal power station is 500 acres. Accordingly, the land required for the ash pond/dyke for the project (2x270 MW) in the same proportion works out be 270 acres. Therefore, 244 acres for the ash pond/dyke is within the limits of CEA recommendations.

5.1.3 GVK, in its submissions dated 01.08.2019, stated that the total expenditure on acquisition of land was Rs.182.09 crore. The Commission had approved the cost of Rs.109.35 crore for 715 acres of land. GVK has claimed Rs.123.77 crore comprising Rs.109.35 crore for 715 acres for the project land and additional Rs.14.42 crore for 39.08 (37.987 + 1.09) acres of land for railway

siding and water pipeline corridor. The relevant extract of the Commission's Order dated 29.04.2008 is as under:

> *"…PROJECT CAPITAL COST*
> *Land*
> *The petitioner has informed that the Govt. of Punjab has initiated the process of acquiring a total of 1093 acres of land for the project, out of which about 54 acres of land was purchased/acquired in the year 1999 at a cost of Rs. 2.60 crores. The Commission notes that GVK while seeking the clearance of MoEF had indicated the requirement of land as 715 acres. The petitioner has clarified that 1093 acres of land is proposed to be acquired to accommodate a third generating unit, the work for which will be initiated as soon as the construction work on the instant project commences. The Commission is of the view that the cost of land for the third unit can not be presently capitalized and thus a land requirement of 715 acres is sufficient for a 2x270 MW Generating Station. As regards the estimated cost of the land, the petitioner had initially provided 75.61 crores but in the subsequent filings, the estimated cost for land has been revised to Rs.160 crores. Thereafter, GVK intimated that the Government of Punjab has completed the land acquisition process for the project and the award is likely to be announced at the rate of Rs.16.15 lakhs per acres. Accordingly, the balance requirement of 661 acres (715-54) @ Rs.16.15 lakhs per acres comes to Rs.106.75 crores. The Commission, accordingly, approves an amount of Rs.109.35 crores (106.75+2.60) for the land requirement of 715 acres for the project."*

5.2 <u>PSPCL's submissions</u>

5.2.1 PSPCL in its reply dated 20.03.2018 submitted that the Commission vide Order dated 29.04.2008 in petition no. 04 of 2007 has approved the land requirement of 715 acres for the project costing Rs.109.35 crore including Rs. 2.60 crore for land

procured in 1999. The land requirement for a third/expansion unit had not been permitted at that stage. The findings of the Commission were not challenged by GVK before Hon'ble APTEL and as such, the land requirement of 715 acres for the project attained finality. The quantum of land which the petitioner had acquired in excess of 715 acres could not be considered towards the capital cost of the project. PSPCL further submitted that it is incomprehensible for a thermal power project developer to devise and submit its land requirement plan without taking into account the land required for the water pipeline for bringing the required water for the project and also for a railway siding for transporting and loading/unloading coal without which the plant cannot be commissioned and operated. It can normally be argued that when land for a thermal power project is approved by a State Commission, the same necessarily includes land for railway siding and water pipeline. As such, it is reasonable to state that 715 acres of land approved for the project also includes the land required for railway siding and water pipeline and no further claim for land requirement under those heads can be approved. The petitioner is required to prove with substantiating documents to demonstrate that 715 acres land approved by the Commission for its project did not include lands for railway siding and water pipeline. PSPCL further submitted that at the time of grant of in-principle approval, not only the land for railway siding had been identified and duly measured, even the contract for constructing the railway siding and also for transporting coal was in the process of finalization. The Commission had awarded a sum of Rs. 35 crore to the petitioner under pre-operative expenses for railway siding work, which was to be carried out by the Indian Railway or

their approved contractor M/s BARSYL. The same indicates that land for railway siding had been duly taken into account while submitting the land requirement for the project. The award of Rs. 35 crore for railway siding work could not have been made without there being identified land on which the work for the railway siding was to be carried out. In fact, it was the petitioner's own submission before the Commission that the required survey work had been completed. It follows that the land for the railway siding was necessarily a part of the 715 acres of land, held by the Commission to be sufficient for the 2x270 MW Project. Also, the Order of Hon'ble APTEL shows that there was no challenge by the petitioner on this account. As such, the Petitioner's claim towards additional land for railway siding work and the resultant cost incurred for the same is not liable to be accepted by the Commission. As regards, the water pipeline, PSPCL submitted that water is used in almost all areas/facilities of a thermal power station in various ways e.g. cooling water system for condenser and plant auxiliaries, ash-handling system, equipment cooling system, coal dust suppression system, etc. i.e. adequate water availability with identified water source is a necessary pre-condition for setting up, commissioning and operating a thermal power station. Laying of water pipeline from the identified source to the project site is thus an integral part of project implementation planning and the land required for the same necessarily has to form part of the land requirement for the project. PSPCL submitted that 715 acres land approved for the Project includes all lands relating to water requirement for the Project, including for water pipeline. The increase of Rs.14.42 crore towards cost of land is not tenable and is liable to be rejected by the Commission. PSPCL

further submitted that as per clause 6 of the environmental clearance, in case of any deviation or alteration in the project proposed from those submitted to MoEF for clearance, a fresh reference was required to be made to MoEF to verify the adequacy of the conditions imposed and/or to add additional environmental protections required if any. As per clause 2 of the environmental clearance, the total land required for the project was limited to 600 acres including 130 acres for the ash dyke and 160 acres for the green belt for the power plant. However the land area approved by the Commission was 715 acres. This lead to deviation from Environmental Clearance as per clause 6 and therefore required a fresh reference to the MoEF. Thus, without complying with the environmental clearance and without getting additional land approved by MoEF, GVK cannot be allowed to burden PSPCL with additional fixed cost through inadmissible capital expenditure. PSPCL further submitted that extra land cost claimed by GVK is not justified as per the clause 5.2 of PPA which provides as under:

> *"5.2 The Site*
> *The Seller acknowledges that, before entering into this Agreement, it has had sufficient opportunity to investigate the Site and accepts full responsibility for its condition (including but not limited to its geological condition, on the Site, the adequacy of the road and rail links to the Site and the availability of adequate supplies of water) and agrees that it shall not be relieved from any of its obligations under this Agreement or be entitled to any extension of time or financial compensation by reason of the unsuitability of the Site for whatever reason."*

5.2.2 On 09.09.2019, PSPCL submitted that the land required for the project site of the Petitioner is 715 acres for a 2X270 MW plant as approved at the time of the in-principle approval. However, as

per the CEA standards for land requirement for a thermal power plant, a project as large as 2X500 MW may be constructed in an area of 600 acres. Thus, the area of 715 acres for the petitioner's project is almost twice the standard requirement. The Commission, in its Interim Order dated 19.07.2019 has also taken note of the same. The Commission, during the hearing dated 18.07.2019, had informed the petitioner that as per the visit of the officers the Commission to the project site and scrutiny of the site maps, it appeared that land for which payment had been claimed by petitioner was much more than required for a thermal project of this size as per norms of CEA/MoEF. It was further observed that the petitioner had developed the ash dykes/ponds (larger than required) at a distance from the plant, leaving a huge tract of clear land in the middle of the plant site which had resulted in extra-long pipes, roads and boundary wall. However, the petitioner in the Affidavit under response has merely stated that the capital cost is being claimed considering 715 acres of land for the project site as allowed by the Commission and an additional land of 39.08 acres, acquired by the petitioner for railway siding and water corridor works. The petitioner has failed to address the specific query of the Commission as to why ash dykes/ponds (larger than required) are constructed at a far distance from the plant site, leaving a huge tract of clear land in the middle of the plant site which has resulted in extra-long pipes, roads and boundary wall.

5.3 <u>Joint Auditor's Report</u>

5.3.1 The joint auditor in his report stated that GVK had acquired 1114 acres of land. Out of this 715 acres was designated for the main project area and the balance was for future expansion. The

summary of land acquired and increase in cost on purchase of additional land was depicted by the Joint Auditor in the table below:

Table 3: Details of Land acquired cost

S. No.	Item	Area (acres)			Cost (Rs. crore)			Escalation Allowed (Rs. crore)
		Total Area	APTEL Approved (2009)	Claimed by GVK	Total Cost Incurred by GVK	APTEL Approved (2009)	Claimed by GVK	
1	Main Plant Land (Purchased in Year 2008)	1014	715	715.00	164.07	109.35	109.35	0.00
2	Railway Siding & Water Corridor Land (Purchased in Year 2011)	38	0	39.08	14.85	0.00	14.42	14.42
	Land in Railway Yard & Plant missing in Award of 2011	8	0					
3	Main Plant Land (Purchased in Year 1999)	54	0	0	2.60	0.00	0.00	0.00
	Total	1114	715	754.08	181.52	109.35	123.77	14.42

5.3.2 The joint auditor further stated that they cannot certify whether the payment for land was made entirely out of equity margin or funds borrowed from the banks and are dependent on the declaration from the management. GVK had purchased 1014 acres of land in 2008 at the cost of Rs. 164.07 crore, out of this

GVK is claiming 715 acres at a cost of Rs. 109.35 crore as approved by APTEL in 2009. GVK also purchased 38 acres more for the railway siding & the water pipeline in 2011 at a cost of Rs. 13.45 crore (Rs. 12.10 crore paid during land award in 2011 and Rs. 1.35 crore paid subsequently for the same land in 2012 due to the time gap between the land award and land possession certificate). Further, GVK purchased 8 acres of land for Rs. 1.40 crore for land parcels missing in 2011 land award. The additionally acquired land of 46 acres for Rs. 14.85 crore was for construction of railway siding & water pipe line. This land was not awarded along with the land for main plant land that is why GVK had purchased the same separately. GVK is claiming 39.08 acres of additional land for Rs. 14.42 crore. Without this additional land the railway siding could not have been completed. The joint auditor recommended that Rs. 14.42 crore for additional land should form part of the completed capital cost.

5.4 <u>Commission's Analysis</u>

5.4.1 The Commission in its Order dated 29.04.2008 in petition no. 04 of 2007 had approved in principle an amount of Rs.109.35 crore for the land requirement of 715 acres for the GVK project out of 1093 acres, for which acquisition of land by Govt. of Punjab was stated to have been initiated. This was based on the submissions made by GVK to MoEF while seeking environmental clearance. The Commission had expressed the view that the cost of land for the third unit cannot be presently capitalized. As 54 acres of land had already been procured in the year 1999 by GVK at the cost of Rs. 2.60 crore, the cost for the balance 661 acres was

calculated at the rate of 16.15 lakh per acre (which was likely to be announced at that time as intimated by GVK) amounting to Rs. 106.75 crore and was additionally allowed, thus totaling to Rs. 109.35 crore. Schedule-11 of the PPA provides the same cost of land i.e. Rs. 109.35 crore. As against this, GVK has claimed an expenditure of Rs. 123.77 crore incurred on land till COD of the project i.e. 16.04.2016 and stated that the same is as per the financial statements prepared in accordance with the Accounting Standard. GVK has requested the Commission to allow the same after prudence check.

5.4.2 The Ministry of Environment & Forests (MoEF) issued the environmental clearance on 09.05.2008 after the Order of the Commission dated 29.04.2008. The clearance provided that the land requirement for the project will be limited to 600 acres out of which 130 acres is for ash dyke and 160 acres for the greenbelt for the power plant. GVK had filed Review Petition before the Commission, which was decided vide Order dated 06.08.2008. Thereafter, GVK had filed an Appeal No.104 of 2008 before the Hon'ble APTEL. GVK neither intimated Hon'ble APTEL nor the Commission regarding the area of land having been limited to 600 acres in the environmental clearance issued by MoEF. On being questioned, GVK in the hearing on 11.12.2019 submitted that it had approached MoEF for enhancement of land from 600 acres to 715 acres as allowed by the Commission in the Order dated 29.04.2008 but MoEF did not agree. GVK has submitted that their request for enhancement of land from 600 acres to

715 acres is still pending with MoEF.

5.4.3 GVK in its submissions dated 17.12.2019 has submitted that the Environmental Clearance dated 09.05.2008 may not be considered for allowing prudently claimed capital cost for the project. This contention of GVK is without any basis as it was incumbent upon GVK to bring to the notice of Hon'ble APTEL, the latest status of land allowed for the project by MoEF in the Environmental Clearance dated 09.05.2008 during the pendency of the Appeal which was decided by the Hon'ble APTEL on 08.04.2009.

5.4.4 CEA norms for land use in the 12th Plan Period were one acre per MW for the main plant area and a maximum of 1.42 acres per MW in total, including the land needed outside the main plant area to provide for railway siding and water intake etc. Thus, taking into consideration the fact that GVK obtained 39.0811 (37.9875+1.0936) acres separately for the railway siding and water corridor, the land requirement for the GVK Goindwal Sahib 2x270 MW project works out to 579.08 acres [540 (@ one acre/MW) + 39.08 acres]. However, since the environmental clearance allows a maximum of 600 acres of land for the 2x270 MW project, the Commission decides to allow 600 acres of land for the present facility. The balance requirement of land shall be considered as and when GVK approaches the Commission for the 3rd generating unit of the project. The cost of the said land is worked out as follows:

Table 4: Area and Cost of Land

(Rs. crore)

Particulars	Area in Acres	Amount
Land purchased by GVK in 1999	**54**	**2.6000**
Land acquired by GoP in 2008 (1014.3188) acres @ 16.15 lakh /acres	**506.92**	**81.8676**
Land acquired by GoP in 2011 for railway siding & water pipeline corridor	**37.9875**	**12.0900**
Contiguous land for railway siding purchased by GVK	**1.0936**	**0.1957 (on pro-rata basis of the total land 7.8236 acres purchased for Rs. 1.40 crore)**
Total	**600**	**96.7533**

5.4.5 Accordingly, the Commission allows the land and its cost for the 2x270 MW project as hereunder:

Table 5: Project area and cost of land

(Rs. crore)

Item	As per Schedule-11 of the PPA	Claimed by GVK	Approved by the Commission
Land	**715**	**754.08 acres (715 + 39.08)**	**600 acres**
Cost	**109.35**	**123.77**	**96.75**

6. Boiler Turbine Generator (BTG) (Item 4 of Schedule 11)

6.1 GVK's submissions

6.1.1 GVK submitted that the Hon'ble APTEL vide its judgment dated 08.04.2009, revised the in-principle Capital Cost of the project to Rs. 2,963.81 crore subject to the adjustments in the final value of BTG contract with BHEL and the foreign exchange (USD & Euro) component therein. The final cost of the BTG contract was

Rs. 1213.39 crore against the cost of Rs. 1070.58 crore approved by the Hon'ble APTEL subject to adjustments and accordingly the final approved cost of the project computes to Rs. 3076.20 crore. In terms of the said Judgment, the in-principle capital cost was only an indicative assessment and the tariff would be based on the completed capital cost subject to prudence check. GVK intimated that it had incurred an expenditure of Rs. 1166.48 crore on the BTG package till COD i.e. 16.04.2016. The bank statements evidencing the payment were submitted to the Commission by an Affidavit filed in response to Order dated 13.02.2018 in the petition.

6.1.2 GVK in its various replies has submitted that the Notice to Proceed (NTP) was issued on 19.10.2009 after signing the Amended & Restated PPA on 26.05.2009. LOI dated 12.11.2007 was issued to BHEL with a condition that NTP would be issued by 31.12.2007. GVK had filed Petition No. 04 of 2007 before the Commission for approval of the provisional capital cost of the Project and the PPA. PSPCL and GVK had agreed to revise the project capacity from 2X250 MW to 2X270MW. The same necessitated an amendment to Petition No. 04 of 2007. Accordingly, all the ancillary and incidental project components of the project had to be changed and costs involved therein had to be revised including the BTG supply order. Consequently, the agreements with BHEL for BTG Contract were also to be amended and accordingly there was a revision in BTG provisional cost from Rs. 857.50 crore to Rs. 1070.58 crore. The break-up is as follows:

Table 6: Breakup of BTG Cost

(Rs. crore)

S. No.	Particulars	Amount
1.	Supply (Ex-works)	
	Indian Currency	584.87
	Euro 17,801,500 (1 Euro = Rs. 57.50)	102.36
	USD 27,580,460 (1 USD = Rs. 41)	113.08
2.	Taxes and Duties	137.67
3.	Inland transportation including ST	28.52
4.	Services including handling, erection, testing & commissioning etc.	104.08
	Total	1070.58

6.1.3 The PPA was to be amended to this effect. This took some time and ultimately the NTP was issued on 19.10.2009. Accordingly, the price variation formula had to be applied as per the LOI. When the above price variation formula was applied, the BTG contract price increased to Rs. 1,237.78 crore. Mutual discussions were held between GVK and BHEL after which the price was settled for a sum of Rs. 1155.00 crore wherein the foreign exchange component was calculated at an exchange rate of 1 USD for Rs. 41 and 1 EURO for Rs. 57.50. The break-up is as under:

Table 7: Breakup of Revised BTG Cost

(Rs. crore)

S. No.	Particulars	Amount
1	Supply (Ex-works)	
	a. Indian Currency	636.34
	b. Euro 19,581,650 (1 Euro = Rs. 57.50)	112.59
	c. USD 30,338,506 (1 USD = Rs. 41)	124.39
2	Taxes and Duties on supplies	124.68
3	Freight including Service Tax	30.00
4	Erection & Commissioning including Service Tax	127.00
	Total	1155.00

6.1.4 The contract value awarded to BHEL was on fixed price basis and no escalation in prices were provided for, however, there was a price variation formula in the LOI issued to BHEL that the

Euro supplies and USD supplies are to be paid in Indian Rupees to BHEL at the prevailing rate on the date of payment. BTG contract price was in line with the in-principle approval granted by Hon'ble APTEL and there was no increase in it. Further, in terms of Schedule-11 of the PPA, the BTG contract price was subject to the price variation formula for supply price, freight charges & erection, testing & commissioning as indicated in the letter of intent dated 12.11.2007 issued to BHEL. This position was also upheld by Hon'ble APTEL which permitted adjustment of the BTG contract price. The estimated cost of the BTG contract in terms of the Judgment dated 08.04.2009, after allowing the adjustment was Rs. 1213.39 crore.

6.1.5 GVK in its reply dated 27.06.2019 in response to Notice dated 02.04.2019 and queries raised during the hearing on 10.04.2019 submitted that it has claimed a sum of Rs. 1166.48 crore under BTG package with BHEL which includes Rs. 1.62 crore paid as advance for supply of spares. The net expenditure incurred on BTG contract is Rs. 1164.86 crore. Against the expenditure of 1164.86 crore, the total amount paid to BHEL is Rs. 1043.97 crore. The difference of Rs. 120.89 crore has been explained hereunder:

Table 8: Details of recoveries and liabilities provision

(Rs. crore)

S. No.	Particulars	Amount
1.	TDS recovered from Service contract and freight remitted to Income Tax deptt.	5.17
2.	Charges recovered from bills towards electricity charges	1.08
3.	Outstanding bills net of foreign currency difference (Rs.5.22 crore less forex difference of Rs.4.78 crore)	0.44
4.	Provision for unbilled supply / services	3.09
5.	Retention money transferred to GVK Energy Ltd, parent company, who took over the liability against equity contribution for its share of cost overrun	111.11
	Total	120.89

6.1.6 On 01.08.2019, GVK submitted that that due to the cost overrun of the project for the reasons beyond the control of GVK and due to continuous fund constraints, GVK could not discharge the liability of Rs. 111.11 crore as on date towards the payment of retention money to BHEL. GVK has shown this cost in the completed Capital Cost, as this was part of the original BTG package. At the time of the Petition, it was anticipated that this amount would be disbursed but due to subsequent financial constraints, GVK was unable to make the payment. Since the liability has not been discharged till date, GVK stated that it is not claiming the amount of Rs 111.11 crore but reserves its rights to claim the said amount as and when the said liability is discharged. GVK further submitted that against Rs 1164.86 crore, GVK has paid an amount of Rs 1043.97 crore for the BTG package. Further, considering the deductions towards (a) Tax Deducted at Source of Rs. 5.17 crore, which is a statutory requirement and (b) Electricity charges of Rs.1.08 crore recovered from BHEL's bills of Rs.6.25 crore, the total payment to BHEL adds up to 1050.22 crore. Hence, the un-discharged liability towards BTG package works out to Rs. 114.64 (1164.86 - 1050.22) crore out of which Rs. 111.11 crore is the liability towards retention money payable to BHEL and Rs. 3.53 crore is the outstanding bills/provision for unbilled supply or services. The relevant bank statements as proof of payments made for Rs. 1043.97 crore for the BTG contract were submitted by way of affidavit dated 14.06.2019 (date corrected to 27.06.2019) to the Commission including receipts from BHEL for the initial advance payments made prior to financial closure of Rs. 9.77 crore made on 28.01.2008 and Rs. 89.70 crore made on 08.08.2008. This was reiterated by GVK in its submissions on

24.07.2019. On 27.11.2019, GVK in response to the Commission's query submitted that Rs. 7.05 crore claimed as foreign exchange has been erroneously added under Construction & Pre-Commissioning expenses, whereas the said amount was a part of the BTG contract, which is to be included towards BTG contract and as such the expenditure towards BTG contract will be Rs. 1171.92 crore as against Rs. 1164.86 crore. GVK further submitted that the amount shown as un-discharged liability against the BTG Contract will remain unchanged at Rs. 114.64 crore, which includes the foreign exchange difference of Rs. 7.05 crore as also the completed capital cost of the project will remain unchanged at Rs. 4383.54 crore including the total un-discharged liability of Rs. 116.15 crore. However, in the Annexure-5 of these submissions, where break-up of completed capital cost has been provided, the BTG contract value has remained unchanged at Rs. 1164.86 crore. GVK further informed that there were delays in releasing the payments to BHEL due to delayed receipt of the invoices raised by BHEL, material dispatch was non-sequential and force majeure events. GVK submitted that while there could be differences between the exchange rates prevailing on the date of payment vis-à-vis the due date, there was also savings in interest on such delayed payments and that the differences were not significant.

6.1.7 GVK in its Petition No. 70 of 2017 submitted that the balance works amounting to Rs. 4 crore under the BTG contract are yet to be incurred. This pertains to balance of freight charges yet to be claimed by BHEL in terms of the Supply Contract executed between the Petitioner and BHEL. This amount is to be

paid on reconciliation with BHEL. As this amount has not been paid to BHEL, the same is not part of the completed capital cost claimed by the Petitioner in Petition No.54 of 2017. As the invoices are yet to be received, no provision for the same has been made in the books of accounts.

6.2 PSPCL's submissions

6.2.1 PSPCL did not make specific comments upon the BTG package in its reply dated 20.03.2018 to the petition. However in its submissions on 03.08.2018, PSPCL submitted a copy of the report of the Committee constituted in pursuance of the directions passed by the Commission in Order dated 07.05.2018 to examine/ verify the details submitted by GVK with respect to Capital Cost of the project and IDC Cost (as per PSERC/CERC Regulations) by utilizing its internal audit department for carrying out the said verification/examination. PSPCL stated that GVK has claimed Rs.1166.48 crore on account of the BTG package, instead of Rs. 1070.58 crore (including taxes & duties) approved by the Commission in its order dated 29.04.2008 passed in Petition no. 04 of 2007. GVK has not explained in the instant petition on what account the additional amount of Rs. 95.90 crore has been claimed. The completion of the BTG component was delayed due to delayed delivery of the material, as claimed by GVK. So, the claim of GVK regarding BTG package includes cost overrun & time overrun. As per CERC (Terms and Conditions of Tariff) Regulations, 2014, the cost and time overrun are not payable to GVK due to delay in delivery of material.

6.2.2 Vide its reply dated 09.09.2019, PSPCL contended that GVK has now vide its Affidavit dated 27.06.2019, submitted that it has

claimed a sum of Rs.1166.48 crore being the amount incurred under the BTG contract with BHEL till the COD of the project. This includes Rs.1.62 crore paid as advance for supply of spares under a separate purchase order. GVK has further submitted that against the total expenditure of Rs.1164.86 crore, the total amount actually paid to BHEL is Rs.1043.97 crore. As regards the difference of Rs.120.89 crore, GVK explained that this was on account of Rs. 5.17 crore for TDS (not appearing in the bank statement), Rs. 1.08 crore (electricity charges), Rs. 0.44 crore (against bill), Rs. 3.09 crore (against unbilled supply/services) and Rs. 111.11 crore is the balance un-discharged pending payment. PSPCL contended that the above breakup of costs was not given in the petition and was deliberately suppressed in order to gain undue advantage at the cost of the consumers of PSPCL. This aspect becomes more important in the light of the observations of the Commission made in its Order dated 19.07.2019 wherein the Commission has observed that it is evident from the information submitted by the Petitioner that the capital cost is likely to be much less than what has been claimed in the Tariff Petition. However, the Petitioner has submitted that it is not claiming an amount of Rs.111.11 crore out of Rs.1043.97 crore as a part of its completed capital cost for the BTG package and will approach the Commission as and when it discharges the said liability. Thus, as observed by the Commission in its Order dated 19.07.2019, GVK has claimed expenditure in excess of what it has actually incurred and as such, the capital costs claims made by it are liable to be strictly scrutinized. Further, while giving the original value of the supply and service contract, GVK has not given the component wise breakup as sought by the Commission. Thus, the query of the Commission has not been answered.

6.2.3 PSPCL submitted that the BTG package approved by the Commission as well as Hon'ble APTEL was Rs.1070.58 crore and as per GVK's admission, the contract value awarded to BHEL by it was on "fixed price" basis where under no escalation in prices was provided. In contradiction to this, GVK in the Affidavit dated 27.06.2019 has submitted that there was a price variation formula in the LOI issued to BHEL. As such, the stand taken by the Petitioner is self-contradictory and unjustified. The petitioner had claimed Rs.1166.48 crore for BTG contract against the APTEL approved cost of Rs.1070.58 crore while maintaining that there is no increase in the contract price. But GVK also referred to the APTEL Judgment dated 08.04.2009 that had accorded in-principle approval of BTG Contract price of Rs.1070.58 crore and had taken note that the said contract was subject to a price variation formula, applying which, the BTG contract price was escalated to Rs. 1213.39 crore. In this reference, PSPCL submitted that under clause-5 of the Letter of Intent (LOI) dated 12.11.2007 issued by the Petitioner to BHEL, the following was provided:

> *"The contract price is 'Firm' and 'Fixed' till the completion of the contract period provided Purchaser issues the "Notice of Proceed" before 31st December 2007. Price variation formula as per Annexure-3 and 4 shall be applicable if the Notice to proceed is issued after 31st December 2007".*

Thus, it was agreed between the Petitioner and BHEL that the contract price was fixed, subject to the Notice to Proceed (NTP) being issued on or before 31.12.2007. It follows that if the NTP was issued after 31.12.2007, then the price variation formula was to become applicable. The Petitioner has stated in its Affidavit under response that the NTP was issued on 19.10.2009 after

signing of the Amended & Restated PPA on 26.05.2009 and PSPCL and the Petitioner had agreed to revise the project capacity from 2x250 MW to 2x270 MW. However, it is submitted that as per MOU signed between PSEB (now PSPCL) and the Petitioner on 08.02.2006, the margin of +20% over the installed capacity was agreed to by the parties to accommodate the standard sizes of generating equipment available in the market in order to economize on the cost of the equipment. Thus, considering the available margin of +20% the Petitioner should have issued the NTP before the agreed date i.e. 31.12.2007 so as to avoid any price escalation due to the price variation formula. However, the Petitioner delayed issuing the same and now is attempting to pass on the unnecessary cost escalation of Rs.167.2 crore to the consumers of PSPCL which is wholly unjustified.

6.2.4 PSPCL further submitted that the price of the BTG contract further got escalated due to delayed delivery of the material which resulted in a further increase as per the formula. PSPCL stated that the consumers of PSPCL are not liable to compensate the Petitioner for these unjustified cost overrun and time overruns in the BTG packages. Any sums paid to the BTG/BOP contractor due to delay in supply of material or increase in exchange rate/taxes and duties, if any, is liable to be rejected as a part of capital cost as per Regulation 12(1)(c) of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014. PSPCL also pointed out that in the Petition, GVK had submitted that the actual expense incurred till the date of COD on the BTG package is Rs.1,166.48 crore. However, in the Affidavit dated 27.06.2019, the petitioner said that the BTG contract price was

Rs.1237.78 crore and had shown a revised total (after price variation formula) of Rs.1155 crore. GVK is required to justify this sudden increase of Rs.71.3/61.3 crore in contradiction of its own statement in the petition. The calculations in the Affidavit also appear not to match with the final figures.

6.3 Joint Auditor's Report

6.3.1 The Joint Auditor stated that GVK had allotted the BTG Contract to BHEL. The summary of Original Work Order, Revised Work Order and amount claimed by the company is as follows:

Table 9: Original & revised work order & amount claimed

S. No.	Contract for	Cost as per Work Order dt. 06.02.2009	Approved by APTEL in 2009	Claimed by Company in Petition 54/2017	Cost Disallowed (Rs. crore)
1.	BTG Supplies (Ex-Works)	INR 636.34 crore			
		Euro 1.96 crore			
		USD 3.03 crore			
2.	Taxes on Supplies (Ex-Works)	INR 124.68 crore			
3.	BTG Services	157.00			
		Note	1070.58	1166.48	116.31

Note: The contract price shall be sum total of Indian Rupee component including the taxes and duties and the corresponding values of Euros and US Dollars converted to Indian Rupee at the exchange rates on the date of payment.

6.3.2 The Joint Auditor further stated that the approved cost of BTG contract by Hon'ble APTEL in 2009 was Rs. 1070.58 crore and for BTG spares the amount approved was Rs. 39.65 crore. GVK claimed Rs. 1166.48 crore but the Joint Auditor traced payments of Rs. 1050.17 crore (Rs. 1043.98 crore by Bank Payments, Rs. 5.15 crore as TDS Recoveries and Rs. 1.04 crore as Electricity Recoveries) made to BHEL. The figure of Rs. 1166.48 crore includes the BTG spares for Rs. 1.62 crore. The

Joint Auditor further stated that they have checked the bills of BTG on test check basis and verified the payment entries as well as bill bookings from the Ledger Accounts.

6.3.3 The Joint Auditor disallowed the excess amount claimed of Rs. 116.31 crore (i.e. Rs. 1166.48 crore minus Rs. 1050.17 crore).

6.4 <u>Commission's Analysis</u>

6.4.1 The Commission notes that GVK issued a Letter of Intent (LOI) on 12.11.2007 to BHEL for supply of the BTG package at a cost of Rs. 1070.58 crore inclusive of taxes and duties with the condition that Notice to Proceed (NTP) would be issued by 31.12.2007. If the NTP was issued after 31.12.2007, the price variation formula was to become applicable. The NTP was actually issued on 19.10.2009 after signing of the amended and restated PPA on 26.05.2009. GVK submitted that the final cost of BTG package was Rs. 1213.39 crore after applying the price variation formula. On 10.07.2018, GVK stated that bank statements evidencing the payment of Rs. 1213.39 crore to BHEL, referring to Annexure-4 (page 447) of its submissions dated 05.03.2018 in response to the interim Order dated 13.02.2018, have been submitted to the Commission. However, a perusal of Annexure-4 which is the IDBI Account Ledger Report from 01.04.2010 to 31.01.2018 running into 26 pages, reveals that the total amount as mentioned on page 472 is Rs. 884.20 crore. In its submission dated 27.06.2019, GVK changed this figure to Rs. 872.47 crore intimating that the balance payment to BHEL was paid through initial advance against the BTG contract prior to financial closure paid out of equity infusion of Rs.125.02 crore

and another Rs.46.48 crore was paid through IDBI non-EPC construction account, thus totaling to Rs.1043.97 crore. Also in the same submissions dated 27.06.2019, GVK increased the amount of Rs. 1213.39 crore to Rs. 1237.78 crore further stating that after mutual discussions between GVK and BHEL, the BTG contract price was settled for Rs. 1155 crore as per details given therein, where the foreign exchange component was taken as Rs. 41 for one USD and Rs. 57.50 for one Euro.

