

**Appellate Tribunal for Electricity**  
**(Appellate Jurisdiction)**

**Dated: 28<sup>th</sup> Nov, 2013**

**Present: Hon'ble Mr. Justice M. Karpaga Vinayagam,  
Chairperson  
Hon'ble Mr. V J Talwar, Technical Member**

**APPEAL No.165 of 2012**

**IN THE MATTER OF**

**Power Grid Corporation of India Limited  
Suadamani, Plot No.2, Sector 29  
Gurgaon-122001  
Haryana**

**..... Appellant(s)**

**Versus**

**1. Central Electricity Regulatory Commission  
Through its Secretary,  
3<sup>rd</sup> & 4<sup>th</sup> Floor, Chanderlok Building  
36, Janpath, New Delhi-110001.**

**2. Chattisgarh Stte Electricity Board,  
Through its Chairman,  
P.O. Sunder nagar, Dangania,  
Raipur-492013, Chhattisgarh**

**....Respondent(s)**

**Counsel for Appellant(s):**

**Mr. M.G.Ramachandran  
Ms. Swagatika Sahoo  
Mr. Ramesh Jeath**

Mr. Rohit Shukla  
Ms. Ritwika Nanda with  
Mr. Avinash M. Pavgi &  
Mr. B.C. Pant(Reps)  
Ms. Mamta Tiwari

**Counsel for Respondent(s):** Mr. Manu Sheshadri for R-1

## **JUDGMENT**

**PER HON'BLE MR. JUSTICE M. KARPAGA VINAYAGAM, CHAIRPERSON**

1. PowerGrid Corporation of India Ltd is the Appellant. The Appellant has filed this Appeal against the impugned order dated 28.5.2011 passed by the Central Commission, approving the Transmission Tariff for the Projects of the Appellant.
2. Aggrieved by the following aspects of the Impugned Order, the Appellant has filed this Appeal:
  - (a) **Interest during Construction (IDC) and Incidental Expenses during Construction (IEDC) – Time Overrun and Cost Overrun**
  - (b) **Reduction of capital cost due to non-submission of Revised Cost Estimates (RCE);**
  - (c) **Treatment of Initial Spares;**
  - (d) **Reduction of Cost towards Switchgear etc.**
3. Before discussing the above issues, let us refer to the facts leading to this Appeal.

4. The Appellant Power Grid Corporation of India Limited, is a Central Government Enterprise. The Appellant undertakes the activities of interstate transmission of electricity and also undertakes the statutory functions of the Central Transmission Utility and operates the National and Regional Load Dispatch Centres.
5. The activities of interstate transmission of electricity of the Appellant and the tariff to be charged to the beneficiaries for such activities have been regulated by the Central Commission, the 1<sup>st</sup> Respondent herein.
6. The Appellant has been entrusted with the implementation of the Western Region System Strengthening Scheme in Western Region. Investment approval for this scheme was accorded by the Board of Directors of the Appellant through letter dated 25.2.2008 at an estimated cost of Rs.340.72 crores including Interest During Construction (IDC) of 26.17 Crores.
7. The Central Electricity Authority in exercise of powers conferred under Section 177(2) of the Electricity Act, 2003 notified the Central Electricity Authority (Technical Standards for Construction of Electrical Plants and Electric Lines) Regulations, 2010 on 10.8.2010. Through these Regulations CEA made the Short Circuit Withstand Test mandatory for every new design of transformer and at least once in five years for design of transformers.
8. At that stage the Appellant filed a petition on 24.5.2011 under Regulation 86 of Central Electricity Regulatory Commission (Conduct of Business) Regulations 1999 and Central Electricity Regulatory

Commission(Terms and Conditions of Tariff) Regulations 2009 for determination of transmission tariff for ICT III at Raipur Sub-station along with bay extension.

9. Ultimately, the Central Commission passed the impugned order on 28.5.2012. Through this impugned order the Central Commission has not allowed the various actual expenditure up to date of commercial operation and projected additional capitalization to be incurred from date of commercial operation to 31.3.2012. Hence, Appeal.
10. Let us now analyze the each of the issues:-

**Issue (a): Denial of IDC and IEDC for the Time overrun**

11. Appellant's submissions are as follows:-
  - i. The reason for the delay was beyond the control of Power Grid and, therefore, ought not to have been disallowed. The delay was on account of supervening circumstances beyond the control of Power Grid and for reasons not attributable to Power Grid.
  - ii. None of the aspects referred to by Power Grid and mentioned in Para 12 of the impugned Order have been dealt with or analysed by the Central Commission in the impugned Order. The Central Commission has proceeded in a presumptive manner that the failure of type-testing would mean that Power Grid was procuring the transformer of deficit quality.

- iii. The Central Commission has filed its written submissions and also has made oral arguments before the Tribunal, reiterating the contents of the impugned Order. In the written submissions, the Central Commission has stated that the Appellant had not placed the agreement entered with Messrs Areva, the equipment supplier and in the absence of the same, it was difficult for the Central Commission to determine the liability of Messrs Areva for the delay caused on account of the failure of the type test. The Central Commission has alleged that the delay was in the supply of the transformer.
  
