IN THE MATTER OF ARBITRATION

Between

ONGC PETRO ADDITIONS LIMITED
1st Floor, Omkara Building, Near Sai Chokdi
Manjalpur, Vadodara 390011 … **Claimant / OPaL**

And

DAELIM INDUSTRIAL COMPANY LTD
146-12, Susong-Dong, Jongno-Gu
Seoul 110732, Korea … **Respondent / DAELIM**

FINAL AWARD (PART II) dated 20.12.2021 (on the issue of quantum)

By Arbitral Tribunal:
Justice R.V. Raveendran (Retd.)
Justice G.S. Singhvi (Retd.)
Mr. Peter Leaver QC

Counsel for Claimants:
Mr. Rhodri Davies QC
Mr. R.S. Prabhu
Mr. Himanshu Suman

RS Prabhu & Co.
J-15 Jangpura Extension
New Delhi 110 014, India

Counsel for Respondent:
Mr. Jimmy Yim SC
Mr. Mahesh Rai
Mr. Don Loo
Mr. Kenneth Ng

Drew & Napier LLC
10 Collyer Quay
#10-01 Ocean Financial Centre
Singapore 049315

Introduction

This Award is Part II of the Final Award in the matter of arbitration of disputes between ONGC-Petro Additions Ltd (OPaL) and DAELIM Industrial Company Limited (DAELIM). Part I of the Award relating to liability was made on 28.12.2018. This Award (Part II) relating to quantum is in continuation of the Part I of the Award relating to liability. Therefore, the facts stated in Part I of the Award are not repeated in this part of the Award.

2. ONGC-Petro Additions Ltd (OPaL) has developed and owns the Dahej Petrochemical Complex in Gujarat. It invited bids for execution of 'High Density Polyethylene Plant at Dahej Petrochemical Complex as Licence + Erection Procurement & Construction Contract (L+EPC)' on a lump sum turnkey basis in November 2009. There were two eligible bidders – DAELIM Industrial Company Limited (DAELIM) using the proprietary technology of Chevron Philips Chemical Company LLC (CP Chem) and Samsung Engineering Co. Ltd (Samsung) using the proprietary technology of Mitsui Chemicals Inc (Mitsui). As the two bidders had offered different technologies, OPaL's consultants - Engineers India Ltd (EIL), made a comparative evaluation of the two bids by adopting the Net Present Value (NPV) method and found that the bid of DAELIM was the more advantageous between the two.

3. OPaL awarded the L+EPC Contract for construction of the dedicated High-Density Polyethylene (HDPE) Plant (being a part of the Dahej Petrochemical Complex), to DAELIM for a contract price of USD 138,038,000 *plus* INR 4,593,300,500 as per Notification of Award dated 6.1.2011. By letter dated 11.2.2011, DAELIM informed OPaL that it was not in a position to enter into the contract since it has failed to resolve certain issues with the licensor for the proprietary technology (CP Chem). DAELIM did not sign the formal contract and abandoned the contract. OPaL, by letter dated 28.4.2011, terminated the Notification of Award dated 6.1.2011 without prejudice to its right under the Contract. Thereafter, OPaL issued a Notification of Award dated 29.4.2011 to Samsung.

4. OPaL invoked arbitration and in its Statement of Claim dated 2.1.2016, claimed the following reliefs against DAELIM:

"(a) Declaration that DAELIM abandoned the HDPE Plant contract and that OPaL rightfully terminated the said contract and is entitled to compensation for damage caused to it due to the abandonment.

(b) Award of the following compensation to OPaL payable by DAELIM:

(i) USD 13,803,800 *plus* INR 459,330,050 amounting to 10% of contract price guaranteed to be paid as security for performance of the contract, by way of compensation against the aggregate liability of DAELIM in respect of multiple losses that arose on account of the abandonment of the contract.

(ii) INR 409.28 crores towards compensation for the loss of the Net Present Value (NPV).

(iii) INR 300.80 crores or an appropriate sum as compensation for the loss on account of delay.

(c) Award interest at 18% per annum on the amounts mentioned in prayers (b)(i), (ii) & (iii) above, from 6.1.2011 till date of payment.

(d) Award any other relief as the Tribunal may deem fit on the facts and circumstances of the case."

5. After the stage of disclosure and exchange of witness statements, by communication dated 22.9.2017, DAELIM *inter alia* sought an order '*that the hearing of the arbitration be bifurcated into two tranches'* and that *'The upcoming tranche in December 2017 will deal with the issue of liability, the dates for the tranche on quantum will be set after the award on liability has been released*'. OPaL also agreed to the request for bifurcating the hearing into two tranches. Therefore, by order dated 25.9.2017, the Tribunal accepted the request for bifurcating the hearing into two tranches, first regarding determination of liability and second regarding quantum and directed the hearing in December 2017 be restricted to the issue of liability.

6. The Tribunal made the final Award dated 28.12.2018[1] on liability (Mr. Peter Leaver, one of the Members of the Tribunal, dissenting). The *disposition* in the said Award is extracted below:

"On the findings aforesaid, the following award (on liability) is made and declared:

(i) It is declared that DAELIM abandoned the HDPE plant contract and OPaL had rightly terminated the HDPE plant contract awarded to DAELIM. It is further declared that the termination being due to the breach committed by DAELIM, OPaL is entitled to recover damages arising out of the said breach, from DAELIM.

(ii) The claim of OPaL for award of 10% of the contract price (USD 13,803,800 and INR 459,330,050) as part of compensation for breach by DAELIM is rejected.

(iii) The validity and the quantum of the claim of OPaL (for award of INR 409.28 crores, subsequently restricted to 20% of the contract price of INR 4,593,300,500 *plus* USD 138,038,000) towards compensation for loss of Net Present Value shall

[1] Corrected on 28.2.2019 which does not alter the disposition.

be considered (along with the claim for interest thereon) in the second tranche hearing relating to quantum.

(iv) The claim of OPaL for award of INR 300.80 crores as compensation for loss on account of delay is rejected.

(v) Costs will be determined after the hearing relating to quantum."

7. Thus, what remains for consideration in the quantum hearing is the validity and quantum of the claim of OPaL (for award of INR 409.28 crores subsequently restricted to 20% of the Contract price of INR 4,593,300,500 *plus* USD 138,038,000) towards compensation for loss of Net Present Value and interest thereon.

Proceedings in quantum tranche hearing

8. The proceedings in the quantum hearing are briefly as under:

	11.01.2019	DAELIM's letter to the Tribunal and OPaL regarding discovery on the issues of quantum
	15.01.2019	OPaL's reply to DAELIM's letter dated 11.1.2019
	25.03.2019	DAELIM's email to the Tribunal regarding the inability of parties to resolve certain disclosure issues
	02.04.2019	DAELIM's application for peremptory disclosure order
	11.04.2019	OPaL's reply to DAELIM's application for a peremptory disclosure order
	18.04.2019	DAELIM's response to OPaL's reply dated 11.4.2019
	28.05.2019 7.6.2019	*Tribunal order (majority decision) on DAELIM's application dated 2.4.2019for peremptory disclosure* *Mr. Peter Leaver QC's dissent on the Tribunal's order dated 28.5.2019*
	14.07.2019	DAELIM's application for revision and interpretation of disclosure order
	27.07.2019	OPaL's reply to DAELIM's application for revision and interpretation.
	05.08.2019	DAELIM's response to OPaL's reply dated 27.7.2019
	11.08.2019	OPaL's supplementary reply (surrejoinder) to DAELIM's application for revision and interpretation of the disclosure order
	12.08.20019	DAELIM's response to OPaL's sur-rejoinder dated 11.8.2019

	09.09.2019	*Tribunal's order by majority decision on DAELIM's application dated 14.7.2019 for revision and interpretation of the disclosure order of 28.5.2019 and Mr. Peter Leaver QC's quantum tranche hearing*
	29.10.2019	DAELIM's email to the Tribunal and OPaL with DAELIM's proposed procedural timetable for quantum tranche hearing
??	29.10.2019	Procedural Order by majority decision on Timetable for the quantum tranche hearing
	29.10.2019	DAELIM's email to the Tribunal and OPaL regarding the Tribunal Procedural Order dated 29.10.2019
	30.10.2019	OPaL's response to DAELIM's email regarding the Tribunal's procedural order dated 29.10.2019
	01.11.2019	DAELIM's rejoinder to OPaL's response regarding the Tribunal's procedural order dated 29.10.2019
	01.11.2019	OPaL's surrejoinder to DAELIM's rejoinder regarding the Tribunal's procedural order dated 29.10.2019
	04.11.2019	*Tribunals' order on DAELIM's email dated 29.10.2019 regarding the procedural order by majority decision on timetable for the quantum tranche hearing*
	03.11.2019	DAELIM's application for a peremptory order to compel OPaL to comply with the disclosure order dated 28.5.2019
	08.11.2019	Reply on behalf of OPaL to DAELIM's application for a peremptory order for disclosure order
	13.11.2019	DAELIM's response to OPaL's reply to DAELIM's application for peremptory order for disclosure
	15.11.2019	*Tribunal's order on DAELIM's application dated 3.11.2019 for peremptory order to compel OPaL to comply with disclosure order of 28.5.2019*
	10.02.2020	DAELIM's application for further disclosure and extension of time
	15.02.2020	OPaL's reply to DAELIM's application for further disclosure and extension of time dated 10.2.2020
	16.02.2020	DAELIM's rejoinder to OPaL's reply on DAELIM's application for further disclosure and extension of time dated 10.2.2020
	19.02.2020	OPaL's response to DAELIM's application for further disclosure dated 10.2.2020
	22.02.2020	DAELIM's letter to the Tribunal replying to OPaL's response to DAELIM's application for further disclosure dated 10.2.2020
	23.02.2020	OPaL's response to DAELIM's letter to the Tribunal on DAELIM's application for further disclosure dated 10.2.2020