6.4.2 In the petition, GVK has claimed an amount of Rs. 1166.48 crore for the BTG package till COD i.e. 16.04.2016. However, in the subsequent submissions dated 27.06.2019, GVK has claimed an amount of Rs. 1164.86 crore for BTG contract and Rs.1.62 crore on account of spares. Providing further details in the said document, GVK submitted that the total amount paid to BHEL is Rs. 1043.97 crore. The breakup of the difference of Rs. 120.89 (1164.86 - 1043.97) crore has been brought out in its submissions given earlier.

6.4.3 Further, in the submissions dated 01.08.2019 (Annexure-6), out of the claim of Rs. 1164.86 crore, GVK has provisioned Rs. 114.64 crore as 'liability' comprising of Rs. 111.11 crore as balance un-discharged pending payment, Rs. 3.09 crore pending against un-billed supply/ services and Rs. 0.44 crore pending against bills, thereby claiming net payment of Rs. 1050.22 crore to BHEL. This comprises of Rs. 1043.97 crore through payments, Rs. 5.17 crore on account of recovery towards TDS payments and Rs. 1.08 crore towards electricity charges recovered from BTG bills. In its submissions dated 27.11.2019, GVK has requested for shifting

of Rs. 7.05 crore from pre-commissioning works to BTG contract thereby increasing the contract value from Rs. 1164.86 crore to 1171.91 crore. However, GVK has not changed the BTG Contract value of Rs. 1164.86 crore in the Annexure P-5 (break-up of completed capital cost as per Schedule-11 of the PPA) of the said submissions dated 27.11.2019. GVK has further clarified that there is no change in the liability provision of Rs. 114.64 crore as the same already includes the aforementioned amount of Rs. 7.05 crore.

6.4.4 PSPCL has submitted that as per the joint inspection report observed that GVK has incurred excess cost of Rs. 42 lakhs for six Grillage Pumps with a unit price of Rs. 20 lakhs but the invoices show them as costing Rs. 27 lakhs. PSPCL further stated that GVK's reply that the same is against total unbilled amount of Rs. 1.90 crore for pending items and therefore invoiced at Rs. 27 lakhs each, is not correct as in that case the invoiced value should be Rs. 1.62 crore. In reply, GVK submitted that the total amount invoiced by Hyderabad Pumps is within the amount allocated out of Rupee supply by BHEL. The Commission accepts the reply of GVK.

6.4.5 GVK has been continually changing the amounts in its various Affidavits, as brought out above. The Commission takes the BTG contract value at Rs. 1164.86 crore. Against this, the joint auditor has traced the payments made to BHEL as Rs. 1050.17 crore (Rs. 1043.98 crore by bank payments, Rs. 5.15 crore as TDS Recoveries and Rs. 1.04 crore as electricity recoveries). This was also borne out by the prudence check conducted in the Commission. Rs. 114.64 crore is unpaid

liability to be considered on merits later and Rs. 1.62 crore for spares is dealt with separately further on. Accordingly, the Commission allows Rs. 1050.17 crore for the BTG works:

Table 10: Cost of BTG works

(Rs. crore)

As per Schedule-11 of the PPA	Claimed originally in the Petition	Revised claim by GVK	Approved by the Commission
1070.58 revised to 1155.00	**1166.48**	**1050.22**	**1050.17**

7. Balance of Plant (BOP) (Item 5 of Schedule 11)

7.1 GVK's submissions

7.1.1 GVK has stated that the cost of the Balance of Plant (BOP) contract awarded to Punj Llyod Ltd. (PLL) was Rs. 955 crore as approved by Hon'ble APTEL. The breakup of the same is as under:

Table 11: Cost of BOP works

(Rs. crore)

Particulars	Amount
Supply of Cement and Steel	257.00
Supply of Equipments	448.00
Supply of ETC package (comprising civil, mechanical, electrical and C&I)	250.00
Total	955.00

However, the expenses incurred till COD of the project are Rs. 927.40 crore. GVK in its Affidavit dated 24.03.2018 had submitted a certificate of the Chartered Accountants certifying the capital cost of the project as Rs. 4441.79 crore as on 16.04.2016 which included the cost of BOP package as Rs. 954.12 crore. In its submissions dated 27.06.2019, GVK gave the break-up of the original estimated cost, revised cost and the actual expenditure incurred under the BOP contract till COD of the project as follows:

Table 12: Revised cost of BOP works

(Rs. crore)

Item	Original estimated cost	Amend-ments	Revised estimates	Actual expenditure incurred
Cement & Steel Supply	257.00	-2.23	254.77	248.92
Ex-Works Supply	448.00	17.46	465.46	440.22
Services:				
a) Civil	211.85	-34.64	177.20	170.14
b) Electrical	8.26	-	8.26	5.86
c) Mechanical	29.64	25.75	55.39	45.01
d) C & I	0.25	-	0.25	0.09
Total	250.00	-8.89	241.11	221.09
Extra Works	-	10.38	10.38	10.24
Total	955.00	16.72	971.72	920.48

Out of this total of Rs. 955 crore, the scope of work of the service building of Rs. 36.88 crore (Rs. 2.23 crore out of steel & cement supply contract and Rs. 34.65 crore out of services contract) was shifted from BOP to Non-EPC works at a lower cost. However, the following extra works were added to the cost of BOP.

Table 13: Details of extra works

(Rs. crore)

Particulars	Amount
Vibro Compaction work	10.38
Extra Piling length	22.83
HCSD system	19.72
SCADA system	0.25
Claims arising out of BOP Contract (PLL) – Change in design of Coal Handling Plant	21.22
Total	74.40

The net increase therefore is Rs. 37.52 (74.40-36.88) crore.

7.1.2 GVK submitted that M/s Geotech Consultancy Pvt. Ltd. conducted the initial soil investigation and issued its report in 1999. The quoted BOP bids were based on pile load carrying capacities

as per the said Report. However, these capacities for the respective length of pile length could not be achieved at site at the time of installing the piles as these piles are cast-in-situ friction piles. Therefore, to increase the load carrying capacity, the length of pile and diameter were increased. As regards soil quality and the necessity to carry out vibro-compaction, GVK had filed Petition No. 65 of 2013 before the Commission claiming such soil condition to be beyond the control of GVK. The Commission referred the said petition for adjudication by an arbitral tribunal appointed by the Commission. The Arbitral Tribunal in its Award dated 10.04.2017 held as under:

> *"76. The contention of PSPCL referring to Clause 5.2 of Restated and Amended PPA appears to be attractive on a first look. But on detailed examination of facts it becomes untenable due to the fact that the land for project site was handed over to Claimant during the year 2009 i.e. after signing of Draft Restated and Amended PPA. To a specific query raised by Tribunal during hearings that Clause 3.2 of Implementation Agreement between GoP and GVK dated 25.8.2000 states that Government shall permit the Company to undertake necessary investigation etc. Restated PPA was initiated in 2007 and submitted to PSERC for approval and finally signed on 16.5.2009. Clause 5.2 of Restated PPA states that seller acknowledges before entering into this PPA that it had sufficient opportunity to investigate the site. Land for the project was handed over to GVK in 2009. Could Claimant carryout investigation without getting the possession of land? PSPCL reiterated its view taken in the pleadings and before this Arbitral Tribunal. It is to be noted that possession of land for the project was handed over to GVK Power after signing of Restated and Amended PPA. Detailed investigation relating to soil testing and suitability of land for laying foundation for TG Hall and Boiler etc. could only be done after physical possession of land. Geological surprises do occur during such large-scale construction works and any delay on account of such geological surprises is considered as "force majeure" event. […]"*

GVK had carried out the initial testing at the project site where liquefaction prone effect was not observed. After the Bhuj Earthquake in 2001, these standards were revised in 2002 and liquefaction became a prominent factor in soil investigation. Therefore, subsequently, the site had to be retested and the BOP contractor had to conduct a comprehensive soil investigation to arrive at the foundation design parameters. Moreover, the site had to be as per the prescribed standards. IS 1893 (Part 1), 2002 prescribes standards for earthquake resistant design of structures which are applicable to all structures. In terms of the same, in the event that the Standard Penetration Resistance or "N-Value" of the soil is lower than the prescribed standard, soil compacting is required to be adopted in order to achieve the standards stipulated in IS 1893. IS 1893 (Part 1), 2002 was an amendment to IS 1893, 1984. The initial soil testing of the project site had been carried out in terms of IS 1893, 1984. The vibro-compaction was a requirement in terms of the applicable IS 1893, 2002. It was found that the N-Value at the project site which is situated in seismic zone IV was less than 15 against the required N-Value of 25. This fact was bought to the notice of PSPCL by way of correspondence as well as monthly progress reports.

7.1.3 On 01.08.2019, GVK submitted that the BOP package was finalized and LoI was issued on 06.05.2008, prior to the issuance of the MoEF Clearance dated 09.05.2008. The requirement of the High Concentration Slurry Disposal (HCSD) System was in terms of the MoEF's Environment Clearance dated 09.05.2008. Since the said environment clearance was issued subsequently, HCSD system could not be included in the original scope. Clause 11.2 of

the BOP contract permits change in scope. The change in scope was implemented in terms of the change order issued on 25.01.2012 and was therefore justified.

7.2 PSPCL's submissions

7.2.1 In the original reply to the petition, PSPCL did not comment on the BOP package. Subsequently on 03.08.2018, PSPCL contended that GVK has claimed Rs. 927.40 crore on account of BOP package which includes cost overrun and time overrun. PSPCL submitted that the cost incurred on account of cost overrun and time overrun may be disallowed. Further it was stated that any compensation paid to the BOP contractor due to delay in supply of material like increase in exchange rate/taxes & duties, if any, is liable to be rejected as a part of Capital Cost as per Clause-12(1)(c) 'Controllable and Uncontrollable Factors' under Chapter-4 of CERC (Terms and Conditions of Tariff) Regulation, 2014.

7.2.2 On 09.09.2019, PSPCL submitted that as per the said clause 11.2 of the BOP contract, scope change is required to be done vide a scope change Order. The petitioner has placed on record a scope change Order in its Affidavit dated 27.06.2019, which needs to be checked. The petitioner has originally submitted that an expenditure of Rs.927.40 crore had been incurred till COD of the project towards BOP contract, but in the Affidavit dated 27.06.2019, the expenditure incurred has been stated to be Rs.920.48 crore. The reasons for this difference need to be clarified as suppression of these details would be to the advantage of GVK at the cost of the consumers of PSPCL. PSPCL contended that the petitioner must first justify the so-called shift of sums from BOP head to non-EPC head in the light of the fact that it has now

been revealed by the petitioner that its non-EPC contractor is its own sister concern. Further, the petitioner in the petition has stated that on account of poor soil condition in the project area, it became necessary to carry out "vibro-compaction" process to prevent liquefaction, resulting in settlement of soil by about 1.2 mts. to 1.75 mts. in various areas and thus increasing the site-grading work. In the Affidavit, the petitioner has submitted that it had conducted the initial soil investigation in 1999 where liquefaction effect was not observed. However, after Bhuj earthquake in 2001, the standards were revised and the BOP contractor once again had to conduct a comprehensive soil investigation. Thus it is clear that the petitioner had ample opportunity to conduct soil studies, which infact were conducted by petitioner in 1999 as well as in 2002. The submissions of the petitioner are contrary to each other as on one hand it admits that comprehensive soil studies were conducted by it in the year 1999 and 2002 but on the other hand the petitioner contends that since actual physical possession of the project land was handed over to it only in 2009, the issue of inspection prior thereto could not arise. It has nowhere been the case of the petitioner that owing to non-handing over of possession of the project site, it has not been able to carry out soil studies. Thus petitioner's reliance on the force majeure finding under the Arbitral Award is misplaced and not tenable and consequently, the cost overrun based thereon is also not admissible. It is submitted that as per Clause-5.2 (The Site) under Article-5 (Construction) of Amended and Restated PPA the following has been provided:

> *"The Seller acknowledges that, before entering into this Agreement, it has had sufficient opportunity to investigate the Site and accepts full responsibility for its condition (including but*

not limited to its geological condition, on the Site, the adequacy of the road and rail links to the Site and the availability of adequate supplies of water) and agrees that it shall not be relieved from any of its obligations under this Agreement or be entitled to any extension of time or financial compensation by reason of the unsuitability of the Site for whatever reason".

Thus this extra cost, most of which is due to lack of proper investigation of the land, claimed by petitioner is not justified as per the above clause. The Petitioner had filed Petition No.4 of 2007 for approval of its in-principle cost; however, for reasons best known to them, the petitioner chose not to place before the Commission the investigation report of 1999 by M/s Geotech Consultancy or the letters regarding additional Pile Load studies which finds mention only in the Affidavit under response for the first time. PSPCL stated that the petitioner had not placed the said report on record and the sheet showing additional cost towards Pile Load studies in its submissions dated 27.06.2019 (Annexure P-12) is wholly illegible. It is further submitted that the reliance by the petitioner on the Lenders Engineers Report of October, 2013 to justify its increase of cost in BOP is of no consequence to the petitioner as the capital cost of the petitioner's project is to be approved by the Commission as per the applicable Regulations and subject to prudence check by the Commission. Thus, any report by the Lenders Engineer cannot override the regulatory framework of the Commission, more so when admittedly there have been inflated cost claims by the petitioner.

7.3 <u>Joint Auditor's Report</u>

7.3.1 The Joint Auditor stated that GVK had allotted the BOP contract to Punj Llyod Ltd. (PLL) for Rs. 955 crore. Summary of

original & revised work order and amount claimed by GVK is as follows:

Table 14: Original & revised work order & amount claimed

(Rs. crore)

S. No.	Contract for	Cost as per work order dated 24.09.2009	Revised Cost as per scope change order dated 05.05.2010	Claimed by GVK in the petition 54/2017	Cost disallowed
1	BOP Steel & Cement	257.00	254.77	248.92	
2	BOP Supplies (Ex-works)	448.00	448.00	447.57	
3	BOP Services	250.00	215.35	230.91	
	Total	955.00	918.12	927.40	32.34

The Joint Auditor stated that the approved cost of BOP contract by Hon'ble APTEL in 2009 was Rs. 955 crore against which GVK has claimed Rs. 927.40 crore but the payments traced were of Rs. 862.72 crore (Rs. 840.07 crore by Bank Payments, Rs. 16.36 crore as Electricity Recoveries and Rs. 6.29 crore as TDS Recoveries). There is an excess amount of Rs. 64.68 crore claimed by GVK. According to the Joint Auditor, apart from the above payments GVK has also provided the debit notes raised to PLL for BOP materials purchased directly from vendors and has explained that the excess amount claimed is on account of these payments only. This has led the Joint Auditor to recommend disallowing only 50% of this amount i.e. Rs. 32.34 crore. Further, the Joint Auditor stated that the bills of BOP were checked on test check basis and the payment entries as well as bill bookings were verified from the Ledger Accounts. From there the amount paid to PLL in the form of Bank Payments, Electricity Recoveries, TDS Recoveries was calculated. The Joint Auditor has recommended Rs. 895.06 crore (i.e. Rs. 862.72 crore payments directly made to PLL plus Rs. 32.34

crore [50% of 64.68 crore]) and did not recommend the excess amount of Rs. 32.34 crore.

7.4 Commission's Analysis

7.4.1 The Commission vide its Order dated 29.04.2008 in petition no. 04 of 2007, allowed Rs. 1005 crore for BOP package which was to be reduced by Rs. 50 crore if GVK eventually installed 'Induced Draft Cooling Towers' instead of 'Natural Draft Cooling Towers'. In Schedule 11 of the PPA, the amount of Rs. 955 crore is included in the estimate of capital cost with note to the effect that the BOP contract price of Rs. 955 crore is for execution of the contract with 'Induced Draft Cooling Towers'.

7.4.2 In its reply dated 27.06.2019, GVK submitted that it shifted the scope of work of the service building of Rs. 36.88 crore (Rs. 2.23 crore out of steel & cement supply contract and Rs. 34.65 crore out of services contract) from BOP to Non-EPC works at a lower cost. Further, the following extra works were added to the cost of BOP. The break up for the same is provided below:

Table 15: Extra BOP works

(Rs. crore)

Particulars	Amount
Vibro Compaction work	10.38
Extra Piling length	22.83
HCSD system	19.72
SCADA system	0.25
Claims arising out of BOP Contract - Change in design of Coal Handling Plant	21.22
Total	74.40

7.4.3 Thus the scope of BOP works out to Rs. 992.52 (955-36.88+74.40) crore. As against this, GVK in the said submissions has given the total cost of the BOP contract as Rs. 971.72 crore in the revised estimates as per the table below.

Table 16: Revised estimates of BOP works

(Rs. crore)

Item	Original estimated cost	Amendments	Revised estimates	Actual exp -enditure incurred
Cement & Steel Supply	257.00	(-)2.23	254.77	248.92
Ex-Works Supply	448.00	17.46	465.46	440.22
Services:				
e) Civil	211.85	(-)34.64	177.20	170.14
f) Electrical	8.26	-	8.26	5.86
g) Mechanical	29.64	25.75	55.39	45.01
h) C & I	0.25	-	0.25	0.09
Total	250.00	(-)8.89	241.11	221.09
Extra Works	-	10.38	10.38	10.24
Total	955.00	16.72	971.72	920.48

7.4.4 The above table provided for the break-up of the original estimated cost, revised estimates and the actual expenditure incurred under the BOP contract till COD of the project but did not specifically depict the extra works in the 'Amendments' column. When the same was pointed out to GVK, GVK on 11.12.2019 explained that as against the above mentioned extra works of Rs. 74.40 crore, the scope change order was issued for Rs. 53.18 crore only as detailed hereunder, wherein the work pertaining to change in design of coal handling plant was excluded:

Table 17: Extra works under BOP

(Rs. crore)

i) Vibro compaction	**10.38**
ii) Extra piling length	**22.83**
iii) HCSD system	**19.72**
iv) SCADA	**0.25**
Total	**53.18**

7.4.5 It is seen that GVK dropped the work pertaining to change in design of coal handling plant in the scope change order and has retracted from its claim of Rs. 21.22 crore for the same. Also, as explained by GVK, the SCADA system costing Rs. 0.25 crore was already included in the original estimates under C&I works. As such, the revised amount of BOP works now comes to Rs. 971.05 [(955-36.88+52.93(53.18-0.25)] crore. GVK has been changing the figures of BOP works in almost all its submissions. This casts a doubt on the veracity of the submissions made by GVK.

7.4.6 GVK has added the extra works of (i) vibro compaction, (ii) extra piling length, (iii) HCSD system and (iv) SCADA system whereas the scope of service building has been shifted from BOP contract to Non-EPC works. As regards the works at (i) and (ii) above, the same are stated to have been necessitated because of poor soil conditions as per the soil investigation studies carried out by the consultants in the year 2009. Earlier also in the years 1999 and 2002, the soil investigation studies are stated to have been carried out but the poor soil conditions could not be captured at that time. Considering the necessity of soil improvement suggested by the Consultants and that the Arbitral Award allowed 6 months time for the same, the Commission allows the expenditure for these works.

7.4.7 The HCSD system was required to be installed in terms of the environmental clearance dated 09.05.2008 accorded by MoEF. As such, the HCSD system was always necessary and should have been included in the project cost originally. Despite that, as explained by GVK in the hearing on 11.12.2019, GVK did not plan for installing the same in the beginning. Later GVK realized that they would not be able to do away with the HCSD system and accordingly included the same in the scope change order. The work change order has been issued on 25.01.2012 after more than 3 years and 9 months of the issue of environmental clearance on 09.05.2008 and 2 years and 9 months after the signing of the PPA on 26.05.2009. In the hearing on 11.12.2019, GVK stated that the scope change order was issued late near completion of the BOP work. This is a clear case of bad planning by GVK. Also, GVK did not think it prudent or appropriate to approach the Commission till the filing of this petition for approval of the same. Even in the petition it has been presented as a fait accompli. Despite these improprieties, considering the necessity of the HCSD system and the same having been required in the environmental clearance issued by MoEF, the Commission allows the same.

7.4.8 The SCADA system amounting to Rs. 0.25 crore included in the extra works was already part of the original estimated cost of Rs. 955 crore as mentioned previously in table 16 under C&I works.

7.4.9 In petition no. 70 of 2017 for capital investment plan and business plan for MYT control period FY 2017-18 to FY 2019-20,

GVK has submitted that works amounting to Rs. 60 crore i.e. Rs. 7 crore on account of civil works under the head buildings and Rs. 53 crore for balance of electrical, mechanical and C&I works are pending under BOP contract. Considering the same, the scope of BOP contract works out to Rs. 911.05 crore as hereunder:

Table 18: Scope of BOP works

(Rs. crore)

BOP contract value	**955.00**
Shifting of Service Building to Non-EPC works	**(-) 36.88**
Extra works	**(+) 52.93**
Pending works claimed in petition no.70 of 2017	**(-) 60.00**
BOP contract value	**911.05**

7.4.10 GVK has claimed an expenditure of Rs. 927.40 crore in the petition and also in the submissions dated 01.08.2019 (Annexure-6). However, in the submissions dated 27.06.2019, GVK has claimed Rs. 920.48 crore in the work-wise detail. As regards the difference of Rs. 6.92 crore, GVK submitted that the payment of the said amount was towards materials and supplies made by PLL and put to use. The bills for the said supplies have not been submitted by PLL to GVK and the payments have been adjusted out of the advances paid to PLL. The Commission does not agree with this contention of GVK for allowing the payment/adjustment without a bill. As GVK has shown the amount of Rs. 920.48 crore in the sum-total of the component wise expenditure as mentioned in the above table, the payments claimed by GVK are being considered in this Order.

7.4.11 PSPCL has submitted that in the joint inspection report it has been observed that GVK has installed six battery banks along with six battery chargers for the common auxiliaries in both the units of the project whereas in the Guru Hargobind Thermal Plant (GHTP) of PSPCL, the same task is being done with three battery banks and four battery chargers. Thus the petitioner has incurred an excess expenditure of Rs. 2 crore on this account. GVK in its reply submitted that the BOP contract is a lump sum and fixed cost contract. The BOP contractor has provided the said materials as per billing break-up which are within the overall contract price. The Commission agrees with the submissions of GVK on this account.

7.4.12 The Joint Auditor traced payments of Rs. 862.72 crore against the claim of Rs. 927.40 crore and recommended Rs. 895.06 crore after disallowing expenditure of Rs. 32.34 crore.

7.4.13 The ledgers and invoices checked in the Commission and by the Joint Auditor reveal that the payment of Rs. 862.72 crore has been made comprising of Rs. 840.07 crore by bank payment, Rs. 16.36 crore as electricity charges paid by GVK on behalf of PLL and Rs. 6.29 crore as TDS recovery. From the copy of the ledger provided by GVK, an amount of Rs. 1.50 crore pertains to a refund by PLL. GVK made an advance payment of Rs. 287.75 crore to PLL which is 31.34% of the estimated cost of Rs. 918.12 crore against the prudent commercial practice of 11.5% amounting to Rs. 105.71 crore. However, the advance payment of Rs. 77.65 crore made by GVK remains unadjusted as on 16.04.2016. Thus, the allowable amount for BOP works is as follows:

Table 19: Allowable amount for BOP works

(Rs. crore)

S. No.	Particulars	Amount
1.	Payment made by GVK	862.72
2.	Less: Advance refunded by Punj Lloyd Ltd.	(-)1.50
3.	Less: Unadjusted Advance	(-)77.65
4.	Net payments made	783.57

7.4.14 Considering the above, the Commission allows the expenditure against the BOP works as here under:

Table 20: Cost of BOP works

(Rs. crore)

As per Schedule-11 of the PPA	Claimed by GVK	Approved by the Commission
955.00 revised to 971.05	927.40 revised to 920.48	783.57

8. Spares for BTG and BOP contracts (Item 8 of Schedule 11)

8.1 GVK's submissions

8.1.1 Initially GVK submitted that it had incurred an expenditure of Rs. 13.79 crore on spares till COD of the project. Later in the submissions dated 27.06.2019, GVK submitted that an advance of Rs. 3.56 crore being 7.5% of the value of the purchase order issued for spares to BHEL was paid through IDBI Bank BTG Contract Account on 28.10.2013. Against this, BHEL has supplied spares worth Rs.1.62 crore vide invoice no. JPXX1400017/1 dated 30.08.2014 for Rs.1.37 crore and invoice no. JPXX1400056/11 dated 10.11.2014 for Rs.0.25 crore. After recovering 7.5% advance paid, the balance amount of Rs.1.51 crore is yet to be paid. On 01.08.2019, GVK submitted that it has claimed only Rs. 1.62 crore towards Spares based on actual expenditure incurred and further submitted that the events leading up to the increase in

cost of spares is as hereunder:

a) Hon'ble APTEL in its judgment dated 08.04.2009 had granted in-principle approval for Rs 39.65 crore towards BTG and BOP packages and directed that actual prudent expenditure on all spares be allowed by PSERC at the time of determining tariff.

b) On 28.05.2012, BHEL had initially submitted a proposal for BTG spares for Rs 58.56 crore. Thereafter, GVK negotiated and reduced this amount to Rs 45.50 crore (excluding freight, taxes and duties). GVK issued the letter of intent to BHEL on 14.09.2012.

c) The total cost of BTG spares taking into account the freight, transit insurance, excise duty and CST is approximately Rs. 53 crore.

d) The estimated cost of BOP spares is approximately Rs. 13 crore.

GVK further submitted that in terms of Regulation 9 of PSERC Tariff Regulations, GVK was required to file its Capital Investment Plan for the MYT control period FY 2017-18 to 2019-20. On 29.12.2017, GVK filed petition no. 70 of 2017 seeking approval for the capital investment plan followed by an affidavit pursuant to the interim Order dated 17.04.2018, wherein there is an increase in the provisioning for spares from Rs. 39.65 crore to Rs. 66 crore (both BTG and BOP). GVK has claimed Rs 1.62 crore towards spares and the same is being claimed as part of completed capital cost in this petition.

8.2 <u>PSPCL's submissions</u>

8.2.1 PSPCL submitted that upon a query raised by the

Commission on the increase in cost of spares from Rs. 39.65 crore to Rs. 66 crore (BTG & BOP), the petitioner submitted that this increase took place in consultation with BHEL. The petitioner was directed to produce the proof of the said correspondence with BHEL. In response, the petitioner submitted copies of BHEL offer dated 28.05.2012/14.09.2012 against the tender inquiry dated 06.04.2012 and a copy of LOI dated 28.09.2012 placed upon BHEL by the petitioner for the procurement mandatory spares. In the said LOI, three items have been mentioned i.e. item 'A', 'B' & 'C' whose total value is shown as Rs. 47.50 crore (Item A; 27.18 crore, Item B; 7.85 crore & Item C; 12.47 crore). The prices of Item A & B were valid up to 31.10.2012 and of Item C up to 31.03.2013. Apart from the above, no correspondence has been placed on record by the petitioner showing the increase in cost of spares as has been sought by the Commission. Further, the petitioner has submitted that it has only claimed an amount of Rs.1.62 crore towards spares in its petition and the increase in provisioning of spares from Rs.39.65 crore to Rs.66 crore has been detailed in petition no. 70 of 2017 filed by the petitioner for approval of its Capital Investment Plan. Towards this end, PSPCL craves leave of the Commission to refer and to rely upon the detailed submissions made by PSPCL in this regard in its reply to the said petition no. 70 of 2017.

8.3 Joint Auditor's Report

8.3.1 As per the Joint Auditor's Report regarding the BTG spares, the initial estimate was Rs. 39.65 crore which was increased to Rs. 66 crore (BTG plus BOP spares). But GVK has claimed only Rs. 1.62 crore in respect of BTG spares and no amount for BOP spares. According to the Joint Auditor's Report, as the claim of spares is very well within the limit of initial estimate, this cost of Rs.

1.62 crore may be allowed to be made part of completed capital cost.

8.4 Commission's Analysis

8.4.1 Hon'ble APTEL in its Judgment allowed Rs. 39.65 crore for recommended spares for BTG and BOP package. GVK in this petition has initially claimed an amount of Rs. 13.79 crore for spares till COD i.e. 16.04.2016. In the submissions filed on 27.06.2019, GVK submitted that the cost of spares works out to Rs. 47.47 crore as against the negotiated price of Rs. 45.50 crore (excluding freight, transit insurance, excise and CST) and Rs. 53 crore (all inclusive). GVK submitted that Rs. 3.56 crore had been paid as 7.5% advance to BHEL. Against this, spares worth Rs. 1.62 crore have been supplied by BHEL. However, as brought out in the submissions dated 01.08.2019 (Annexure-6), out of the claimed amount of Rs. 1.62 crore, Rs. 1.51 crore is mentioned as 'Liability provision' and Rs. 0.11 crore as 'Net payment made'. In its submissions dated 27.11.2019, the amount of Rs. 1.51 crore has been intimated as the un-discharged liability.