- iv. The Central Commission has completely misconstrued the aspects relating to the agreement between Power Grid and the equipment supplier in the context of the delay caused on account of the transformer supplied by Messrs Areva not meeting the type test. Broadly stated, the errors in the approach of the Central Commission are as under:
  - (a) the transformer supplied by Messrs Areva, consistent with the past practices, would have been accepted and installed as a part of the transmission system but for the Short Circuit Withstand Test adopted by Power Grid as an extra measure for grid security and reliability, considering the nature of the grid operation in India;
  
  - (b) at the time when the transmission system was planned and the equipment for the transmission system were being procured, Power Grid was following the practice as

before. It was then not a condition imposed on the supplier that the equipment to be supplied by them should withstand the Short Circuit Withstand Test;

- (c) the Short Circuit Withstand Test was being considered by the Central Electricity Authority to be incorporated in the Technical Standard Regulations and it was ultimately notified on 20.8.2010. Power Grid, while, the matter was being considered by the Central Electricity Authority, and even before the coming into force of the effective notification decided to implement the Short Circuit Withstand Test. In other words, Power Grid decided proactively introduced the above test even before the statutory Regulations had come into force, in view of the perceived necessity for the grid security and reliability;
- (d) Power Grid began to pursue the Short Circuit Withstand Test for transformers supplied by all suppliers including Messrs Areva as a standard practice deviating from the past practice;
- (e) when the Short Circuit Withstand Test of Messrs Areva's transformers failed, Power Grid was able to get Messrs Areva to re-design and supply the transformers, more importantly without any additional capital outflow to Power Grid and thereby avoided any increase in the actual cost of the transformer. Normally, any re-design of the transformer would have resulted in the supplier asking for

increase in the actual cost. Power Grid acted with prudent utility practice and did everything possible to avoid the supplier Messrs Areva claiming any additional cost;

- (f) In the circumstances mentioned above the failure of the transformer to meet the short circuit withstand test cannot be attributed to any failure or breach on the part of the supplier;
- (g) Even in case of any default or failure on the part of the supplier, Power Grid and for that matter any Procurer whether a generator, a Transmission Company or a Distribution Company in the power sector or in any other sector can at the maximum demand liquidated damages. The liquidated damages provided in the contract is limited to a specified percentage of the equipment cost (generally, 5%). It is not possible for any Procurer to enter into an agreement with the supplier providing for any indemnification or otherwise any damages in excess of the above specified percentage or ask for any indemnification for the delay resulting on account of the defect or failure in the machine supplied. No manufacturer will ever into such open ended agreements; and

- (h) It is, therefore, not possible at all for the Procurer to pass on the consequences of delay in the supply beyond the specified liquidated damages to the supplier.
- v. Quite apart from the above in the present case, since it was possible for Messrs Areva to take the position that the transformer is being re-designed and supply if there is Short Circuit Withstand Test, there can be no question of any liquidated damages payable by Messrs Areva. The liquidated damages is payable only if Messrs Areva is in breach of the contract to supply the transformer as per the specific design agreed to between the parties. The design agreed to was without any requirement to fulfil the Short Circuit Withstand Test.
- vi. In the context of the above, the issue of Interest During Construction and Incidental Expenses During Construction cannot be rejected as being a bilateral issues of delay between Messrs Areva and Power Grid.
- vii. Further, in the context of the above, the Central Commission did not ask for the copy of the agreement in the proceedings. The non-supply of copy of the agreement and the allegation of the inability of the Central Commission to determine the inter-se responsibility and liability of Power Grid and Messrs Areva under the contract has been wrongly raised by the Central Commission. If the Central Commission had called for the same, Powergrid would have provided the documents.

- viii. Power Grid submits that in the circumstances above the reason for the delay was beyond the control of Power Grid and, therefore, ought not to have been disallowed. The delay was on account of supervening circumstances, mentioned above.
- ix. The following specific aspects have not been considered by the Central Commission:
- (a) The Central Electricity Authority (**CEA**) notified the Technical Standard Regulations on 20.8.2010 specifically dealing with Short Circuit Withstand Test. The Regulation called Technical Standard for Construction of Electrical Plant and Electric Line Regulation, 2010 was notified in exercise of the statutory powers under Section 177 of the Electricity Act, 2003 and became binding. The Regulations specifically provides, inter alia, as under:
- “(vi) Short Circuit withstand test shall be conducted on one of each type and rating of transformers to validate the design and quality unless such test has been conducted within last five years on transformers of same design. In case there is a change in design before five years, the new transformer design shall be validated by carrying out short circuit withstand test.”*
- (b) The above Regulation was considered for the first time and it became necessary for the Power Grid to undertake the type-testing in pursuance of the above Regulation and enforce type-testing measures against the suppliers of Transformer.

- (c) The type-testing was to be conducted to enhance the reliability of the system and its availability and as an essential part of the validation of the design to address the Short Circuit condition from the manufacturers Messrs Areva who had been given the award for the supply of transformer for Raipur sub station.
- (d) The type-testing facility for the Short Circuit Test are not available in India and even in many of the other countries. It is available mainly at the facilities in KEMA, Netherland, a Global Energy Consulting Company in the field of business and technical consultancy testing, inspection and certification. It became necessary to undertake the testing at KEMA.
- (e) In view of the fact that the Central Electricity Authority was considering the above Type-testing Regulation, Power Grid as a prudent utility began to introduce the concept of type-testing from the transformers supplier in a vigorous manner with regular follow up.
- (f) The affidavit filed by Power Grid in response to the queries raised by the Central Commission during the proceedings, namely, dated 3.8.2011 filed along with Affidavit dated 10.5.2013 in this Tribunal clearly sets out the various steps taken by Power Grid for the above.
- (g) When the transformer failed in the Short Circuit Test introduced, there was a necessity to carry out detailed

investigation of the reason for the failure. The transformer had to be transported back to India where suitable modifications were carried out and was once again sent for retesting at the test lab at KEMA thereby causing further delay. The transformer were tested in April, 2012 and then brought back to works for its examination /detailed investigation and certified in July, 2012.

- (h) In the meanwhile, in order to address the necessity of having the transformer at Raipur, Power Grid diverted the transformer available from Gaya sub station to avoid further delay. It is amply clear from the above that the Appellant in order to uphold the interest of the beneficiaries, had gone ahead for procuring a high quality transformer so that power supply to its beneficiaries is not constrained. This action was also stipulated by Central Electricity Authority vide regulations cited above. It is stated that the delay was due to reasons beyond the control of the Appellant and the Appellant accordingly prayed before the Central Commission to condone the delay.
  