	17.02.2020 18.03.2020	*Tribunal's order on DAELIM's application for extension of time dated 10.2.2020* *Tribunal's order on DAELIM's application dated 10.2.2020 for further disclosure*
	20.07.2020	OPaL's application for directions to file rejoinder submissions
	23.07.2020	DAELIM's reply to OPaL's application for directions to file rejoinder submissions
	26.07.2020	OPaL's rejoinder to DAELIM's reply to OPaL's application for directions to file rejoinder submissions
	27.07.2020	DAELIM's surrejoinder on OPaL's application for directions to file rejoinder submissions
	27.07.2020	*Tribunal's order on OPaL's request dated 20.7.2020 seeking permission to file rejoinder submissions/memorial on quantum tranche*
	23.09.2020	DAELIM's application to strike out OPaL's incremental costs claim and production loss claim ("Striking out Application")
	25.09.2020	OPaL's preliminary reply to DAELIM's Striking Out Application
	02.10.2020	DAELIM's rejoinder on OPaL's preliminary reply to DAELIM's Striking Out Application
	03.10.2020	OPaL's surrejoinder on OPaL's preliminary reply to DAELIM's Striking Out Application
	23.11.2020	*Tribunal's order on DAELIM's application dated 23.9.2020 to strike out OPaL's incremental costs claim and production loss claim*
	24.12.2020	Both sides filed their written opening statements.
	4.1.2021 to 8.1.2021 & 11.1.2021 to 14.1.2021	Hearing through video conference. Opening Statements: 4.1.2021. Evidence of witnesses & experts: 4th to 8th and 11th to 13th January 2021. Closing oral submissions: 14.1.2021.

Pleadings, evidence, and submissions in the quantum hearing

9. OPaL and DAELIM filed the Statement of Case and Defence respectively in regard to the quantum tranche on 10.1.2020. They filed their respective reply-submissions to the pleading of the other on 22.6.2020.

10. The following factual witnesses/experts were examined on behalf of the parties:

Witness No.	Name of the Witness	Date of Witness Statement	Date of Deposition
CW5	Mr. Vivek Mehta	10.1.2020	5.1.2021
CW6	Mr. Rajendra Parak	10.1.2020	5.1.2021, 6.1.2021 and 13.1.2021
CW7	Mr. Kartik Balasubramaniam	10.1.2020	4.1.2021 & 5.1.2021
CW8	Mr. Divesh Khemani	10.1.2020	6.1.2021
RW3	Mr. Seonwook Kim	10.1.2020	6.1.2021 & 7.1.2021
Expert Witness No.	**Name of the Expert**	**Date of Expert Report**	**Date of Deposition**
CEW1	Mr. Harshad Bhatt (Technical Expert)	22.6.2020 28.10.2020	7.1.2021& 8.1.2021
REW1	Mr. Malcolm Kaus (Technical Expert)	10.1.2020 22.6.2020 28.10.2020	7.1.2021 &8.1.2021
CEW1/REW1	Hot Tubbing of Mr. Bhat & Mr. Kaus		8.1.2021,11.1.2021and 12.1.2011
CEW2	Mr. Andrew Flower (Quantum Expert)	10.1.2020 23.9.2020	11.1.2021
REW2	Mr. Chaitanya Arora (Quantum Expert)	10.1.2020 22.6.2020 28.10.2020	11.1.2021
CEW2/REW2	Hot Tubbing of Mr. Flower and Mr. Arora		12.1.2021& 13.1.2021

11. Opening written submissions were filed by both parties on 24.12.2020. The following closing written submissions were filed: (a) Claimant's closing submissions dated 19.2.2021. (b) Respondent's Reply Closing Submissions dated 26.3.2021. (c) Claimant's Reply Submissions dated 17.4.2021. (d) Respondent's Rejoinder Closing Submissions dated 20.5.2021. Claimant and Respondent filed their respective cost submissions dated 15.6.2021.

Case of OPaL (Re. Quantum – Loss of NPV)

Case of OPaL in SoC and in the liability hearing:

12. Tenders were invited on L+EPC basis ("Licencing *plus* Engineering, Procurement and Construction basis") for construction of a dedicated HDPE Plant. In such a bidding process, a bidder should either have the technology and know-how to construct the HDPE Plant or choose a 'Licensor' having the technology and know-how as a 'partner' and have a binding arrangement with the 'Licensor' to provide, if the contract is awarded, the technology and know-how to construct the HDPE plant, commission the plant, and hand over the plant after completing the performance testing. Such licensor would also have to provide a Process License to OPaL to enable it to operate the unit/plant by using the licenced technology and to sell its products. The successful bidder and its Licensor were required to provide guarantees for plant output (production of products that contribute towards revenue generations) and consumptions of plant inputs (feed, utilities, chemicals, etc. that contribute towards operating expenditure) as set out in Appendix A-9 (Bid Evaluation Criteria) of the bidding document.

13. As every licensor has a specific (different) patented technology, there will be differences in the capital costs (that is, costs involved in construction of the plant) and operating costs (that is, costs involved in operation of the plant based on the specific patented technology) to be incurred for setting up the plant

using the respective technologies. Therefore, the technology which has a higher conversion efficiency (that is, which delivers maximum desired quantity of products with minimum consumption of feed, utilities, chemicals, etc. at an optimal capital cost) is desirable. The bid documents therefore stated that the bidder obtaining the highest aggregated evaluated Net Present Value ('NPV') calculated on the conversion efficiency factors for the Plant, would be considered for award of the work.

14. The following are the basic components for the purpose of NPV evaluation: (a) CAPEX, that is, bidders' lump sum quoted price; (b) OPEX, that is, operational cost for electrical power, catalysts, steam, nitrogen, cooling water and maintenance; and (c) economic value derived from bidders' quoted conversion efficiencies. OPaL had therefore asked bidders in its bidding documents, to provide requisite data (lump sum quoted price, feed & product quantities, utility requirement & their quantities, catalyst requirement & their quantities and their rates) in their respective bid for calculation of NPV. All bidders including DAELIM submitted the requisite data in the guaranteed tables prescribed in the bidding document. The said guaranteed tables were revised by DAELIM twice, firstly during response to Technical & Commercial Questionnaire (TQ/CQ) and thereafter, finally at the Bid Clarificatory Meeting (BCM) held on 5 - 7 August 2010. The figures mentioned therein were the basis for bid evaluation criteria as per the bidding document.

15. All the bidders were aware of the evaluation methodology to be adopted for the NPV evaluation as the same was made clear in Clause 23 of the Instructions to Bidders. All bidders including DAELIM were sent TQ/CQ vide letter dated 3.6.2010 wherein they were provided with the NPV calculation methodology and asked to confirm their acceptance[2]. DAELIM confirmed the acceptance of the NPV calculation methodology vide its Responses to TQ/CQ dated 17.6.2010.[3]

16. As per Instructions to Bidders (Appendix A-9 of ITB), the bids were to be examined and evaluated by the Project Management Consultant (PMC). Engineers India Ltd (EIL) was the PMC as per Clause 5.22 of the GCC. OPaL asked EIL to submit the NPV evaluation for the bids submitted by short-listed bidders. EIL sent to OPaL the NPV calculation worksheets in respect of the bids of DAELIM and Samsung vide its letter dated 30.12.2010[4] which showed that the technology offered by DAELIM had a distinctive advantage of improved conversion efficiencies which would have resulted in OPaL gaining an equivalent of NPV difference amount of INR 489 crores, over the next ranked bidder (Samsung).