8.4.2 The aforementioned amount of Rs. 0.11 crore is the proportionate payment from the advance adjusted to that extent. The un-discharged liability of Rs. 1.51 crore will be considered on merits as and when claimed. As such, the Commission find it appropriate to allow the amount of Rs. 0.11 crore for spares as follows:

Table 21: Cost of Spares

(Rs. crore)

As per Schedule-11 of the PPA	Claimed originally in the petition	Revised Claim by GVK	Approved by the Commission
39.65	13.79	1.62	0.11

9. Non-EPC works (Railway siding, service building, admin building, fire station, workshop, storage, green belt, residential colony etc.) (Item No. 9 of Schedule-11) and Site grading & Ash Pond (Item No. 10 of Schedule-11)

9.1 GVK's submissions

9.1.1 GVK submitted that a sum of Rs. 135 crore has been approved by Hon'ble APTEL for non-EPC works. The cost overrun in the non-EPC works has been mainly because of increase in scope of work. Item-wise details are as under:

Table 22: Non-EPC works

(Rs. crore)

S. No.	Particulars	APTEL approved	Actual	Cost overrun
1.	Site grading	21.94	63.62	41.68
2.	Ash pond bund	34.24	48.83	14.59
3.	Residential colony	35.03	61.08	26.05
4.	Railway siding of power plant and payment to railways	15.04	103.33	88.29
5.	Compound wall, pump house, fire station etc.	10.86	10.87	0.01
6.	Workshop, storage shed, security office etc. (Site development works)	8.58	18.60	10.02
7.	Administration building	0.98	0.98	0.00
8.	Green belt	2.03	2.03	0.00
9.	Plant Enabling work and other Miscellaneous work	6.31	6.31	0.00
10.	Service building	-	19.04	19.04
11.	Vibro-compaction	0	2.51	2.51
Total		135.00	337.20	202.20

On 01.08.2019 GVK has claimed an amount of Rs. 325.08 crore for various non-EPC works and an additional Rs.12.23 crore for non-EPC works as follows:

Table 23: Details of Non-EPC works

(Rs. crore)

S. No.	Description	Actual Capital Expenditure and Liabilities / provisions	Claim with PSERC		Net payment made
			Non-EPC	Non-EPC-Direct	
1.	Ash Pond	38.05	37.98	0.07	38.05
2.	Boiler	1.62	0	1.62	1.62
3.	Canteen	0.20	0.20	0	0.20
4.	Car Parking	0.09	0.09	0	0.09
5.	Coal Handling System	2.83	0	2.83	2.83
6.	Coal Pulverizers	0.10	0	0.10	0.10
7.	Compound Wall & Boundary Wall	5.58	4.81	0.77	5.58
8.	Construction of Rain Water Outlets, Water Chutes & Drainage System	0.25	0	0.25	0.25
9.	Cooling Water System	0.10	0	0.10	0.10
10.	CWIP – BOP – Others	0.74	0	0.74	0.74
11.	CWIP – Site development & other Expenses	0.06	0	0.06	0.06
12.	CWIP- Non EPC-Others	0.13	0	0.13	0.13
13.	Dozer Shed	0.28	0.28	0	0.28
14.	Earth Filling of Nallas, Wells, Ponds	0.13	0	0.13	0.13
15.	Earthwork – Cutting, grading and fitting	60.76	60.76	0	60.76
16.	Electrical Fittings	0.01	0	0.01	0.01
17.	Fire Station Building	0.37	0.37	0	0.37
18.	Green Belt and water supply net work	1.11	1.11	0	1.11

19.	Guard Pond	1.30	1.30	0	1.30
20.	Hydrogen Shed	0.21	0.21	0	0.21
21.	Land Development	1.88	0	1.88	1.88
22.	LP Piping	1.69	1.69	0	1.69
23.	New Office Extension	0.07	0.07	0	0.07
24.	Plant Enabling Roads	7.53	7.53	0	7.53
25.	Railway Siding	121.59	120.33	1.26 (codal charges)	121.59
26.	Raw Water Supply System	0.01	0.01	0	0.01
27.	Residential Colony	64.77	62.82	1.95	64.77
28.	Service Building	18.93	18.66	0.27	18.93
29.	Site Office	0.05	0	0.05	0.05
30.	Storage Shed	2.62	2.62	0	2.62
31.	Switch Yard	0	0	0	0
32.	Truck parking area	3.13	3.13	0	3.13
33.	Work Shop	1.10	1.10	0	1.10
	Total	337.31	325.08	12.23	337.31

9.1.2 In the submissions dated 27.11.2019, in response to Commission's interim Order dated 08.11.2019, GVK submitted that the scope change Order for civil works under non-EPC was issued in FY 2011-12 and for the railway works, the scope change order was issued on 02.11.2012 after approval of DPR by Railways on 05.05.2011. GVK has also provided the amounts and dates of various scope change orders wherein the total cost of Non-EPC works has been shown to have been increased from Rs. 135 crore to Rs. 337.78 crore as against Rs. 337.31 crore submitted earlier as brought out in the aforementioned table. GVK submitted that non-EPC work was awarded by way of competitive bidding to GVK Projects and Technical Services Limited and submitted the newspaper advertisement inviting bids. Copies of two bids i.e. one from Kalsi Brothers, SAS Nagar, Mohali and the other from Vertex

Projects Ltd., Secunderabad have also been submitted. GVK further submitted that though the first unit and the second unit were synchronized on oil on 06.07.2013 and 04.03.2014 respectively, several works were still in progress at that time.

9.1.3 The non-EPC works are discussed hereunder mainly in three parts i.e. Site grading and Ash Pond, Railway Siding and remaining non-EPC works.

A. Site grading

9.2 GVK's submissions

9.2.1 GVK submitted that a provision of Rs. 21.94 crore was made in the original project cost towards site grading work for estimated quantities of two million CuM at unit rate of Rs.130 per Cum. Punj Lloyd Ltd. (PLL) appointed Cengrs Geotechnica Pvt. Ltd. as the geotechnical engineering consultant for the Project. Due to poor soil condition in the project area, vibro-compaction method was suggested by the geotechnical consultant to prevent liquefaction. Vibro-compaction was carried out in the main plant and non-plant area. It resulted in settlement of soil by about 1.2 m to 1.75 m in various areas which in turn increased the site grading work. Since poor soil condition has been held to be a force majeure event, the increase in cost of site grading being a direct consequence of such event ought to be allowed.

9.2.2 In submissions dated 27.06.2019, GVK stated that Rs. 63.62 crore was spent towards site grading as per the final scope change order. It has now been submitted that Rs. 66.13 crore consists of Rs.63.62 crore towards site grading and an amount of Rs. 2.51 crore was incurred towards vibro compaction. The total area for

which site grading has been carried out is 715 acres. The earthwork quantity has been enhanced from 20,00,000 cum to 45,00,000 cum due to poor soil conditions and vibro compaction. The earthwork quantity was further enhanced from 45,00,000 cum to 58,00,000 cum due to earth filling work in colony area around the buildings, playground area, road area, parking area behind the administration building, around the helipad area, in between railway tracks on southern side of the wagon tippler to provide proper drainage to surface run-off as per the grade levels finalized for the site conditions. Site grading in the area (beyond 715 acres) was done from the excess earth and construction debris.

9.2.3 On 01.08.2019, GVK has claimed an amount of Rs.60.89 crore under the head Site Grading terming it as Earth Work – cutting, grading & fitting under Non-EPC (Rs. 60.76 crore) and earth filling of nallas, wells, ponds under Non-EPC-Direct (Rs. 0.13 crore) against Rs. 63.62 crore claimed in the petition under head Site Grading.

9.2.4 In submissions filed during the hearing on 27.11.2019, GVK in response to Order dated 08.11.2019, submitted a copy of advertisement published in the Newspaper regarding inviting bids for non-EPC works and the copies of 2 bids received from M/s Kalsi Brothers Builders, SAS Nagar, Mohali and Vertex Projects Ltd. On 11.12.2019, when asked by the Commission whether 715 acres were subjected to site grading or the whole of the acquired area, GVK submitted that the site grading beyond 715 acres was done from excess earth and construction debris.

9.3 <u>PSPCL's submissions</u>

9.3.1 PSPCL submitted that the Petitioner has claimed a cost

over-run of Rs. 44.19 crore on account of poor soil condition in the project area which has necessitated vibro-compaction work to prevent liquefaction, resulting in settlement of the soil by about 1.2 m to 1.75 m in various areas and thus increasing the site-grading work. With regard to the poor soil condition, the Arbitral Tribunal held as follows:

> *"76. The contention of PSPCL referring to Clause 5.2 of Restated and Amended PPA appears to be attractive on a first look. But on detailed examination of facts it becomes untenable due to the fact that the land for project site was handed over to Claimant during the year 2009 i.e. after signing of Draft Restated and Amended PPA. To a specific query raised by Tribunal during hearings that Clause 3.2 of Implementation Agreement between GoP and GVK dated 25.8.2000 states that Government shall permit the Company to undertake necessary investigation etc. Restated PPA was initiated in 2007 and submitted to PSERC for approval and finally signed on 16.5.2009. Clause 5.2 of Restated PPA states that seller acknowledges before entering into this PPA that it had sufficient opportunity to investigate the site. Land for the project was handed over to GVK in 2009. Could Claimant carryout investigation without getting the possession of land? PSPCL reiterated its view taken in the pleadings and before this Arbitral Tribunal. It is to be noted that possession of land for the project was handed over to GVK Power after signing of Restated and Amended PPA. Detailed investigation relating to soil testing and suitability of land for laying foundation for TG Hall and Boiler etc. could only be done after physical possession of land. Geological surprises do occur during such large scale construction works and any delay on account of such geological surprises is considered as 'force majeure' event GVK Power has claimed a delay of 6 months. We have examined that this delay is concurrent and overlapping with delay occurred due to handing over land for railway siding and water pipeline etc. Accordingly, it does not fall on 'critical path' of the project."*

9.3.2 Thus, the Arbitral Tribunal has proceeded on the premise that since the possession of project site has been handed over to the Petitioner in 2009, no question of any site inspection by the Petitioner prior thereto for assessing the soil condition can arise. Notwithstanding the legality or otherwise of the said finding qua which proceedings are pending before the Commercial Court, Patiala, PSPCL submitted that the Petitioner has placed on record a copy of Work Order dated 28.9.2007 issued by it to TCE Consulting Engineers Ltd. wherein the scope of work includes preparation of site grading plans and drawing. However, no details as regards the work done under the said Work Order (including the period during which the same has been done) are given. While seeking approval of the in-principle project cost, the Petitioner has claimed a sum of Rs. 20 crore towards site grading. PSPCL submitted that in common parlance of civil engineering, site grading is understood to mean the process of adjusting the scope and elevation of soil around a building or a structure to provide a level base and a solid foundation. Thus, for claiming any cost towards site grading, whether in-principle or otherwise, the soil study at the site has necessarily to be carried out. In the absence of any substantiating documents from the Petitioner, it is reasonable to assume that the definitive in-principle cost towards site grading claimed by the petitioner can only be based on the report of Tata Consulting Engineers Ltd. It has nowhere been the case of the Petitioner at that time that owing to non-handing of possession of the project site, it has not been able to carry out soil studies. The petitioner's reliance on the force majeure finding under the Arbitral Award is therefore misplaced and not tenable and consequently, the cost overrun based thereon is also not

admissible. PSPCL further submitted that GVK has placed no documents on record to substantiate its claim of cost overrun and for this reason also, its claim is inadmissible.

B. Ash Pond

9.4 GVK's submissions

9.4.1 GVK submitted that initially the project envisaged construction of an ash pond bund of 10 mt. in height and 56 mt. in bottom width. The ash pond bund height was kept the same but the bottom width was increased from 56 mt. to 64 mt. due to poor bearing capacity of the existing soil strata of bund area. The pond area was also increased due to return water pond and settling ponds. Some part of the bund area was removed and refilled due to poor soil conditions. Further, the LDPE lining area was increased due to increase in bed area and side slopes, lining in still pond and return water pond. The originally approved cost for the ash bund was Rs. 34.24 crore and the cost actually incurred was Rs. 48.83 crore.

9.4.2 In the Interim Order dated 02.11.2018, GVK was asked to justify the area of 244 acres used for Ash Dyke against the requirement of 125 - 150 acres as per MoEF/CEA norms for 2x270 MW TPS along with audited total expenditure on development of Ash Pond/Dyke/Bund up to 16.04.2016. In response GVK submitted that in terms of clause 3(vii) of the Environmental Clearance dated 09.05.2008, 100% of the fly ash generated at the project must be utilized by the 9th year of operations. The ash pond requires bunds to sustain the pressure of unused fly ash as well as the bottom ash fill. Therefore, in order to store the volume of ash generated at the project, the area of 176.79 acres comprising

135.04 acres for the pond area and 41.8 acres for the bund area was provisioned for the Ash Pond area. In addition to 176.79 acres, 40 acres for still water pond and 27.21 acres for additional green belt were kept. Thus the total area for ash pond comes to 244 acres for 25 years operation of the project i.e. for compliance of the Environmental Clearance dated 09.05.2008, 244 acre of land has been utilized. GVK further submitted that as per the CEA's "Report on the land Requirement of Thermal Power Stations" dated December 2007, the land required for the ash pond/dyke for the plant size of 2x500 MW thermal power station is 500 acre. Accordingly, the land required for the ash pond/dyke for the project (2x270 MW) in the same proportion works out be 270 acre. Therefore, the land of 244 acre for the ash pond/dyke is within the limits of CEA recommendations.

9.4.3 In submissions dated 27.06.2019, in response to the Commission's query to explain why the return water pond and settling pond requirement were envisaged at a later stage whereas these are part of the normal design of the Ash pond and to submit the details of expenditure for these works along with documentary proof, GVK submitted that the return water pond and the settling pond requirement were part of the original design. It was submitted that the Settling Pond is required to reduce water consumption by re-using the water from the Settling Pond for ash slurry pumping. In terms of Clause 3 (vii) of the Environmental Clearance dated 09.05.2008, 100% fly ash utilization was to be achieved by the end of 9th year. Accordingly, GVK planned the ash pond measuring 546498 sq. mt. The balance area comprises of large sized bunds, to sustain the pressure of the unused fly ash and 100% bottom ash

fill. Further, the area as per Environmental Clearance is based on the 34% of ash percentage in coal whereas the Tokisud North Mine coal contains about 38% to 43% of ash. The changes were due to increase in ash content as well as recirculation pond and additional green belt etc. The breakup of cost originally approved and finally incurred is tabled below:

Table 24: Breakup of original & revised cost of Ash Pond work

(Rs. crore)

S. No.	Particulars	Original			Revised		
		Unit Rate (Rs. / Unit)	Quantity (Units)	Cost (Rs. crore)	Unit Rate (Rs. / Unit)	Quantity (Units)	Cost (Rs. crore)
1.	Bund work (CuM)	130	1,200,000	15.60	130	1,889,000	24.56
2.	Ash pond LDPE Lining (Sq. Mt.)	350	630,000	22.05	350	868,500	30.40
3.	Rock Toe (CuM)	2500	11,700	2.93	2500	11,700	2.93
Total Cost (Less discount @ 15.625%) in Rs. crore				34.24			48.83

9.4.4 On 01.08.2019, GVK has claimed an amount of Rs.38.05 crore comprising of Rs. 37.98 crore under Non-EPC and Rs. 0.07 crore under Non-EPC-Direct for Ash Pond against Rs. 48.83 crore claimed in the petition under head Ash Pond Bund.

9.5 <u>PSPCL's Submissions</u>

9.5.1 PSPCL submitted that GVK has claimed a cost over-run of Rs.14.59 crore towards construction of ash bund on account of

poor bearing capacity of the existing soil strata of the bund area. While seeking approval of the in-principle project cost, the Petitioner has claimed a sum of Rs.34.24 crore towards construction of ash bund. PSPCL further submitted that in common engineering parlance for power projects, an ash bund is understood to mean an engineered structure for the disposal of bottom ash and fly ash through the preferred method of wet disposal. Thus, for claiming any cost towards construction of ash bund, whether in-principle or otherwise, the required parameters at the site are necessarily to be examined and appropriate drawing and designs for that site are required to be made. In the absence of any substantiating documents from the petitioner, it is reasonable to assume that the definitive in-principle cost towards construction of ash bund claimed by the petitioner can only be based on the report of Tata Consulting Engineers Ltd. The Commission directed the petitioner to explain why the return water pond and settling pond requirement were envisaged at later stage whereas these are part of the normal design of the Ash Pond. Further, GVK has placed no documents on record to substantiate its claim of cost overrun and for this reason also, its claim is inadmissible.

9.6 Joint Auditor's Report

9.6.1 The Joint Auditor in his report stated that GVK has claimed Rs. 337.26 crore for non-EPC as against the approved cost of Rs. 135.00 crore approved by Hon'ble APTEL in 2009. The item wise summary of Non-EPC cost approved, claimed and allowed/ disallowed is as follows:

Table 25: Non-EPC cost claimed & recommended

(Rs. crore)

S. No.	Particulars	Amount Claimed	Amount Allowed	Amount Disallowed
1.	Site Grading	60.76	60.76	-
2.	Ash Pond	37.98	37.98	-
3.	Staff Colony Works	62.82	50.43	12.39
4.	Railway Works			
	(A) Railways Lead Line	28.90	16.20	12.70
	(B) Railways Plant Yard	46.99	41.05	5.95
	(C) Khadur Sahib Station	29.12	29.12	-
	(D) Retaining Wall	15.28	15.28	-
5.	Compound Wall, Pump House, MS Pipes etc.	6.87	4.70	2.17
6.	Storage Shed etc.	9.01	9.01	-
7.	Green Belt	1.11	1.11	-
8.	Service Building	18.66	18.66	-
9.	Plant Enabling Works	7.53	-	7.53
10.	Non-EPC Works Direct	12.23	1.26	10.97
	Grand Total	337.26	285.56	51.70

9.6.2 The summary of site grading activity and changes in its quantities during construction period is as follows:

Table 26: Original & revised scope & cost for site grading work

(Rs. crore)

Sr. No.	Particular	Unit	Work Order Qty	Rate (Rs./ Unit)	Amount (Rs. crores)	Amount After Discount of 15.625% (Rs. crore)
1.	As per original work Order dated 04.08.2009	Cum	2,000,000	130	26.00	21.92
2.	As per Scope Change Order Dated 13.04.2010	Cum	4,500,000	130	58.50	49.33
3.	As per Scope Change Order dated 03.11.2012	Cum	5,800,000	130	75.40	63.58
4.	As per Last Non-EPC Bill RA-79	Cum	4,463,688	130	58.03	48.96
	As per Separate Non-EPC Bill RA-1 & RA-2	Cum	1,075,975	130	13.99	11.80
	Total Billing by Non-EPC contractor	Cum	5,539,663	130	72.02	60.76
5.	Amount Claimed in Petition 54/2017	Cum	-	-	-	60.76
6.	Amount Allowed to be formed part of Capital Cost	Cum				60.76

The Joint Auditor in his report noted that the original estimate for Site Grading activity was 20,00,000 cubic meters as per Original Work Order dated 04.08.2009. Geotech Consultant Pvt. Ltd. had conducted a soil study in February, 1999, but had not pointed out that the soil was prone to liquefaction and therefore needed improvement for erection of Plant & Machinery. GVK estimated the quantities as per the original plan of doing site grading. However, the site was handed over to GVK in 2009 and then once again GVK got the soil study conducted by Cengrs Geotechnica Pvt. Ltd. In its report Cengrs Geotechnica Pvt. Ltd. suggested that there should be no open foundation on the natural soil due to presence of loose soil up to 5 meters depth and liquefaction susceptibility up to 10 meters. The contracted quantity was increased to 45,00,000 cubic meters and to 58,00,000 cubic meters by Scope Change Orders dated 13.04.2010 and 03.11.2012. GVK has claimed Rs. 60.76 crore for site grading in its petition. As per the last non-EPC bill No. RA-79, the contractor had performed site grading activity on 4463687.61 cubic meters which amounts to Rs. 48.96 crore and as per the separate bills of site grading viz. RA-1 dated 25.05.2010 and RA-2 dated 12.07.2010 GVK has done site grading for 1075975 cubic meters for Rs. 11.80 crore. The Joint Auditor has recommended allowing an amount of Rs. 60.76 crore for site grading of 5539662.61 cubic meters as GVK was not initially aware of the soil conditions.

9.6.3 The Joint Auditor gave the summary of Ash Bund construction and changes in its quantity during construction period as follows:

Table 27: Original & revised scope & cost of Ash pond work

(Rs. crore)

Sr. No.	Particular	Unit	Work Order Qty	Rate (Rs./ Unit)	Amount (Rs. crores)	Amount After Discount of 15.625% (Rs. crores)
A.	ASH POND BUND CONSTRUCTION					
1.	As per Original Work Order dated 04.08.2009	Cum	1,200,000.00	130	15.60	13.15
2.	As per Scope Change Order dated 12.03.2012	Cum	1,880,000.00	130	24.56	20.71
3.	As per Last Non-EPC Bill RA-79	Cum	1,466,282.46	130	19.06	16.07
B	ASH POND LPDE LINING					
1.	As per Original Work Order dated 04.08.2009	Cum	630,000.00	350	22.05	18.59
2.	As per Scope Change Order dated 12.03.2012	Cum	868,500.00	350	30.40	25.63
3.	As per Last Non-EPC Bill RA-79	Cum	719,210.63	350	25.17	21.23
C.	ROCK TOE	Cum	2,500.00	11,700	2.93	2.47
D	Total as per Last Non-EPC Bill RA-79					39.77
E	Amount Claimed in Petition 54/2017	Cum	-	-	-	37.98
F	Amount Allowed to be formed part of Capital Cost (See Notes Below)					37.98

The Joint Auditor has stated that GVK in the initial estimate had projected the quantity of Ash Pond Bund at 12,00,000 Cubic Meters, Ash Pond LPDE Lining at 6,30,000 Cubic Meters and Rock Toe at 2500 Cubic Meters. Due to the soil conditions, GVK had to increase the Bund width from 56 meters to 65 meters and had added one Stilling Pond which was not originally envisaged. Thus the quantities were revised for the Ash Pond Bund to 18,89,000 Cubic Meters and Ash Pond LPDE Lining to 8,68,500 Cubic Meters. However, as per the last non-EPC Bill No. RA-79 the contractor had carried out work of 14,66,282 Cubic Meters for Ash Pond Bund construction, 7,19,210 Cubic Meters for Ash Pond

LPDE Lining and 3099 Cubic Meters for Rock Toe. After applying the Agreed Contract Rates and discount of 15.625%, the expense for the Ash Pond comes to Rs. 37.98 crore. The Joint Auditor recommended to allow an amount of Rs. 37.98 crore for Ash Pond since GVK did not know about the condition of the soil as mentioned earlier.

9.7 <u>Commission's Analysis</u>

9.7.1 The Commission in its Order dated 29.04.2008 in petition no. 04 of 2007 allowed an amount of Rs.86 crore for non-EPC works but did not approve the additional amount of Rs.49 crore for site clearing/grading and Ash Pond. After deducting Rs. 35 crore for railway siding as intimated by the approved railway contractor M/s BARSYL, the remaining amount of Rs. 51 crore was stated to be for other non-EPC works i.e. the residential colony, boundary wall, administrative building, green belt, site office, approach road, site grading, site drainage, fire station building, main entrance gate complex, security barracks and ash pond etc. In appeal, Hon'ble APTEL allowed the said amount of Rs. 49 crore for site grading & ash pond, thus bringing the total approved amount to Rs. 135 crore. The Commission notes that GVK transferred the scope of Service Building costing Rs. 36.88 crore from BOP works to non-EPC works, where it was actually built at a cost of Rs. 18.66 crore. The railway siding works were to be done by the Indian Railways or the approved railway contractor. However, GVK allotted the railway siding works to GVK Projects and Technical Services Ltd.

(GVKPTSL) under the supervision of the Railways agency Aarvee.

9.7.2 The aforementioned bifurcation of non-EPC works was approved by the Commission for Rs. 86 (35+51) crore and Rs. 49 crore was approved in addition by Hon'ble APTEL for site grading and ash pond. These have been so stated in Schedule-11 of the PPA at serial number 9 and 10. GVK has given the bifurcation of the 11 works in the table for non-EPC works with individual costs for each item stating them as 'APTEL approved'. Only Rs. 49 crore for site grading and ash pond were part of APTEL's Order dated 08.04.2009 in Appeal no.104 of 2008. As such, this is a misrepresentation of facts by GVK as explained earlier in this Order.

9.7.3 GVK has stated that the non-EPC works were carried out by GVKPTSL, through competitive bidding. GVK has submitted a copy of the Financial Express dated 13.06.2009, wherein an advertisement has been published by GVK inviting bids for non-EPC works along with copies of the bids received against the same i.e. Kalsi Brothers, Mohali and Vertex Projects Limited, Secunderabad. The non-EPC works were allotted to Vertex Projects Ltd. at a cost of Rs. 135 crore. Vertex Projects Ltd. had given a discount of 15.625% on the bid price of Rs. 160 crore. In the submissions dated 25.07.2018, GVK has mentioned that non-EPC works were to be started in August, 2009 by Vertex (now known as Crescent EPC Projects and Technical Services Limited). The address of Vertex Projects Limited is the same as that of GVK and the website and e-mail address mentioned as www.gvk.com and

projects@gvk.com respectively. On 27.06.2019, GVK informed that the non-EPC works were allotted to GVK Projects and Technical Services Ltd. (earlier Vertex Project Ltd. and subsequently, Crescent EPC Projects and Technical Services Ltd).

9.7.4 The non-EPC works of Rs. 337.78 crore are submitted to have been carried out after incorporating 10 scope change Orders as per details provided by GVK in its submission dated 04.12.2019. However, the total amount of non-EPC works earlier submitted is Rs. 337.31 crore out of which works worth Rs. 325.08 crore mentioned under the head 'non-EPC works' have been carried out by GVK Projects and Technical Services Limited, a sister concern of GVK. The remaining works amounting to Rs. 12.23 crore have been executed by other agencies under the head 'non-EPC works-Direct'. As only two bids were received by GVK in the competitive bidding, one out of which was from the sister concern, GVK ought not to have allotted the work to GVKPTSL. Thereafter, GVK increased the scope of non-EPC works from the bid allotted price of Rs. 135 crore to Rs. 337.31 crore through various scope change orders. This appears to be inappropriate.

<u>Site Grading</u>

9.7.5 Hon'ble APTEL allowed Rs. 49 crore for Site Grading and Ash Pond in its Order dated 08.04.2009 in Appeal no. 104 of 2008. GVK has claimed Rs. 63.62 crore for site grading in the petition and revised the same to Rs. 60.76 crore in its submissions dated 01.08.2019 (Annexure-6). GVK has claimed

Rs. 48.83 crore for the ash pond in the petition and later revised the same to Rs. 37.98 crore in submissions dated 01.08.2019 (Annexure-6).

9.7.6 Article 5.2 of the PPA dated 26.05.2009 provides as hereunder:

> ***"The Seller acknowledges that, before entering into this Agreement, it has had sufficient opportunity to investigate the Site and accepts full responsibility for its condition (including but not limited to its geological condition, on the Site, the adequacy of the road and rail links to the Site and the availability of adequate supplies of water) and agrees that it shall not be relieved from any of its obligations under this Agreement or be entitled to any extension of time or financial compensation by reason of the unsuitability of the Site for whatever reason".***

9.7.7 The Joint Auditor has noted that the original estimate for Site Grading activity was 20,00,000 cubic meters as per Original Work Order dated 04.08.2009. The contracted quantity was increased first to 45,00,000 cubic meters and thereafter to 58,00,000 cubic meters by Scope Change Orders dated 13.04.2010 and 03.11.2012. As against this, the joint auditor has recommended to allow the work order quantity of 55,39,663 cubic meters costing Rs. 60.76 crore as per RA bills.

9.7.8 The Commission notes firstly that GVK was fully aware of the location of the land being acquired for the project and had in its possession 54 acres since 1999. Therefore, the quantity of earth filling required for site grading was known to it and accordingly the amount of Rs. 49 crore which included site grading and ash pond was sought in petition no. 04 of

2007 before the Commission which was not allowed. Subsequently Hon'ble APTEL allowed the same in the Appeal No. 104 of 2008. Secondly, at that point of time in April, 2008 the in principle land allowed for the project was 715 acres. Thereafter, in May, 2008, MoEF in the environmental clearance restricted the land requirement for the project to 600 acres. This restriction was not brought to the notice of Hon'ble APTEL or the Commission. The land acquired for the project was 1114 acres including 54 acres already available with GVK. In the hearing on 11.12.2019, GVK confirmed that site grading was carried out for the entire plant area. Thus, while funds for the site grading were allowed by Hon'ble APTEL for 715 acres against the requirement of 600 acres, actually 1075 acres of land covering the plant area were graded. 1075 acres includes 54 acres acquired by GVK in 1999, 1014 acres through land award of Govt. of Punjab dated 12.08.2008 and 7 acres purchased directly by GVK later which was missing in the land award. In this extra soil excavated from the increased size of ash pond was stated to have been utilized. Thirdly, GVK did not think it proper to bring to the notice of the Commission at that time, the requirement of extra work for site grading which resulted in a threefold increase in the cost of site grading work from Rs. 21.94 crore to Rs. 63.62 crore and seek revised approval considering that the provision in the PPA as brought out above unambiguously provides that GVK shall not be entitled to any financial compensation by reason of the unsuitability of the Site for whatever reason. Fourthly, the entire work was given to the sister concern of GVK without following principles of financial propriety. The

Commission cannot allow the expenditure claimed by GVK for site grading of the entire site and restricts the same to the original estimates for site grading as included in Rs. 49 crore allowed by Hon'ble APTEL for site grading and Ash Pond.

<u>Ash Pond</u>

9.7.9 The justification given by GVK regarding usage of 244 acres land for Ash Pond appears to be relevant only on considering the expansion of the project for the third Unit. GVK's submission that as per the CEA's 'Report on the Land Requirement of Thermal Power Stations' of December, 2007, the land required for ash pond/dyke for the plant size of 2x500 MW Thermal Power Station is 500 acres, is not correct. As per the said report, the area of 500 acres is required for ash dyke including green belt. In the CEA's September, 2010 Report on 'Review of Land Requirement for Thermal Power Stations', the 250 acres have been provided for Ash disposal area and 130 acres for green belt i.e. a total of 380 acres for a project of 2x500 MW capacity. Even considering the report of CEA referred to by GVK wherein requirement of land for ash dyke including green belt has been mentioned as 500 acres for 2x500 thermal project, the requirement of land for ash pond including green belt works out to 270 acres for GVK's 2x270 MW project on proportionate basis. Therefore, the area of 244 acres for ash dyke alone would be way beyond that specified in the CEA report. If the CEA report for 2010 is considered, the requirement for both ash dyke and green belt for a 2x270 MW plant on a proportionate basis works out to 205 acres. The MoEF clearance for the project dated 09.05.2008 had limited

the total land for the project to 600 acres, out of which 130 acres was specifically mentioned for ash dyke and 160 acres for green belt i.e. 290 acres for 2x270 MW thermal power project. As per the MoEF/CEA norms, 125 - 150 acres of land is enough for ash pond for 2x270 MW thermal power project. It is clear that GVK has developed the ash pond of a much higher capacity on 244 acres than the 130 acres provided in the Environmental Clearance issued by MoEF. Therefore, the Commission cannot allow the enhancement in the claim/cost for the ash pond.

9.7.10 GVK, in its original submissions in this petition claimed Rs. 112.45 crore against Rs. 49 crore originally approved for Site grading and Ash pond but later brought this figure down to Rs. 98.74 crore. This indicates financial carelessness.