- x. The Central Commission has relied on the judgment dated 24.09.2013 of this Tribunal in **Appeal No. 58 of 2012 – Power Grid v. Central Electricity Regulatory Commission**, contending that time over-run due to failure of ICT during pre commissioning test is a bilateral issue between the petitioner

and the supplier. It is submitted that the present case is different from the above mentioned matter. The above mentioned matter in Appeal No. 58 of 2012 is relating to failure in the routine test which is different from the type test which is to be conducted on one of each type and rating of transformer to validate design and quality unless such test has been conducted within last five years on transformer of same design. The Appellate Tribunal in para 11 of the judgment observed as under;

*“ in pursuance to rule 65 (2) of the Indian Electricity Rules 1956 every EHT equipments is required to undergo certain on-site routine test before commissioning as per practice code of Bureau of Indian Standards. **Tan –delta test is one of the routine test done on transformers to determine the dielectric strength of insulation. Tan-delta test is also performed on EHT Transformers periodically, generally every year, during the service to the requirements of Rule 65 (4) of Indian Electricity Rules 1965. In case any transformer fails on Tan-delta test during the service, the utility takes remedial measures, such as cleaning or replacement of bushing, oil filtration etc., and transformer is put back in to service within few days. In this case, the manufacturer of transformer could not rectify the defect on site and had to take back the transformer to its works. At works the core of the transformer was removed from the tank to rectify the defect. This fact has clearly established that the transformer had manufacturing defect.**”*

- xi. The Type test is to be conducted on the first prototype of product to confirm the design specifications. This test is not repeated on other products of same specification. Type test of transformer confirms the basic design criteria of production lot. On the other hand routine tests of transformer is mainly for

confirming operational performance of individual unit. Routine tests are carried out on every unit manufactured. Type test is completely different from the routine test of the transformer.

xii. In the above judgment the Tribunal also observed that routine test is to be done on transformer periodically during service on site. Tan-delta test which is subject matter of the above case is also to be performed on EHT Transformers periodically, generally every year, during the service to the requirements of Rule 65 (4) of Indian Electricity Rules 1965. In case any transformer fails on Tan-delta test during the service, the utility takes remedial measures, such as cleaning or replacement of bushing, oil filtration etc., and transformer is put back in to service within few days. Therefore, the above judgment relied by the Central Commission is not at all applicable to the present case.

xiii. This Tribunal in the case of **Maharashtra State Power Generation Company Limited v. Maharashtra Electricity Regulatory Commission & Others**, dated 18.01.2013 in Appeal No. 57 of 2012 has held as under:

*“47. This Tribunal in judgment dated 27th April, 2011 in Appeal No. 72 of 2010 in the matter of Maharashtra State Power Generation Co. Ltd. vs. Maharashtra Electricity Regulatory Commission & Ors. has laid down the principle of risk allocation on account of delay in commissioning of the project developed by the Appellant on cost plus tariff under Section 62 of the Act. The relevant extracts are reproduced as under:*

*“7.4. The delay in execution of a generating project could occur due to following reasons: i) due to factors entirely attributable to the generating company, e.g., imprudence in selecting the contractors/suppliers and in executing contractual agreements including terms and conditions of the contracts, delay in award of contracts, delay in providing inputs like making land available to the contractors, delay in payments to contractors/suppliers as per the terms of contract, mismanagement of finances, slackness in project management like improper co-ordination between the various contractors, etc. ii) due to factors beyond the control of the generating company e.g. delay caused due to force majeure like natural calamity or any other reasons which clearly establish, beyond any doubt, that there has been no imprudence on the part of the generating company in executing the project.*

*iii) situation not covered by (i) & (ii) above.*

*In our opinion in the first case the entire cost due to time over run has to be borne by the generating company. However, the Liquidated Damages (LDs) and insurance proceeds on account of delay, if any, received by the generating company could be retained by the generating company. In the second case the generating company could be given benefit of the additional cost incurred due to time over-run. However, the consumers should get full benefit of the LDs recovered from the contractors/suppliers of the generating company and the insurance proceeds, if any, to reduce the capital cost. In the third case the additional cost due to time overrun including the LDs and insurance proceeds could be shared between the generating company and the consumer. It would also be prudent to consider the delay with respect to some benchmarks rather than depending on the provisions of the contract between the generating company and its contractors/suppliers. If the time schedule is taken as per the terms of the contract, this may result in imprudent time schedule not in accordance with good industry practices”.*

*48. Thus, the Tribunal has given a finding for allocation of risk for a project developed under cost plus tariff in another case involving the power project of the Appellant. In view of the*

*findings of the Tribunal, the Central Commission has to decide the allocation of cost as per the findings of the Tribunal in the above judgment in case of delay in commissioning of the project beyond the agreed schedule of commissioning or the bench-mark laid down by the State Commission.*

*49. We find force in the argument of the Appellant that it will not be prudent to open the contracts which have already been entered into with the EPC contractors for inclusion of appropriate penalties covering consequential damages to be borne by the contractors in the event of delay in the Central Commissioning of the project. Reopening of the contracts may also result in delay the execution of the new projects. Moreover, the terms and conditions for contracts of the generating company for equipment suppliers and EPC contracts need not be regulated by the State Commission as it would result in micro management of the affairs of the generating company. The consumer interest can be safeguarded by prudence check of the capital cost of the Project by the State Commission by allocating the costs due to time over run as per the findings of this Tribunal so that the imprudent costs are not passed on to the consumers."*

- xiv. As would be clear from the above decision of this Tribunal, the Appropriate Commission should not disallow the claim of the utility on grounds of the matter being bilateral between the Utility and the supplier by re-opening the contracts which have already been entered into with the supplier. The Appropriate Commission should always consider the consistent practice in signing such contracts with the supplier that the liquidated damages being restricted to a specified percentage and further such liquidated damages being payable only if the supplier has supplied equipment contrary to the terms of the contract or design provided in the contract. In accordance with the above, the present case of the Appellant squarely falls under category

(ii) of the three categories mentioned in Para 47 of the above judgement of this Tribunal read with Para 49 of the judgement, namely, the delay was on account of the factors beyond the control of Power Grid, namely, the delay caused due to Force Majeure and akin reasons.