17. However, when DAELIM abandoned the Contract/Project, OPaL was left with no choice but to enter into negotiation with Samsung Engineering

[2] B13/6294 - (AA: Technical-Sl. No 16)
[3] B14/p6603 at p6777 – Ex. C3 and B14/p6299 - Ex R73-p6343
[4] B17/p7705 to 7708 - Ex. C27

who was the second ranked bidder, to carry out entire scope of works of the HDPE Plant. During the negotiations, **Samsung offered an improved catalyst** with improved conversion efficiency, that is, revised guarantee numbers based on which NPV was once again calculated and the revised NPV values were conveyed by EIL to OPaL vide letter dated 16.3.2011[5]. The revised NPV of Samsung was INR 590.80 crores as against the DAELIM's NPV of Rs.1,000.08 crores. This according to OPaL meant that it suffered an NPV loss of INR 409.28 crores. As per NPV methodology, it was clear that the DAELIM's technology had distinctive advantage of improved conversion efficiencies which would have resulted in OPaL gaining an equivalent of the NPV difference of INR 409.28 crores. This loss is the direct and natural result of the breach of contract committed by DAELIM. The parties had knowledge that such loss would occur to OPaL if the Contract was repudiated by DAELIM. OPaL is therefore entitled, on the basis of the principle that the aggrieved party has to be put back in a position as if the Contract had been performed, to claim Rs. 409.28 Crores being the amount equal to the diminution in NPV (between the NPV of DAELIM and Samsung) as the expected benefit to be earned.

Case of OPaL during the quantum hearing:

18. As a consequence of the wrongful abandonment by DAELIM of the contract to build the HDPE plant using CP Chem technology, OPaL contracted

[5] B17/p7723 to 7736 - Ex. C30

with an alternative contractor, Samsung Engineering Co Ltd ("Samsung"), which was the second-ranked bidder, for that company to build the HDPE plant using Mitsui technology. Samsung has duly completed the HDPE plant with Mitsui technology. However, when compared with the plant and technology which DAELIM contracted to provide, the plant constructed by Samsung has resulted in OPaL incurring extra cost for its operation and lacks the capability to produce certain valuable grades of polyethylene. OPaL has therefore suffered loss and damage due to DAELIM's breach of contract. The loss and damage suffered by OPaL as a consequence of DAELIM's breach of contract is recoverable by OPaL from DAELIM under clause 8.4.1.2 of the GCC or, alternatively, as general damages for breach of contract. The loss and damage suffered by OPaL were worked out by its Quantum Expert - Mr Andrew Flower FCA and set out in his Report dated 10 January 2020. OPaL's loss is calculated on the basis of (i) the overall extra costs to it of building and operating the HDPE plant through Samsung by using Mitsui technology in conformity with the Life Cycle Costing methodology explained at paragraph 121 of the Liability Award (for convenience, referred to as 'Incremental Costs Claim"); and (ii) the value of the missing production capability, that is, inability to produce a product which would have been available if the plant had been constructed with CPChem technology proposed to be used by DAELIM (for convenience, referred to as "Loss of Capability Claim" or "Production Loss Claim"). These losses, as on 30 November 2019 were INR 11,019.3 million (INR 1,101.93 crores) made up as follows:

(i) NPV of OPaL's increased cost in building and operating the HDPE Plant: INR 4,910.5 million calculated as on 30 November 2019 (vide paragraph 2.5.11 of Mr Flower's Report).

(ii) NPV of the value of the missing production capability: INR 6,108.8 million calculated as on 30 November 2019 (vide paragraph 2.6.4 of Mr Flower's Report).

19. As noted in paragraph 109 of the Liability Award, OPaL has limited its claim to 20% of the contract value under clause 8.4.1.2. The contract value under the DAELIM contract was US$138 million plus INR 4.59 billion, a total value of INR 10.9 billion (at the exchange rates at the time in 2011). 20% of the contract value was therefore INR 2,180 million. OPaL will respect the stated limit on its claim. However, the limit applies as at the accrual of OPaL's cause of action on the termination of the Contract on 28 April 2011 and is not directly comparable to OPaL's claim calculated as on 30 November 2019. Insofar as OPaL's claim exceeds the limit on a fair comparison (adjusted for changes in exchange rates and interest over the intervening period), OPaL will give credit.

20. OPaL is also entitled to interest on its claim, under section 20 of the Singapore International Arbitration Act and all and any other powers granted to the Tribunal, with such interest to be assessed from 30 November 2019 (assuming an award of damages calculated as at that date) at OPaL's average borrowing rate (as set out at paragraph 4.3.3 of Mr Flower's Report) and compounded annually, or on such other basis as seems fitting to the Tribunal. Accordingly, OPaL is

entitled to an award of INR 11,019.3 million (or such other amount as may be found due by the Tribunal by way of damages for breach of contract) with interest as aforesaid on the damages amount and costs.

21. In the light of the rival contentions, the questions that arise for consideration in the quantum hearing, according to OPaL, are –

(i) W*hether DAELIM is liable to pay damages to OPaL on the basis of NPV calculations?*

(ii) If so, what is the date on which the damages ought to be assessed – that is, as on 30 November 11.2019 as contended by OPaL or as on 28 April 2011 as contended by DAELIM?

(iii) Whether the Loss of Capability Claim is a claim for Loss of Profits and therefore barred?

(iv) What would be the quantum of damages payable by DAELIM to OPaL?

Case of DAELIM

22. DAELIM contends that OPaL is not entitled to claim any damages on the basis of NPV calculation. It is pointed out that the NPV calculation is referred to and provided for as a method of price evaluation of bids under Bid Evaluation Criteria in Appendix A9 to the Instructions to Bidders and not in the context of awarding damages under the General Conditions of Contract.

23. DAELIM does not dispute the fact that having regard to Clauses 8.4.1.1 and 8.4.1.2 of GCC, when the contractor repudiates or abandons the contract, the employer is entitled to complete the work at the risk and cost of the contractor and the contractor is liable for the costs and expenses that the employer

may sustain for completing the work, subject however to a ceiling of 20% of the Contract value.

24. DAELIM contends that calculation of compensation for loss of Net Present Value (NPV) is not a calculation of 'extra cost' in getting the work completed through another agency, but is a method of calculation based on revenue *minus* costs which in effect is a calculation of loss based on loss of profits; and as award of damages with reference to loss of profits is prohibited under Clause 6.2.3 of the GCC, OPaL's claim based on NPV is misconceived and not tenable.

25. DAELIM contends that the Liability Award makes it clear that the quantum tranche hearing is limited to OPaL furnishing the details by way of additional factual expert evidence and making submissions on the validity and quantum of the NPV claim made in the SoC dated 2.1.2016, that is, for the difference in NPV between the bids of DAELIM and Samsung; and that as the Liability Award has already decided the nature and scope of the NPV claim to be considered in the quantum tranche, the doctrine of *res judicata* would clearly imply that the Tribunal cannot decide any new claims in the quantum tranche. DAELIM further contended that the Liability Award having decided on what should be considered in the quantum tranche, the Tribunal became *functus officio* in so far as that issue is concerned and therefore does not have the jurisdiction to re-visit the said question or decide upon a re-formulated NPV claim.

26. DAELIM filed an application dated 23.9.2020 for striking out the 'Incremental Costs Claim' and the 'Production Loss claim'. The Tribunal heard the application on 16th and 17th November 2020 and held by its order dated 23.11.2020 that as the substantive hearings were to commence shortly on 4.1.2021, it would prefer to hear all the contentions of the parties fully at the final hearing and therefore, did not propose to make any ruling on the application.

27. According to DAELIM, the issues that arise for consideration in the quantum hearing are:

(a) Do OPaL's new ICC (Incremental Cost Claim) and PLC (Production Loss Claim) depart significantly from what the Tribunal allowed to proceed for examination in the Quantum Tranche? In determining this issue, the Tribunal will need to determine the following sub-issues:

(i) What was the formula/methodology of the EIP NPV Claim that was advanced in the Liability Tranche?

(ii) Does OPaL's new ICC depart from the EIL NPV claim?

(iii) Does OPaL's new PLC depart from the EIL NPV claim?

(b) Are the new ICC and/or PLC too remote to be claimed?

(c) Do the new ICC and/or PLC fall within what OPaL can claim for under Clause 8.4.1.1. read with 8.4.1.2 of the GCC as extra costs of completing the plant?

(d) Are the new ICC and/or PLC contractually excluded by Clauses 6.2.1 and 6.2.3 of the GCC?

(e) If the Tribunal rules on the above issues in favour of OPaL, are the technical and damages assumptions used in OPaL's formulation of the ICC and PLC sustainable, or should the Tribunal accept the recalculation as done by Daelim's expert?

Consideration of the quantum claim of OPaL

Whether OPaL's claim based on NPV calculations is not maintainable as it is for loss of profits (future losses), as contended by DAELIM? OR Whether OPaL's claim is for extra costs in getting the work completed and therefore maintainable, as contended by OPaL?