Table 28: Cost of Site grading and Ash pond claimed

(Rs. crore)

Item	As per Schedule-11 of the PPA	Claimed originally in the petition	Claimed in submissions dated 01.08.2019
Site grading	49.00	63.62	60.76
Ash pond		48.83	37.98
Total	49.00	112.45	98.74

9.7.11 Thus, for the following reasons, (a) considering that site grading has been claimed on entire land measuring 1075 acres against the required land of 600 acres i.e. 1.8 times more land area, (b) that the ash pond measurements have been increased in contravention of the norms of environmental clearance from 130 acres to 244 acres i.e. 1.9 times more land area, (c) in view of the Article 5.2 of the PPA,

where the seller agreed that he was fully aware of the site conditions and (d) the Commission has allowed funds for vibro-compaction and piling work separately where claimed, the Commission restricts the amount for Ash pond and Site grading to Rs. 49 crore as originally allowed by the Hon'ble APTEL as follows:

Table 29: Cost of Site grading and Ash pond

(Rs.crore)

Item	As per Schedule-11 of the PPA	Claimed originally in the petition	Revised Claim by GVK	Approved by the Commission
Site Grading	49.00	63.62	60.76	49.00
Ash Pond		48.83	37.98	
Total	49.00	112.45	98.74	49.00

9.8 Railway siding & Payment to Railways

A. Railway siding

9.8.1 GVK's submissions

9.8.2 GVK submitted that as per the original construction plan, it was proposed to lay 7 lines aggregating to 7.5 km in the plant yard and lead line of about 3.75 km outside the plant boundary to handle three rakes per day. Accordingly, the cost of the railway siding was estimated at Rs. 15.04 crore in 2009. This included cost of survey, earthwork, blanketing material, cost of laying lead line & tracks inside plant yard etc. However, on account of various force majeure events, the cost incurred by the petitioner towards development of the railway siding at the plant increased to Rs.103.33 crore comprising of Rs. 33.00 crore for development of Khadur Sahib railway station, Rs. 24.08 crore for the lead line and Rs. 46.25 crore for the plant yard. The contractor/sub-contractor

were unable to commence the railway siding work due to delay in receipt of possession of land required for lead track and approvals from Railways. This has been held to be a force majeure event by the Arbitral Tribunal. GVK further submitted that since the work was delayed, there was an increase in construction cost which necessitated revision of rates agreed in the work order with GVKPTSL. Further, due to non-availability of suitable grade material in Punjab, blanketing material was sourced from nearby states viz. Jammu & Kashmir and Himachal Pradesh. The cost of railway siding, at the time of original appraisal, included the cost of grading material, earthwork, broad-gauge lead track, service road etc. was approved at Rs. 5.32 crore. The 5.4 km length of the lead line included 3.75 km outside the plant boundary and balance 1.65 km inside the plant boundary up to the railway Weigh Bridge. Further, the lead line was coming in about 10 meter deep cutting near the plant boundary. The gradient of 1 in 150 approved by Railways increased the cutting area and the length of lead line. Due to uniform sandy strata, RCC retaining walls were constructed on both sides of rail track. The farmers who had parted with the land demanded additional structures in the lead line, like service road, culverts, siphons, drain pipes etc. Consequently, the cost of constructing the lead line increased from Rs. 5.32 crore to Rs. 35.18 crore on account of the following:

i) increase in length of lead line from 3.52 km to 5.4 km,

ii) increase in sleeper density from 1540 per km to 1660 per km as stipulated by railways,

iii) construction of retaining wall,

iv) increase in cost of blanketing material,

v) construction of additional structures in lead line such as

service road, culverts, siphons, drain pipes etc., as insisted by the farmers who had parted with the land and

vi) increase in overall cost due to delay in commencement of railway siding work.

9.8.3 GVK submitted that in terms of Railways approval dated 05.05.2011, the entire capital cost of the new crossing station including staff quarters, loop lines, signaling, electrification and other infrastructure was to be borne by the petitioner. Khadur Sahib Railway Station had only a main line and no loops were available for the purpose of crossing / stabling of rakes. Northern Railways, while approving the DPR, stipulated conversion of the Khadur Sahib Railway Station into a three line block station and mandated construction of nine lines inside the plant of various lengths aggregating to 9.02 km, with simultaneous reception & dispatch facilities and construction of rail level platforms. The cost incurred in the development of Khadur Sahib Railway Station, which was not envisaged in the original construction plan, is Rs. 38.81 crore.

9.8.4 In its submissions dated 27.06.2019, GVK stated that the total cost overrun in railway siding work is Rs. 88.29 crore as per Scope Change Order dated 02.11.2012 consisting of the following:

a) Cost increase of Rs. 19.41 crore (Rs. 23.00 crore less discount of 15.625%) on account of increase in number of lines from 5 to 9 with 52 kg prime instead of IU rails at rail siding.

b) Cost increase of Rs. 30.07 crore (Rs. 35.65 crore less discount of 15.625%) for construction of the lead line from Khadur Sahib Railway Station to Project Railway Siding.

c) Additional cost incurred for development of Khadur Sahib Railway Station at a cost of Rs. 38.81 crore (Rs. 45.00 crore less discount of 15.625%).

GVK submitted that item (a) was inadvertently left out in the detailing of railway cost overrun in the petition. Taking into account the overrun of Rs. 88.29 crore, the total cost on railway siding works comes to Rs. 103.33 crore (Rs. 15.04 crore original cost plus Rs. 88.29 crore of the cost overrun). Further, the payments to railways of Rs.24.92 crore are not part of Non-EPC works. The details given in the petition are over and above cost overrun of Non-EPC works, which are paid to Northern Railways towards codal charges, deployment of manpower, maintenance of railway siding, etc. The approved cost in the PPA did not provide for the work done at Khadur Sahib Railway Station including the conversion from Halt Station to Block Station. Further, Railways approved the drawings but not the cost estimates. GVK further submitted that the Commission vide Order dated 29.04.2008 in Petition No.4 of 2007 filed by GVK seeking approval of the estimated project cost, mentioned that

> "*GVK has submitted that work on the railway siding will be carried out by Indian Railways or their approved contractor M/s BARSYL, Secundrabad.*"

In response to the query by the Commission, GVK submitted that BARSYL is a Railway Approved Consultant which had carried out the Feasibility Report, preparation and submission of drawings to Railways etc., whereas GVK Projects and Technical Services Ltd. is the contractor who had executed the railway siding works. The contract was awarded to GVK Projects and Technical Services Ltd. by way of Competitive Bidding. The works were executed by GVKPTSL under the supervision of the railway approved Consultant (BARSYL/ Aarvee). BARSYL was engaged for preparation of drawings and obtaining requisite approvals from Railways. Aarvee was engaged for Construction Supervision.

9.8.5 On 01.08.2019, GVK submitted that it was required to build the Railway facilities as per the requirements stated in the Agreement dated 11.12.2008 executed with East Central Railways for transporting coal from Tokisud Coal Block to the project site. The designs for the Railway facilities were prepared by BARSYL being a railway approved consultant. Therefore, the designs including quantum etc. were as per approval granted by Indian Railways. Further, the designs were conceptualized on the basis of procurement of coal from the captive coal block. Therefore, all facilities were designed to be consistent with the quantum of coal to be mined from Tokisud in accordance with the approved mining plan. Further, all facilities are being utilized exclusively for generation and supply of power to PSPCL. The railway facilities were designed and constructed in a manner to offset low production of coal at the Tokisud Captive Coal Block during the monsoon as well as delays on account of non-availability of rakes due to preference given to Central and State Utilities over IPPs. Therefore, to ensure regular supply of coal and prevent situations leading to shortage of coal, the railway siding was designed to ensure GVK can offload maximum rakes of coal. Moreover, since cancellation of captive coal block has been held to be a change in law event, the expenditure incurred by GVK for building the railways facilities on the basis of supply of coal from Tokisud Coal Block ought to be allowed to GVK.

9.8.6 As per the submissions dated 01.08.2019 (Annexure-6), GVK has claimed an amount of Rs. 120.33 crore for Railway Siding works under Non-EPC works comprising of Rs. 29.15 crore for development of Khadur Sahib railway station, Rs. 44.18 crore

for lead line including retaining wall and Rs. 47.00 crore for plant yard. Additionally, Rs. 1.26 crore have been claimed as codal charges to Railways under 'non-EPC works-Direct'. On 27.11.2019, GVK submitted that the amount of Rs. 1.26 crore paid to Railways was towards codal charges amounting to Rs. 0.56 crore for road over bridge (ROB), Rs. 0.31 crore for 3 no. vehicles provided to railways, Rs. 0.13 crore for computers, furniture and plotters and the remaining (Rs. 0.26 crore) for electricity connection for Khadur Sahib Railway Station, monthly electricity bills till COD and fee paid to EE, const. div.1, Railways for preparing drawings for the diversion road in place of the proposed ROB.

9.9 PSPCL's submissions

9.9.1 PSPCL submitted that for the construction of plant side railway siding, the petitioner has claimed a cost of Rs.103.33.crore. The reason for the same has been stated to be delay in possession of land required for the lead track and approval from Railways, resulting in increase in construction cost. An additional reason stated is non-availability of suitable grade material in Punjab due to illegal mining, which is not admissible. The delay in possession of land and approvals from Railways has been allowed as a Force Majeure event by Arbitral Tribunal. PSPCL has challenged the same before Commercial Court, Patiala. Any cost overrun allowed by the Commission is subject to the outcome of the same. However, considering that the work of railway siding was to be carried out either by Indian Railways or its approved contractor (i.e. at approved rates), the huge cost escalation claimed by the petitioner is unjustified, more so when no details of the same e.g. construction period, year of price level, etc.

has been given. PSPCL submitted that GVK has claimed increase in cost of construction of lead line on the basis of increase in length of lead line due to change in design/gradient approval by the Railways and the demands of additional structures such as service roads, etc. by the farmers. However, GVK has not placed any substantiating documents on record for examination (not even the modified approvals by Railways) so as to ascertain the admissibility or otherwise of its claims. As such, in the absence of necessary documents supporting its claim for the huge cost overrun, the petitioner's claim is not liable to considered at this stage. So far as the farmer's demands are concerned, no supporting documents such as any demand letter from the farmers etc. have been placed on record. In the absence of the same, the petitioner's claim is not liable to be considered. Even otherwise, it is incomprehensible that farmers *"who had parted with their lands"* pursuant to land acquisition and accepted compensation, would insist on construction of additional structures near the lead line. The petitioner's claim under this head being incomplete, unsubstantiated and untenable, the same is liable to be rejected by the Commission.

9.9.2 PSPCL submitted that GVK has claimed an amount of Rs.38.81 crore for development of Khadur Sahib Railway Station, for which requirements had been changed by Northern Railways post grant of the in-principle approval dated 29.04.2008 by the Commission. GVK has given break-up of said costs incurred without any supporting documents. In the absence of the same, the said claims are not liable to be considered by the Commission.

9.9.3 On 09.09.2019, PSPCL submitted that the petitioner in its Affidavit dated 27.06.2019, had stated that certain amounts have been inadvertently left out while detailing the railway cost overrun in its petition. In this regard, PSPCL requested the Commission to take judicial note of the casual approach taken by the petitioner while filing its petition. It was further submitted that it is reasonably expected out of any generating company that prior to filing of the petition, an accurate assessment of the costs is done before the same are presented to the Commission is done so as to avoid any chances of financial errors which may have large scale implications while determining tariff which would ultimately be borne by the consumers of PSPCL. The Petitioner has stated that cost overrun of Rs.88.29 crore towards railway cost is due to delay in possession of land required for lead track and approvals from Railways. PSPCL stated that the time overrun and cost overrun on account of land acquisition is covered under 'controllable factors' as per Regulation 12(1)(a) CERC Tariff Regulation 2014-19 and hence, the petitioner is not entitled to claim these expenses in its capital costs. The petitioner has completely failed to provide any details as regards the competitive bidding documents or the bids received from GVK Projects and Technical Services Pvt. Ltd. and any correspondences to show that M/s BARSYL was engaged only for the purpose construction supervision, when it had clearly submitted in its petition that work on the railway siding would be carried out either by Indian Railways or by their approved contractor M/s BARSYL. Further, even the sketch/scheme approved by the Railways for railway sidings is illegible and thus cannot be responded to.

9.10 Joint Auditor's Report

Lead Line

9.10.1. The Joint Auditor in his report stated that in the original work order dated 04.08.2009 for the railway siding lead line, the net cost after discount was Rs. 5.32 crore. In the scope change order dated 04.11.2012, the net cost was revised to Rs. 35.50 crore whereas in the final non-EPC bill (RA-79), a sum of Rs. 28.90 crore has been claimed. Against this the Joint Auditor after analysis of the works carried out and their costs, has recommended that only Rs. 16.19 crore be allowed for the lead line.

Plant Yard

9.10.2 The Joint Auditor in his report stated that in the original work order dated 04.08.2009 for railway plant yard, the net cost was Rs. 9.72 crore. In the scope change order dated 04.11.2012, the net cost was revised to Rs. 29.13 crore whereas as per last non-EPC bill (RA-79) it was claimed as Rs. 46.99 crore. Against this, the Joint Auditor after analysis of the works carried out and their costs, has recommended that Rs. 41.04 crore be allowed for the railway plant yard.

Khadur Sahib Railway Station

9.10.3 The Joint Auditor in his report has not provided any detail of the original work order dated 04.08.2009 for Khadur Sahib Railway Station whereas in the scope change order dated 04.11.2012, the net cost has been stated as Rs. 38.81 crore. As per the last non-EPC bill (RA-79), GVK has claimed Rs. 29.12 crore, which the Joint Auditor has recommended.

Construction of Retaining Wall in Railway Lead Line

9.10.4 The Joint Auditor has recommended allowing Rs.15.28 crore as claimed by GVK for the construction of the retaining walls on both sides of railway lead line because of the loose soil conditions.

9.10.5 Thus, the Joint Auditor has considered GVK's claim of Rs.120.29 (28.90+46.99+29.12+15.28) crore for the railway siding works against which he has recommended Rs.101.63 (16.19 + 41.04 +29.12 + 15.28) crore. In addition, the Joint Auditor has also allowed Rs.1.26 crore codal charges to railways claimed by GVK under the head 'non-EPC works-Direct'.

9.11 Commission's Analysis

9.11.1 The Commission in its Order dated 29.04.2008 regarding Non EPC works held as hereunder:

> ***"In the petition, GVK has provided Rs.86 crores for non EPC works i.e. works other than BTG & BOP. In the subsequent filings, it has been informed that the provision for non EPC works includes Rs.35 crores for railway siding as intimated by the approved railway contractor M/s BARSYL. GVK has indicated that the railway siding work will be carried out either by Indian Railways or their approved contractor M/s BARSYL, Secunderabad. This entails upgradation of the Khadoor Sahib Railway Station and the laying of a 3.5 Km line from this station to the project site. The remaining provision of Rs.51 crores (86-35) is stated to be for the residential colony, boundary wall, administrative building, green belt, site office, approach road, site grading, site drainage, fire station building, main entrance gate complex, security barracks and ash pond etc. The Commission is inclined to allow the amount of Rs.86 crores for non EPC works but does not approve an additional amount of Rs. 49 crores for site***

clearing/grading and Ash pond reported separately in the latest filing by the petitioner as the same are considered included in the total non EPC cost of Rs. 86 crores intimated earlier."

Though the Commission had allowed Rs. 35 crore vide Order dated 29.04.2008 in petition no. 04 of 2007 for railway siding works, however, GVK has claimed Rs.103.33 crore for Railway siding works in this petition, revising it further to Rs. 121.59 crore in the submissions dated 01.08.2019 (Annexure-6) plus Rs.1.26 crore as codal charges to railways under the head 'non-EPC works-Direct'. (The claim for codal charges has been dealt with separately later). The Commission notes that GVK had indicated that the railway siding work will be carried out either by Indian Railways or their approved contractor M/s BARSYL, Secunderabad as brought out in the Commission's Order dated 29.04.2008. However, the Railway siding works have actually been carried out by GVK Projects Technical Services Ltd., a sister concern.

9.11.2 From the documents submitted by GVK, it is clear that despite the cost enhancement of Rs. 86.59 (121.59-35) crore, GVK itself has submitted estimates worth only Rs. 60.34 crore to the railway authorities for the railway siding works comprising the development of Khadur Sahib Railway Station, Lead Line and the railway siding inside the plant yard area. However, the scope change order dated 02.11.2012 issued to its sister concern GVKPTSL was for Rs. 88.30 crore. The Joint Auditor has not taken cognizance of the estimates vetted by the railways amounting to Rs.60.34 crore for railway siding works as submitted by GVK while recommending the costs to

be allowed for railway siding works amounting to Rs. 103.29 crore. The lead line cost has increased approximately 7 times from Rs.5.32 crore as per original work order dated 04.08.2009 to Rs.35.40 crore in the scope change order dated 02.11.2012 against which the bills of Rs.28.90 crore have been claimed. Both the work order quantity and rates have been escalated in the case of lead line works. The Joint Auditor has recommended allowing Rs.16.18 crore for the lead line works. For railway works in the plant yard area, though quantities of a few works has decreased, there is escalation in the rate for almost all the works. The cost of the work in the plant yard area has increased from Rs.9.72 crore as per original work order dated 04.08.2009 to Rs.29.13 crore in the scope change order dated 02.11.2012 i.e. an increase of 3 times. Against this, the bills of Rs. 46.99 crore have been claimed and the Joint Auditor has recommended Rs.41.04 crore to be allowed. For the work of Khadur Sahib railway station, the Joint Auditor has considered the cost of works as per the scope change order dated 02.11.2012 amounting to Rs.38.81 crore against which bills of Rs. 29.12 crore have been claimed and the same has been recommended to be allowed by the Joint Auditor. The Joint Auditor has stated that the work of the railway station was not included originally in the DPR. However, it is seen that in the Commission's Order dated 29.04.2008, the upgradation of Khadur Sahib railway station is included in the non-EPC works. In addition to this, the Joint Auditor has allowed Rs.15.28 crore for the construction of the retaining wall on both sides of the lead line. GVK has not explained why the rates as well as quantities of the lead line

could increase so much when the length of lead line is claimed to have increased from 3.52 to 5.4 km. The quantity of works in plant yard area has decreased in most of the items in the scope change order dated 02.11.2012 whereas there is increase in the rates. However for the lead line work, the claim in the bills is Rs. 28.90 crore which is less than the scope change order cost of Rs.35.40 crore. For the plant yard area, the claim in the bills is Rs.46.99 crore against the scope change order cost of Rs.29.13 crore. For the Khadur Sahib Station works, the claim in the bills is Rs.29.12 crore against the scope change order cost of Rs.38.81 crore. None of these differences in the scope change and actual claim have been explained. The railway siding work has also been carried out by a sister concern of GVK against the same scope change order dated 02.11.2012.

9.11.3 GVK submitted the copies of its estimates vetted by Northern Railways. The main estimate covering the estimated cost of the proposed railway siding for the project is in two parts. Part A pertains to works to be done within the Railway premises amounting to Rs. 30.06 crore comprising 22.74 crore as engineering cost, Rs. 5.76 crore as Signal & Telecommunication (S&T) cost and Rs. 1.56 crore as electric works cost. Part B pertains to works to be done outside Railway premises comprising of Rs.5.62 crore for the lead line and Rs.24.66 crore for the railway siding inside the plant yard area. Thus, GVK has submitted an estimated expenditure of Rs. 60.34 crore for the railway siding work to the railway authorities. Based on this expenditure vetted by railways against the said works, the railway authorities worked out

their departmental charges as Rs. 2.58 crore in FY 2012-13 and claimed the same from GVK as below:

Table 30: Cost estimates and supervision charges for Railway Siding works

(Rs. crore)

S. No.	Head	Description	Amt	Supervision/ Departmental charges (%)	Net amount
1.	Khadur Sahib Railway Station	Estimated value of engineering cost	22.74	4.00	0.91
		Estimated value of signaling & tele-communication cost	5.76	6.25	0.36
		Estimated value of electrical cost	1.56	6.25	0.10
2.	Lead Line		5.62	4.00	0.22
3.	Plant yard area		24.66	4.00	0.99
	Total		60.34		2.58

9.11.4 The Railways, which is an Indian Governmental Instrumentality, have assessed their supervision charges of Rs. 2.58 crore based upon the amount of Rs. 60.34 crore as brought out in the foregoing paras. It would be seen that the work was supervised by the railway approved contractor (Aarvee) and the supervision charges were to be paid to him by the Railways. Had the railway siding work cost more than the amount of the vetted estimates i.e. Rs.60.34 crore, the railway siding contractor would have asked for enhancement of payment for the supervision work from the railways and consequently a demand for the same would have been raised by the Railways on GVK. GVK has not produced any such document from the Railways. The claim of Rs. 2.58 crore has been discussed hereinafter.

9.11.5 In view of the above, the Commission allows the cost

of the railway siding works on the basis of the estimates vetted by the railways, an Indian Governmental Instrumentality, submitted by GVK which are for the entire railway siding work including the additional works done at the Khadur Sahib station, lead line and the plant yard area, based upon which the amount of departmental charges has been worked out and demanded by the railways from GVK. The details of estimated costs, GVK's claim, recommendations of the Joint Auditor and the amount allowed by the Commission with regard to the railway siding works is as below:

Table no. 31: Cost of Railway siding works

(Rs. crore)

Item	Original estimates dated 04.08.2009	Scope change order dated 04.11. 2012	Claimed by GVK	Recomm-ended by Joint Auditor	Allowed by the Commission
Lead Line	5.32	35.40	28.90	16.18	5.62
Railway siding in Plant Yard	9.72	29.13	46.99	41.04	24.66
Develop-ment of Khadur Sahib Railway Station	-	38.81	29.13	29.12	30.06
Retaining walls	-	-	15.28	15.28	-
Total	15.04	103.34	120.30	101.62	60.34

9.11.6 As regards the retaining wall of approx 1.45 km (0.725 km on each side) said to have been built to protect the railway lead line, GVK has not produced any demand or approval of the Railways or duly vetted estimates from the Railways or the supervision charges paid for the same. Therefore it has not been allowed.

B. Payments to Railways

9.12 GVK's submissions

9.12.1 GVK submitted that it has remitted a sum of Rs. 26 crore to Indian Railways for notification of Khadur Sahib Railway Station and also for facilitating Y connection from the main line at Khadur Sahib Railway Station as per the agreement with Railways. This amount also includes an amount of Rs. 24 crore paid by GVK towards the deployment of manpower and maintenance as demanded by the Railways. The said amount is for salaries of the personnel deployed and the estimated annual maintenance cost of the railway siding for 10 years. GVK has claimed the following costs paid to railways:

Table 32: Details of payment to Railways

(Rs. crore)

Item	Amount
Codal Charges	0.56
Land License Fee	0.00
Railway Maintenance deposit	0.00
Cost of deployment of manpower and maintenance as per demand from railways	23.93
Cost of vehicles, plotters, computers and other equipment provided to railways	0.29
Electricity connections requirement for railway operations	0.03
Monthly electric charges	0.05
Others	0.06
Total	24.92

9.12.2 In the submissions dated 27.06.2019, GVK stated that the amount of Rs 23.93 crore was paid upfront as an advance towards 10 years salaries of Railway Staff before the commissioning of the Railways Siding. Without the payment, the railway siding would not have been commissioned and the funding for the same had to be provided as part of the project cost. It was submitted that if the said

amount is considered as part of O&M Expenses, GVK would not have been able to commission the railway siding as only revenues generated from operating the Project could to be utilized to pay for the same. GVK could not have operated the Project without coal which is received at the Railway siding. Accordingly, the cost has been considered as part of the completed capital cost. The Commission may allow the same to be reimbursed over a period of 10 years as the same has been funded by the lenders. On 01.08.2019, GVK in its submissions (Annexure-6) has claimed Rs.23.94 crore as upfront fee to railways towards salary of railway staff under head Preliminary & Pre-operative expenses terming it as Construction & Pre-commissioning expenses.

9.13 PSPCL's submissions

9.13.1 PSPCL submitted that GVK has claimed a sum of Rs.26 crore towards payments made to Indian Railways on account of notification of the Khadur Sahib railway station facilitating Y connection from the main line at the station and deployment of man power and maintenance as demanded by the Railways. In the absence of supporting documents, the said claims are not liable to be considered by the Commission. There is calculation discrepancy with regard to the payment to railways in the claim of Rs. 26 crore as stated in para 65 of the petition and Rs. 24.92 crore mentioned in Table 9 of the petition, which is also required to be justified/rectified by the petitioner.

9.13.2 On 09.09.2019, PSPCL contended that the supporting documents (being a letter dated 03.07.2015 addressed to Ferozpur Subdivision, Northern Railways) shows a payment of only Rs. 21.34 crore as against the claimed amount of Rs. 23.93

crore. PSPCL submitted that the petitioner must clarify as to the difference of Rs. 2.59 crore claimed by it.

9.14 Joint Auditor's Report

9.14.1 The Joint Auditor stated that GVK has paid Rs. 23.93 crore as advance of 10 years salaries of Railway staff at Khadur Sahib Railway Station as per instructions of Railways and claimed the same. As the company has incurred this expense on the instruction of Railways, the Joint Auditor recommended Rs. 23.93 crore for Payment of Railway Staff Salaries.

9.15 Commission's Analysis

9.15.1 In the petition, GVK submitted under the head non-EPC that Rs.24 crore was deposited towards deployment of man power and maintenance as demanded by the railways. However, in its submissions dated 01.08.2019 (Annexure-6), GVK has claimed the amount of Rs.23.94 crore, comprising Rs.21.36 crore for O&M charges for 10 years maintenance of Khadur Sahib Railway Siding and Rs.2.58 crore as departmental/supervision charges paid to the railways, under the head 'Construction and pre-Commissioning expenses'. As the charges pertain to railways, the same have been considered under non-EPC head as originally submitted by GVK alongwith railway siding works. The details are as follows:

Table 33 A: Details of O&M charges & supervision charges

(Rs. crore)

S. No.	Description	Amount
1.	Recurring charges towards maintenance and staff employment for 10 years (Civil Engineering Portion)	7.08
2.	Recurring charges towards maintenance for 10 years (S&T portion)	1.73
3.	Recurring charges towards staff employment for 10 years (Operating, S & T & Commercial)	12.55
	Total	21.36
4.	Supervision/ Departmental for Construction of railway siding for GVK Power (Goindwal Sahib) Ltd. as per detailed estimate duly vetted	2.58
	Total	23.94

9.15.2 The Commission agrees that the amount of Rs. 21.36 crore towards 10 years maintenance charges should be treated as part of capital cost and hence, allows the same. Also, Rs. 2.58 crore claimed by GVK towards Supervision/ Departmental charges paid to the railway authorities are allowed. Thus, the total amount of Rs. 23.94 crore is allowed comprising the charges for 10 years maintenance charges (Rs. 21.36 crore) and Supervision/ Departmental charges of railway authorities for the works carried out by GVKPTSL (Rs. 2.58 crore).

Table 33 B: O&M charges & Supervision charges

(Rs. crore)

Item	As per Schedule-11 of the PPA	Claimed by GVK	Approved by the Commission
Maintenance charges for ten years	Nil	21.36	21.36
Supervision charges	Nil	2.58	2.58
Total		23.94	23.94

9.16 <u>Non-EPC works-Direct</u>

9.16.1 As regards the claim of Rs. 12.23 crore by GVK under the head 'non-EPC works-Direct', the Joint Auditor has recommended to allow only Rs. 1.26 crore out of the same towards codal charges paid to Railways, stating that this cost of Rs. 12.23 crore was not at all envisaged in the original project cost. The Commission in its interim Order dated 08.11.2019 asked GVK to clarify whether the said amount of Rs. 1.26 crore is included in Rs. 2.58 crore departmental charges paid to the railways as per the estimates vetted by Railways and included in the claim of Rs. 23.94 crore deposited with Railways. If not included, then the estimate of the work for which these codal charges of Rs. 1.26 crore have been paid, as vetted by Railways be submitted alongwith payment receipts issued by Railways. On 27.11.2019, GVK submitted that the amount of Rs. 1.26 crore paid to Railways was towards codal charges amounting to Rs. 0.56 crore for road over bridge (ROB), Rs. 0.31 crore for 3 vehicles provided to railways, Rs. 0.13 crore for computers, furniture & plotters and Rs. 0.26 crore for the remaining items i.e. electricity connection for Khadur Sahib Railway Station, monthly electricity bills till COD and fee for preparing diversion road drawings for the diversion road to be constructed in place of proposed ROB. In the submissions by GVK received on 04.12.2019, GVK has clarified that the amount of Rs. 0.26 crore mentioned above includes the fee of Rs. 0.04 crore for preparing diversion road drawings. As the ROB has been replaced by diversion of road, the fee of Rs. 0.56 crore

deposited with Railways for ROB cannot be allowed whereas the fee for diversion road drawing is being allowed. Considering the above and further supporting documents submitted by GVK on 13.12.2019, the Commission allows the balance amount of Rs. 0.70 (1.26-0.56) crore for the vehicles, fee for preparing diversion road drawings, computers, plotters, electricity connection charges, monthly electricity charges, furniture, RO, water cooler, etc. at Khadur Sahib Railway Station, as demanded by the railways.

Table 34: Vehicles, computers, furniture and other items supplied to Railways for Railway siding work

(Rs. crore)

Claimed by GVK	Allowed by the Commission
1.26	0.70

9.16.2 GVK has claimed Rs. 2.83 crore towards establishing coal handling facilities under non-EPC works-Direct stating that the coal storage was enhanced from 30 days to 45 days considering that the coal availability from the allocated Tokisud coal mine (which now stands cancelled vide Hon'ble Supreme Court Order dated 24.09.2014) would be low due to severe monsoons in Jharkhand. As per GVK, the same was further enhanced to 60 days to avoid unnecessary shutdown of the units due to low coal stocks considering that Railways give first priority to Central and State generating stations and sometimes may not provide any rake to the IPPs. PSPCL referring to the Coal Transportation Agreement signed with East Central Railways has stated that the likely number of rakes being received would be a maximum of 85 rakes in a month, a maximum of 31 rakes in a ten day period and a maximum of five rakes in one day provided that such five

rakes may only be supplied in four out of ten days. Thus the extra capital cost to build infrastructure for five rakes against 2.5 rakes a day is not justified. There appears to be no need for the petitioner to store coal for 60 days going by the experience of PSPCL in running thermal power stations of similar size and nature. GVK should not have provided for double the required coal storage facility without any approval from any Authority. The Joint Auditor has also rejected the claim of Rs. 2.83 crore of GVK on this account. Given the norms of 30 days coal storage, extra expenditure on coal handling facility cannot be allowed. The total amount allowed for Railway works is as hereunder:

Table 35: Details of amount allowed for Railway siding

(Rs. crore)

Item	As per Schedule 11 of the PPA	Original estimated cost as per this petition	Claimed originally in the petition	Revised claim by GVK	Allowed by the Commission
A. Originally approved works					
Up-gradation of Khadur Sahib Railway Station		-	38.81	29.13	30.06
Lead Line	35.00	5.32	35.40	28.90	5.62
Plant yard area		9.72	29.13	46.99	24.66
Total		15.04	103.34	120.30	60.34
B. Works added by GVK later					
Retaining Wall		-	-	15.28	-
O&M charges		-	23.93	21.36	21.36
Supervision charges				2.58	2.58
Codal charges, Vehicles, computers, furniture and other items		-	0.99	1.26	0.70
	35.00	15.04	128.26	145.50	84.98

9.17 Other Non-EPC works- Residential colony, compound wall, pump house, fire station, workshop, storage shed, security office, administration building, green belt, plant enabling work and other miscellaneous work

A. Residential colony

9.17.1 GVK's submissions

9.17.2 GVK has claimed the following for the Residential colony in the petition:

Table 36: Residential colony and Vibro Compaction Charges

(Rs. crore)

S. No.	Item	APTEL Approved (2009)	Actual	Cost Overrun
1.	Residential colony	35.03	61.08	26.05
2.	Vibro-compaction	0	2.51	2.51
3.	Total	35.03	63.59	28.56

9.17.3 GVK submitted that the cost of residential colony was originally estimated at Rs. 35 crore. However, the actual cost incurred on residential colony was Rs. 61.08 crore and the over run of Rs. 26.05 crore be allowed. The work has been awarded on fixed priced basis to GVKPTSL, on arms length basis. GVK submitted that the unit rate for the colony work has been revised due to the following reasons:

a) Increase in foundation cost as it had adopted (G+1) structural configuration (against (G+2) proposed earlier) on account of poor soil condition,

b) Increase in steel & cement price,

c) Increase in cost of sand & Hard Broken Granite material (used for foundation work) as Punjab Government has imposed a ban on local quarrying; and

d) Overall increase in construction cost.