xv. Above all, Power Grid ought not to be penalised for adopting prudent utility steps to pro-actively undertake the Short Circuit Withstand Test, which is, in fact, been subsequently provided as change in law by virtue of the Technical Standard Regulations notified by the Central Electricity Authority. It would be unjust and unfair if Power Grid should be made to suffer for such active steps taken in the interest of grid security and reliability, which are beneficial to the Respondents and consumers at large. The Central Commission ought to have gone into and appreciated the above relevant facts instead of proceeding on a wrong and hyper-technical basis of the delay being bilateral issue between the supplier and Power Grid.

xvi. Another contention raised by the Central Commission in the written submissions that the very fact the transformer supplied did not withstand the rigours of the type test i.e. Short Circuit Withstand Test establishes that the transformer supplied is not of the required quality. The above is an assumption and surmise on the part of the Central Commission and not borne out by the records. As mentioned herein above, the type test or the Short Circuit Withstand Test became a necessity in the peculiar circumstances and for ensuring grid security and

reliability. It cannot be that a transformer which has not been subjected to Short Circuit Withstand Test would be a defective transformer. The transformers procured by various Procurers including Power Grid as well as the Respondent beneficiaries till the mandatory requirements by the Central Electricity Authority had been installed, they were functioning and the tariff in relation to such transformer was being allowed by the Appropriate Commission. The Short Circuit Withstand Test was subsequently introduced for certain specific reasons considering the situation of the grid in India. Thus, the non-performance of the Short Circuit Withstand Test does not mean that the quality of the transformer was universally not acceptable as sought to be made in the written submissions of the Central Commission.

xvii. In the circumstances mentioned above, there is sufficient and justified cause for allowing the Time Overrun of 8 months and consequently the Interest During Construction and Incidental Expenses During Construction in regard to the installation and commissioning of the above transformer.

12. The learned Counsel for the Central Commission has made reply which is as follows:-

i) The Central Commission has relied on our judgment in Appeal 58 of 2011 where in it was held that the Central Commission has rightly held in the Impugned Order that the delay in commissioning of the ICT due to failure during the pre-

commissioning test was a bilateral issue between the petitioner and the supplier. The consumers cannot be made to pay for the IDC and IEDC which has accrued on account of the non-commissioning of the assets due to defective ICT. In this judgment we had also observed that as per preamble and Section 61 (d) of the Act, the Central Commission has to safeguard the consumer's interest so that the tariff, transmission tariff as well as the retail tariff for distribution of electricity has to be determined in such a way that the electricity is supplied to the consumers on the reasonable rates. If the claim of Rs.121.45 Lakhs made by the Appellant is added in the Capital Cost, additional burden will have to be borne by the consumers. Therefore, the Central Commission is right in rejecting the said claim of the Appellant towards the IDC and IEDC for the period March 2009 to Jan, 2011.

13. Let us now refer to the relevant portion of the impugned findings:-

***“TIME OVER RUN***

12. *The investment approval for the WRSS-VI was accorded by the Board of Directors of the petitioner company on 30.1.2008. The schedule date of commissioning of the assets was within 33 months from the date of investment approval. Thus, the schedule date of commissioning works out to 1.11.2010. However, the actual date of commercial operation of the project was 1.7.2011. Therefore, there was a delay of 8 months. The petitioner in its reply vide affidavit dated 2.8.2011 has submitted the following reasons for time over run:-*

- (a) *The delay was on account of the failure of the ICT during short-circuit testing. The short-circuit test is a type test and is required to be conducted on any one the transformer of this rating. In the instant case, 400/220 kV, 315 MVA Auto Transformer awarded to M/s AREVA was selected for short circuit testing.*
- (b) *For short circuit testing, regular rigorous follow up were made with M/s AREVA. Short circuit test facility for auto transformer of this rating is not available in India as on date and testing facility available abroad is generally over booked. Besides, a lot of logistics and coordination is involved in the dispatch and short circuit testing for such a large piece of costly equipment.*
- (c) *The short circuit testing is required to ensure enhanced equipment life. The need for reliability and availability of a large population of ICTs in PGCIL's system made it imperative that this exercise was duly taken up.*
- (d) *The cost of repairing, re-transporting and retesting of the failed transformers which is very high compared to the equipment cost shall be borne by the supplier. The process involved additional delivery time for the equipment and consequential delay in the project. The petitioner anticipated delay on account of failure in short circuit test, diverted another short circuit tested transformer from Gaya sub-station to complete the project.*
- (e) *Such sustained efforts by the petitioner to ensure development of robust transformers would take care of the system disturbances and provide reliable*

*supply of power to the beneficiaries. Therefore, delay be condoned since the efforts are in the interest of beneficiaries.*

- 13. We expect the petitioner to install good quality equipment with rigorous testing so that the equipment installed does not fail while operating. The Central Commission is not averse to allow the cost on account of procurement of quality equipment. However, it is the responsibility of the petitioner to install appropriately tested and quality equipment. In the instant case, the ICT failed during type-testing, which means that the ICT supplied by the M/s AREVA was not of required quality to stand the rigor of type test.**
  
- 14. We are of the view that the type test failure and the subsequent delay on this account is a bilateral issue between the petitioner and the supplier, M/s AREVA. The beneficiaries should not be saddled with any additional cost by way of capitalization of enhanced IDC and IEDC for the period of delay, throughout the life of the equipment. Hence, the reasons advanced by the petitioner for condoning the delay due to failure of the transformer during short circuit test are not found acceptable. Further, the petitioner has not submitted details about the date of testing and has also not submitted any documentary evidence regarding testing. The petitioner may claim liquidated damages from the supplier for the delay in installation of the ICT. Accordingly, the delay of 8 months on account of the failure of the ICT during short circuit test is not condoned and the IDC and IEDC for the said period has been disallowed as under:-**