28. The answer to this question depends upon Clause 8.4.1 of GCC, relevant portions of which are extracted below:

> "**8.4.1 <u>Remedies</u>**
>
> 8.4.1.1 If the Contractor:
>
> …
>
> v) **repudiates or abandons the Contract**,
>
> OR
>
> vi) without reasonable excuse fails to commence the Works or suspends the progress of the Work for (30) thirty days after receiving from the Company's Representative, written notice to proceed,
>
> OR ….
>
> viii) despite previous notice in writing by the Company's Representative is not executing the Works in accordance with the Contract to the satisfaction of the Company's representative or is persistently or **flagrantly neglecting to carry out his obligations under the Contract**;
>
> then the Company may after giving notice of 10 days in writing, to the Contractor forthwith enter upon the Site and the Works and expel the Contractor from there without thereby making the Contract void or releasing the Contractor from any of his obligations or liabilities under the Contract or affecting the rights and powers conferred on the Company by the Contract and **may at the risk and cost of Contractor complete the Works itself or deploy any other Contractor to complete the Works** and the Company or that other Contractor may use for the completion of Works as much of the Constructional Plant and Equipment, Temporary Works and materials which have been deemed to be reserved exclusively for the construction and completion of the Works under the provisions of the Contract as it or they think proper.
>
> 8.4.1.2. If the Company enters and expels the Contractor under this clause it shall not be liable to pay the Contractor any money on account of the Contract until the costs of completion and making good damages for delay in completion (if any) and all other expenses incurred by the Company have been ascertained **provided however that Contractor shall only be liable for the said costs and expenses that Company may sustain on this account upto a maximum amount of twenty percent (20%) of the Contract value**. The Contractor shall then be entitled to receive only the sum or sums (if any) which could have been due to him on due completion by him after deducting the sum due to the Company as aforesaid, regard being had to the sums representing the value of the work actually done by the Contractor by the time of his expulsion and to represent the price of any said unused or partially used materials, any Constructional Plant and Equipment and any Temporary Works by Company for completion of works as provided for in the note and Cl.8.4.1 above." [Emphasis supplied]

29. The question whether a claim based on NPV calculation is a 'damages claim' for 'costs' permitted under Clauses 8.4.1.1 and 8.4.1.2 or whether it is a claim for consequential damages on the basis of loss of production or loss of profits not permitted under Clauses 8.4.1.1 and 8.4.1.2 was considered by the Tribunal in the Liability Award. The relevant discussion and finding in the Liability Award are extracted below:

> "116. The case of OPAL is:
>
> (a) ……As every licensor has a different patented technology, there will difference in the capital costs (costs involved in construction of the plant) and operating costs (costs involved in the operation of the plant based on the specific patented technology). The bid document contemplated the selection of the bidder who offered a technology having higher conversion efficiency (that is, who offered to deliver maximum desired quantity of products with minimum consumption of feed, utilities, chemicals, at an optional capital cost).
>
> (b) The NPV evaluation for awarding the contract was based on three basic components: (a) CAPEX, that is, bidder's lumpsum quoted price; (b) OPEX, that is, operational cost for electrical power, catalysts, steam, nitrogen, cooling water and maintenance; and (c) economic value derived from bidder's quoted conversion efficiencies. All bidders were therefore required to provide requisite data in their respective bids for calculation of NPV. DAELIM and other bidders submitted such data in guaranteed tables in their bids. The said guaranteed tables were revised by DAELIM twice, first during response to TQ & CQ and thereafter, finally, in the response to BCM. The said revised figures were the basis for bid evaluation as per the Bidding Documents.
>
> (c) Clause 23 of ITB had made known to all the bidders the NPV evaluation methodology. Further, all bidders were sent TQ/CQ vide letter dated 3.6.2010[6] providing the NPV calculation methodology and asking them to confirm acceptance of the NPV calculation methodology (vide para AA-16). DAELIM confirmed the acceptance of NPV calculation methodology vide its response dated 17.6.2010[7]. As contemplated under the ITB, EIL (the Project Management Consultant) evaluated the bids and furnished the NPV worksheets (calculations) vide letter dated 30.12.2010[8]. As per the said evaluation, the capital cost quoted by DAELIM was INR 1,097.03 crores and the capital cost quoted by the other bidder Samsung was INR 1,028.29 crores. However, the NPV evaluation by EIL indicated that the technology offered by DAELIM had a distinctive advantage of improved conversion efficiencies which would have resulted in OPAL gaining an equivalent of NPV difference amount of INR 489.13 crores over the next ranked bidder (Samsung) which was the difference between INR 1,000.08 crores (the revised NPV of DAELIM bid) and INR 510.94 crores (the NPV of Samsung bid). Therefore, the bid of DAELIM was preferred over that of Samsung even though CAPEX-wise, the bid of DAELIM was costlier than the bid of Samsung, by nearly INR 70 crores.

[6] B13/6294 – C-02
[7] B14/6603 – C-03
[8] B17/7705 – C-27

(d) When DAELIM abandoned the contract, OPAL was constrained to enter into negotiations with the second ranked bidder (Samsung). The revised NPV of Samsung was INR 590.79 crores as against DAELIM's NPV of INR 1000.08 crores and therefore, OPAL suffered an actual loss of NPV to the tune of 409.29 crores. This loss is a direct and natural result of the breach committed by DAELIM. At the time when the contract was entered, the parties were aware that NPV method was the basis for evaluation of the bids and in the event of repudiation of contract, the NPV evaluation would be the basis for calculation of the loss. As OPAL, who is the injured by reason of the breach by DAELIM, is entitled to be put in the position it would have been if the contract had been performed by DAELIM as far as money can do it, OPAL is entitled to INR 409.29 crores which it lost by reason of the breach by DAELIM.

117. DAELIM contends that OPAL's claim for loss of NPV is basically a calculation by adding up the revenue for twenty years and subtracting therefrom the capital expenditure and operating expenditure which, in other words, means that NPV is nothing but a projection of the profitability of the HDPE plant which means that the claim made is for loss of profits over a period of twenty years. It is contended that such a claim is excluded having regard to Clauses 6.2.1 and 6.2.3 of GCC which clearly provide that a contractor shall not be liable for consequential damages like loss of profits, loss of revenue, loss of production and loss of use.

118. If CAPEX alone is taken into account, the bid of Samsung is lesser than the bid of DAELIM by INR 68.74 crores. In spite of it, DAELIM was selected because, on NPV calculations, the bid of DAELIM was more beneficial to OPAL by INR 489.13 crores. Clause 23 of ITB dealt with evaluation of bids. Clause 23.2 of ITB stated that the evaluation of bids shall be carried out on the basis of Bid Evaluation Criteria at Appendix A9 of Bidding Documents. Section C of the Bid Evaluation Criteria[9] described the criteria for price evaluation of bids, relevant portion of which is reproduced below:

"**SECTION – C: CRITERIA FOR PRICE EVALUATION OF BIDS**

Company shall only consider the techno-commercially acceptable bids for the purpose of detailed evaluation. The Bidders shall submit all the requisite data, drawings and design parameters in their bid. Further, all design and related process data furnished by the Bider shall also be examined by PMC. Bidders must take utmost care while formulating the guaranteed parameters in their bids so that Bidders quoted figures, based on their design considerations, are in reasonable conformity w.r.t. figures assessed by Company's PMC.

C-1) BASE PRICE DEFINITION and COMPONENTS FOR NPV CALCULATION

Total lump sum amount for the entire Scope of Work as indicated at para A-2 (1) above and as per Bidding Documents including addendum(s), if any, shall be taken as a base price for the purpose of evaluation. The price given at Appendix A-3 of Bidding Documents will be the Basis of evaluation.

Company shall consider following three basic components as quoted by the Bidders for the purpose of evaluation (Please refer attached Evaluation Procedure for details):

Economic value derived from Bidders' quoted conversion efficiencies.

CAPEX i.e. Bidders' lump sum quoted price.

OPEX i.e. Operational cost for Electrical Power, Catalyst, Steam, Nitrogen, Cooling Water & Maintenance.

[9] B1/1 at 95 – Ex. R56

NPV shall be calculated for each techno commercially acceptable bid considering the above three factors taking into account plant life of 20 years from date of NOA and a discount factor of 10%. The Bidder obtaining the highest aggregated evaluated NPV for the Plant shall be considered for award of the work.

Economic Value derived from Bidder's quoted Conversion efficiencies :

To maximize value addition at an optimal overall project cost, Bidders are welcome to offer high conversion efficiencies as may be achievable as per their process schemes. Economic value will be calculated considering the guaranteed conversion efficiencies quoted by the Bidders. Rates of the products to be considered for evaluation are as given in Appendix A-13 and Evaluation Procedure.

Lump Sum Quoted Price (CAPEX) :

The Lump Sum Quoted Price of the Bidder will be taken as the CAPEX for calculation of NPV and the expenditure phasing shall be considered as follows:

1st Year - 30 % of the quoted price.

2nd Year - 50 % of the quoted price.

3rd Year - 20 % of the quoted price….."

In its bid dated 26.3.2010, DAELIM specifically confirmed[10] its acceptance to the said 'Criteria for Price Evaluation of Bids' as per Section C, Clause C-1 extracted above.