Further an amount of Rs.2.51 crore is claimed for vibro-compaction in the residential colony. The details of original and revised rate for the major works of the colony are as follows:

Table 37: Original & revised estimates for residential colony works

S. No.	Particulars	Unit	Quantity (Units)	Original Rate (Rs.)	Revised Rate (Rs.)	Cost Overrun (Rs. crore)
1.	Colony (G + 1)	Sq. Mt.	17,193	17,000	27,350	15.02
2.	Electrical works in colony buildings	Units	183	1,20,000	2,12,000	1.42
3.	Colony electrical supply, distribution system	Lump sum		25,00,000	312,50,000	2.43
4.	6.6 kV/415V, 750 kVA Transformer	Nos.	2.00	2,00,000	11,20,000	0.16
5.	Building for incoming and outgoing feed panels	Sq. Mt.	139.41	12,000	38,450	0.31
6.	Water supply and Sewage system for colony supporting 100 KL capacity	KL	100	50,000	3,08,750	2.19
7.	Colony roads with 7m Width	Sq. Mt.	56,000	1,500	2,075	2.71
8.	Colony covered parking area	Sq. Mt.	1,500	1,500	6,675	0.65
9.	Street Lighting	Nos.	60	85,000	3,15,000	1.17
10.	Total Cost Overrun (Lump-sum)					26.05

9.17.4 In its submissions dated 27.06.2019 in response to the queries raised by the Commission that whether the residential colony constructed is as per the present requirement of the project or is it inclusive of the houses/flats required for the envisaged

expansion works of the project, GVK stated that the residential colony constructed is meant for the present requirement of the project. No accommodation was considered or envisaged for project expansion. A table detailing the quarters planned and constructed is as follows:

Table 38: Details of houses in Residential colony

Description	No. of units planned	No. of units constructed	Remarks
GM Bungalow	6	6	Occupied
Type – A	14	14	Occupied
Type – B	36	24+8+4	16 Occupied, 12 in semi-furnished stage + 8 in construction stage.
Type - C	80	80	Occupied
Type - D	32	32	Occupied
Hospital	1	1	Occupied
School	1	1	Occupied
Club House	1	1	Occupied
Field Hostel	1 (24 rooms)	1 (24 rooms)	24 rooms occupied
Sheds for Car parking	4	4	Occupied

9.17.5 GVK in its submissions dated 01.08.2019 (Annexure-6) has claimed an amount of Rs. 62.82 crore for residential colony under the head Non-EPC works against Rs. 61.08 crore claimed in the petition. An additional amount of Rs. 1.95 crore has been claimed in Annexure-6 under the head Non-EPC works-Direct, which is being dealt separately. In response to PSPCL's observations in its submissions dated 09.09.2019 regarding requirement of vibro-compaction in colony area, GVK on 11.12.2019 stated that Cengrs soil investigation report pertaining to bore-hole no. 4 represents the colony area. It was found that soil liquefaction effect has been

observed upto a depth of 9 meters and therefore vibro compaction has been carried out to increase the load bearing capacity of the soil. Accordingly, the design of the colony was revised from G+2 to G+1 configuration.

9.18 PSPCL's submissions

9.18.1 PSPCL in its reply dated 20.03.2018 submitted that GVK has given detailed break-up of the cost towards residential colony claimed/approved by the Commission in its Order dated 29.04.2008, which leads to the natural inference that the same had been based on the contractual arrangement entered into at that time, which, in turn, must necessarily have been entered into on certain tangible considerations and not on hypothetical assumptions. PSPCL further submitted that even if one proceeds on the Petitioner's own case as recorded in the Award of Arbitral Tribunal that the possession of the project site had been handed over to it in 2009, it means that the land for residential colony was available with it since 2009 for undertaking all preparatory works such as ascertaining the soil condition, redesigning the complexes if required and then proceeding with the construction. As such, there could never be a case for increase in steel and cement price and the increase in construction cost as has been claimed by the Petitioner and the same, therefore, is not liable to be approved. Moreover, electrical systems, street lighting, water supply systems, etc cited by the Petitioner cannot by any stretch of imagination be conditioned on poor soil condition. The petitioner has also not given any substantiating details of the cost overrun claimed by it (including the basis of price escalation) and has also not stated as to when the work of construction of residential colony commenced

and the complexes were ready. So far as the ban on local quarrying cited as a reason for cost overrun is concerned, it is submitted the Petitioner had raised this plea before Arbitral Tribunal for claiming the same as force majeure; however, the same was disallowed as follows:

> *"79. We have perused the order of the Hon'ble High Court of Punjab and Haryana dated 18.5.2010 referred to by the Claimant in support of its claim. The Order clearly states that illegal mining in the State has been banned. It further directs that there would not be any extension of permits for mining in the States. Thus, legal mining under existing permits was not banned. During hearing learned Counsel for GVK Power stated that pursuant to Hon'ble Supreme Court's directions there was a complete ban on mining in the country. However, Claimant in its own pleadings has stated that aggregate was sourced from Himachal Pradesh and other areas outside Punjab. It is therefore evident from records that ban was limited to illegal mining in the State of Punjab and extension of permits for mining. Therefore, delay in procurement of aggregate cannot be held as 'force majeure' event."*

Therefore PSPCL contended that cost overrun of Rs.26.05 crore towards residential colony is not sustainable and is liable to be rejected by the Commission.

9.18.2 PSPCL in its submissions dated 09.09.2019 submitted that the Commission had sought information from the petitioner whether the residential colony constructed was as per the present requirement of the project or was inclusive of the houses/flats required for the envisaged expansion works of the project. In response thereto it is submitted that the Commission may subject the figures mentioned by the petitioner, to the adequate requirement for the project site and the applicable regulations thereto while conducting the prudence check and also take into

account the site inspection conducted by the officials of the Commission. The petitioner is required to justify the additional cost of Rs. 2.51 crore, as included in the Non-EPC head, when Rs.10.38 crore has already been claimed by the Petitioner for the same vibro-compaction under the head of BOP contract.

9.19 Joint Auditor's report

9.19.1 The joint auditor in his report for colony works has tabulated the same as hereunder:

Table 39: Original & revised estimates

S. No.	Particulars	Unit	Original Work order dated 04.08.2009			Scope Change Order dated 04.03.2012			AS per Last Non-EPC Bill RA-79		
			Work Order Qty	Rate (Rs. / Unit)	Amount (Rs./Cr)	Work Order Qty	Rate (Rs./ Unit)	Amount (Rs./ Cr.)	Billed Qty.	Rate (Rs./ Unit)	Amount (Rs./Cr)
1.	Colony (G+2 Construction)	Sq. mt.	17,193,31	17,000	29.23	17,193.31	27,350	47.02	19,203.00	27,350	52.52
2.	a) Electrical Works in Colony Buildings	Nos.	183.00	120,000	2,20	183.00	212,000	3.88	154.40	212,000	3.27
	b) Colony Electrical Supply & Distribution System	L	1.00	2,500,000	0.25	1.00	31,250,000	3.13	0.96	31,250,000	2.99
	c) 6.6 kV/ 415v , 750 kVA Transformer	Nos	2.00	200,000	0.04	2.00	1,120,000	0.22	2.00	1,120,000	0.22
	d) Building for income and Outgoing Feeders Panels	Sq. mt.	139.41	12,000	0.17	139.41	38,450	0.54	124.08	38,450	0.48
3	Water Supply and Sewage System for Colony Supporting 100 KL Capacity	KL	100.00	50,000	0.50	100.00	308,750	3.09	93.00	308,750	2.87
4.	Colony Roads 7 Mtr Wide	Sq. mt.	56,000.00	1,500	8.40	56,000.00	2,075	11.65	26,208.71	2,075	5.44
5.	Colony Covered Parking Area	Sq. mt.	1,500.00	1,500	0.23	1,500.00	6,675	1.00	1,500.00	6,675	1.00
6	Street Lighting	Nos	60.00	85,000	0.51	60.00	315,000	1.89	56.15	315,000	1.77
7.	Admin Building	Nos.	966.54	12,000	1.16	966.54	12,000	1.16	831.22	12,000	1.00
8.	Total				42.69			73.55			71.56
9.	Less: Discount of 15.625%				(6.67)			(11.49)			(11.18)
10.	Net Colony Construction cost (8-9)				36.02			62.06			60.38
11.	Add: Vibro Compaction Carried Out										2.44
12	Total				36.02			62.06			62.82

9.19.2 The Joint Auditor has stated that GVK has claimed Rs. 62.82 crore against colony works, out of which colony construction works comes to Rs. 44.31 crore (19202.99 sq.mt. @ Rs. 27350 per sq.mt. minus 15.625% discount). GVK had originally envisaged 17193.31 sq.mt. for construction of colony at the rate of Rs.17000 per sq.mt. Thereafter, GVK vide its scope change order dated 04.03.2012 increased the rate to Rs. 27350 per sq. mt. but kept the construction quantity same. GVK in its reply dated 16.10.2019 has informed that the carpet area of the colony did not increase. Joint Auditor also asked GVK to provide the break up and reasoning for increase in cost of construction, GVK replied that the cost of construction has increased due to loose soil conditions and making colony in G+1 type instead of G+2 type quarters, without providing any exact calculation as to how the increase in cost has been calculated. The Joint Auditor has adopted the rate as Rs.22,000/sq.mt. stated to be based on market enquiries and enquiries made from public domain and recommended to allow Rs.31.92 crore (17193.31 sq.mt. @ Rs.22,000/- sq.mt. minus 15.625% discount) for colony construction works.

B. <u>Other components (Electrical supply system, Transformers, Water Supply & Sewerage System, Colony roads, parking area etc.)</u>

9.19.3 The Joint Auditor has stated that as per the original work order, the cost of other components of colony works was Rs.11.36 crore (after 15.625% discount) but GVK vide its scope change order dated 04.03.2012 increased the rates of other components by multiple times and is claiming Rs. 16.06 crore. GVK has neither provided the breakup or the reasoning for increase in the cost of construction nor the exact calculations as to how the increase in

cost has been calculated. The Joint Auditor has allowed Rs. 16.06 crore for the cost of other components stating the reasons that GVK had originally envisaged the rates of other components lower than the actual cost at that time and the rates charged in actual bill are near the actual cost incurred on the component.

C. Vibro-compaction

9.19.4 The Joint Auditor has stated that GVK has claimed Rs. 2.45 crore for vibro-compaction carried out at site. GVK got the possession of the project site in 2009 and came to know about the loose soil conditions and got the soil study conducted by the consultants. The consultants suggested soil improvement before installing the plant. The vibro-compaction cost was not envisaged in the original DPR of 2007 and Rs. 2.45 crore for vibro compaction has to be allowed.

9.19.5 The Joint Auditor in his report has summarized the above works and recommended the amounts against them as hereunder:

Table 40: Recommended cost of Residential colony works

(Rs. crore)

S. No.	Particulars	Amount claimed	Amount allowed	Amount disallowed
1.	Colony (G+1 construction)	44.31	31.92	12.39
2.	Other components (Electrical Supply System, Transformers, Water Supply & Sewerage System, Colony Roads, Parking Area etc.)	16.06	16.06	0.00
3.	Vibro Compaction	2.45	2.45	0.00
4.	Total	62.82	50.43	12.39

D. Compound wall, pump house, fire station etc.

9.20 GVK's submissions

9.20.1 GVK claimed Rs. 10.87 crore for Compound wall, pump house, fire station in the petition.

9.20.2 On a query from the Commission that a large portion of land has been left unutilized for future expansion in the centre of the plant area thus leading to unnecessary increase in the length of roads, boundary wall and pipes & drains, GVK in its submissions dated 27.06.2019 gave the break-up for compound wall is as under:

a) Cost of compound wall for 1074 acres is Rs. 5.58 crore (about 10.5 km)
b) Cost of compound wall for 715 acres would be approx Rs. 6.33 crore (11.91 km)

GVK stated that the cost of compound wall has increased on account of the divisions made for the plant area and ash pond area. The length of the wall was optimised by making continuous wall along the boundary instead of bits and pieces which could result in additional length of 1.41 km. Further, the compound wall has been built around the ash pond for safety reasons as the said pond is very deep. The roads built for the project are to access the envisaged and constructed facilities which covers 715 acres. No separate roads are laid to access the vacant land. As regards the increase in length of the roads due to vacant site, it was submitted that the vacant land is not in the middle of the plant systems, but rather on one side of the conveyer system, coal stock yard and railway siding. These structures are very long and spread across the breadth of the project site. Therefore, in order to ensure

accessibility, the road lengths of 23190 meters have been provided.

9.20.3 GVK in its submissions dated 01.08.2019 (Annexure-6) has claimed of Rs. 6.87 crore comprising of Rs. 4.81 crore for compound and boundary wall, Rs.0.37 crore for fire station building and Rs.1.69 crore for LP piping totaling to Rs. 6.87 crore. GVK has further claimed an amount of Rs. 0.77 crore under the head non-EPC works-direct in Annexure-6 for compound and boundary wall works thus claiming Rs. 5.58 (4.81+0.77) crore for this work. The head non-EPC works-direct has been dealt separately hereinafter.

9.21 PSPCL's submissions

9.21.1 PSPCL in its submissions dated 09.09.2019 stated that the explanation given by the petitioner that cost of compound wall for 1074 acres is Rs.5.58 crore and the cost of compound wall for 715 acres would be Rs.6.33 crore is incomprehensible as it is not possible that the cost of compound wall would be higher for 715 acres as compared to 1074 acres.

9.22 Joint Auditor's Report

9.22.1 The Joint Auditor's Report stated that the Hon'ble APTEL vide Order in 2009 had approved the compound wall, pump house and fire station etc. at Rs. 10.86 crore. As per last Non-EPC running account bill (RA-79), the contractor has billed for each component against the amount approved by Hon'ble APTEL as follows:

Table 41: Expenses claimed by GVK

S. No.	Item	Cost (Rs. crore)		
		APTEL approved (2009)	Claimed in Petition 54/2017	Actual as per RA-79
1.	Compound Wall	10.86	4.81	4.81
2.	Pump House		0.00	0.00
3.	Fire Station		0.37	0.37
4.	MS Pipes	0.00	1.69	1.69
		10.86	6.87	6.87

The Joint Auditor has stated that PSERC has opined in its interim order dated 19.07.2019 in Petition no. 54 of 2017 that GVK has developed the ash dykes / ponds at a distance from the plant which left huge tract of clear land in the middle of the plant site and that resulted in extra long pipes, roads and boundary wall. If at all the ash pond was made in the blank space the company could have saved the cost of extra length of pipes and compound wall. He has therefore recommended to allow 2/3rd of the cost incurred on the compound wall and MS pipes and full cost for pump house that works out to be Rs. 4.70 crore.

E. Workshop, storage shed, security office, green belt etc. (Site development works)

9.23 GVK's submissions

9.23.1 GVK has claimed an amount of Rs.18.60 crore for workshop, storage shed, security office etc. In addition to the non-EPC, additional expenses have been claimed which inter alia include miscellaneous expenses towards plant enabling works including 7 meters wide plant roads to facilitate the movement of the site grading vehicles as the site is a sandy and very loose terrain, digging of trap drain along the western boundary of plant about 5 km to divert the surface run-off from the existing villages of

Hanswala, Hotian and Pindian, storm water discharge pipeline work, hydrogen shed works and dozer shed works. Against the cost of Rs. 8.58 crore approved by Hon'ble APTEL in 2009, the total additional cost is Rs. 10.02 crore. The breakup is as under:

Table 42: Additional works claimed by GVK

(Rs. crore)

S. No.	Particulars	Cost overrun
1.	Plant Roads 7 mts. wide	7.53
2.	Storm water Discharge Pipe Line work	2.50
3.	Hydrogen Shed works	0.21
4.	Dozer Shed works	0.28
5.	Total	10.52 (corrected to 10.02 by GVK)

GVK requested the Commission to approve the said additional expenditures in full as the entire cost overrun has happened either on account of increase in the scope of work or increase in the unit rate due to the events which were beyond the control of GVK. GVK in its submissions dated 27.06.2019 submitted that there is an inadvertent typographical error in the total at item no. 6 in Table-3 of the Petition and corrected the same to Rs. 10.02 crore. GVK in its submissions dated 01.08.2019 (Annexure-6) has specifically claimed Rs.2.62 crore for storage shed and Rs.1.10 crore for workshop under non-EPC works. On 27.11.2019, GVK submitted that the requirement of Dozer and Hydrogen Shed was not envisaged in the original scope. The dozer is required for coal handling and the dozer shed is for repair & maintenance of the same. The hydrogen shed is required for storing hydrogen cylinders safely as a statutory requirement. Hydrogen is required for cooling the generator.

F. Green Belt

9.24 GVK's submissions

9.24.1 GVK has claimed Rs. 2.03 crore for the development of green belt in the petition. GVK, later in its submissions dated 01.08.2019 (Annexure-6), revised the same to Rs. 1.11 crore for green belt and water supply network.

9.25 PSPCL's submissions

9.25.1 PSPCL in its submissions dated 20.03.2018 submitted that GVK has claimed miscellaneous expenses towards plant enabling works in the sum of Rs.10.52 crore which have been enumerated to include construction of plant roads, storm water discharge pipeline, hydrogen shed and dozer shed. However, once again, except for written pleadings, no substantiating documents have been placed on record, in the absence whereof, the said claims are not liable to be considered by the Commission. Even otherwise, the works under this head appear to be inherent in any power station construction plan and ought to have been taken into account at the very initial stage. PSPCL submitted that the repeated recourse by GVK to the plea of poor soil condition for every issue pertaining to the project land are at times, bizarre and are liable to be rejected by the Commission.

9.25.2 PSPCL in its submissions dated 09.09.2019 stated that the actual cost claimed for workshop, storage shed, security office is Rs.18.60 crore against Rs. 8.58 crore approved by Hon'ble APTEL with a cost overrun of Rs. 10.02 crore. However, no justification for this cost over-run is provided by the petitioner. In the petition, GVK had stated that the actual cost incurred for Hydrogen shed and Dozer shed is Rs.0.21 crore and Rs.0.28 crore (totaling to Rs.0.49 crore), however, in its Affidavit dated 14.06.2019, the said cost has

been claimed to be Rs. 57.78 lakh as against Rs.46 lakh stated in the petition. This difference of Rs.11.78 Lakh is required to be justified by the petitioner. The Commission had further sought justification from the petitioner regarding the claim of Rs.10.02 crore for site development works i.e. workshop, storage shed, security office etc. whereas it had also claimed Rs.10.52 crore against the site development works. As regards the submissions of the petitioner on the said query that due to an inadvertent error an excess amount of Rs. 0.50 crore has been claimed by it in its petition, PSPCL contended that GVK's repeated changes in its submissions showed that its claims are not serious and well documented and the consumers of PSPCL must not be burdened by such claims. There are calculating mistakes which need to be explained. PSPCL submitted that excessive cost of green belt has been included in the capital cost of the project.

9.26 Joint Auditor's Report

9.26.1 The Joint Auditor's Report states that the Hon'ble APTEL vide its Order in 2009 approved Rs.8.58 crore for the works pertaining to workshop, storage shed, security office etc. (site development works). Summary of each component in bill RA-79 and claimed in petition 54 of 2017 is as follows:

Table 43: Expenses claimed

S. No.	Item	APTEL Approved (2009)	Claimed in Petition 54/2017	Actual as per RA-79
1.	Security Office	8.58	0.09	0.09
2.	Workshop		1.31	1.31
3.	Canteen		0.24	0.24
4.	Storage Shed		3.10	3.10
5.	Site Office		-	-
6.	Guard Ponds		1.54	1.54

7.	Car Parking		0.10	0.10
8.	Truck Parking Area		3.72	3.72
	Amount before discount		10.10	10.10
9.	Amount after discount of 15.625%		8.53	8.53
10	Hydrogen Shed	Additional work out of scope	0.21	0.21
11.	Dozer Shed		0.28	0.28
	Total (9+10+11)	8.58	9.01	9.01

The Joint Auditor has stated that GVK has claimed Rs. 9.01 crore for this work according to the actual billing done by contractor in RA-79. The increase in cost is mainly on account of construction of hydrogen shed and dozer shed. These were not included in the original cost estimate. GVK was asked to give reason for the same against which GVK replied that the scope was enhanced because of making the High Concentration Slurry Disposal System as per MoEF's stipulation. Considering the above factors, it is recommended to allow the cost of site development works for Rs. 9.01 crore. The Joint Auditor has stated that Hon'ble APTEL approved the cost of the green belt as Rs. 2.03 crore in 2009. The contractor in bill RA-79 has billed the green belt for Rs. 1.11 crore (after discount). GVK has also claimed the same amount in the Petition against the green belt. As the amount claimed is very well within the amount approved by APTEL, Rs. 1.11 crore is recommended against green belt by the joint auditor.

G. Plant Enabling Works and Other Miscellaneous Works

9.27 GVK has claimed Rs. 6.31 crore at sr. no. 9 of table-3 of the petition for the 'plant enabling work and other miscellaneous work' and revised the same to Rs. 7.53 crore for plant enabling roads in its submissions dated 01.08.2019 (Annexure-6).

9.28 Joint Auditor's Report

9.28.1 The Joint Auditor has stated that plant enabling works were approved at a cost of Rs. 6.31 crore by Hon'ble APTEL in 2009. GVK has claimed the same amount in the petition. However, the contractor in Bill RA-79 has billed the Administrative building for Rs. 7.53 crore (after discount). As per original DPR of 2007, GVK has not taken the cost of plant enabling road works as a part of project cost, it is quite reasonable that it has not been taken as generally when companies give a contract, the cost of enabling works/ roads etc. for construction are impliedly included in cost. The Joint auditor opined that this cost of Rs. 6.31 crore should not be allowed.

H. Non-EPC works-Direct

9.29 Against the non-EPC works of Rs. 337.20 crore claimed in the petition, GVK in its submissions dated 01.08.2019 (Annexure-6) bifurcated the non-EPC works into two heads i.e. non-EPC works amounting to Rs. 325.08 crore and non-EPC works-Direct for Rs. 12.23 crore i.e. totaling to Rs. 337.31 crore.

9.30 Joint Auditor's Report

9.30.1 The Joint Auditor has stated that GVK has claimed the following amount as Non-EPC Works-Direct as under:

Table 44: Expenses claimed

(Rs. crore)

S. No.	Item	APTEL Approved (2009)	Claimed in Petition 54/2017	Actual as per RA-79
1.	Ash Pond		0.07	0.07
2.	Boiler		1.62	1.62
3.	Coal Handling System		2.83	2.83
4.	Coal Pulverizers		0.10	0.10
5.	Compound Wall & Boundary Wall		0.77	0.77

6.	Construction of Rain Water Outlets etc.		0.25	0.25
7.	Cooling Water system		0.10	0.10
8.	CWIP-BOP-Others		0.74	0.74
9.	CWIP-Site Development etc.		0.06	0.06
10.	CWIP-Non EPC-Others		0.13	0.13
11.	Earth Filing of Nalas, Well, Ponds		0.13	0.13
12.	Land Development		1.88	1.88
13.	Codal Charges to Railways		1.26	1.26
14.	Residential Colony		1.95	1.95
15.	Service Building		0.27	0.27
16.	Site Office		0.05	0.05
	Total	0.00	12.23	12.23

The Joint Auditor observed that this cost was not at all envisaged in the original project cost and recommended that only Rs. 1.26 crore paid to railways on instruction from railways is allowed to form part of the capital cost.

I. Service Building

9.31 GVK's submissions

9.31.1 GVK submitted that originally the cost of service building of Rs. 36.88 crore was included in the scope of works entrusted to BoP contractor i.e. PLL. During the course of implementation, it was excluded from the scope of PLL and awarded to GVKPTSL for Rs. 19.04 crore, which resulted in the increase of the non-EPC cost but an overall savings of Rs. 18 crore in the project cost.

9.32 PSPCL's submissions

9.32.1 PSPCL submitted that the claim of the petitioner is not ascertainable under this head and the petitioner may be required to furnish the details for consideration of the Commission.

9.33 Joint Auditor's Report

9.33.1 The Joint Auditor has stated that the service building was originally included in the scope of BOP Contractor but subsequently GVK had deleted the cost of Service Building i.e. Rs. 35 crore from the scope of BOP Contractor and awarded the same to Non-EPC Contractor at a cost of Rs. 19.04 crore. However, the contractor in the Bill RA-79 has billed the service building for Rs. 18.66 crore. The joint auditor recommended Rs. 18.66 crore for service building.

9.34 Commission's Analysis

9.34.1 As already brought out in the foregoing paras that the amount of Rs. 51 [86-35(railways)] crore was approved for other remaining non-EPC works i.e. residential colony, boundary wall, administrative building, green belt, site office, approach road, site grading, site drainage, fire station building, main entrance gate complex, security barracks and ash pond etc.

A. Residential Colony

9.34.2 GVK has claimed an amount of Rs. 62.82 crore including vibro-compaction in its submissions dated 01.08.2019 (Annexure-6) for the residential colony. In table-6 of the petition, where the cost overrun due to revised rates for the 9 items of colony works have been worked out amounting to Rs. 26.05 crore, GVK's calculations for all items are incorrect. The cost overrun actually amounts to Rs. 30.42 crore. GVK's submissions in this petition to the Commission on oath have been full of mistakes, calculation errors and the figures have been changed frequently. Further, as brought out

earlier, the colony works being part of non-EPC works, have been executed by GVK's sister concern without observing financial propriety.

9.34.3 GVK vide its order dated 04.03.2012 has changed the scope and increased the rate from Rs. 17000/sq.mt. to 27350/sq.mt. for construction of the residential colony. The Commission agrees with PSPCL that the petitioner has not given any details to substantiate the cost overrun claimed by it (including the basis of price escalation) and has also not stated as to when the work of construction of residential colony commenced and when were the complexes ready. So far as the ban on local quarrying cited as a reason for cost overrun is concerned, the Arbitral Tribunal has already denied GVK the benefit of this argument.

9.34.4 The Commission also agrees with PSPCL that the land for residential colony was available with GVK since 2009 for undertaking all preparatory works such as ascertaining the soil condition, redesigning the complexes if required and then proceeding with the construction. As such, there could never be a case for increase in steel and cement price and the increase in construction cost for G+1 type as has been claimed by the Petitioner.

9.34.5 In the hearing on 11.12.2019, GVK submitted that after doing vibro-compaction in the colony area, it did not resort to piling and instead used open foundations. In response, PSPCL in its affidavit dated 16.12.2019, submitted that vibro-compaction alone can have little effect on mitigating liquefaction, unless accompanied by piling which has not

been resorted to in colony area. However, in other areas GVK has resorted to both vibro-compaction and piling. PSPCL further submitted that even after incurring expenditure on vibro-compaction, GVK only constructed a Ground+1 concept of residential units instead of the originally planned Ground+2 since allegedly, the load bearing capacity for even Ground+2 type residential units could not be achieved after vibro-compaction. However, right outside the compound wall of the plant, there are private 2-3 storied structures.

9.34.6 The Joint Auditor in his report has calculated the cost for construction of residential colony at the present rates as gathered from the market and public domain i.e. Rs. 22,000/sq.mt. (minus 15.625% discount) for the area of 17193.31 sq.mt. and has not considered the construction rates of the original scope change order dated 04.08.2009 and the revised scope change order dated 04.03.2012. Since the land was available with GVK much earlier and the construction should have taken place between 2009 and 2012 even allowing for vibro-compaction, therefore the rate prevailing in 2009-2012 would be relevant. Thus, there is no reason for the Commission to agree with the views of the Joint Auditor for considering the present construction rate @ Rs.22,000/sq.mt. Considering the above, the Commission allows the original rate of construction @ Rs. 17000/sq.mt. for 17193.31 sq.mt. i.e. Rs. 29.23 crore which after factoring in the discount of 15.625%, works out to Rs. 24.66 crore for colony works.

9.34.7 Further, GVK has claimed Rs. 25.36 crore comprising

of Rs.3.88 crore for electrical works in the colony buildings, Rs. 3.13 crore for colony electrical supply & distribution system, Rs. 0.224 crore for 6.6 kV/415V, 750 kVA transformers, Rs. 0.536 crore for building for incoming and outgoing feed panels, Rs. 3.08 crore for water supply and sewage systems, Rs. 11.62 crore for colony roads with 7 mt. width, Rs. 1.00 crore for colony covered parking area and Rs. 1.89 crore for street lighting. The Joint Auditor in his report has stated that as per RA-79, GVK is claiming Rs. 16.06 crore after 15.625% discount against the same. The Joint Auditor allowed the same for the said works. However, the Commission notes that GVK in its submissions has mentioned that the original rate for electrical works in colony building was Rs. 1,20,000/- per house and revised it to 2,12,000/- per house. Further, the rate of colony electrical supply, distribution system was Rs. 25,00,000/- and GVK revised the same to Rs.3,12,50,000/-. Also, the rates for incoming and outgoing feed panels building, 6.6kV/415V, 750 kVA transformers, water supply & sewage system for colony, colony covered parking area and street lighting have been increased manifold ranging from 300% to 600% except for colony roads (38%).

9.34.8 GVK in the hearing on 13.12.2019 explained the increase in cost of electrical works due to having built underground distribution system with cables etc. rather than the overhead system using poles and conductors envisaged originally stating safety reasons. This is not acceptable as almost the entire distribution system in the State is overhead

and is constructed as per safety norms (horizontal and vertical clearances) prescribed from time to time.

9.34.9 In the submissions dated 17.12.2019, GVK has submitted that the cost of transformers has increased due to increase in rate and capacity. GVK failed to explain satisfactorily that if the number of houses has remained the same at 183, despite change in scheme from G+2 to G+1, how did capacity of the transformers increase. No documentary proof of any escalation in price was provided to the Commission. The claim of force majeure to the extent of 6 months was allowed by the Arbitral Tribunal for vibro-compaction. The cost of the same has been allowed. But with no evidence of any cost escalation for other items, where no force majeure existed, the increase in cost cannot be allowed.

9.34.10 The colony works have been carried out during the same period as the other plant area works under the BTG and BOP contracts and no cost escalation for civil works has been claimed by GVK in those works. Even for the work of admin building covered under the non-EPC works, which was also carried out during the same period, no increase in the work quantity or rate has been claimed by GVK as can be seen from table 37 and table 39 above.

9.34.11 Therefore, the Commission finds it just and fair to allow the original rate for the said colony works which amounts to Rs. 10.38 crore after factoring in the discount of 15.625% given by the contractor on Rs. 12.30 crore comprising of Rs. 2.20 crore for electrical works in colony buildings, Rs. 0.25 crore for colony electrical supply &

distribution system, Rs. 0.04 crore for 2 nos. 6.6 kV/415V, 750kVA transformers, Rs. 0.17 crore for incoming and outgoing feed panels building, Rs. 0.50 crore for water supply and sewage system for colony, Rs. 8.4 crore for colony roads with 7m width, Rs. 0.23 crore for covered parking area in the colony and Rs. 0.51 crore for street lighting. Further, GVK has claimed 0.98 crore for Admin Building for which there is no increase in work order quantity or rate. Against this, the Joint Auditor has recommended to allow Rs. 0.84 crore as per RA bill. The Commission agrees with the recommendation and allows the same.

B. <u>Vibro compaction</u>

9.35 GVK has claimed an amount of Rs. 2.51 crore for vibro compaction. The Joint Auditor has recommended GVK's claim of Rs.2.45 crore for vibro compaction under the head Colony Works. The Commission finds the same reasonable and agrees with the same.