(₹ in lakh)		
Detail of IDC and IEDC as per chartered accountant certificate dated 26.4.2011		
	IDC	IEDC
Up to 31.03.2011	38.68	23.84
From 1.4.2011-30.6.2011	39.24	3.01
<b>Total IDC and IEDC Claimed</b>	<b>77.92</b>	<b>26.85</b>
<b>Detail of IDC &amp; IEDC Disallowed for 8 months</b>		
From November 2010 to March 2011 (for 5 months)	5.23	3.22
From April 2011 to June 2011 (for 3 months)	39.24	3.01
<b>Total Disallowed IDC (for 8 months)</b>	<b>44.47</b>	<b>6.23</b>

15. The IDC and IEDC disallowed above have been proportionally deducted from the capital cost of the elements (excluding land) of the transmission asset. Details of the admissible capital cost:-

(₹ in lakh)			
Particulars	Capital cost as on date of commercial operation as per CA certificate dated 26.4.2011	Apportioned Disallowed IDC and IEDC	Capital Cost as on date of commercial operation after deducting disallowed IDC & IEDC
	(a)	(b)	(c)= (a)-(b)
Freehold Land	0.00	0.00	0.00
Leasehold Land	0.00	0.00	0.00
Building & Other Civil Works	171.94	(3.61)	168.33
Transmission Line	0.00	0.00	0.00
Sub-Station	2242.08	(47.09)	2194.99
PLCC	0.00	0.00	0.00
<b>Total</b>	<b>2414.02</b>	<b>(50.70)</b>	<b>2363.32</b>

14. Thus, the Time Overrun and consequently the Interest During Construction and Incidental Expenses During Construction has been disallowed for the reason that it is the responsibility of Power Grid to install appropriately tested and quality equipment, the failure of ICT during type-testing means that the ICT suppliers Messrs Areva did not supply the required quality and, therefore, the beneficiary

respondents should not be made to bear the additional cost on account of the above. The delay of 7 months (i.e not 8 months as stated in the order and written submission of the Respondent No.1) have not condoned for the above reason.

15. In the light of the above rival contentions let us discuss the issue.
16. The appellant has attempted to distinguish the present case from the case in Appeal No. 58 of 2010 on the ground that while in Appeal no. 58 of 2010 the transformer failed on routine test, the transformer in this case failed on Short Circuit Withstand Test, which is a type test. He tried to distinguish the Type Tests from the Routine Tests on the ground that the routine tests are required to be conducted on every equipment before it is put to use and also during the operation. The type tests are conducted on only one sample equipment having of same specifications and design. The Appellant has also relied on CEA's Regulations, which have made Short Circuit Withstand Test mandatory. The contentions of the Appellant are self defeating.
17. Before getting in to the nitty-gritty details of routine tests vis-à-vis type tests, let us try to understand what is the purpose of testing of equipment. Is it done for some fun or for some useful purpose? The testing is done for ensuring the quality of the equipment. Bureau of Indian Standards (BIS) has laid down standards for every electrical equipment. These standards lay down certain specifications for the equipment and also certain tests to be conducted on the equipment. Once all the specified tests are successfully carried out on the

sample equipment, the equipment gets 'ISI' mark, which ensures the quality of the equipment.

18. Bureau of Indian Standards has specified BIS 2026 Standards for Power Transformers. These Standards apart from giving specifications for transformers also provides certain tests. These tests are categorized in (i) Routine Tests, (ii) Type Tests (iii) Optional Type Tests. Routine tests are required to be conducted on every transformer before it is commissioned and also periodically during operation. These tests are performed on site at the time of commissioning. The routine tests generally do not harm the transformer. Once a transformer fails on routine tests, some corrective measures would put them back in to service. On the other hand, under type tests the transformer is subjected to extreme severe conditions which may damage the equipment permanently. That is why type tests are performed only on one of the sample pieces of the same design. Short Circuit Withstand Test may destroy the equipment altogether. Thus, it has been made Optional Type Test. Under BIS 2026, Short Circuit Withstand Test is performed on the transformer with the consent of both the supplier and the buyer. Both, the routine as well as the type tests are meant for ensuring the quality of the transformer. If any transformer fails of any of the tests, the quality of such transformer becomes doubtful.
19. The Appellant has relied on CEA's Regulations that made the Short Circuit Withstand Test mandatorily to be performed at least once in five years or for every change in design. Here the question arises again. What is the purpose of CEA's Regulations. The answer is same. To ensure quality and reliability of power transformers. The fact, as per the

Appellant's own admission, that when the said transformer failed on Short Circuit Withstand Test, the Appellant got Messrs Areva to re-design the transformer and supply the redesigned transformer, would establish that the design of failed transformer was defective.

20. The Appellant has once again placed reliance on this Tribunal's judgment dated 18.01.2013 in Appeal No. 57 of 2012. This aspect had also been dealt by us in Appeal No. 58 of 2012 as under:

*The reliance of the learned Counsel for the appellant on this Tribunal's judgment dated 18.01.2013 in Appeal No. 57 of 2012 is misplaced. The ratio of the judgment dated 18.01.2013 cannot be applied to the present case as the facts of Appeal No. 57 of 2012 were entirely different from the present case. In that Appeal the issue before this Tribunal was direction of the State Commission to incorporate a 'back to back penalty clause' in the PPA between the Generating Company and EPC contractor as in the case of PPA under section 63 of the Act.*

21. In the light of above findings, we do not find any reason to interfere with the impugned order.
22. Let us now discuss the issue (b) Reduction of capital cost due to non-submission of Revised Cost Estimates.
23. The submission of the Appellant on this issue is as follows:-
- i) The Central Commission has ignored the salient aspects, namely, that the actual overall completion cost was Rs 275.79 crores as against the approved cost of Rs 340.72 crores. In view of the above, there was no requirement for furnishing any further Revised Cost Estimates approval. In this regard the

Abstract Cost Estimate filed before the Central Commission clearly gave the total cost as Rs 340.72 Crores for the Transmission System. The revised cost estimate approval is required only in the event of overall completion cost of the project exceeds the approval capital cost of the project. Accordingly there was no occasion for Revised Cost Estimates approval.