119. The contention of DAELIM is that the claim based on NPV calculation is essentially a claim for loss of profit as a consequential damage and that such a claim is barred by the exclusion Clauses in the contract, namely, Clauses 6.2.1 and 6.2.3(a) of GCC. Relevant portions of Clause 6.2.1 (consequential damages)[11] and Clause 6.2.3 (limitation of liability)[12] are extracted below:

"**6.2 <u>Consequential Damages</u>**

6.2.1. Subject to provisions of Clause 6.3.2 **neither the Contractor** nor his subcontractor **shall be responsible for or liable to the Company** or any of their affiliates **for consequential damages which shall include but not be limited to loss of profits, loss of revenue, loss or escape of product (hydrocarbons) or facilities downtime, suffered by the Company** or any of its affiliates, and the Company or any or its affiliates, and the Company shall protect, defend, indemnify and hold harmless the Contractor and his sub-contractors from such claims even if such liability is based or claimed to be based upon:

Any breach by the Contractor or sub-contractor of his obligations under the Contract.

OR

ii) Any negligent act or omission in whole or in part, of the Contractor or of any of his affiliates or Sub-contractor or their personnel or any of them in connection with the performance of the Work.

[10] B7/2741 at 2746– Ex. C57/R61
[11] B1/1 at 243
[12] B1/1 at 243

6.2.3. **Limitation of liability**

Notwithstanding any other provisions, except only in cases of wilful misconduct and / or criminal acts,

Neither the Contractor nor the Company **shall be liable** to the other, **whether in Contract, tort, or otherwise, for any consequential loss or damage, loss of use, loss of production, or loss of profit or interest costs**, provided however that this exclusion shall not apply to any obligation of the Contractor to pay Liquidated Damages to the Company and

Notwithstanding any other provisions incorporated elsewhere in the contract, the aggregate liability of the Contractor in respect of this contract, whether under the Contract, in tort or otherwise, shall not exceed **50% of the annualized Contract Price**, provided however that this limitation shall not apply to the cost of repairing or replacing defective equipment by the Contractor for the Warranty conditions defined in clause 6.1.1 or to any obligation of the Contractor to indemnify the Company with respect to Intellectual Property Rights..."

120. Clause 8.4.1.1 read with 8.4.1.2 of GCC provide that where the contractor repudiates or abandons the contracts, OPAL may deploy any other contractor for completing the work at the risk and cost of the defaulting contractor and recover the extra cost from the defaulting contractor subject to a ceiling of 20% of the contract value. When the NPV calculation was the accepted criteria for price evaluation of bids, there is no reason why NPV calculation cannot be the basis for ascertaining the loss caused due to the breach by the contractor resulting in the contract work being awarded to another contractor at the risk and cost of the contractor who committed the breach. The NPV calculation is not a mere calculation of future loss of profit as contended by DAELIM, but is a calculation which enables OPAL to determine the extract cost that it will have to incur by reason of wrong repudiation/abandonment by DAELIM.

121. EIL's report dated 10.8.2017[13] regarding techno-economic evaluation of bids explains the need and scope of NPV evaluation, which, in brief, is as under: Each Bidder's licensor would have different evolved plant processes based on their specific technology. The methodology adopted to evaluate different technologies involving different capital cost for constructing the plant and different operating cost during operation is known as 'Life Cycle Costing' (LCC) and that was adopted by EIL for evaluation of the price bids. LCC analysis is the preferred tool for economic evaluation of a technology, design alternatives selection and optimisation studies. It involves evaluation of alternatives to satisfy a required level of minimum threshold performance which may have different initial investment costs and different operating & maintenance cost. It provides an assessment of long-term cost effectiveness of a project (as contrasted from alternative economic methods which focus only on the first or initial cost of operation related costs in the short run). It takes into account every significant element of costs over life of the asset and works outs its total cost and benefits over the entire economic life of a project to a present value known as the Net Present Value (NPV). NPV represents the present value of future profits from today's investments.

122. The exclusion clauses relied upon by DAELIM make it clear that what is excluded are '*consequential damages*' in the nature of loss of profits, loss of production, loss of revenue, etc. The exclusion clauses relied upon by DAELIM do not exclude claim for damages for direct losses arising as a consequence of breach of contract. Clauses 8.4.1.1 and 8.4.1.2 of GCC describe the direct loss which OPAL is entitled to recover by way of damages, that is, the extra cost involved in awarding the contract to an alternative agency. **On the facts and circumstances where different processes and technologies are involved in regard to the two bids (of DAELIM and Samsung), the recognised method of evaluating the extra cost involved in awarding the work to Samsung as a consequence of the breach committed by**

[13] B19/8169 – Ex. C42

DAELIM, is the NPV calculation method as it is not possible to directly calculate the extra cost.

123. …….

In this case, OPAL's claim is on the basis that the breach has resulted in a 'loss' of INR 409.28 crores by reason of DAELIM's breach and consequential award of the work to Samsung. NPV basis can therefore be an effective manner of ascertaining the extra cost to OPAL by reason of awarding the contract to Samsung when compared to the cost of the work under the contract awarded to DAELIM. It cannot therefore be contended that the claim on NPV basis is to be rejected at the threshold without going into the question of quantum. There is no straitjacket formula for assessing the extra cost. The fundamental principle on which damages are calculated in cases of breach of contract resulting in a legal injury, is that as far as possible, the injured party (person who has proved breach) should be placed in as good a situation as if the contract had been performed[14]. The Supreme Court of India has recognised the accepted position that different formulae can be applied in different circumstances and the question as to whether damages should be computed by taking recourse to one or the other formula, having regard to the facts and circumstances of a particular case, would fall within the domain of the Arbitrator[15].

124. **The claim of OPAL under Clause 8.4.1.1 read with Clause 8.4.1.2 of GCC is not for loss of profits as a consequence of the breach, but is a claim for the extra cost to OPAL in getting the work completed through another contractor**. Therefore, **OPAL is entitled to recover from DAELIM, the extra cost involved as provided in Clauses 8.4.1.1 and 8.4.1.2 of GCC subject to a ceiling of 20% of the contract price**. *The question as to what factors should be taken note of, or what legal principles should be applied, for ascertaining the extra cost/burden, which is the legal injury suffered by OPAL as a consequence of the breach and the quantum of such extra cost/ burden on OPAL in getting the work executed through another contractor by the NPV method, are matters for consideration at the quantum hearing*. Nothing stated above is intended to be acceptance or recognition of the calculations or claim of OPAL for damages on the basis of loss of NPV under Clause 8.4.1.1 read with Clause 8.4.1.2 of GCC."

[Emphasis supplied]

30. In view of the above finding in the Liability Award, OPaL is entitled to prosecute the claim damages on the basis of NPV calculations. What require to be considered in the quantum hearing are the questions: (i) *What is the cost of completion of work that OPaL can claim under Clause 8.4.1 of GCC? – Whether it refers only to the costs required to complete the construction of the HDPE plant or whether it includes the extra operating costs to be incurred by OPaL during the plant life (and whether the plant life should be considered as 20 years from*

[14]*Maharashtra State Electricity Distribution Co. Ltd. Vs. Datar Switchgear Ltd. & Ors.* – (2018) 3 SCC 133, *Fateh Chand Vs. Balkishen Das* – AIR 1963 SC 1405, *Maula Bux Vs. Union of India* – (1969) 2 SCC 554 and *ONGC Vs. Saw Pipes* – (2003) 5 SCC 705

[15] *McDermott International Inc vs Burn Standard Co. Ltd. & Ors* – (2005) 10 SCC 353

the date of NOA (January/April 2011) or as 25 years from the date of commencement of the operational life of the plant (March 2017)? (ii) *Whether the 'Cost of Completion' claimable by OPaL would include the NPV of the value of the missing production capability?*

Whether OPaL's claim is liable to be rejected as it is higher than what is claimed in the SoC and what is fixed as the limit under the Liability Award?

31. DAELIM submitted that in its SoC (quantum) dated 10.1.2020, OPaL has made a claim for INR 1,101.93 crores (made up of INR 491.05 crores as NPV of the increased cost and INR 610.88 crores in regard to missing production capability; and that OPaL has made an NPV claim for INR 409.28 crores in its SoC dated 2.1.2016 and had restricted the claim to 20% of the Contract price having regard to clauses 8.4.1 and 8.4.2 of GCC. DAELIM also pointed out that the Liability Award restricted the NPV claim by issuing the following direction in the *Disposition*:

> "140 (iii). The validity and the quantum of the claim of OPaL for award of INR 409.28 crores, subsequently restricted to 20% of the Contract price of INR 4,593,300,500 *plus* USD 138,038,000, towards compensation for loss of Net Present Value shall be considered (along with the claim for interest thereon) in the second tranche hearing relating to quantum.";

DAELIM contended that the claim for damages based on NPV has to be rejected as (i) such increase in the claim is not permissible; and (ii) the increase would change the very nature and basis of the claim.

32. The relevant portion of the SoC-Q in regard to the claim made is extracted below:

> "**OPaL will respect the stated limit on its claim**. However, the limit applies as at the accrual of OPaL's cause of action on the termination of the Contract on 28 April 2011 and is not directly comparable to OPaL's claim calculated as at 30 November 2019. **Insofar as OPaL's claim exceeds the limit on a fair comparison (adjusted for changes in exchange rates and interest over the intervening period), OPaL will give credit**."