C. <u>Compound wall, pump house, fire station etc.</u>

9.36 For the Compound wall, pump house, fire station etc., GVK has claimed Rs. 10.87 crore in the petition. The Joint Auditor in his report has taken this amount as Rs. 6.87 crore considering the component wise cost as Rs. 4.81 crore for compound wall, Rs. 0.37 crore for fire station and Rs. 1.69 crore for MS Pipes and Nil for Pump House which is the same as per the bill RA-79. The Joint Auditor has stated that the Commission has opined in its interim Order dated 19.07.2019 in the petition that GVK has developed the ash dykes / ponds at a distance from the plant which left huge tract of clear land

in the middle of the plant site and that resulted in extra long pipes, roads and boundary wall. If at all the ash pond was made in the vacant space, the company could have saved the cost of extra length of pipes and compound wall. The Joint Auditor has recommended Rs. 4.70 crore i.e. 2/3rd of the cost incurred on the compound wall and MS pipes and full cost for fire station. The Commission had indeed pointed out to GVK that by leaving a large portion of the original 1075 acres land vacant in the centre of the plant area, the roads, pipes and compound wall etc. would be spread over a much greater area than required for a 600 acres area plot. Thus, the Commission works out the cost of compound wall and MS pipes works as Rs. 3.63 [(4.81 + 1.69) x 600/1075] crore on proportionate basis. Accordingly, the Commission allows Rs. 4.00 crore (3.63+0.37) for the said works.

D. <u>Workshop, storage shed, security office etc.</u>
<u>(Site development works)</u>

9.37 The Joint Auditor stated that GVK has claimed Rs. 9.01 crore for this work even though the amount claimed is Rs. 18.60 crore in the petition, as against the original estimate of 8.58 crore. The Joint Auditor recommended Rs. 9.01 for this work. The increase in cost of this work from Rs. 8.58 crore to Rs. 9.01 crore is mainly on account of the construction of hydrogen shed and dozer shed, which were not included in the original cost estimate. On 27.11.2019, GVK submitted that the requirement of Dozer and Hydrogen Shed was not envisaged in the original scope. As submitted by GVK, the dozer is required for coal handling and the dozer shed is for repair & maintenance of the same. The hydrogen shed is

required for storing hydrogen cylinders safely as a statutory requirement. Hydrogen is required for cooling the generator. As regards the Dozer shed, as the dozer is part of the Coal handling, the cost of dozer and dozer shed ought to have been included in the original estimates. Also, since Hydrogen is used in the cooling of the Generator, the Hydrogen shed was required to be covered in the original design of the project and therefore in the original estimates. Accordingly, the Commission is not inclined to allow the aforementioned costs of Rs. 0.21 crore and Rs. 0.28 crore for the hydrogen shed and dozer shed respectively, as the same ought to have been included in the original estimates of the project cost. Accordingly, the amount of Rs.8.52 (9.01-0.28-0.21) crore for the said works is allowed.

E. Green Belt

9.38 The Commission notes that though GVK had claimed Rs. 2.03 crore for the development of green belt in the petition but this was revised to Rs. 1.11 crore later in the submissions dated 01.08.2019 (Annexure-6). The Joint Auditor allowed the said amount. The Commission agrees with the recommendation of the Joint Auditor and allows an amount of Rs. 1.11 crore for the green belt.

F. Plant Enabling Works and Other Miscellaneous Works

9.39 GVK has revised the cost for Plant Enabling Works and Other Miscellaneous Works from Rs. 6.31 crore claimed in the petition to Rs. 7.53 crore for plant enabling roads in its submissions dated 01.08.2019 (Annexure-6). The Joint Auditor has not allowed the amount of Rs. 6.31 crore stating that GVK has not taken the cost of these works as part of the project cost further stating that when the contract is allotted, the cost

of enabling works/roads etc. for construction are impliedly included in cost. The Commission agrees with the observations of the Joint Auditor and disallows the same.

9.40 Based on the above, the Commission allows a total of Rs. 51.96 crore as detailed below:

Table 45 A: Cost of remaining Non-EPC works

(Rs. crore)

S. No.	Item	As per Schedule-11 of the PPA	Claimed by GVK	Allowed by the Commission
1.	Colony	51.00 [86-35.00 (railway siding works)]	99.20	24.66
2.	Other components (Electrical Supply System, Transformers, Water supply & sewerage system, colony roads, parking area etc.)			10.38
3.	Vibro Compaction			2.45
4.	Compound Wall, Pump House, fire station, MS pipes etc.			4.00
5.	Workshop, storage shed, security office etc.			8.52
6.	Green Belt			1.11
7.	Plant enabling and other miscellaneous works			Nil
8.	Admin Building			0.84
Total		51.00	99.20	51.96

G. <u>Service Building</u>

9.41 The scope of the service building work costing Rs. 36.88 crore was initially included in the BOP contract work entrusted to PLL. During the course of construction, GVK excluded the same from BOP works and awarded the work of service building to GVK Projects and Technical Services Ltd. (GVKPTSL) at cost of Rs. 18.93 crore. GVK has stated that there is an overall saving of Rs. 17.95 (36.88-18.93) crore in the capital cost of the project. However, in the submissions

dated 01.08.2019 (Annexure-6), GVK claimed the amount of Rs. 18.66 crore for the same. The Joint Auditor has allowed the said amount of Rs. 18.66 crore. The Commission agrees and allows the amount of Rs. 18.66 crore for the service building under non-EPC.

Table 45 B: Cost of Service Building

(Rs. crore)

As per Schedule-11 of the PPA	Claimed originally in the petition	Claimed by GVK	Allowed by the Commission
Shifted from BOP works	19.04 (revised to 18.93)	18.66 (under non-EPC)	18.66

9.42 The total expenditure on non-EPC works allowed by the Commission is as below:

Table 46: Expenditure on Non-EPC works allowed by the Commission

(Rs. crore)

S. No.	Item	As per Schedule - 11 of the PPA	Claimed by GVK	Allowed by the Commission
1.	Site grading	49.00	63.62	49.00
2.	Ash pond bund		48.83	
3.	Railway siding and payment to railways	86.00	103.33	84.98
4.	Residential colony and Electrical works		61.08	35.04
5.	Compound wall, pump house, fire station etc.		10.87	4.00
6.	Workshop, storage shed, security office etc. (Site development works)		18.60	8.52
7.	Administration building		0.98	0.84
8.	Green belt		2.03	1.11
9.	Plant Enabling work and other Miscellaneous work		6.31	Nil
10.	Vibro-compaction		2.51	2.45
11.	Service building	Included in BoP works	19.04	18.66
Total		135.00	337.20*	204.60

**** In table-3 under para 35 in the petition, GVK has claimed the consolidated amount of Rs. 337.31 crore against non-EPC works (Sr. No. 9) whereas in table 3 under para 51, the actual expenditure shown is Rs. 337.20 crore. This was revised to Rs. 337.31 crore by GVK in its submissions dated 01.08.2019 (Annexure-6).***

10. Pre-operative expenses (Item no.14 of the Schedule-11 of the PPA)

10.1 GVK submissions in the petition

10.1.1 GVK has claimed Pre-operative expenses incurred till COD of project as Rs.279.69 crore in the petition. However, in the details provided in Table-10 of the petition, GVK has claimed Rs. 266.30 crore. On 27.06.2019, GVK clarified that the claim against this head is Rs.279.69 crore and further stated that the expenditure on salaries, wages and administrative expenditure under this head is Rs. 176.98 crore instead of Rs. 163.59 crore.

10.1.2 GVK submitted that the Preliminary and Pre-operative expenses mainly include the costs incurred towards salaries and wages of the employees, administrative expenses, operator training & mobilization, start-up fuel requirement, power & water for construction, consultancy & engineering services and insurance. The increase in preliminary & pre-operative expenses is due to the time and cost overrun of the project which was on account of Force Majeure and Change in Law events. Since the claim for extension of SCOD has been granted by the arbitration award, these expenses ought to be allowed. The cost overrun associated with each of the said heads is as shown in the table below:

Table 47: Pre-operative expenses claimed by GVK

(Rs. crore)

S. No.	Item	As per schedule 11 of the PPA	Actual	Cost Overrun
1.	Salaries, Wages and Admin	50.00	163.59	113.59
2.	Rehabilitation & Resettlement	5.00	5.00	0.00
3.	Operator training & mobilization	5.00	5.00	0.00
4.	Start-up Expenses	15.00	31.64	16.64
5.	Power & water for construction	12.00	32.57	20.57
6.	Consultancy & engineering	7.50	12.13	4.63
7.	Insurance	11.44	16.37	4.93
	Total	105.94	266.30	160.36

GVK further submitted that the cost overrun in the preliminary and pre-operative expenses has been on account of time overrun of 45 months as well as increase in the unit rates of the components involved. GVK submitted that Hon'ble APTEL vide its Order dated 08.04.2009 had allowed the envisaged cost of Rs. 55 crore in full.

10.1.3 Later, in its submission dated 01.08.2019 (Annexure-6) under the head 'Construction & Pre-Commissioning Expenses', GVK claimed an amount of Rs. 321.49 crore till COD of the project i.e. 16.04.2016. The claim in terms of various heads is as under:

Table 48: Revised Pre-operative expenses claimed by GVK

(Rs. crore)

Sr. No.	Particulars	Actual expenditure & Liabilities/Provisions	Claim with PSERC	Net Payment Made
1.	Security Charges	8.42	8.42	8.42
2.	Repairs & Maintenance	6.31	6.31	6.31
3.	Power & Fuel	32.57	32.57	32.57
4.	Rent	6.47	6.47	6.47
5.	Rates & Taxes	2.31	2.31	2.31
6.	Legal & Professional Charges	54.13	54.13	54.13
7.	Financial Charges incl BG Commission	32.00	27.09	27.09
8.	Miscellaneous Expenses	8.63	8.63	8.63
9.	Contract Labour	10.44	10.44	10.44
10	Insurance	16.56	16.56	16.56
11.	Printing & Stationery	0.54	0.54	0.54
12.	Travelling & Conveyance	16.99	16.99	16.99
13.	Communication Cost	1.82	1.82	1.82
14.	Advertisement Expenses	0.58	0.58	0.58
15.	Auditor's remunerations	0.01	0.01	0.01
16	Certification Fees	0.002	0.002	0
17.	Employees Benefits	58.02	58.02	58.02
18.	Fuel Used for Trial Runs	71.29	71.29	71.29
19.	Ash Handling Charges	0.57	0.57	0.57
20.	Depreciation	6.27	6.27	6.27
21.	Debit Balances Written Off	0.03	0.03	0
22.	Loss on Sale of Materials	0.10	0.10	0.10
23.	Loss on sale of Mutual Funds	0.02	0.02	0.02
24.	Loss on sale of Asset	0.42	0.42	0.42
25.	BOP- Taxes		0.20	0.20
26.	Entry Tax - BTG		0.41	0.41
27.	Exchange Fluctuation		7.05	7.05
28.	Upfront fee to Railways towards salaries of Railway staff		23.94	23.94
29.	Misc. Fixed Assets		15.10	15.10
	Total (Expenditure)	334.50	376.29	376.26

Expenses credited/recoveries				
1.	Credit Balances & Excess Provisions Written Back	0.09	0.09	0.0938
2.	Interest Earned	9.52	9.52	9.52
3.	Dividends from Mutual Funds	6.59	6.59	6.59
4.	Profit on redemption of Mutual Funds	0.72	0.72	0.72
5.	Profit on Sale of Assets	0.001	0.001	0.001
6.	Profit on Forward Contracts	1.41	1.41	1.41
7.	Miscellaneous Income	0.13	0.13	0.13
8.	Insurance claim received	0.19	0.19	0.19
9.	Sale of Infirm Power	39.61	39.61	39.61
10.	Less: Provision of Income Tax	(-) 3.47	(-) 3.47	(-) 3.47
	Total (Recoveries)	54.79	54.79	54.79
Net expenditure		279.71	321.50	321.47

10.2 PSPCL's submissions

10.2.1 PSPCL, in its reply dated 20.03.2018 to the petition, submitted that GVK has claimed a total cost overrun of Rs.160.36 crore towards preliminary and pre-operative expenses, comprising of salaries & wages of employees, administrative expenses, start-up fuel requirement, power & water for construction, operator training & mobilization, consultancy & engineering services and insurance. Also, no break-up of the cost overrun claim of Rs. 113.59 crore under the head 'salaries, wages and administrative expenses' has been given. The cost overrun has been claimed on the ground of force majeure and change in law events allowed by the Arbitral Tribunal resulting in extension of SCOD of the project. The awards of the Arbitral Tribunal have been challenged by PSPCL before the Commercial Court Patiala and therefore GVK's claims based on force majeure and change in law events are subject to outcome thereof.

10.2.2 On 09.09.2019, PSPCL submitted that the Commission had sought justification from GVK as regards the differing figures of pre-operative expenses claimed by it under Table-3 and Table-11 of the petition. GVK's petition is full of mistakes which if allowed

would burden the consumers of PSPCL with unjustified costs. Further, GVK has not responded to the specific query of the Commission regarding infirm power.

10.2.3 PSPCL mentioned that the Commission in its Order dated 29.04.2008 passed in petition no.04 of 2007 had observed as under:

> *"…..the bulk of the work relating to this project will be through two major contracts for the BTG and BOP packages which include erection, testing and commissioning. Moreover, railway siding work is to be carried out on an estimated contract price of Rs.35.00 crores with the remaining Non-EPC works of Rs.51.00 crores roughly amounting to 2% of the total project cost.*
>
> *As such, the establishment that the petitioner will need to deploy during the project period for supervision and management is not likely to be very large. The cost estimate provided in this regard thus appears to be very much on the higher side and the Commission considers that a sum of Rs.15 crores, is sufficient to meet these costs".*

The Commission in said Order had approved Rs.15.00 crore on this account which was further increased to Rs.50.00 crore by Hon'ble APTEL in its Order dated 08.04.2009. PSPCL further submitted that the petitioner has claimed Rs.279.69 crore on account of 'pre-operative expenses'. This exponential rise in costs claimed by the petitioner is unjustified and is liable to be rejected by the Commission. In Table-3 of the petition, the petitioner has claimed 'Pre-Operative Expenses' as Rs.279.69 crore and in Table-10 the same has been claimed as Rs.266.30 crore. Further, the petitioner has not provided details of expenditure as claimed in Table-10 of the petition, as desired by the Commission.

10.3 Joint Auditor's Report

10.3.1 The Joint Auditor stated that Hon'ble APTEL in 2009 had approved Rs. 100.94 crore in relation to Pre-operative Expenses as follows:

Table 49: Pre-operative expenses

(Rs. crore)

1.	Power & Water for Construction	12.00
2.	Consultancy & Engineering	7.50
3.	Startup Expenses	15.00
4.	Operator Training & Mobilization	5.00
5.	Insurance	11.44
6.	Pre-operative Expenses	50.00
	Total	100.94

The Joint Auditor further stated that GVK has claimed the expenses from 1997 till the date of actual COD 16.04.2016 for Rs. 321.48 crore (Net of Expenses of Rs. 376.27 crore and Misc. Income of Rs. 54.79 crore). This has been verified from the audited balance sheets of GVK and test check of the expenses from the ledger accounts had been done. As per the PPA, the SCOD of the project should be 20.11.2013 and GVK should be allowed to claim the Pre-operative expenses up to the said date only. However, PSERC vide its order dated 01.02.2016 had given relief to GVK to declare COD of the project based on interim fuel arrangement. Further, the Arbitral Tribunal formed by PSERC vide their order dated 02.09.2015 has extended the COD of Project up to the date of actual COD i.e. 16.04.2016 achieved by GVK. Basing his report on the Orders dated 01.02.2016 of PSERC and Awards dated 10.04.2017 of Arbitral Tribunal. The Joint Auditor has considered expenditure made up to 16.04.2016. But the order pronounced by PSERC has been challenged by PSPCL vide Appeal Nos. 68 of

2016 and 69 of 2016 before Hon'ble APTEL and the awards given by Arbitral Tribunal was challenged by PSPCL vide Application Nos. 122/2017 and 123/2017 in District Court, Patiala.

10.3.2 The Joint Auditor further stated that the breakup of expenses made up to 20.11.2013 has not been provided. However, the year wise figures of expenses incurred have been given, so they have given two bifurcations for expenses incurred, one for the period from 1997 till 31.03.2014 and second for the period from 01.04.2014 till 16.04.2016.

10.3.3 The Joint Auditor has given the summary of the expenses claimed by GVK as follows:

Table 50: Details of Pre-operative expenses

(Rs. crore)

S. No.	Particulars	1997 to 31.03.2014	31.03.2014 to 16.04.2016	Total Amount Claimed	Amount Disallowed
1	Fuel Used for Trial Runs	12.33	58.96	71.29	16.68
	Less: Sale of Infirm Power	-	39.61	39.61	-
	Net Startup Fuel Cost	12.33	19.35	31.68	16.68
2	Technical, Legal & Professional Charges	41.90	12.23	54.13	13.32
3	Power & Fuel	11.28	21.29	32.57	-
4	Insurance	9.46	7.11	16.56	-
5	Other Pre-operative Expenses				
	Employees benefits	33.45	24.57	58.02	19.34
	Interest on Temporary Loans/ OD - Others (Refer Page 81)	21.95	5.15	27.09	-
	Travelling & Conveyance	14.02	2.97	16.99	-
	Contract Labour	2.08	8.35	10.44	-
	Security Charges	4.00	4.42	8.42	-
	Rent	5.17	1.30	6.47	-
	Depreciation	1.96	4.30	6.27	-
	Rates & Taxes	0.99	1.33	2.31	-
	Repairs & Maintenance – Buildings	1.78	0.69	2.47	-
	- Other Assets	2.46	1.38	3.84	-
	Miscellaneous Expenses	5.86	2.77	8.63	-
	Printing & Stationery	0.46	0.08	0.54	-

	Communication Cost	1.21	0.61	1.82	-
	Advertisement Expenses	0.57	0.00	0.58	-
	Auditor's remuneration	0.01	0.00	0.01	-
	Certification Fees	0.00	0.00	0.00	-
	Ash Handling Charges	-	0.57	0.57	-
	Debit Balances Written Off	0.00	-	0.00	-
	Loss on Sale of Materials	0.10	-	0.10	-
	Loss on sale of Mutual Funds	0.02	0.00	0.02	-
	Loss on sale of Asset	-	0.42	0.42	-
	BOP- Taxes	-	0.20	0.20	-
	Entry Tax – BTG	-	0.41	0.41	-
	Exchange Fluctuation	-	7.05	7.05	-
	Upfront fee to Railways towards Salaries of Railway Staff	-	23.93	23.93	-
	Misc. Fixed Assets	-	15.10	15.10	10.64
	Less: Misc. Incomes				
	Credit Balances & Excess Provisions Written back	0.03	0.06	0.09	-
	Interest Earned	8.35	1.17	9.52	-
	Dividends from Mutual Funds	6.40	0.19	6.59	-
	Profit on Redemption of Mutual Funds	0.65	0.07	0.72	-
	Profit on Sale of Assets	0.00	-	0.00	-
	Profit on Forward Contracts	1.41	-	1.41	-
	Miscellaneous Income	0.00	0.13	0.13	-
	Insurance Claim Received	-	0.19	0.19	-
	Less: Provision for Income Tax : Current Year	3.01	0.42	3.43	-
	: Earlier Year	-	0.05	0.05	-
	Total - Misc. Incomes	13.84	1.34	15.18	-
	Total – Other Pre-operative Expenses	82.26	104.27	186.54	59.98
6	Grand Total Pre-operative Expenses (1+2+3+4+5)	157.23	164.25	321.48	-
7	Less: Disallowed Pre-Operative Expenses			(59.98)	-
8	Less: Interest on Temporary Loans/ OD - Others			(27.09)	-
9	Grand Total Pre-operative Expenses (6-7-8)			234.41	-

A. Start up fuel expenses

10.3.4 The Joint Auditor stated that Hon'ble APTEL in 2009 had approved Rs. 15 crore for Startup Fuel Expenses. GVK has claimed Rs. 31.68 crore against startup cost (Rs. 71.29 crore expenses reduced by Rs. 39.61 crore of sale of infirm power). GVK had estimated the startup cost at Rs. 15.00 crore in their initial estimates and now they are claiming an additional Rs. 16.68 crore against the same. Hon'ble APTEL in their order in 2009 had opined that the Startup Fuel cost is to be allowed as per company estimate as the company has to make payments for coal, fuel oil etc. in the first instance and then the same would be set off against the infirm power generated during trial runs. The Joint Auditor recommended Rs. 15.00 crore as Startup Fuel Cost and disallowed Rs. 16.68 crore.

B. Technical, Legal & Professional Expenses

10.3.5 The Joint Auditor stated that Hon'ble APTEL in 2009 had approved Rs. 7.50 crore in relation to consultancy & engineering expenses. GVK has claimed Rs. 54.13 crore against the same. The major expenses under the Legal & Professional head are as follows:

Table 51: Legal & professional expenses

(Rs. crore)

Sr. No.	Services	Amount
1.	GVK Technical & Consultancy Services Ltd. for Salaries etc.	28.84
2.	Lahmeyer International for LIE	1.30
3.	TCE Consulting Engineers for Project Evaluation	11.03
4.	IDBI Bank Ltd for Management Fees & Trusteeship Fees	2.44

The Joint Auditor stated that they had scrutinized the Ledger of Legal & Professional Expenses and found that the total of Ledger till 16.04.2016 is Rs. 50.42 crore instead of Rs. 54.13 crore as claimed by GVK. The Joint Auditor disallowed Rs. 3.71 crore excess claimed by GVK. Out of Rs. 50.42 crore, the amount of Rs. 28.84 crore have been booked against amount paid to GVK Technical & Services Pvt. Ltd. (also a Group Company) for salaries of technical staff. The Joint Auditor opined that the staff employed by the company prior to COD was in excess in comparison to the original estimate, The Joint Auditor disallowed 1/3rd expenditure on salaries paid to GVK Technical & Consultancy Services Pvt. Ltd. which amounts to Rs. 9.61 crore and Rs. 3.71 crore as excess claimed.

C. Power & Water for Construction

10.3.6 The Joint Auditor stated that Hon'ble APTEL in 2009 had approved Rs. 12.00 crore in relation to Construction Power. GVK has claimed Rs. 32.57 crore against the same. The main reason for increase in expenditure is because GVK was being charged the commercial rate by PSPCL during construction period and not the concessional rate despite requests from GVK. The Joint Auditor recommended Rs. 32.57 crore if COD is taken up to 16.04.2016.

D. Insurance

10.3.7 Hon'ble APTEL in 2009 had approved Rs. 11.44 crore in relation to Insurance. GVK has claimed Rs. 16.56 crore against the same. The majority of these expenses were on account of reimbursement of insurance expenses to the BTG contractor. Although the cost has increased but given the extension in time of

project and nature of costs incurred, the Joint Auditor recommended Rs. 16.56 crore for Insurance.

E. Other Pre-operative Expenses

10.3.8 Hon'ble APTEL in 2009 had approved Rs. 50.00 crore in relation to Pre-Operative Expenses other than items already mentioned. GVK is claiming 186.54 crore in respect of the same. GVK is claiming Rs. 58.02 crore for Salaries paid to staff up to 16.04.2016. The Joint Auditor verified the same on test basis from ledgers and salary sheets of the employees. The Joint Auditor opined that the staff employed by GVK prior to COD was in excess in comparison to the original estimate, and thus disallowed 1/3rd expenditure on salaries which amounts to Rs. 19.34 crore.

10.3.9 Further GVK is also claiming Rs. 27.09 crore for Interest under the head pre-operative expenses. This head contains the interest paid on Temporary Loans & Bank OD during the construction period. The Joint Auditor stated that they had verified the interest from the Bank Statements and recommended that Rs. 27.09 crore be allowed to form part of the IDC.

10.3.10 The Joint Auditor stated that GVK has claimed Rs. 15.10 crore against Misc. Fixed Assets. GVK had provided the Invoices for Railway Locomotives for Rs. 4.46 crore (As per Annexure 9). GVK did not provide any other details/ breakup of these assets and their location. The Joint Auditor recommended Rs. 10.64 crore (Rs. 15.10 crore minus Rs. 4.46 crore).

10.3.11 Further, the Joint Auditor stated that they have test checked the expenses (Traveling Expenses, Security Charges, Rent, Repairs & Maintenance, Depreciation, Rates & Taxes etc.)

from the ledger accounts provided by GVK and verified the cost incurred from the Audited Balance Sheets of GVK. The Joint Auditor recommended Rs. 62.40 crore in respect of these expenses.

10.4 <u>Commission's Analysis</u>

10.4.1 The Commission notes that the Pre-operative expenses of Rs. 50 crore were allowed by Hon'ble APTEL in its Order dated 08.04.2009 in Appeal No. 104 of 2008 filed by GVK against Rs. 15 crore allowed by the Commission in petition no.04 of 2007. GVK in this petition has, under the head 'Preliminary and Pre-operative expenses', claimed Rs. 266.30 crore against Salaries, Wages and Admin, Rehabilitation & Resettlement, Operator training & mobilization, Start-up Expenses, Power & water for construction, Consultancy & engineering and Insurance. However, these are separate items in the Schedule-11 of the PPA. This amount was revised to Rs. 279.69 crore by GVK in its submission dated 27.06.2019. Further, GVK in its submissions dated 01.08.2019 filed a statement of expenditure incurred / payments made (Annexure-6) and enhanced its claim of Rs.279.69 crore under Preliminary and Pre-operative expenses to Rs. 321.49 crore terming it as Construction and Pre-commissioning expenses. The Commission has analyzed these expenses as per Schedule 11 of the PPA as hereunder:

<u>Pre-operative Expenses (Salaries, Wages and Administrative charges)</u>

10.4.2 GVK vide its submissions dated 01.08.2019 (Annexure-6) has claimed an amount of Rs. 321.49 crore on account of

Pre-operative expenses terming it as Construction and Pre-commissioning expenses as brought out hereinbefore. After excluding the claims under the head 'Consultancy and Engineering' for Rs. 54.13 crore (termed as Legal & Professional charges), 'Power and Water for construction' for Rs.32.57 crore (termed as power & fuel), 'Start-up expenses' for Rs. 71.29 crore (termed as fuel used for trial run) and 'Insurance' for Rs. 16.56 crore, which have been dealt separately hereinafter, the expenditure claimed by GVK works out to Rs. 186.55 (321.49 - 32.57 - 54.13 - 16.56 - 31.68) crore. Further, an expenditure of Rs.23.94 crore on account of upfront fee to railways towards salary of Railway staff, included in the Construction and Pre-Commissioning Expenses has also been dealt with separately in para 9.15 of this Order. Accordingly, the claim under the head Pre-operative expenses as termed in the Schedule 11 of the PPA comes to Rs.162.61 [186.55 – 23.94] crore.

Table 52: Pre-operative expenses in terms of Schedule-11 of the PPA

(Rs. crore)

Item	Claimed by GVK
Pre-commissioning and construction charges as termed by GVK	321.49
Power & Water for Construction	(-) 32.57
Consultancy and Engineering	(-)54.13
Insurance	(-)16.56
Start-up charges	(-)31.68
Payment to railways	(-)23.94
Pre-operative expenses	162.61

10.4.3 The Commission notes that as against Rs.15 crore allowed by the Commission under Pre-operative expenses in

its Order dated 29.04.2008, Hon'ble APTEL allowed Rs.50 crore stating that the owner has an important role to play with respect to overall supervision of all packages, contract management, inspection of equipment and works with respect to quality control, expediting supply, ensuring sequential dispatches of equipments, ensuring timely completion of works of one contractor to handover the same to the next contractor. This expenditure of Rs. 50 crore was to be incurred upto the SCOD i.e. 20.11.2013. The commissioning of the project got delayed for various reasons. The Arbitration Award dated 10.04.2017 against claim petition no.1 allowed time overrun from 04.01.2010 to 25.06.2014 and the second Arbitration Award also dated 10.04.2017 against claim petition no.2 allowed another time overrun from the date of the Coal Cancellation Order (24.09.2014) of Hon'ble Supreme Court of India upto COD i.e. 16.04.2016. Accordingly, the Commission is inclined to allow pro-rata increase in the cost estimate of Rs.50 crore allowed by Hon'ble APTEL. However, the period of 90 days from 26.06.2014 to 24.09.2014 which is not covered in the said two Arbitration Awards is to be excluded. The pro-rata increase has been worked out as under:

Table 53: Calculation of Pre-operative expenses (Salaries, wages and administrative charges)

(Rs. crore)

Description		Days	Amount
No. of days from the date of signing of the PPA (26.05.2009) upto SCOD (20.11.2013)		1639	50.00
No. of days from SCOD to actual COD	878		
No. of days not covered in the two Awards	90		
Effective number of days		788	24.04
Total allowable amount			74.04

10.4.4 Thus, the Commission allows an amount of Rs.74.04 crore under the head 'Pre-operative expenses', subject to the outcome of the court case filed by PSPCL against the said Arbitration Awards.

Table 54: Pre-operative expenses

(Rs. crore)

Item	As per Schedule-11 of the PPA	Claimed by GVK	Allowed by the Commission
Preoperative expenses	50.00	162.61	74.04

11. Start-up Expenses (Item no.11 of Schedule 11 of the PPA)

11.1 GVK's submission

11.1.1 GVK submitted that Hon'ble APTEL vide Order dated 08.04.2009 had allowed the Start-up expenses amounting to Rs. 15 crore for the purchase of oil required for synchronization to the grid and coal required at the time of commissioning. A provision of Rs. 15 crore was made in the original project cost towards start-up fuel expenses. The coal and secondary fuel requirements declared at the time of original appraisal were only estimates / provisional in nature. Due to the delay in the operations of the Tokisud coal mine, GVK had requested MoP to allocate coal for testing and commissioning activities, for which MoP had requested Ministry of Coal (MoC), vide its office memorandum dated 24.07.2013, for allocation of 1.5 lakh MT of coal (0.5 lakh MT of carpet coal and 1 lakh MT of start-up coal) for testing and commissioning of first unit of the project. The competent authority i.e. CIL vide letter no. CIL/S&M/MOU-Power/40 dated 30.01.2014 had allocated the said amount of coal to GVK for carpeting and trial run. The amount of coal allocated by MoC was not actually provided to GVK at the

time of trial run. Consequently, GVK had to procure coal from alternate sources. GVK submitted the details of startup expenses and the revenue recovered from sale of infirm power as under:

Table 55: Start-up expenses

S. No.	Item	Actual quantity	Price Rs. / unit	Total Cost (Rs. crore)
1.	LDO (KL)	3,127	52,925.75	16.55
2.	HFO (KL)	2,085	25,156.87	5.25
3.	Coal purchased from CCL (out of the 1.5 Lakh ton allocated coal)	72,654.20	5,779.22	41.98
4.	Coal purchased from Godavari Commodities (to make up the shortfall in allocated coal)	10,675.80	5,970.02	6.37
5.	Expenses incurred due to vessel diversion			1.10
6.	Total fuel cost	-	-	71.29
7.	Less: Infirm power recovery	-	-	39.61
Total cost (net of recovery)				31.68

11.1.2 This Rs. 71.29 crore is a part of the pre-operative expenses of Rs. 279.69 crore. The difference of Rs. 0.04 crore is a minor typographical error and may be ignored.