- ii) The approved cost consists of different elements and the approved transformer is only one of those elements. There was therefore no occasion for furnishing the Revised Cost Estimates.
- iii) The Central Commission has wrongly disallowed an amount of Rs. 75.23 lakhs by restricting the capital cost to the apportioned approved cost of Rs. 2486.10 lakhs.
- iv) The Central Commission has wrongly allowed only the projected capital expenditure of Rs. 152.65 lakhs by deducting Rs. 2333.45 from Rs.2486.10 lakhs out of projected capital expenditure of Rs. 227.87 lakhs.
- v) The Central Commission in the impugned order failed to accord any reason as to why an amount of Rs. 75.23 lakhs should be disallowed in absence of a requirement to provide a Revised Cost Estimates in the first instance. However, in the written submissions, the Central Commission has for the first time alleged that the increase or decrease in the individual cost item

is required to be considered by the Central Commission even if the overall project cost does not increase.

- vi) The above is contrary to the consistent practice followed herein before. The aspect of in-principle approved cost and the consideration of increase in the approved cost were first introduced by the provisions of the Electricity (Supply) Act, 1948. In this regard clause 2.3 of the Notification dated 30.3.1992 issued by the Government of India under section 43A of the Electricity (Supply) Act, 1948 specifically states that where the actual expenditure exceeds the approved project cost, the excess expenditure as approved by the Central Electricity Authority shall be deemed to be the actual expenditure. If the actual expenditure does not exceed the approved project cost, notwithstanding any individual asset being at a higher value, no fresh approval is required.
- vii) The Central Commission has failed to taken into consideration the affidavit dated 29.11.2011 that was filed by the Appellant herein which stated in clear terms that, interalia, "...estimated completion cost (Rs.2641.89 lakhs) of ICT III at Raipur is more than the apportioned approved cost (Rs. 2486.10) but the overall completion cost (Rs. 27579 lakhs) of WRSS VI scheme is within the approved cost (Rs. 34072 lakhs) so there is no need of Revised Cost Estimates for this project.

24. The learned Counsel for the Central Commission has made the reply as follows:-

- a. The Appellant had submitted a consolidated Investment Approval dated 25.2.2008 for the WRSS-VI. The approval did not contain the element wise cost details of the Scheme, The tariff petition before the Respondent Commission was only with respect to ICT-III at Raipur Sub-station along with bay extension and the Appellant had indicated the apportioned approved cost of the Raipur Sub-station along with bay extension as Rs.2486.10 lakh. However, the Appellant claimed total estimated completion cost of Rs.2641.89 lakh for ICT-III at Raipur Sub-station along with bay extension. The Respondent Commission has restricted the capital cost of the ICT-III at Raipur Sub-station along with bay extension to the apportioned approved cost in the absence of Revised Cost Estimate.
  
- b. The Appellant has sought to contend that Revised Cost Estimate is required only in the event of overall completion cost of the project exceeding the approved capital cost of the project. The Appellant has further contended that in the instant case, since the actual overall estimated completion cost Of the WRSS VI Scheme is Rs.27579 lakh, which is within the approved cost of Rs.34072 lakh, there is no requirement for furnishing Revised Cost Estimate for an individual element of the scheme even though there is cost over-run in respect of that element. The Appellant has prayed for allowing the

total estimated completion cost of Rs.2641.89 lakh for ICT-III at Raipur Sub-station along with bay extension.

- c. The Appellant should have submitted Revised Cost Estimate approved by the Board in respect of Raipur sub-station along with bay extension since the completion cost of Rs.2561.33 lakh exceeds the apportioned approved capital cost of Rs.2486.10 lakh. Since there is a cost overrun in respect of ICT-III at Raipur sub-station along with bay extension, the reasons for the same are required to be explained along with the due approval by the Board of the Appellant Company.
- d. The Appellant's contention that the cost over-run needs to be seen only with reference to the overall cost of the project and not with reference to the cost of the individual elements would amount to foreclose the need for any prudence check of the cost of an individual element on the ground that it is within the approved cost of the project. Even though the Board of the Appellant Company has granted a consolidated Investment Approval, the same must have been based on the approved cost of each individual element of the project. Cost variation between different elements of the project is not interchangeable. Therefore, the Appellant needs to obtain the approval of the revised cost estimate of each individual element of the project from the Board of the Appellant Company and submit before the Respondent Commission

for prudence check and approval.

25. Let us refer to the relevant portion of the impugned findings:-

*“28. The total completion cost i.e. `2561.33 lakh exceeds the apportioned approved capital cost of `2486.10 lakh. Therefore, in the absence of Revised Cost Estimates, capital cost is restricted upto apportioned approved capital cost i.e. `2486.10 lakh. Accordingly, projected additional capital expenditure of `152.65 lakh (`2486.10- `2333.45), out of 227.87 lakh claimed by the petitioner, has been considered for the purpose of tariff calculation.”*

26. In the light of rival contentions, let us now discuss this issue:-

27. The Appellant has contended that since overall cost of the project has reduced from the approved cost, it was not required to obtain the approval of its' own Board for Revised Cost Estimates for Raipur ICT III. The appellant has placed reliance on a Notification dated 30.3.1992 issued by the Government of India under section 43A of the Electricity (Supply) Act, 1948 stating that where the actual expenditure exceeds the approved project cost, the excess expenditure as approved by the Central Electricity Authority shall be deemed to be the actual expenditure.

28. Both the contention as well as the reliance of Appellant on 1992 notification are misplaced. The 1992 notification was issued in the context when the schemes of the Appellant were required to be approved by the Central Electricity Authority under Section 30 of the Electricity (Supply) Act, 1948. The 1948 Act has since been repealed

and the Appellant is not required to get the approval of the CEA under the 2003 Act. Therefore, the 1992 notification has no relevance in the present matter.