The first relief sought in the SoC-Q is for an award of INR 11,019.3 million or such other amount as may be found due by the Tribunal by way of damages for breach of contract. Having made a NPV claim of INR 1,101.93 crores in the SoC-Q, OPaL has also stated (vide para 11 of SoC-Q) that it will *respect the stated limit on its claim*.

33. Though OPaL has stated in para 11 of the SoC-Q that it will respect the stated limit on its claim, the statement is not unequivocal. Para 11 read with the Relief (1) sought in the SoC-Q gives an impression that its claim is that the limit applied as to the accrual of OPaL's cause of action on the termination of the Contract on 28.4.2011 will not apply to the OPaL's claim in the SoC-Q calculated as on 30.11.2019. It also gave an impression that the claim in the quantum hearing would be the claim limit agreed/admitted in the liability hearing adjusted for changes in exchange rate and interest between 28.4.2011 and 30.11.2019 and its claim may be restricted accordingly.

34. In its Opening Statement dated 24.12.2020, OPaL has however made its stand clear as under:

> "13. OPaL's total losses are therefore INR 10,662.3 M.
>
> 14. However, as noted at para 109 of the Award, OPaL has limited its claim to 20% of the contract value under clause 8.4.1.2 of GCC. The contract value under the DAELIM contract was US$ 138,038,000 plus INR 4,593,300,500, giving a level for the 20% cap of USD 27.6 million plus INR 918.6 million (in a total of USD 40 million or INR 2960 million at current rates of INR 74 = USD 1).
>
> 15. **As OPaL's losses exceed the cap level, OPaL confines its claim to the cap level and seeks an award of USD 27.6 million plus INR 918.6 million**.
>
> 16…..It is necessary to remember that the methodology used to calculate OPaL's damages adopts the same approach as that used by EIL to assess the bids. That methodology was agreed to by DAELIM and has not been suggested to be unfair."

Again, in its closing submissions dated 19.2.2021, OPaL has categorically stated that it is restricting its claim for damages to the limit prescribed under the Contract. The relevant portions thereof are extracted below:

> "365. OPAL's loss amounts to INR 3,071 million in the Incremental Cost Claim and INR 5,345 million on the Loss of Capability Claim, giving a total of INR 8,416 million. As OPAL's losses exceed the cap level, OPAL confines its claim to the cap level. OPaL therefore seeks an award of USD 27.6 million plus INR 918.6 million, or such amount as the Tribunal should find fit to award.
>
> 366. Translated entirely into INR, the cap level currently stands at INR 2,928.42 million or into USD at US$ 40.21 million (using a rate of INR 72.83 to US$ 1). However, OPaL requests the Tribunal to make an award in the proportion of the contract costs, viz. USD 27.6 million plus INR 918.6 million.
>
> 367. In the event of an award below the cap level, OPAL respectfully requests the Tribunal to maintain the proportion of the cap as between USD and INR, so that any such award would be 31% in INR and 69% in USD.
>
> 368. OPAL does not seek pre-award interest, but it respectfully requests the Tribunal to direct post-award interest, from the date of the award until payment, at the rate of two per cent higher than the current rate of interest prevalent on the date of the Award. OPAL will also seek costs, to be addressed in separate submissions."

35. As the NPV claim is restricted to 20% of the Contract value worked out to around INR 218 crores (INR 918,660,100 *plus* USD 27,607,600) and as OPaL has reiterated that the methodology used for calculating OPaL's damages on NPV basis adopts the same approach as the one used by EIL to assess the bids, DAELIM's contention that the claim for damages has been increased during the quantum hearing has no merit.

Claim of OPaL for Missing Production Capability

36. The basis of the Loss of Capability Claim of OPaL is that OPaL is able to manufacture most of HDPE products with the Samsung/Mitsui plant which are comparable to the products which it would have been able to manufacture (at lower cost) with the DAELIM/CP Chem plant; that however, the CP Chem technology promised by DAELIM offered an unique product (grade TR571 which is placed in the Large Blow Moulding product category) for which the Mitsui technology is unable to manufacture an equivalent; that CP Chem's TR571 can be used to make barrels and drums for industrial packaging with a volume of 220 litres or more, whereas, due to its physical properties, Mitsui's grade can only be used to make containers up to a volume of 120 ltrs; that DAELIM's abandonment of the Contract has not merely imposed increased costs on OPaL, *but has deprived OPaL of the ability to manufacture this product altogether*; that due to the difference in efficiency between the DAELIM/CP Chem technology and the Samsung/Mitsui technology (which is 100% in respect to this product), OPaL has suffered a complete loss of the capability to make TR571 or an equivalent product; and that the NPV of the value of the missing production capability constitutes the second limb of the quantum claim.

37. The case of DAELIM for challenging the NPV calculation of Missing Production Capability (described as 'Production Loss Claim' by DAELIM) is as under: OPaL, in its Statement of Claim dated 2.1.2016, had claimed damages for production loss under three heads – INR 98.21 crores towards HDPE production loss, INR 84.75 crores towards production loss of by-products of cracker plant and INR 41.58 crores towards polypropylene production loss. In its Liability Award, the Tribunal had rejected these claims as baseless '*having regard to the limitations/exclusion by reason of clauses 6.2.1 and 6.2.3 of GCC which barred OPaL from claiming any consequential damages in the nature of loss of profits or loss of revenue and the provisions clause 8.4.1.1 and 8.4.1.2 of GCC which permitted OPaL to claim only the extra cost*'[16]. In spite of such express ruling barring claims for loss of profits or loss of revenue, OPaL has put forward a new claim of INR 610.88 crores towards loss of production being the '*NPV of the value of the missing production capability*' relating to the HDPE plant's inability to *produce certain valuable grades of polyethylene*[17].

38. The contention of DAELIM is that this item is a new claim which was not a part of the NPV claim in the original Statement of Claim dated 2.1.2016 and therefore it cannot be considered in the quantum hearing. OPaL contended that the Liability Award makes it clear that '*the question as to what factors should be taken note of*' or '*what legal principle should be applied*' for ascertaining the

[16] Para 139 of the Liability Award
[17] OPaL's SoC-Q paras 8.2 and 6

cost or burden which is the legal injury suffered by OPaL as a consequence of the breach and the quantum of such extra cost burden on OPaL in getting the work executed through another contractor by the NPV method are matters for consideration at the quantum hearing.

39. DAELIM contended that the loss of capability claim is a claim for loss of production revenue; and that as the Tribunal has already held that '*having regard to the limitations/exclusion by reason of clauses 6.1.1 and 6.2.3 of GCC which barred OPaL from claiming any consequential damages in the nature of loss of profits or loss of revenue*'[18], OPaL is not entitled to any claim for loss of production. According to OPaL, the claim is a NPV claim, that is, NPV of missing production capability. Thus, the question whether the NPV of the value of the missing production capability can be considered under the NPV claim or not is a matter to be decided with reference to the evidence led by the parties.

40. If DAELIM is able to establish that NPV claim due to missing production capability is barred by clauses 6.2.1 and 6.2.3 of GCC, this part of the claim will have to be rejected. On the other hand, if OPaL is able to make out that this NPV claim due to missing production capability forms part of the claim for extra cost covered by clauses 8.4.1.1 and 8.4.1.2 of GCC and not clauses 6.2.1

[18] Para 139 of the Liability Award

and 6.2.3, the claim can be considered. The Tribunal will first consider the question assuming that TR571 is a premium product as contended by OPaL.

41. The claim of OPaL is primarily based on the report of Mr. Andrew Flower (CEW2), the expert witness examined by OPaL. Section 7 of his report dated 10.1.2020[19] relates to the assessment of OPaL's loss of capability in relation to the exclusive Grade TR571. The relevant portion of his report is extracted below:

> "7.1.1 The CP Chem technology can produce a specific grade of LBM product, TR571. This grade has extra high molecular strength which provides a good balance of its properties such as stiffness, melt strength, processability and chemical and stress-crack resistance. TR571 is used to produce large drums of cans.
>
> 7.1.2 I understand that TR571 is sold at a premium compared to the grades of LBM (B55H02 and B55H03) produced by OPaL with the Mitsui technology. I further understand that TR571 is exclusive to the CP Chem technology and that no equivalent grade can be produced with the Mitsui technology.
>
> 7.1.3 OPaL claims that Daelim's breach of the Contract has prevented it from earning the higher revenues associated with the sale of TR571 ("**Loss of Capability**").
>
> 7.2.1/7.6.1 I calculate OPaL's Loss of Capability as the difference between (i) the sales of TR571 that OPaL would have achieved in the But-For scenario (had it been able to produce and sell TR571 using the CP Chem technology); and (ii) the sales of LBM products that it has made and will make in the future in the actual scenario using the Mitsui technology."