11.2 PSPCL's Submissions

11.2.1 PSPCL submitted that the petitioner has claimed an amount of Rs.71.25 crore towards start-up fuel expenses as against the allowed amount of Rs.15 crore by Hon'ble APTEL. Table-11 of petition shows that GVK has used fuel from sources other than those stated in its Affidavit dated 30.12.2015 filed before Commission in Petition No. 33 of 2015 based on which COD for the project has been granted vide Order dated 01.02.2016. GVK in the said Affidavit, had categorically stated before the Commission that it had the required fuel available with it from Coal India Ltd. for conducting the trial run and the commissioning tests. In fact, in the letter dated 15.12.2015

mentioned in the said Affidavit, GVK had unequivocally informed PSPCL that,

> *"The said coal is readily available at the Project. It may be appreciated that the quantities of coal obtained from the government bodies are sufficient to meet the requirement of coal for COD and operations."*

11.2.2 The claim now being made that the allocated coal was never provided by the Ministry of Coal, was never raised even when PSPCL had approached the Commission for recall of its Order dated 01.02.2016. GVK has not placed on record any correspondence with Coal India Ltd. to demonstrate that despite requests, the allocated coal had not been made available for transporting to the Project site for trial run and commissioning. In the absence of such correspondence, it cannot be said whether the allocated coal was in fact not supplied or was not lifted by GVK despite being supplied/made available. The claim for cost overrun on this head is not liable to be considered by the Commission at this stage. As such, the "netting" of cost overrun with sale of infirm power recovery is also not liable to be considered with the claimed fuel cost amount. It may be mentioned that the claim for *"diversion of vessel"* is completely baseless for the reasons set out above and is not admissible.

11.2.3 On 03.08.2018, PSPCL provided a copy of the report of committee constituted to examine/verify the details submitted by GVK w.r.t. to the capital cost of the project. PSPCL submitted that GVK in the petition claimed Rs. 71.29 crore on account of start-up expenses. The Commission in its Order dated 29.04.2008 passed in petition no. 04 of 2007 did not allow these expenses in view of the normal industry practice of setting off such expenses against

revenue from sale of infirm power and not to add these to the project capital cost. Clause 6.4 (Costs Incurred) under Article 6 (Synchronization, Commissioning and Commercial Operation) of Amended & Restated PPA provides as under:

> "*The Seller expressly agrees that all costs incurred by him in synchronizing, connecting, Commissioning and/ or Testing or Retesting a Unit shall be solely and completely to his account and the Procurer's liability shall not exceed the amount of the Energy Charges payable for such power output, as set out in Schedule 6.*"

In view of the said provision of the PPA and ceiling prescribed, GVK is not entitled to claim Start-up expenses. On 09.09.2019, PSPCL submitted that GVK has completely omitted to justify the specific query of the Commission as regards the claim of Rs.31.64 crore after deducting Rs.39.61 crore from Rs.71.25 crore on account of recovery of infirm power as again stated in Table 11 of the Petition.

11.3 <u>Commission's Analysis</u>

11.3.1 GVK has claimed Rs. 31.68 crore under the head Start-up expenses for the cost of oil, coal purchased from CCL, extra coal purchased from Godavari Commodities and expenses incurred due to vessel diversion. PSPCL has submitted that GVK in its Affidavit dated 30.12.2015 in petition no. 33 of 2015 had categorically stated that it had the required fuel available with it from Coal India Ltd. for conducting the trial run and the commissioning tests. PSPCL has further stated that in the letter dated 15.12.2015 mentioned in the said Affidavit, GVK had unequivocally informed PSPCL that the said coal is readily available at the Project and the quantities of coal obtained from

the government bodies are sufficient to meet the requirement of coal for COD and operations. GVK has not placed on record any correspondence with Coal India Ltd. to demonstrate that despite requests, the allocated coal had not been made available for the Project for trial run and commissioning. The claim for diversion of vessel is also completely baseless. PSPCL has pleaded that the claim for cost overrun on this head is not liable to be considered by the Commission. The Commission agrees with the submission of PSPCL.

11.3.2 In the petition, GVK has claimed Rs.31.68 crore as Start-up expenses after deducting Rs. 39.61 crore recovered from PSPCL as infirm power charges from Rs. 71.29 crore incurred on procurement of fuel. Changing its stance in the last submissions dated 17.12.2019, GVK submitted that an expenditure of Rs. 26.18 crore has been incurred towards start-up power claimed as part of 'Power and fuel' in the petition and the same was procured from PSPCL through 220 kV grid at commercial rate which is substantially higher than the applicable rate. GVK submitted that the amount incurred by GVK towards procuring the start-up power for the commissioning purposes was not included in the amount claimed towards infirm power. As a part of the prudence check, the Commission sought the details of electricity connections and bills raised by PSPCL and paid by GVK, till 16.04.2016. PSPCL submitted the details of two electricity connections taken by GVK and also intimated the amount against the said two connections as Rs. 24.08 crore and Rs. 24.47 crore, totaling to Rs. 48.55 crore. The Commission

has allowed the said amount fully as per details in para 12.3 hereinafter. Hence, this submission of GVK is without any basis.

11.3.3 The Commission notes that Hon'ble APTEL in its Order dated 08.04.2009 held as under:

> ***"We agree with the Commission's observations that the appellant will be able to recover the cost of infirm power and thereby recover the cost of fuel, start up power etc. from the receiver of the infirm power. However, it has to be kept in mind that the appellant will have to pay for the coal, fuel oil and start up power bill in the first instance. It is only after the infirm power has been supplied and billed that the appellant will be able to recover the cost in due course. It is therefore, necessary to allow the cost of start up expenses as estimated by the appellant. The cost of infirm power will eventually be reduced from the capital cost of the project. In this view of the matter also we allow the appeal."***

11.3.4 Article 6.4 'Costs Incurred' under Article 6 (Synchronization, Commissioning and Commercial Operation) of Amended & Restated PPA, provides as under:

> **"*The Seller expressly agrees that all costs incurred by him in synchronizing, connecting, Commissioning and/ or Testing or Retesting a Unit shall be solely and completely to his account and the Procurer's liability shall not exceed the amount of the Energy Charges payable for such power output, as set out in Schedule 6."***

11.3.5 Also clause 1.2.9 'Sale of Infirm Power' of Schedule 6 of the PPA provides as under:

> ***"The procurer shall pay only the primary & secondary fuel charges for all infirm power delivered to it by the seller."***

11.3.6 A combined reading of Article 6.4 and clause 1.2.9 of

Schedule 6 of the PPA reveals that PSPCL's liability shall not exceed the amount of the energy charges payable for infirm power supplied by GVK. Since the same already stands paid by PSPCL to GVK, the claim of Rs.31.68 crore by GVK on this account is without any basis and therefore not allowed.

Table 56: Start-up expenses

(Rs. crore)

Item	As per Schedule-11 of the PPA	Claimed by GVK	Allowed by the Commission
Start-up expenses	15.00	31.68 (71.29-39.61)	Nil*

**** as PSPCL has already paid for the infirm power, and cost of electricity used by GVK has been allowed later in this Order.***

11.3.7 It would be pertinent to note that GVK had filed petition no. 68 of 2017 for adjudication of billing disputes and the Commission had given its decision vide Order dated 06.03.2019. GVK has received extra amounts on account of re-computation of energy charges for infirm power.

12. Power and Water for Construction (Item no.12 of Schedule 11 of the PPA)

12.1 GVK's submissions

12.1.1 GVK submitted that Hon'ble APTEL vide its Order dated 08.04.2009 had allowed the cost of Power & Water for Construction as Rs. 12 crore. At the time of approving the cost in this regard, Hon'ble APTEL had noted that this is in the nature of actual expenses and will be allowed by the Commission subject to prudence check. It has also been noted by Hon'ble APTEL that the BTG and BOP packages do not cover the entire expenses for development of infrastructure. At

the time of in principle approval, the cost was taken assuming supply of power under permanent connection. However, PSPCL has billed the project at the tariff for temporary consumers. Further, the energy consumption has increased on account of i) higher dewatering to control water seepages as the project site had high ground water table, ii) additional scope of work viz. extra piling, railway siding, coal handling, ash handling area and extended project schedule. Consequently, there is an increase of Rs. 20 crore in the expenses towards power and water. Since these are in the nature of actual expenses, it was submitted that the same may be allowed. The detailed breakup of the cost of power is presented in the table below:

Table 57: Break-up of Power and Water expenses

S. No.	Description	Projected at the time of Financial Closure		Actuals (Rs. crore)
		Quantity	Amount (Rs. crore)	
1.	Receiving substation & distribution network	66/11/0.415 kV	3.00	Actual total amount paid towards power and water during construction
2.	Energy Cost for Non EPC	13 Million kWh	9.00	
3.	Estimated Energy Cost for balance period	0	0	
4.	Start-up Energy Cost to PSEB @ Rs.3/-	360000 kWh	0.11	
Total			12.11	32.57

12.1.2 The actual cost of power and water during the construction period is Rs. 32.57 crore. GVK requested the Commission to allow the additional cost of Rs. 20.46 crore towards power & water for construction in full as part of the project cost.

12.2 PSPCL's submissions

12.2.1 PSPCL submitted that GVK has claimed a cost overrun of Rs.20.46 crore towards power and water for construction. The stated reasons are increase in energy consumption on account of higher dewatering to control water seepages in Project site having high ground water table and inclusion of additional scope of work. As regards the water for construction, the Commission in its Order dated 29.04.2008 has held as under:

> *"The petitioner envisages an outlay of Rs.12 crores for the purpose. The Commission notes that this cost is included in the BTG as well as BOP contracts while the cost associated with providing power and water at the construction site is included in the estimate for non EPC works. As such no provision is required to be separately made for this purpose."*

12.2.2 The above finding has been a subject-matter of challenge before Hon'ble APTEL in which Hon'ble APTEL has decided as under:

> *"64. In large projects it is a normal practice to provide power and water for construction to various contractors. The appellant has categorically stated that BTG and BOP packages do not cover entire expenses for the development of infrastructure for power distribution and energy consumed and statutory fees to be paid. The amount of Rs. 128 crores claimed by the appellant is required for installation of sub station to reduce the voltage to 11 kV, distribution system for construction purposes and energy payment to PSEB for supply of electricity. These are all actual expenses which will be allowed by the Commission only if these are prudently expended and therefore, we do not find any rationale in not allowing these at this stage of in-principle approval when the appellant is stating that the BTG and BOP packages do not cover the entire expenses for development of infrastructure*

for the power distribution and energy consumed. In this view of the matter we allow the appeal."

12.2.3 As such, the cost incurred under this head is liable to be approved on actuals after due prudence check.

12.3 <u>Commission's Analysis</u>

12.3.1 GVK neither submitted the bills/vouchers for electricity and water charges for construction nor the payment receipts for the same for scrutiny. However, in reply to a query, PSPCL has submitted the details of payments received from GVK for the period July, 2010 to April, 2016 against account TY0001 as Rs. 24.47 crore and Rs. 24.08 crore against account LS0100028 for the period November, 2012 to April, 2016 totaling to Rs. 48.55 crore against electricity charges. This includes the amount of Rs.1.04 crore and Rs.16.36 crore deposited by GVK with PSPCL and recovered on account of electricity charges for the electricity supplied by GVK to BTG and BOP contractors respectively, already allowed by the Commission herein before. Accordingly, the net amount of electricity charges being considered is Rs. 31.15 (48.55-1.04-16.36) crore.

12.3.2 Further, on a query by the Commission, as per the details provided by the Punjab Irrigation Department, GVK has an agreement dated 29.03.2001 for the supply of 20 cusec of raw water from river Beas for a full calendar year against which GVK has paid an amount of Rs. 1.21 crore as advance on 12.02.2018. This amount being advance deposit has not been considered. Also, GVK has deposited an amount of Rs. 1.33 crore towards water charges on 21.06.2019 for the

calendar years 2012 to 2018, which on pro-rata basis upto 16.04.2016 comes to Rs. 0.95 crore (approx.). Considering the above, the Commission allows Rs. 32.10 [31.15 (electricity) +0.95 (water)] crore on account of power and water charges for construction.

Table 58: Power & Water expenses for construction

(Rs. crore)

Item	As per Schedule-11 of the PPA	Claimed by GVK	Allowed by the Commission
Power and Water for Construction	**12.00**	**32.57**	**32.10**

13. Consultancy and Engineering Costs (Item no.13 of Schedule 11 of the PPA)

13.1 GVK's submissions

13.1.1 GVK submitted that the Commission vide its order dated 29.04.2008 had allowed the cost of Consultancy & Engineering at Rs. 7.50 crore. However, due to the increase in manpower cost etc., Tata Consulting Engineers Limited (the owner's engineer) has increased the manpower cost along with the number of people required for the said Project. This also includes the Service Tax payable on the same. Thus the revised cost of consultancy & engineering is Rs. 12.13 crore. GVK requested the Commission to allow this increased cost of Rs. 4.63 crore as part of the Project capital cost in full.

13.1.2 On 01.08.2019, GVK has claimed Rs. 54.13 crore for Legal & Professional charges instead of Consultancy & Engineering expenses.

13.2 PSPCL's submissions

13.2.1 PSPCL submitted that GVK has claimed a cost overrun of Rs.4.63 crore towards increase in consultancy and engineering cost on account of increase in manpower cost and the service tax payable for the same. The cost incurred under this head is liable to be approved on actuals after due prudence check by the Commission.

13.3 Commission's Analysis

13.3.1 The Commission has allowed an amount of Rs. 7.50 crore for Consultancy & Engineering charges in its Order 29.04.2008 in Petition No. 04 of 2007 filed by GVK. GVK in this petition has claimed an amount of Rs. 12.13 crore for Consultancy & Engineering charges. However, in its submissions dated 01.08.2019 (Annexure-6), GVK has claimed an amount of Rs. 54.13 crore under the head 'Legal and Professional Charges'. The Joint Auditor in its report found that as per the Ledger, the Legal & Professional expenses till 16.04.2016 are Rs. 50.42 crore instead of Rs. 54.13 crore as claimed by GVK. The major expenses in Legal & Professional head are as below:

Table 59: Legal & Professional expenses

(Rs. crore)

GVK Technical & Consultancy Services Ltd. for Salaries etc.	**28.84**
Lahmeyer International for LIE	**1.30**
TCE Consulting Engineers for Project Evaluation	**11.03**
IDBI Bank Ltd. for Management Fees & Trusteeship Fees	**2.44**

13.3.2 The Commission finds that GVK has incorrectly included other charges under this head and that too belatedly, besides the Consultancy for the project evaluation by TCE amounting to Rs. 11.03 crore which originally was Rs. 7.50 crore. Moreover, the payment of salary etc. amounting to Rs. 28.84 crore to the sister concern of GVK cannot be allowed as consultancy charges without any provision in the PPA. Similarly, the claim of Rs.2.44 crore for management and trustee fees of IDBI Bank Ltd. cannot be included in this head. These are in the nature of financing charges which have been separately considered. Lahmeyer International for LIE has performed services for the lenders and their fees is not a charge on the borrower GVK. Therefore, the Commission is inclined to allow only the amount of Rs. 11.03 crore for Consultancy and Engineering expenses paid to Tata Consulting Engineers Ltd. for project evaluation, which the Commission allows.

Table 60: Consultancy & Engineering charges

(Rs. crore)

Item	As per Schedule-11 of the PPA	Claimed originally in the petition	Revised claim by GVK	Allowed by the Commission
Consultancy and Engineering	7.50	12.13	54.13	11.03

14. Insurance (Item no.16 of Schedule 11 of the PPA)

14.1 GVK's submissions

14.1.1 GVK claimed Rs. 16.56 crore on account of Insurance expenses against the Hon'ble APTEL approval of Rs. 11.44 crore. GVK submitted that the Insurance policy had to be extended on

account of force majeure events and change in law from time to time.

14.2 PSPCL's submissions

14.2.1 PSPCL submitted that GVK has claimed cost overrun of Rs. 5.12 crore towards insurance on account of delay due to force majeure events and change in law events allowed by Arbitral Tribunal resulting in extension of SCOD for the project. The Awards of Arbitral Tribunal have been challenged by PSPCL before the Commercial Court, Patiala and as such, GVK's claims based on force majeure and change in law events are subject to the outcome thereof. The claims of GVK under this head are liable to be approved on actuals after due prudence check by the Commission including examination of insurance premiums paid by GVK.

14.3 Commission's Analysis

14.3.1 The PPA provides an amount of Rs.11.44 crore for insurance in Schedule-11. This was to be expended upto the SCOD i.e. 20.11.2013. However, GVK has claimed an amount of Rs. 16.56 crore on this account consequent upon force majeure and change in law. Considering the time over run allowed in the two arbitration awards and after verification of the invoices, the Commission allows the amount of Rs.16.56 crore against the insurance expenses, subject to the outcome of the court case filed by PSPCL against the said Arbitration Awards.

Table 61: Insurance charges

(Rs. crore)

Item	As per Schedule-11 of the PPA	Claimed by GVK	Allowed by the Commission
Insurance Charges	11.44	16.56	16.56

15. Operator Training & Mobilization (Item 15 of Schedule 11 of the PPA)

15.1 GVK's submissions

15.1.1 The Commission in its Order dated 29.04.2008 had allowed a sum of Rs. 5 crore under the head 'Operator Training'. GVK in Table-10 of the petition has claimed Rs. 5 crore for Operator Training & Mobilization under Preliminary & Pre-operative expenses. In the submissions dated 01.08.2019, GVK submitted that expenditure incurred/ payments made against each item of work has been included in the enclosed Annexure-6 with the submissions.

15.2 Commission's Analysis

15.2.1 The Commission notes that GVK has filed item wise expenditure in its submissions dated 01.08.2019 (Annexure-6) wherein the claim under Construction and Pre-commissioning expenses earlier termed as Preliminary and Pre-operative expenses has been raised from Rs.279.69 crore to Rs.321.49 crore. However, GVK has not specifically included the said amount of Rs. 5.00 crore for Operator Training & Mobilization in the itemized expenditure of Rs.321.49 crore nor given any substantive evidence of the same even though lesser amounts have been included. In the light of above, the Commission is constrained to disallow the same.

Table 62: Operator Training & Mobilization expenses

(Rs. crore)

Item	As per Schedule-11 of the PPA	Claimed originally in the petition	Revised claim by GVK	Allowed by the Commission
Operator Training & Mobilization	5.00	5.00	Nil	Nil

16. Rehabilitation & Resettlement (Item no. 2 of Schedule 11 of the PPA)

16.1 GVK's submissions

16.1.1 GVK in Table-10 of the petition has claimed Rs. 5 crore for Rehabilitation & Resettlement under Preliminary & Pre-operative expenses as provided in the Commission's Order dated 29.04.2008.

16.2 Commission's Analysis

16.2.1 The Commission notes that GVK has filed item wise expenditure in its submissions dated 01.08.2019 (Annexure-6) wherein the claim under Construction and Pre-commissioning expenses earlier termed as Preliminary and Pre-operative expenses has been raised from Rs.279.69 crore to Rs.321.49 crore. However, GVK has not specifically included Rs.5 crore for Rehabilitation & Resettlement in the itemized expenditure statement amounting to Rs. 321.49 crore nor have documents/vouchers to this effect been made available for scrutiny. In the light of above, the Commission is constrained to disallow the same.

Table 63: Rehabilitation & Resettlement expenses

(Rs. crore)

Item	As per Schedule-11 of the PPA	Claimed by GVK	Allowed by the Commission
Rehabilitation & Resettlement	5.00	Nil	Nil

17. Preliminary Expenses (Item no. 3 of Schedule 11 of the PPA)

17.1 The Commission allowed Rs. 0.25 crore as preliminary expenses in its Order dated 29.04.2008 in petition no.4 of

2007. The said amount is also included in Schedule 11 of the PPA. GVK has claimed Rs. 0.25 crore in the petition as preliminary expenses (Investigation & Site Development). The Commission allows the same.

Table 64: Preliminary expenses

(Rs. crore)

Item	As per Schedule-11 of the PPA	Claimed by GVK	Allowed by the Commission
Preliminary Expenses	0.25	0.25	0.25

18. Based on the foregoing analysis and approval, the Capital Cost of the project, excluding IDC, financing charges and contingency on the date of commissioning, is as follows:

Table 65: Capital Cost excluding IDC, financing charges and contingency on the date of commissioning

(Rs. crore)

S. No.	Item	As per Schedule 11 of the PPA	Claimed by GVK	Approved by Commission
1.	Land	109.35	123.77	96.75
2.	Rehabilitation & Resettlement	5.00	Nil	Nil
3.	Preliminary Expenses	0.25	0.25	0.25
4.	Boiler Turbine generator Package including Engineering, Erection, Civil Works, Taxes and Duties	1070.58	1050.22 [1164.86-114.64 (un-discharged liability)]	1050.17
6.	Balance of Plant including Engineering, Erection, Civil Works, Taxes and Duties	955.00	927.40	783.57
7.	Spares for BTG Package	39.65	0.11 [1.62-1.51 (un-discharged liability)]	0.11

8.	**Non-EPC**	**135.00**	**337.31**	**204.60**
9.	**Start-up Expenses**	**15.00**	**31.68**	*****
10.	**Power and Water for Construction**	**12.00**	**32.57**	**32.10**
11.	**Consultancy and Engineering**	**7.50**	**54.13**	**11.03**
12.	**Pre-operative expenses**	**50**	**186.55**	**74.04**
13.	**Operator Training & Mobilisation**	**5.00**	**Nil**	**Nil**
14.	**Insurance**	**11.44**	**16.56**	**16.56**
15.	**TOTAL**	**2415.77**	**2760.55**	**2269.18**

**** given as infirm power and electricity charges.***

19. Date of Commercial Operation

19.1 GVK had filed petition no. 65 of 2013 in the Commission for extension of the Scheduled Commercial Date (SCOD) with the following prayers:

a) direct the extension of the SCOD for completion and commercial operation of the project for a period of 9 months in the case of unit 1 and for a further period of 6 months for unit 2 to be calculated from the closure of the Force Majeure events namely, approval of railway drawings both in regard to Power project and in regard to coal mine siding and the availability of the land to enter upon and commence mining operations; and

b) pass any such further order or orders as this Commission may deem just and proper in the circumstances of the case.

19.2 During the pendency of the above petition, GVK filed another petition no. 33 of 2015 for following relief:

a) Declare that the cancellation of the Coal Blocks pursuant to the judgment of the Hon'ble Supreme Court dated 25.08.2014 and Order dated 24.09.2014 is Change in Law Event in terms of Article 13 of the PPA.

b) Declare that the Promulgation of the Ordinance is a Change in Law event in terms of Article 13 of the PPA.

c) Declare that the Cancellation of the Coal Blocks pursuant to the judgment of the Hon'ble Supreme Court dated 25.08.2014 and Order dated 24.09.2014 is Force Majeure Event in terms of Article 12 of the PPA.

d) Declare that the Promulgation of the Ordinance is a Force Majeure Event in terms of Article 12 of the PPA.

e) Devise an alternate mechanism for the sourcing of Fuel including necessary amendments to the Amended and Restated PPA;

f) Grant consequential extension of SCOD till the issue of procurement of fuel is decided by this Hon'ble Commission.

19.3 The Commission referred all the aforementioned issues except prayer 'e' as above in the petition no. 33 of 2015 for arbitration. The Arbitration Award dated 10.04.2017 against claim petition no.1 stated that GVK is entitled for extension of SCOD from 04.01.2010 to 25.06.2014. The second Arbitration Award also dated 10.04.2017 against claim petition no.2 provided that GVK is entitled for extension of SCOD from the date of Coal Order till COD is actually achieved.

19.4 The Hon'ble Supreme Court of India in its Judgment dated 25.08.2014 in the Case of Manohar Lal Sharma Vs The Principal Secretary & Ors (2014) 9 SCC 516 held that the entire allocation of coal blocks/mines made by the screening committee from 14.07.1993 suffer from the arbitrariness and legal flaws and were found to be illegal. Further, the Hon'ble Supreme Court in its judgment dated 24.09.2014 in the said case passed a consequential de-allocation Order in WP (Crl.) 120 of 2012 cancelling 204 coal blocks including GVK's Tokisud Coal block.

19.5 GVK in its submission dated 13.12.2019 stated that the period from 25.06.2014 to 25.09.2014 was essentially the period

during which GVK was preparing for synchronization and commissioning. GVK stated that this period being part of the contractual mandated period required for synchronization ought to be factored in and any cost overrun for this period should be considered as part of the capital cost. Further, in terms of article 4.5 of the PPA, the SCOD shall be extendable on a day to day basis equivalent to the period lost due to the force majeure event. The force majeure event commenced on 10.04.2010 and ended on 25.06.2014 which is 34 months. As such the gap of 2-3 months subsumes into the period of second force majeure event that commenced on 24.09.2014.

19.6 The Commission does not agree with the view of GVK. The activities pertaining to testing, trial run and synchronization are to be carried out prior to the SCOD or the extended SCOD as the case may be, and not thereafter. The period of extension in SCOD in the two Arbitration awards is unambiguous with specific dates. As such, the Commission holds that the period from 26.06.2014 to 24.09.2014 i.e. 90 days does not count towards the extension in SCOD allowed in the two Arbitration Awards. Further the Commission in its common Order dated 01.02.2016 in petition no. 65 of 2013 and 33 of 2015 while deciding the prayer 'e' in petition no. 33 of 2015 as brought out above regarding alternative coal arrangement had expressed the view that GVK may declare the COD of the project considering the coal arrangements it had made for 2 to 2.5 years directing that GVK will arrange the long term linkage of coal at the earliest or successfully bid for a mine. GVK declared the COD of 1st unit on 06.04.2016 and

2nd unit on 16.04.2016. The said Order dated 01.02.2016 of the Commission is under challenge by PSPCL in Appeal No. 68 of 2016 and Appeal No. 69 of 2016 before Hon'ble APTEL and no stay has been granted till date.

20. Interest During Construction (IDC) (Item No. 18 of Schedule 11 of the PPA)

20.1 GVK's submissions

20.1.1 GVK submitted that original approved project cost of Rs. 3200 crore (actual incurred Rs.4267.39 crore) was to be funded in a Debt:Equity ratio of 75:25 and the amount of Rs. 2400 crore was to be borrowed from a consortium of 13 banks with IDBI Bank the lead Bank. Since, the cost of the project has gone up, the debt component of the project has also increased from Rs. 2400 crore to Rs.3149.33 crore till the COD. The debt increase has been financed through a second, third and fourth-rupee term loan. GVK in its additional submissions dated 08.02.2018 has claimed actual IDC as under:

Table 66: IDC claimed by GVK

(Rs. crore)

Particulars	Original	Actual	
Project Cost	3200	4383.54	
		Original cost	Cost Overrun
Debt Component	2400	2400	932.16
Interest rate (% p.a.)	11.25	13.40	12.94
Time(Months)	36	72	30
IDC	367.74	1379.01	95.83
IDC Overrun		1107.10	

20.1.2 GVK submitted that the overrun in the Interest During Construction was due to the delay in achieving COD of the Project

on account of the change in law and Force Majeure events. Apart from the delay, there have been fluctuations in the interest rate during this entire construction period which is as per the Facility Agreement. The delay as well as the interest fluctuations were uncontrollable, hence it was prayed that an amount of Rs.1474.84 crore be allowed towards IDC.

20.1.3 GVK has submitted the following documents on the directions of the Commission vide its Order dated 13.02.2018:

a) Date-wise details of loan received from various lenders (supported by relevant bank statements);
b) Date-wise details of capital expenditure/investments made corresponding to loan received (supported by relevant bank statements);
c) Loan agreements entered with all lenders; and
d) Documentary evidence to verify the interest rates fluctuations.

20.2 PSPCL's submissions

20.2.1 PSPCL in its additional Affidavit dated 3rd August,2018 submitted that in compliance to the Commission's Order dated 07.05.2018, a committee for the verification of capital cost had been constituted which submitted its report on IDC in addition to increase in other costs viz. cost of land, cost of BTG and BOP packages, cost of Non-EPC works, pre-operative expenses.

20.2.2 PSPCL stated in its report that PSERC had approved IDC of Rs. 286.36 crore vide its order dated 29.04.2008 which was revised to Rs. 365.19 crore by APTEL in its order dated 08.04.2009 in Appeal No.104 of 2008. The report further stated that the amount of IDC of Rs.1519.187 crore indicated in the document supplied by GVK is not authenticated against loan of Rs.

3516.14 crore taken from Banks. The report concluded that the Commission may allow expenditure on account of IDC of Rs.365.19 crore upto SCOD only as per PPA and as approved by Hon'ble APTEL.

20.2.3 The Commission in its Order dated 22.8.2019 directed GVK and PSPCL to have daily sitting with concerned officers of the Commission to verify the capital expenditure along with IDC from the record made available by GVK. PSPCL has calculated the Interest of Rs 917.23 crore during construction period for payment of Rs.1837.92 crore to vendors. PSPCL in its report has checked payment of Rs. 1000.56 crore made to BHEL and has calculated interest during construction to tune of Rs. 507.61 crore on term loan of Rs 691.07 crore for payments made to BHEL upto 16.4.2016.

20.3 <u>Commission's Analysis</u>

20.3.1 During verification of the data, GVK submitted that the total amount of equity of Rs. 1118.06 crore has been invested in the project and total loan taken is Rs.3149.33 crore. The total capital investment of the project works out to Rs. 4267.39 crore as per GVK. The Commission has examined each component of the hard cost and has approved the same at Rs 2269.18 crore in the foregoing paras. GVK has supplied the statement regarding break-up of Debt-Equity during the course of examination of the accounts. As per the submission, equity invested by GVK is Rs.1118.06 crore. The Commission for the purpose of determination of Interest during construction period deducted the equity of Rs 1118.06

crore from the hard cost of Rs. 2269.18 crore. The Term loan has been worked out as under:

Table 67: Determination of Term Loan

(Rs. crore)

S. No.	Particulars	Amount
1.	Total Hard Cost	2269.18
2.	Less:- Equity invested	1118.06
3.	Term Loan (1-2)	1151.12

20.3.2 Accordingly, term loan works out to Rs.1151.12 crore. GVK claimed interest from the date of the loan transferred by the respective Banks to its loan account.

20.3.3 The Commission has held earlier that the period from 26.06.2014 to 24.09.2014 i.e. 90 days does not count towards the extension in SCOD allowed in the two Arbitration Awards. Interest during Construction for the period from 26.06.2014 to 24.09.2014 wherein there was no Force Majeure or change in Law has therefore been disallowed. Accordingly, IDC is not considered for the period from 26.06.2014 to 24.09.2014.

20.3.4 During verification it has been noted by the Commission that following amounts drawn from bank have been diverted by GVK

a) Rs. 2.22 crore has been invested in SBI Mutual Fund on 08.06.2010 and

b) Rs.1.36 crore has been invested in Fidelity Mutual Fund on 08.06.2010 out of the term loan for the BTG contract.

GVK has stated that the total income earned from investments including those mentioned above is Rs. 18.24 crore:

Table 68: Income earned from fund diversion

(Rs. crore)

S. No.	Particulars	Amount
1.	Interest earned	9.52
2.	Dividend from Mutual Fund	6.59
3.	Profit on redemption of mutual fund	0.72
4.	Profit on forward contracts	1.41
	TOTAL	18.24

20.3.5 The Commission has not gone into the details of other business or investments operated/financed by GVK out of loans taken for the Goindwal Power Plant since IDC has been calculated on the basis of dates on which payments have been made. The Commission has neither considered interest paid on loans used for such other investments nor income earned from such other business / investments as part of the capital expenditure.