29. The Central Commission has been mandated to determine the transmission tariff for the Appellant. The Central Commission has every right to ask ant relevant details from the Appellant for carrying out the prudence check on the expenditure of the Appellant.
30. The conduct of the Appellant is surprising. The Appellant is a Nava Public Sector Company of the Central Government. Its Board is empowered to approve its projects including the cost estimates for such projects. The Central Commission also accepts the cost approved by the Board of the Appellant. Under such circumstances, the Appellant could have approached its own Board for approval of the Revised Cost Estimates as desired by the Central Commission. Instead of going to its own Board, the Appellant preferred to approach this Tribunal in Appeal. Such an attitude is not proper. Accordingly the issue is decided against the Appellant.
31. Let us now deal with the issue (c) : Treatment of Initial Spares:-
32. The Appellant has made the following submission on this issue:-
  - a) The Central Commission has disallowed the cost of initial spares amounting to Rs. 29.87 lakhs on the basis that in the absence of REC, the capital cost pertaining to sub-station has been restricted to Rs. 2315.58 lakh.

- b) As per the Tariff Regulations, 2009 the value of initial spares allowed is subject to a percentage ceiling of the original project cost which is prescribed as 2.5% of the original project cost for substation. The original project cost has been defined as capital expenditure incurred by the transmission licensee within the original scope of the project as admitted by the Central Commission.
  - c) The Central Commission has calculated initial spares allowance of 2.5% on the project cost without considering the cost of land, building and civil work, colony etc. sub-station includes preliminary works and land, civil works, substation equipments etc. as listed under column 4.0, 5.0 and 6.0 respectively of form 5B (Part –III) of the Tariff Regulations, 2009 which are the integral part of the sub-station for the calculation of initial spares.
33. The learned Counsel for the Central Commission has made the following reply.
- a. The Appellant has claimed initial spares of Rs.92.27 lakh pertaining to the sub-station corresponding to capital cost of Rs.2465.89 lakh as on the cut-off date. The Respondent Commission in the absence of the Revised Cost Estimate has restricted the capital cost to Rs.2315.58 lakh excluding disallowed IDC and IEDC which has been considered for working out the initial spares in terms of Regulation 8 (iv) (b) of the 2009

## Tariff Regulations.

34. Let us now refer to the relevant portion of the impugned order:-

*“20. The petitioner has claimed initial spares of RS. 92.27 lakh pertaining to sub-station corresponding to capital cost of Rs. 2465.89 lakh as on the cut-off date. In the absence of REC, the capital cost pertaining to substation has been restricted to Rs. 2315.58 lakh (excluding disallowed IDC and IEDC).*

*21. Accordingly, the initial spare has been allowed as under:*

(₹ in lakh)

Particulars	Capital cost pertaining to substation upto cutoff date claimed	Initial spares claimed	Proportionate capital cost pertaining to substation after deducting corresponding IDC and IEDC+ additional capital expenditure upto cutoff date	Proportionate initial spares Claimed	Ceiling limits as per Regulation 8 2009 regulations	Initial spares worked out	Excess initial spares claimed
Sub-Station	2465.89	92.27	2344.92*	87.74	2.50%	57.88	(29.87)

*\*Inclusive additional capital expenditure up to cut-off date i.e. `149.93 lakh”*

35. The Commission allows the cost of initial spares as some percentage of approved cost of the project. Since, the Commission restricted the cost of the project in the absence of approved Revised Cost Estimates, the cost of initial spares would also get reduced correspondingly. The issue is decided against the Appellant

36. Let us now come to the issue (d): Reduction of Cost towards Switchgear etc.

37. The submission of the Appellant is as follows:-

- a) The Central Commission has not considered the Affidavit dated 03.08.2011 filed by the appellant in response to the query of the Central Commission, giving detail reason for increase in cost w.e.f. to FR and cost break up of items under switchgear, transformer, bus bar, conductors insulators, grounding system structure for switchyard and auxiliary system. In this Affidavit Appellant has also given the details of the component wise increase in cost of the Auxiliary system. The Appellant by this affidavit dated 03.08.2011 has submitted as below:

***“Query (10): Detailed reasoning for increase in cost w.e.f. to FR and cost break up of items under switchgear (CT, PT and circuit breaker, isolators) transformer, bus bars, conductors insulators, grounding system structure for switchyard and auxiliary system as per form 5B at page no. 31 and 32.***

***Reply:***

*With regard to para (10) it is submitted that the estimates are prepared by the petitioner as per well defined procedures for cost estimate. The cost estimate is broad indicative cost worked out generally on the basis of average unit rates for recently awarded contracts. For procurements, open competitive bidding route is followed and by providing equal opportunity to all eligible firms, lowest possible market prices for required product/services is obtained and contracts are awarded on the basis of lowest evaluated eligible bidder. The best competitive bid prices against tenders may happen to be lower or higher than the cost estimate depending upon prevailing market conditions. In the instant case the awarded price were above the estimated FR rates in substation items like Switchgear (CT, PT, Circuit breaker, Isolator etc), transformer, Bus bars/ conductors/ insulators, grounding system, structure for*

*switchyard and auxiliary system. However, there is overall reduction in cost of various assets of WRSS VI Scheme as furnished in form 5D of petition (page no. 34).*

*Apart from above, actual cost of Switchgear (CT, PT, Circuit breaker, Isolator etc), Bus bars/ conductors/ insulators, grounding system, structure for switchyard and auxiliary system is inclusive of cost for the part of equipment civil works of Rs. 79.70 lakhs apportioned pro-rata of items which has caused variation in actual cost as compared to apportioned FR cost.*

**Query (11):** *What is the component wise increase in cost of the auxiliary system*

**Reply:**

*With regard to para (11) it is submitted that component wise increase in cost of the auxiliary system is as furnished below:*