He assessed the OPaL's loss of Capability as INR 12.5 billion (for the years 2018 to 2042) and after capitalisation of past losses and discounting of future losses, assessed OPaL's loss relating to Loss of Capability to be INR 6.1088 billion. OPaL contends that the loss has been measured by reference to the difference in DAELIM's sales revenue with and without the capability to produce – TR571. According to OPaL, the claim is not for loss of profit or revenue, but the claim is

[19] D/1

for the incompleteness or loss of capability of the plant. It is further submitted that as the relief is not for compensation for consequential loss, but for compensation for direct loss of the capability to manufacture TR571, neither Clause 6.2.1 nor Clause 6.2.3 which bar consequential damages/losses would be attracted.

42. However, the evidence (cross-examination) of Mr. Flower, OPaL's expert, clearly establishes that it is a claim for difference in revenue and profitability. The relevant portions are extracted below[20]:

> "Q. *..Very briefly on the TR-571, your PLC claim, I just want to point out to one thing which is at CQ/302, which is the HIS report. Your position is that looking at the import data given by Mr Khemani, you have determined the unit price of the TR-571 to be, say X, and that this price is 10 per cent more than the price of the LBM product produced presently by the Samsung plant, which is the B5502 and the B5503, correct?*
>
> A. Correct
>
> Q. *That differential in unit prices, times the production that you presume that both will be equal is, in essence, your PLC claim, your production loss claim, right?*
>
> A. That's fair.
>
> Q. *Would you agree with me, essentially, you are comparing the fact that one product, if the plant had been built, would have been made and they would have generated more revenue, but the other products that are being made by the new plant generated less revenue, and the difference between that, you call it the production loss claim. Would you agree with me that that essentially is a loss of revenue claim or a difference in revenue claim?*
>
> A. It is a production loss claim because the TR-571 is not a product that can be produced using the Samsung technology.
>
> Q. *Take away the fancy words, a "production loss claim".* ***Isn't it in essence a claim for the difference in revenue between the but-for situation and the actual situation****?*
>
> A. **Yes.**"

[20] 11 January 2021: Pg 58 Ln 1 – Pg 59 Ln 8

The Tribunal also questioned Mr. Flower during hot-tubbing about the nature of the Production Loss Claim[21]:

> *"PRESIDING ARBITRATOR: Mr. Flower, you said that, broadly, the manner of assessment of NPV by EIL and by you were similar, but* ***we find that EIL has worked only on the basis of the incremental cost, but you have taken the loss of production capability. When you take the loss of production capability, would it not turn it into a question of profit, as contrasted from costs?*** *If you had only calculated incremental costs, as was done by EIL, you could have said, argued, or you could have tried to persuade us, yes, it is still a question of extra cost.* ***But once you say this is a loss of production of something which we could not produce under the Samsung-Mitsui technology, you are referring to an aspect of revenue and profitability and not the extra cost. What is your explanation for this addition****?*
>
> Mr. FLOWER: As I said a few minutes ago, I was seeking to compare my incremental costs claim with the EIL claim**. I would accept that the PLC claim is on a different basis that looks at the revenue foregone by not being able to produce TR-571**.
>
> *PRESIDING ARBITRATOR: So you agree that, to that extent, it goes off that tangent when compared to EIL's valuation?*
>
> MR. FLOWER: I would accept that."

At that stage, the Presiding Arbitrator sought the comment of Mr. Arora (DAELIM's expert) and of Mr. Davies (counsel for OPaL) on what was stated by Mr. Flower. The relevant portion is extracted below[22]:

> *"PRESIDING ARBITRATOR: (Thank you). Mr. Arora do you want to say anything on that. What I wanted was only a clarification from him. But if you want to add any comment, you are welcome.*
>
> *MR ARORA: Mr. President, I think you have understood it correctly. The PLC claim is entirely a loss of revenue claim.*
>
> *PRESIDING ARBITRATOR: Mr. Davies?*
>
> MR. DAVIES: I do not have any questions on this."

43. The basis on which the Production Loss Claim (Loss of Capability Claim) is made, when read with the aforesaid clarifications of the Experts, clearly demonstrate that the claim for 'Loss of Production' resulting in Loss of Revenue

[21] 12 January 2021: Pg 72 Ln 10 – Pg 73 Ln 10
[22] 12 January 2021: Pg 73 Ln 11 – Ln 19

which in turn would be a claim for 'Loss of Profits'. Claims based on 'Loss of Production', 'Loss of Profit' and 'Loss of Revenue' are all specifically barred by clauses 6.2.1 and 6.2.3 of GCC. The Tribunal, in its Liability Award, had considered the question whether OPaL is entitled to claim damages for production loss and held that having regard to the limitations/exclusions contained in Clauses 6.2.1 and 6.2.3 of GCC barring claims for damages in the nature of loss of profits or loss of revenue and Clauses 8.4.1.1 and 8.4.1.2 of GCC which permit OPaL to claim only the extra cost, claims for loss of production are liable to be rejected[23]. In spite of it, OPaL has chosen to introduce during the quantum hearing, a fresh claim based on loss of production. OPaL is not therefore entitled to any claim based on NPV of 'Production Loss'.

44. It is therefore not necessary to consider whether Loss of Capability claim should be rejected for lack of evidence to show that TR571 actually enjoys a premium as a monopoly superior product. Nor is it necessary to consider the quantum of loss and damages due to missing production capability.

45. In view of the above, OPaL's claim relating to Loss of Capability is rejected.

Claim of OPaL for Incremental Cost

46. In its Statement of Claim dated 2.1.2016 (SoC), OPaL based its claim for extra cost of INR 409.29 crores (difference of the NPV between the bid

[23] Para 139 of the Liability Award

of DEALIM and the bid of Samsung) on an assessment by EIL. The relevant portions of the SoC are extracted below:

> "4.20. EIL submitted NPV calculations for the said HDPE contract vide its letter dated 30.12.2010, wherein the NPV of the Respondent was stated as INR 994.50 Crores and that of M/s Samsung Engineering Co Ltd was INR 510.94 Crores as per terms of Bidding Document.
>
> 4.22. Subsequent to the revised contract price the NPV was re-calculated by PMC and as a result the Respondent's final NPV came to INR 1000.08 Crores.
>
> 4.60. The instant tender was floated on L+EPC basis i.e., the bidders had to choose their 'Licensor' beforehand (as per the scope of work). The chosen Licensor, apart from providing technology know-how to construct the HDPE plant also had to provide a Process License to the Claimant to enable it to operate and sell its products. The successful Bidder and their Licensor were required to provide guarantees for plant output (production of products that contributes towards revenue generations) and consumptions of plant inputs (feed, utilities, chemicals, etc that contributes towards operating expenditure). This is reflected in Appendix A-9 (bid evaluation criteria) of the bidding document.
>
> 4.61. Every licensor has a specific patented technology, and therefore, there would be differences in their Capital Costs (i.e. costs involved in construction of the plant) and in their Operating Costs (i.e. those involved in operation of the plant based on the specific patented technology).
>
> 4.62. Therefore, the technology which has a higher conversion efficiency (i.e. which delivers maximum desired quantity of products with minimum consumption of feed, utilities, chemicals, etc at an optimal Capital Cost) is most desirable.
>
> 4.63. Accordingly, the Bidder obtaining the highest aggregated evaluated NPV for the Plant was to be considered for award of the work.
>
> 4.64. The following are the basic components for the purpose of NPV evaluation: a) CAPEX i.e. Bidders' lump sum quoted price; and b) OPEX i.e. Operational cost for Electrical Power, Catalysts, Steam, Nitrogen, Cooling Water & Maintenance; and c) Economic value derived from Bidders' quoted conversion efficiencies.
>
> 4.65. Accordingly, Claimant had asked bidders vide the bidding document to provide requisite date (lump-sum quoted price, feed & product quantities, utility requirement and their quantities, catalyst requirement & their quantities and life, chemical requirements & their quantities and their respective rates) in their respective bid for calculation of NPV. All bidders including Respondent submitted the requisite date in the guaranteed tables prescribed in the bidding document. The said guaranteed tables were revised by the Respondent twice, firstly during response to TQ/CQ and thereafter finally in response to BCM and the figures mentioned therein were the basis for bid evaluation criteria as per bidding document.
>
> ……..
>
> 4.71. The evaluation of EIL indicated that the technology being offered by the Respondent had a distinctive advantage of improved conversion efficiencies which would have resulted Claimant to gain an equivalent of NPV difference amount of INR 389.13 crores over that of the next ranked bidder as per revised contract price.
>
> **4.72. However, subsequent to the abandonment of Contract by the Respondent, the Claimant was left with no choice but to enter into negotiation with M/s Samsung Engineering, who was the second ranked bidder, to carry out entire Scope of Works of**

HDPE Plant. During the negotiations Samsung offered an improved Catalyst with improved conversion efficiency, i.e. revised guarantee and conveyed by EIL vide their letter no. ELC/6987/General/110 dated 16.3.2011. The revised NPV of Samsung came to INR 590.79 crores as against the NPV of the Respondent of INR 1000.08 Crores. Therefore the Claimant is suffering an actual loss of NPV to the tune of INR 409.29 Crores.