20.3.6 In terms of Regulation 11 (A) of the CERC Tariff Regulations 2014, in case of additional cost on account of IDC due to delay in achieving SCOD and provided the delay is not attributable to the generating company and is due to uncontrollable factors as indicated in Regulation 12 (which includes force majeure events), the IDC may be allowed subject to prudence check. The relevant CERC Regulation 2014 is reproduced below for reference:

> ***"11. (A) Interest during Construction (IDC): (1) Interest during construction shall be computed corresponding to the loan from the date of infusion of debt fund, and after taking into account the prudent phasing of funds upto SCOD. (2) In case of additional costs on account of IDC***

due to delay in achieving the SCOD, the generating company or the transmission licensee as the case may be, shall be required to furnish detailed justifications with supporting documents for such delay including prudent phasing of funds:

Provided that if the delay is not attributable to the generating company or the transmission licensee as the case may be, and is due to uncontrollable factors as specified in Regulation 12 of these regulations, IDC may be allowed after due prudence check:

Provided further that only IDC on actual loan may be allowed beyond the SCOD to the extent, the delay is found beyond the control of generating company or the transmission licensee, as the case may be, after due prudence and taking into account prudent of funds."

20.3.7 Hon'ble APTEL vide its Order dated 08.04.2009 decided as under:

"…..To be fair to all parties infusion of equity and debt must go simultaneously in equal proportions. In our view, 30% upfront equity infusion is sufficient since the lending agencies have confirmed that only 30% of the total equity is required to be brought by the promoter…"

20.4 <u>Interest calculated for BTG contract</u>

20.4.1 GVK has made payments of Rs 1043.98 crore to BHEL under BTG contract after deduction of Rs 5.15 crore and Rs.1.04 crore as TDS and electricity recoveries respectively. These payments were made out of equity and Term Loan of Rs. 280.37 crore and Rs. 763.61 crore respectively. Term Loan of Rs. 763.61 crore includes term loan of Rs 29.12 crore taken before the financial closure for which IDC is not being allowed. Interest on the said loan of Rs 29.12 crore has been allowed separately as a part of the interest on temporary

loans taken before financial closure. The term loan works out to Rs. 734.49 (763.61-29.12) crore based on the actual date of payment towards capital expenditure after financial closure. As per notes 3 of Schedules 11 of PPA, Interest During Construction is to be paid based on phasing of expenditure. Accordingly, the Commission determines the interest during construction (IDC) on the following basis:

i. **Rate of Interest has been considered and taken as claimed by the Petitioner.**
ii. **Amount of payments made out of loan have been considered as per petitioner's claim and as admitted by the Commission.**
iii. **Period for interest has been considered from the date of payment to 16.4.2016 except the period 26.6.2014 to 24.9.2014.**

20.4.2 The Commission determines Interest During Construction (IDC) amounting to Rs. 478.81 crores upto 16.04.2016 (excluding period from 26.06.14 to 24.09.2014) against term loan of Rs 734.49 crore.

20.5 <u>Interest calculation for payments other than BTG contract</u>

20.5.1 GVK has raised the Term loan for making payments for BOP, Non-EPC and Pre-operative expenses and has provided the statement of payments made out of Equity & Term Loan for the said expenditure. However, the details provided by the Petitioner cannot be considered for determining the interest on Term loan due to the following reasons:

i. **For the BOP packages GVK has paid an advance of Rs. 287.75 crore @ 31.34% against Rs. 918.12 crore to Punj Lloyd Limited whereas only Rs.105.71 crore @ 11.5%**

against Rs. 918.12 crore was required to be paid as per the contract.

ii. **Advance paid to the suppliers against BOP contract has not been adjusted/recouped to the extent of Rs. 77.65 crore till the date of COD.**

iii. **GVK has claimed interest on the excess advance amount as well as on the unadjusted amount.**

iv. **GVK has claimed Rs. 927.40 crore as payment on account of BOP whereas the Joint Auditor has been able to trace the payments of Rs. 862.72 crore. PSPCL in its report has intimated that Punj Lloyd Limited has claimed Rs 887.94 crore against the bills from GVK. GVK processed the bills of Rs 884.86 crore for payment. But the PSPCL team was able to trace bills of only Rs. 772.78 crore against the work order issued to Punj Lloyd Limited. The Commission has allowed Rs 783.57 crore for the same.**

v. **GVK has made payments of Rs. 132.71 (337.31- 204.60) crore against Non-EPC contracts which are not allowable.**

vi. **GVK vide its petition dated 01.08.2019 has revised its claim of hard capital cost to Rs. 2760.55 crore against its earlier claim of Rs. 2848.70 crore claimed in the original petition without showing any effect on IDC.**

vii. **The Joint Auditor in his report has mentioned that**

"no certificate has been received from Lenders regarding Interest charged, but we have verified the interest from the bank statements except IDBI interest of 2015-16 and 2016-17 for which Account Statement has not been provided but only excel sheet have been provided, so we have disallowed the interest of 2015-16 and 2016-17."

20.5.2 In view of the above, it is not be possible to calculate Interest During Construction based on the date wise payments made against BOP and Non-EPC.

20.6 <u>Interest during construction for all payments after financial closure</u>

20.6.1 The details of date wise expenditure disallowed cannot be ascertained. The phasing of expenditure out of equity and debt in case of BOP and other contracts is similar to BTG contract. Hence, the Commission is constrained to adopt the ratio of interest allowed on term loan of BTG contract for the other term loan. Accordingly, IDC of Rs. 478.81 crore on BTG term loan of Rs. 734.49 crore is considered for calculating IDC on the total loan of Rs 1151.12 crore and the therefore IDC works out to Rs. 750.41 crore.

20.7 <u>Interest during construction for all payments before financial closure</u>

20.7.1 GVK also claimed Rs 27.09 crore as interest on temporary Loans and Bank Overdraft (OD) before the financial closure under the head Pre-operative expenses. The Joint Auditor has verified the interest claimed by GVK from Bank statements and recommended that it form part of IDC. The Joint Auditor has allowed Rs. 27.09 crore as part of IDC in his report. The Commission agrees with the view of the Joint Auditor that interest on temporary loans and bank overdraft before the financial closure is part of IDC. Accordingly, the Commission allows interest of Rs.27.09 crore as a part of IDC.

20.7.2 The Commission, thus allows Rs. 777.50 (750.41 + 27.09) crore as Interest During Construction.

Table 69: Interest During Construction

(Rs. crore)

Item	As per Schedule-11 of the PPA	Claimed by GVK	Allowed by the Commission
Interest During Construction	**365.19**	**1474.84**	**777.50**

21. <u>Financing Charges (Item No. 19 of Schedule 11 of the PPA)</u>

21.1 GVK has claimed Financing Charges of Rs. 31.99 crore in the petition against approved financing charges of Rs.70.00 crore. Financing charges detail as provided by GVK includes bank guarantee commission, up-front fee, appraisal fee, annual review charges, syndication fee, underwriting fee and other financing charges for raising term loans. This also includes syndication fee of Rs. 6.36 crore paid to IDBI included in GVK's claim on legal and professional services. GVK has claimed financing charges of Rs. 31.99 crore on term loan of Rs. 3149.33 crore. **Accordingly, financing charges on term loan of Rs. 1151.12 crore work out to be Rs. 11.69 crore.**

21.2 Thus, the Commission approves the Financing Charges of Rs. 11.69 crore.

Table 70: Financing charges

(Rs. crore)

Item	As per Schedule-11 of the PPA	Claimed by GVK	Allowed by the Commission
Financing Charges	**70.00**	**31.99**	**11.69**

22. <u>Working Capital Margin (Item No. 22 of Schedule 11 of the PPA)</u>

22.1 GVK claimed Rs.107.52 Crore on account of Working Capital Margin. In the hearing dated 18.07.2019, GVK did not press the

said issue. The Joint Auditor has also not allowed any amount on Working Capital Margin.

22.2 Accordingly, the Commission approves 'Nil' Working Capital Margin.

Table 71: Working Capital Margin

(Rs. crore)

Item	As per Schedule-11 of the PPA	Claimed originally in the petition	Revised claim by GVK	Allowed by the Commission
Working Capital Margin	46.00	107.52	Nil	Nil

23. Contingency

The Commission had approved Rs. 5.00 crore for under the head contingency in its Order dated 29.04.2008 in petition no. 04 of 2007, which was enhanced to Rs. 66.85 crore vide Hon'ble APTEL's Order dated 08.04.2009 in Appeal No. 104 of 2008. Against this, GVK claimed Rs. 28.00 crore in the petition. No details have been provided in the petition on this account. On a query by the Commission, GVK clarified that Rs. 23.93 crore relates to the Railway payment. Further, on 27.06.2019, GVK submitted that Rs. 23.00 crore (approx.) is related to expenditure on coal handling plant payable to PLL which is under dispute. Further, Rs. 5.00 crore is to be spent for improvement in the coal handling plant. In its submission dated 01.08.2019 (Annexure-6) GVK has not mentioned any expenditure under the head contingency. PSPCL submitted that GVK has not furnished any details of coal e.g. GCV and the quality of coal. In the absence of any substantiating documents, the claim of Rs. 5.00 crore of GVK in this regard is liable to be rejected by the Commission. The Joint Auditor has also not mentioned anything on this account. **Thus, the Commission allows 'Nil' on account of contingency.**

24. To sum up, it needs to be pointed out that GVK has filed this petition at a very belated stage in November, 2017 even though the plant was commissioned in April, 2016. Neither GVK nor PSPCL bothered to meet the statutory requirement as mentioned in the PPA for appointing auditors jointly to certify the actual capital cost. This was done only after repeated directions from the Commission. It was only when the Commission expressed its intention to take punitive action in the Interim Order dated 07.02.2019 that the parties appointed the auditor in April / May, 2019. Vide Interim Order dated 22.08.2019, the Commission had to direct both the parties to have daily sittings with the concerned officers of the Commission to verify the capital expenditure alongwith IDC from the record made available by GVK. The joint auditor submitted the audit report on 14.10.2019 with many qualifications. Neither of the party has agreed fully with the report of the auditor appointed jointly by them. Both the parties have asked the Commission to disregard some aspects of the report. PSPCL submitted the joint verification report on 07.11.2019 carried out on the directions of the Commission against which GVK filed its response on 27.11.2019. GVK filed further clarificatory submissions on 04.12.2019, 06.12.2019 and 13.12.2019. GVK presented the final arguments on 11.12.2019 and PSPCL filed its final submissions on 13.12.2019 alongwith oral arguments. GVK submitted another submission on 17.12.2019 vide e-mail.

GVK kept on changing its claim in each submission. GVK's submissions as brought out in the previous paragraphs are full of avoidable errors. In some cases these were fairly significant, in that almost Rs. 330 crore was

claimed under various heads where payment had not been made at all. A substantial part of the contract for the project has been given to GVKPTSL, a sister concern of GVK. Works amounting to approx Rs. 540 crore under various heads were allotted to GVKPTSL as against the provision of Rs. 185 crore for those works in the PPA. Non-EPC works were allotted at the bid value of Rs. 135 crore to the said sister concern also as a fixed price contract as submitted by GVK in the petition under colony works. Despite this, the non-EPC works were enhanced to Rs. 337.31 crore through various scope change orders in the period from 2009 to 2012. Pertinently, the BTG and BOP works, which were also fixed price contracts, were carried out in the same period and there was no enhancement in these contracts. GVK has also claimed an expenditure of Rs. 28.84 crore for salaries and wages of GVK Technical & Consultancy Services Ltd., which is another sister concern of GVK.

25. <u>Approved Capital Cost</u>

25.1 The Commission approves the capital cost of the project on date of the commissioning as follows:

Table 72: Capital Cost approved by the Commission as on the date of commissioning

(Rs. crore)

S. No.	Item	Approved by the Commission
1.	Land	96.75
2.	Preliminary Expenses	0.25
3.	Boiler Turbine Generator Package including Engineering, Erection, Civil Works, Taxes and Duties	1050.17
4.	Balance of Plant including Engineering, Erection, Civil Works, Taxes and Duties	783.57
5.	Spares for BTG Package	0.11
6.	Non-EPC	204.60

7.	**Power and Water for Construction**	**32.10**
8.	**Consultancy and Engineering**	**11.03**
9.	**Pre-operative Expenses**	**74.04**
10.	**Insurance**	**16.56**
11.	**Capital Cost excluding IDC & Financing Charges**	**2269.18**
12.	**Interest During Construction (IDC)**	**777.50**
13.	**Financing Charges**	**11.69**
14.	**Total Capital Cost**	**3058.37**

26. Capacity charges and Energy charges for FY 2016-17

As per the Power Purchase Agreement between GVK and PSPCL, tariff is to be determined as per CERC Regulations.GVK has filed the petition for determination of capacity charges based on CERC Regulations. However the Hon'ble Appellate Tribunal for Electricity, while disposing off appeal no 30 & 35 of 2014 filed by M/s Everest Power Pvt. Limited vide order dated 12th November 2014(which is in consonance with the principles laid down by the Hon'ble APTEL in Order dated 01.03.2013 in Appeal No. 131 of 2011), held that where the State Commission has framed the requisite Regulations, it is bound by such Regulations for fixing the tariff u/s 62 of the Electricity Act. The Central Commission's Regulations have no relevance in such cases. Further that, the State Commission may follow the Central Commission's Regulations on certain aspects which have not been addressed in the State Commission's own Regulations.

26.1 Capacity charges

The Commission has determined capital cost of GVK as Rs. 3058.37 crore in this order. The components of the capacity charges based on capital cost approved by the Commission and

Annual Audited Accounts for FY 2016-17 of GVK for the period 17.4.2016 to 31.03.2017 are determined as per PSERC (Terms and Conditions for determination of Tariff), Regulation 2005 in the ensuing paragraphs. It would be pertinent to note that in the Annual Audited Accounts for FY 2016-17, GVK has not bifurcated the majority of the expenses between the periods 1.4.16 to 16.4.2016 and 17.4.2016 to 31.3.2017. Therefore, the expenses for FY 2016-17 have been considered on prorata basis for the period 17.4.2016 to 31.3.2017.

26.1.1 O&M expenses

The O&M expenses are to be determined as per provisions of Regulation 28 of PSERC (Terms and Conditions for determination of Tariff), Regulation 2005 which is as under:

> *28. OPERATION AND MAINTENANCE EXPENSES*
>
> *5 (b) In case of a new generating company (s), the Commission shall make suitable assessment of base O&M expenses of the new licensee (s) and allow O&M expenses for subsequent years for the new licensee (s) on the basis of such estimation and principle as given in Clause (2)(b) above.*
>
> *However, for employee cost the principle specified in Clause (3) will be followed.*

As per the above sub regulation(5)(b), the Commission has to make suitable assessment of base O&M expenses in case of new generating company. This exercise will be taken up during true-up of FY 2016-17.

Employee benefit expenses and other operating expenses (A&G and R&M expenses) are Rs.8.66 crore and Rs.23.42 crore respectively as per the Annual Audited Accounts of GVK for FY 2016-17. An expenditure of Rs.0.28 crore depicted in‘ other

operating expenses' in Annual Audited Accounts relates to provision for diminution in value of investment and the same is not allowable as O&M expenses. Thus, O&M expenses are allowed at Rs.31.80(32.08- 0.28) crore for FY 2016-17.

Accordingly, the Commission allows Rs.30.41 (31.80*349/365) crore as O&M expenses for the period 17.4.2016 to 31.03.2017.

26.1.2 Depreciation:

Depreciation is to be determined as per provisions of Regulations 27 of PSERC (Terms and Conditions for determination of Tariff), Regulation 2005 which is as under:

> *27. DEPRECIATION*
>
> *(1) For the purpose of tariff, depreciation shall be computed in the following manner:*
>
> *(a) The value base for the purpose of depreciation shall be the capital cost of the assets admitted by the Commission: Provided that land is not a depreciable asset and its cost shall be excluded from the capital cost while computing depreciation: Provided further that depreciation has been calculated after deduction of consumer contributions, capital subsidies/Government grants.*
>
> *(b) The historical cost of the asset shall include additional capitalisation.*
>
> *(c) The historical cost shall include foreign currency funding converted to equivalent rupees at the exchange rate prevalent on the date when foreign currency was actually availed but not later than the date of commercial operation.*
>
> *(d) Depreciation for generation and transmission assets shall be calculated annually as per straight-line method over the useful life of the asset at the rate of depreciation specified by the Central Electricity Regulatory Commission from time to time.*

Provided that the total depreciation during the life of the asset shall not exceed 90% of the original cost.

(e) Depreciation for distribution assets and other assets not specified by CERC shall be at the rates notified by the Commission.

Provided that the total depreciation during the life of the asset shall not exceed 90% of the original cost.

(2) The generating company and the licensees shall make all efforts for aligning the tenure of long term debt with permissible rate of depreciation to reduce front loading of tariffs. In case of inadequacy of cash for repayment of debt, only in extreme cases, the Commission may allow Advance Against Depreciation (AAD) in addition to the allowable Depreciation in the following manner:

AAD = Loan repayment amount as per the schedule of repayment subject to a ceiling of 1/10th of loan amount as per Regulation 24 minus depreciation as per schedule Provided that Advance Against Depreciation shall be permitted only if the cumulative repayment up to a particular year exceeds the cumulative depreciation up to that year, Provided further that Advance Against Depreciation in a year shall be restricted to the extent of difference between cumulative repayment and cumulative depreciation up to that year.

(3) On repayment of entire loan, the remaining depreciable value shall be spread over the balance useful life of the asset.

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

As per the Annual Audited Accounts of GVK for FY 2016-17, depreciation of Rs. 201.37 crore is on Gross Fixed Asset of Rs 4224.02 crore (excluding land value). There has been no addition of assets from 17.4.2016 to 31.3.2017. Depreciation for FY 2016-17 depicted in Annual Audited Accounts has been considered for computing the depreciation for the period from 17.4.2016 to 31.3.2017. The weighted average rate of depreciation has been

worked out by GVK at 4.77% (201.37/4224.02) for the period 17.4.2016 to 31.3.2017.

The Commission has determined Gross Fixed Assets (GFA) of Rs. 3058.37 crore. Cost of land approved by the Commission is Rs. 96.75 crore in the instant order. Gross Fixed Assets excluding land work out to Rs. 2961.62 (3058.37-96.75) crore. The depreciation @ 4.77% on the GFA of Rs.2961.62 crore works out to Rs.141.27 (2961.62*4.77%) crore. The detailed examination of depreciation rate & amount of shall be carried out in the true up of FY 2016-17.

Accordingly, the Commission allows the depreciation of Rs.141.27 crore for the period 17.04.2016 to 31.03.2017.

26.1.3 Return on equity

As per Regulation 24 of PSERC (Terms and Conditions for determination of Tariff), Regulation 2005 which is as under:

> *24. DEBT-EQUITY RATIO*
>
> *(1) For the purpose of determination of tariff, debt-equity ratio in case of a new project commencing after the date of notification of these Regulations 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 loan. Where actual equity employed is less than 30%, the actual debt and equity shall be considered for determination of tariff.*
>
> *Provided that the Commission may, in appropriate cases, consider equity higher than 30% for the purpose of determination of tariff, where the generating company or the licensee is able to establish to the satisfaction of the Commission that deployment of equity more than 30% is in the interest of the general public;*

(2) In case of existing and ongoing projects, the actual debt-equity ratio shall be considered for determination of tariff. However, any expansion shall be governed as per clause (1) above.

(3) The debt and equity amounts arrived at in accordance with clause (1) and (2) shall be used for all purposes including for determining interest on loan, return on equity, Advance against Depreciation and Foreign Exchange Rate Variation.

The Regulations state that Debt-equity ratio in case of new projects shall be 70:30 for the purpose of determination of tariff. 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 loan. The Commission has considered the equity of Rs.1118.06 crore in the capital cost of Rs 3058.37 crore which is more than the 30% of the approved capital cost. Accordingly, equity works out to be Rs.917.51 (30% of 3058.37) crore and the balance of Rs.200.55 (1118.06-917.51) crore is considered as normative loan as per the above referred Regulation.

Return on equity shall be computed @15.5% as per Regulation 25 of PSERC (Terms and Conditions for determination of Tariff), Regulation 2005 on equity determined in accordance with Regulation 24. The relevant Sub Regulation 25 of PSERC (Terms and Conditions for determination of Tariff), Regulation 2005 is reproduced below:

(1) Return on Equity shall be computed @ 15.5% on the paid up equity capital determined in accordance with Regulation 24.

Thus, return on equity @ 15.5% on equity of Rs.917.51 crore works out to Rs.142.21 crore for FY 2016-17.

Accordingly, the Commission allows the return on equity of Rs. 135.98 (142.21*349/365) crore for the period 17.04.2016 to 31.03.2017.

26.1.4 Interest and Finance charges

Interest on long term loans is to be allowed as per Regulation 26 of PSERC (Terms and Conditions for determination of Tariff), Regulation 2005, which is as under:

26. INTEREST AND FINANCE CHARGES ON LOAN

(1) For Existing Loan Capital, Interest & finance charges shall be computed on the outstanding Loans, duly taking into account the rate of interest & schedule of repayment as per the Terms & Conditions of relevant agreements. The rate of interest shall be the actual rate of interest paid/payable by the Licensee(s) or the State Bank of India Advance rate as on April, 1 of the relevant year, wherever is lower.

(2) For New investments, Interest & finance charges shall be computed on the loans, duly taking into account the rate of interest & schedule of repayment as per the Terms & Conditions of relevant agreements. The rate of interest shall be the actual rate of interest paid/payable by the Licensee(s) or the State Bank of India Advance rate as on April, 1 of the relevant year, wherever is lower.

(3) The interest rate on the amount of equity above 30% treated as loan shall be the weighted average rate of interest on loan capital of the generating company / licensee

Provided that interest and finance charges of renegotiated loan agreements shall not be considered, if they result in higher charges. Provided further that interest and finance charges on works in progress shall be excluded and shall be considered as part of the capital cost.

(4) Interest charges on security deposits, if any, made by the consumers with a generating company/licensee, shall be considered at the rate specified by the Commission from time to time.

(5) In case any moratorium period is availed of, depreciation provided for in the tariff during the years of moratorium shall be treated as repayment during those years and interest on loan capital shall be calculated accordingly.

(6) The Commission shall allow obligatory taxes on interest, commitment charges, finance charges (including guarantee fee payable to the Govt.) and any exchange rate difference arising from foreign currency borrowings, as finance cost.

(7) Any saving in costs on account of subsequent restructuring of debt shall be shared between the consumers and the generating company / licensee in such ratio as may be decided by the Commission.

Long term loans of Rs.1940.31 (3058.37–1118.06) crore have been considered in this Order. In addition to this, Rs.200.55 crore (equity in excess of 30%) is to be considered as part of normative long term loans as per Regulation 24 of PSERC (Terms and Conditions for determination of Tariff), Regulation 2005 for the purpose of allowing interest. As such, the long term loans workout to Rs.2140.86 (1940.31+200.55) crore for allowing interest. The depreciation for FY 2016-17 which has been worked out as Rs.141.27 crore in this Order is considered as re-payment of the long term loans as per Regulation 26(5) considering that there would be moratorium period in 1st year of operation. Accordingly, average loans for the FY 2016-17 work out to as under:-

Table 73: Average Long Term Loans

(Rs. in crore)

Sr.No	Particulars	FY 2016-17
1	Long term loans as on 17.04.2016	2140.86
2	Less: Depreciation considered as repayment of Loan	141.27
3	Long term loans as on 31.3.2017	1999.59
4	**Average Long term loans**	**2070.22**

As per the Regulations, 26 (2) of PSERC (Terms and Conditions for determination of Tariff), Regulation 2005, the rate of interest is to be considered at the actual rate of interest paid /payable by licensee or State bank of India advance rate as on April, 01 on the relevant year, whichever is lower.GVK had raised the loan of Rs.3000.69 crore@13.25% and Rs 497.00 crore @ 13.50 %both payable on monthly basis which is lower than the SBI Advance Rate i.e 14.00%. The Commission has considered loans of Rs 1940.31 crore in the year which is less than the loans of Rs.3000.69 crore taken by GVK @ 13.25%. Therefore, the Commission adopts the rate of interest of 13.25% for working out the interest to be allowed.

The Commission allows the interest @ 13.25% on the loan worked out in the Table No. 73 (Rs. 2070.22 crore) which amounts to Rs.274.30 crore for FY 2016-17. Interest payable from 17.04.2016 to 31.03.2017 would be Rs. 262.288 (274.30*349/365) crore.

As per the Annual Audited Accounts of GVK the average Loans for FY 2016-17 have been worked out to Rs.3307.63 crore and the interest on this has been depicted as Rs.451.91 crore. However, GVK has a liability of Rs. 226.42 crore towards interest accrued. The interest actually paid on long term loans is Rs.225.49 (451.91-226.42) crore.

Accordingly, the Commission considers the interest of Rs. 225.49 crore which has been actually paid by GVK during this year. The balance amount of interest i.e Rs. 36.79 (262.28 –

225.49) crore will be considered in the year in which year it will be paid by GVK.

As per the Annual Audited Accounts for FY 2016-17, finance charges amount to Rs. 0.04 crore on loan amount of Rs. 3366.49 crore. Finance charges proportionately works out as Rs.0.02 crore on loan of Rs 1940.31 crore and same is allowed. Thus, total interest and finance charges for FY 2016-17 work out to Rs.225.51(225.49+0.02) crore.

Accordingly, the Commission allows interest and finance charges of Rs.225.51 crore for the period 17.04.2016 to 31.03.2017 subject to true up.

26.1.5 Interest on Working Capital Loans

The Working Capital and Interest rate on Working capital has been determined as per Regulation 30 of PSERC (Terms and Conditions for determination of Tariff), Regulation 2005, which is as under:

> *30. WORKING CAPITAL AND INTEREST RATE ON WORKING CAPITAL*
>
> **********
>
> *(3) Working capital for a generating company shall be the sum of the following:*
>
> *(i) Fuel Cost for two months*
>
> *(ii) Operation and Maintenance expenses for one month*
>
> *(iii) Receivables equivalent to two months*
>
> *(iv) Maintenance spares @15% of O&M expenses*
>
> **********

(5) The rate of interest on working capital shall be equal to the actual rate of interest paid/ payable on loans by the licensee (s) or the State Bank of India Advance Rate as on April 1 of the relevant year, whichever is lower. The interest on working capital shall be payable on normative basis notwithstanding that the licensee (s) has not taken working capital loan from any outside agency or has exceeded the working capital loan amount worked out on the normative figures.

As per the Annual Audited Accounts of GVK for FY 2016-17 the fuel cost was Rs 66.45 crore. However, as per the information available in the Commission in petition no 68 of 2017 filed by GVK regarding billing disputes, the fuel cost for the period 16.4.2016 to 31.3.2017 given by PSPCL to GVK is Rs.52.07 crore. Thus, fuel cost of Rs.52.07 crore has been considered for determination of receivables. Accordingly receivable for computation of working capital requirement is determined below:

Table74: Computation of receivables for Working Capital requirement

(Rs. in crore)

Sr.No	Particulars	Amount
1	Fuel Cost	52.07
2	O&M Expenses (refer para 26.1.1)	30.41
3	Depreciation(refer para 26.1.2)	141.27
4	Return on equity(refer para 26.1.3)	135.98
5	Interest and finance charges (refer para 26.1.4)	225.51

6	Interest on working capital loans*	12.25
7	**TOTAL**	**597.49**

*Interest on working capital loan has been taken from Table given below.

The working capital requirements and allowable interest are worked out as under:

Table 75: Interest on Working Capital loans from 17.4.2016 to 31.3.2017 (Rs.in crore)

Sr.No	Particulars	Amount
i	Maintenance Charges @15% of O&M (30.41*0.15)	4.56
ii	Fuel Cost for two months*(52.07/6)	8.68
iii	O&M for one month (30.41/12)	2.53
iv	Receivable for two months(597.49/6)	99.58
v	Working Capital requirement	**115.35**
vi	Rate of interest	**10.62%**
vii	**Interest on Working Capital Loans**	**12.25**

Accordingly, the Commission allows interest on Working Capital of Rs 12.25 crore for the period 17.4.2016 to 31.3.2017.

A summary of Capacity charges determined for GVK for the period 17.4.2016 to 31.3.2017 is given in following table:

Table 76: Capacity Charges for the period from the date of Commissioning to 31.3.2017 (Rs. in crore)

Sr.no	Particular	Amount
1	O&M Expenses	30.41
2	Depreciation	141.27
3	Return on Equity	135.98
4	Interest and finance charges	225.51
5	Interest on Working Capital Loans	12.25
6	**TOTAL**	**545.42**

GVK shall be entitled for payment of capacity charges and energy charges in accordance with Regulation 30 of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (as amended) where the same is not specified in the PSERC Tariff Regulations.

26.2 Energy Charges

The energy charges for FY 2016-17 are payable by PSPCL to GVK in terms of the PPA Order dated 01.02.2016 common to petition no. 65 of 2013 & 33 of 2015 and Order dated 06.03.2019 in petition no. 68 of 2017.

26.3 Interest on under-recovered or over-recovered fixed charges

The Commission notes that the applicability of Regulation 9 of PSERC Regulations, 2005 would be on the distribution companies or generating cum distribution companies and cannot

be applied as it is to the standalone generating companies. The Commission observes that Regulation 8 (13) of CERC (Terms and Conditions of Tariff) Regulation, 2014 are squarely applicable to under recovery or over recovery of fixed charges in case of generating companies.

The Regulation 8 (13) of CERC (Terms and Conditions of Tariff) Regulation, 2014 is re-produced below for reference: -

> *"The amount under-recovered or over-recovered, along with simple interest at the rate equal to the bank rate on 1st April of the respective year, shall be recovered or refunded by the generating company or the transmission licensee, as the case may be, in six equal monthly installments starting within three months from the date of the tariff order issued by the Commission".*

The Commission decides to adopt the CERC Regulations for determining interest equivalent to bank rate on under recovery or over recovery of fixed charges.

Accordingly, interest shall be allowable or recoverable as per Regulation 8 (13) of CERC (Terms and Conditions of Tariff) Regulation, 2014 on under-recovered or over-recovered Annual Fixed Charges (AFC) determined by the Commission.

27. With the approval of the capital cost of the project and the determination of the tariff as above the prayers (a) & (i) in the petition are disposed of.

As regards the other prayers from (b) to (h) and (j), the same are dealt as hereunder:

(b) The Commission allowed the provisional tariff vide Interim Order dated 28.03.2018. This was revised

vide Interim Order dated 19.07.2019, the same is under challenge before the Hon'ble APTEL and has been stayed.

c),d),e)&g) The issue of energy charges already stands decided by the Commission vide common order dated 01.02.2016 in petition no. 65 of 2013 and 33 of 2015 and Order dated 06.03.2019 in petition no. 68 of 2017.

f) The payment of incentive for generation and supply beyond 85% PLF is governed by clause 1.2.1 (iii) of Schedule-6 'Tariff' of the PPA, for which action has to be initiated by GVK at the appropriate time.

h) The filing fee for the petition is recoverable as per clause 28 (b) of the PSERC Tariff Regulations, 2005. Since this was paid in 2017-18 it will form part of the expenses for that year.

j) GVK has filed a separate petition no. 70 of 2017 for Capital Investment Plan and Business Plan wherein additional capitalization amounting to Rs. 230 crore has been claimed. The same is pending before the Commission.

The petition is accordingly disposed of in terms of the above.

Sd/-	Sd/-	Sd/-
(Anjuli Chandra)	**(S.S. Sarna)**	**(Kusumjit Sidhu)**
Member	**Member**	**Chairperson**

Chandigarh
Dated: 17.01.2020