*(Rs in Lakh)*

<b>Substation auxiliaries</b>	<b>FR</b>	<b>Total</b>	<b>Variation</b>	<b>Reasons</b>
<i>Fire Fighting System</i>	<i>19.32</i>	<i>22.99</i>	<i>-3.67</i>	<i>Increase in cost due to price variation Cost includes cost of equipment civil works as well</i>
<i>D.G. Set (250KVA)</i>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	
<i>220V &amp; 50V Battery and Battery charger</i>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	
<i>Power &amp; control cables incl 33 kv cables</i>	<i>69.96</i>	<i>83.24</i>	<i>-13.28</i>	
<i>Misc. Testing instruments</i>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	
<i>LT Switchgear</i>	<i>6.67</i>	<i>7.93</i>	<i>-1.27</i>	
<b>Total</b>	<b>95.95</b>	<b>114.16</b>	<b>-18.21</b>	

- b) In the written submissions filed at Para 14, the Central Commission has alleged that the Appellant did not submit the information along with the documentary evidence required for

undertaking the prudent check of increase in the cost of Switchgear, namely, an increase in the cost of a particular asset with the total expenditure of the transmission system remaining within the approved cost. It is correct that the Central Commission called upon the Appellant to furnish certain information. These information were duly submitted by the Appellant vide Affidavit dated 3.8.2011 filed before the Central Commission.

- c) The allegation made by the Central Commission that the required information along with the documentary evidence was not placed is therefore not correct. The Central Commission has vaguely referred to the absence of information despite details given. If the Central Commission was in requirement of any additional clarification or details, the Central Commission could have called upon Power Grid to furnish the same.
- d) The Central Commission in the written submission has contended that the Central Commission has given two opportunities to the Appellant one is before the end of the tariff period as provided under regulation 6(1) of the Tariff Regulation 2009 and the other option at the end of the tariff period to file true up petition for claiming the increase in the expenditure on account of cost escalation. However the Appellant without availing the opportunities has directly approached the Hon'ble Tribunal. It is submitted that the Appellant has given all the details regarding cost escalation through the above mentioned affidavit therefore without considering the details which are

available with the Central Commission it is not justified to say that the Appellant has not availed the opportunity. It is stated that the Central Commission ought to have allow such increase in cost on the basis of the details given by the Appellant.

- e) Further as the contracts are awarded on turn-key basis and it is not be feasible to provide cost of individual items like switchgear etc.

38. The learned Counsel for the Central Commission has made the following reply:-

- a) The Appellant has alleged that the Respondent Commission has not considered the increased cost on account of switchgear, transformer, Bus bar, etc. without giving any reason. During the pendency of the petition before the Respondent Commission, the Appellant was directed to furnish the detailed reasons for increase in cost and break-up of cost of switchgear (CT, PT and circuit breaker, isolators) transformer, bus bars, conductor insulators, grounding system structure for switchyard and auxiliary system. As the Appellant did not submit any information along with documentary evidence, which was required for due prudence check before allowing any expenditure, the Respondent Commission did not allow the increase in cost.
- b) Further, the Respondent Commission has granted liberty to the Appellant to approach the Respondent Commission with suitable documentary evidence at the time of truing-up. The

Appellant has two opportunities, one before the end of the tariff period as provided under Regulation 6(1) of the 2009 Tariff Regulations and again, at the end of the tariff period, to file true up petitions and claim the increase in the expenditure on account of the cost escalation of some of the items supported by documentary evidence. The Appellant has approached the Tribunal without availing the opportunities granted by the Respondent Commission.

- 39.** Let us now refer to the relevant portion of the impugned findings with regard to the issue in question:

*“ 19. The Petitioner was directed to furnish the break-up of increase in cost and cost break up of items under switchgear (CT, PT, Circuit breaker, Insulator etc) transformer, bus bar, conductors/ insulator, grounding system, structure for switchyards. The petitioner has not submitted the information along with documentary evidence. In the absence of any documentary evidence for increased cost of these items, we are not inclined to allow the increase in cost. However, the petitioner is granted liberty to approach the Central Commission with suitable documentary evidence at the time of truing up.”*

- 40.** In view of the Central Commission’s specific submission that the Appellant may approach the Central Commission with suitable documentary evidence at the time of truing up, we find that the findings of the Respondent Commission on this issue do not call for the interference by the Tribunal at this stage.

- 41. Summary of our findings:**

- a. Short Circuit Withstand Test may destroy the equipment altogether. Thus, it has been made Optional Type Test. It is performed on the transformer with the consent of both the supplier and the buyer. Both, the routine as well as the type tests are meant for ensuring the quality of the transformer. If any transformer fails of any of the type tests, the quality of such transformer becomes doubtful. The fact, as per the Appellant's own admission, that when the transformers failed on Short Circuit Withstand Test, the Appellant got Messrs Areva to re-design the transformer and supply the redesigned transformer would establish that the design of failed transformer was defective.**
- b. The conduct of the Appellant is surprising. The Appellant is a Nava Public Sector Company of the Central Government. Its Board is empowered to approve its projects including the cost estimates for such projects. The Central Commission also accepts the cost approved by the Board of the Appellant. Under such circumstances, the Appellant could have approached its own Board for approval of the Revised Cost Estimates as desired by the Central Commission. Instead of going to its own Board, the Appellant preferred to approach this Tribunal in Appeal. Such an attitude is not proper.**
- c. The Central Commission allows the cost of initial spares as some percentage of approved cost of the project. Since, the Central Commission restricted the cost of the project in**

**the absence of approved Revised Cost Estimates, the cost of initial spares would also get reduced correspondingly. The issue is decided against the Appellant**

**d. In view of the Central Commission's specific submission that the Appellant may approach the Central Commission with suitable documentary evidence at the time of truing up, we find that the findings of the Respondent Commission on this issue do not call for the interference by the Tribunal.**

42. In view of our above findings we find that there is no merit in the Appeal. Accordingly, the same is dismissed. No order as to costs.

**(V J Talwar)  
Technical Member**

**(Justice M. Karpaga Vinayagam)  
Chairperson**

Dated: 28<sup>th</sup> Nov, 2013

~~√REPORTABLE/NON-REPORTABLE~~