4.73. As per NPV methodology it was clear the Respondent's technology had distinctive advantage of improved conversion efficiencies which would have resulted the Claimant to gain an equivalent of the NPV difference to the tune of INR 409.29 Crores.

4.74. This loss would not be occurring without the breach committed by the Respondent. This loss is a direct and natural result of the said breach of the Contract. The parties had knowledge of such a loss occurring in the (e)vent of repudiation of the contract. In the circumstances the Claimant is entitled, on the basis of the principle that the Claimant has to be put back in the situation as if the contract had been performed, to claim an amount equal to the diminution in NPV as the expected benefit to be earned is being made herewith.

4.75. Accordingly, the Claimant is entitled to the difference of NPV between that of the Respondent and Samsung which amounted to INR 409.29 crores."

It is clear from the said pleadings that the claim made in the SoC dated 2.1.2016 for INR 409.28 crores towards compensation for loss of NPV was merely a reiteration of the NPV calculations prepared by EIL for the purpose of price evaluation of bids for awarding the project. The calculations adopted by EIL for arriving at the said loss of INR 409.28 crores (being the difference between the NPV of DAELIM bid and NPV of Samsung bid) are extracted below[24]:

Sl. No.	Description	DAELIM bid (INR in Crores)	Samsung bid (INR in Crores)
1	Capital cost	1,091.54	1,028.29
2	Operating cost - Fixed ... - Variable ...	2,444.49 *32.75* *2,411.74*	2,518.12 *30.85* *2,487.27*
3	Sales revenue	2,761.88	2,758.82
4	Net (3 – 2)	317.39	240.71
5	**NPV** (by discounting **@10% for 20 years**)	**1,000.50**	**590.80**

47. For arriving at the aforesaid NPV figures, EIL states that it had used the following inputs from DAELIM bid and Samsung bid[25]:

[24] Extracted from the Tables attached to EIL letters dated 30.12.2010 and 16.3.2011 - B17/7708 & B17/7724
[25] Basis for NPV input for HDPE Unit attached to EIL's letter dated 30.12.2010 - B17/7705 at 7706-7707

"The following inputs have been used for NPV input as advised by OPAL:

- Capital cost for both the Bidders as per the details available in Sealed priced envelopes…
- Prices of catalyst, co-catalysts are taken as per Bidder's input (for both). Annual expenditure of additives are considered as per Bidder's information.
- A thorough check of Material Balance/utility balance has been carried out and in case of any mismatch in the date provided in various tables the most conservative approach have been followed for both the Bidders.

Specific observations are listed below:

Material balance:

- Samsung:
  - Production capacity as per guarantee table adds up marginally higher (340056 TPA than specified unit capacity (340000 TPA). As per the Bid document, all data has been prorated to meet the desired unit capacity as in the ITB.
  - Bidder has utilized lesser no. of production hours. As per Bid document, no benefit for the unutilized hours has been allotted to the Bidder.

- DAELIM:
  - Production capacity as Table II and III adds up marginally lower capacity of 339958 TPA. Same has been utilized for material. Lower production of HDPE (On/Off spec) has been retained and all other guarantees have been prorated corresponding to that value.

Product Prices:

- As per the Bid provision no economic value has been allotted for low polymer wax material or oligomers, which was informed to Bidders at all the stages. Base case NPV has been worked out within the Bid specification.
- However, as special case, two check cases have been worked out with the following basis for Samsung: xxxx (omitted as not relevant).
- No price has been allotted for fuel fired. DAELIM has provided guarantee for this parameter. The value of fuel fired 3.76 S/ MMBTU has been considered for the same in line with BFCU contract document.
- NPV sheet of OPAL did not consider OPEX for fuel and DM water. But the EIL NPV sheets, both these parameters have been included as per Bidder's guarantee.

Catalyst / Co-catalyst consumption:

- 6 months catalyst / co-catalyst / chemical as considered by Bidders in capital cost have been assumed as an inventory and annual consumption has been loaded on OPEX as per Bid provision.

Chemical / additive/ absorbent prices:

- DAELIM has indicated two chemicals (for insignificant quantity) diluted DEZ and NALCO 90 in the priced bid. The price for the same is not available. Present NPV does not take care of these two chemicals.
- Samsung has informed requirement of adsorbents (of insignificant quantity) in the priced bid, prices for which are not available. Hence not considered in the NPV calculation."

[NOTE: *EIL has described Samsung and DAELIM as 'Bidder 2' and 'Bidder 3' respectively. For convenience, the Tribunal has substituted the word 'Samsung' for 'Bidder 2' and 'DAELIM' for 'Bidder 3'*].

48. In its Statement of Claim dated 10.1.2020 relating to the quantum (SoC-Q), OPaL calculated and claimed the net NPV of its increased cost (Incremental Costs Claim) on the basis of the overall extra cost incurred by it in building and operating the plant (in conformity with the life cycle costing methodology) as INR 491.05 crores as set out in the report dated 10.1.2020 of its expert Mr. Andrew Flower. The relevant portion of Mr. Flower's report is extracted below:

> "**2.3. Framework for assessing of OPaL's losses**
>
> 2.3.1. OPaL's losses consist of the Incremental Costs that would have saved in the But-For Scenario, i.e. had it been able to contract with Daelim to build the HDPE Plant and use the CP Chem technology to operate it, compared to those it has incurred to date, and will continue to incur until the end of operations, in the Actual Scenario, i.e., with the Samsung-built HDPE Plant operated with the Mitsui technology.
>
> 2.3.2. In order to assess OPaL's Incremental Costs, I made a number of assumptions, with respect to volumes produced and sold, production costs, etc., in order to estimate the total costs that OPaL has, will, or would have incurred between the start of construction of the HDPE Plant in June 2011 and the end of operation in 2042 after 25 years of operations.
>
> 2.3.3. I assess OPaL's alleged losses as of 30 November 2019 as a proxy for the date of this report, having considered all information known as of that date, in order to assess OPaL's damages, I add interest to OPaL's past losses and discount OPaL's future losses at a 8.75% discount rate, estimated as OPaL's real WACC.
>
> **2.5 My assessment of OPaL's loss in relation to Incremental Costs**
>
> ***Production in the Actual and the But-For Scenarios***[26]
>
> 2.5.1. Production at the HDPE Plant is a function of market demand. I have therefore assumed production to be the same in the Actual and But-For Scenarios since they cover the same period.
>
> 2.5.2. For FY 2018, FY 2019 and FY 2020, I rely on historical production levels. For FY 2021 to FY 2026, I assume that capacity utilisation at the HDPE Plant will be in line with forecasts for the Indian HDPE industry, which show that there is likely to be some excess capacity. For FY 2026 to FY 2042, at the end of the initial 25-year license for use of the Mitsui technology, I consider that OPaL would have operated the HDPE Plant at 91% of its capacity, based on its utilisation in the first half of FY 2020.
>
> 2.5.3. Additionally, I assume that the production mix would have been the same as the one achieved in the first half of FY 2020, i.e. the most recent period for which data is available.

[26] *Actual Scenario*: the situation in which OPaL finds itself having had to contract with Samsung and Mitsui. *But-for Scenario*: the situation in which OPaL would have found itself without the respondent's breaches of the contract, i.e., had DAELIM proceeded with and completed the project with the CP Chem technology.

This appears to me to be the most logical approach, given the lack of alternative market demand projections.

Costs in the Actual Scenario

2.5.4. I estimate unit production costs for each grade based on OPaL's historical performance. For FY 2021 onwards, I consider that it is reasonable to assume that OPaL's unit production costs would have been the same as in the first half of FY 2020, since this corresponds to the period for which production at the HDPE plant was stabilised.

2.5.5. With respect to capital costs, the costs of building the HDPE Plant have already been incurred by OPaL. Additionally, I understand that no additional capital expenditure will be necessary in the future as maintenance expenses will suffice to keep the HDPE Plant in working condition.

2.5.6. Finally, I disregard maintenance expenses, as it is reasonable to assume that maintenance expenses would have been the same in the Actual and the But-For Scenarios.

Costs in the But-For Scenario

2.5.7. I estimate unit production costs for each grade in the But-For Scenario based on the input consumptions included in the Daelim Bid and the input unit prices as achieved by OPaL since the start of operation at the HDPE Plant. For FY 2021 onwards, I consider, as in the Actual Scenario, that it is reasonable to assume that OPaL's unit production costs would have been the same as in the first half of FY 2020.

2.5.8. Although it appears that the Mitsui technology has proven to be more efficient that was anticipated in the Samsung Bid, I do not assume that these actual efficiency gains would also have been achieved with the CP Chem technology. If I had assumed the same efficiency gains this would increase my assessment of OPaL's loss, so my approach is conservative.

2.5.9. Additionally, I calculate the capital costs would have been amounted to INR 12.3 billion in the But-For Scenario, compared to INR 10.9 billion in the Daelim Bid. This difference reflects the loss of value of the INR against the USD over time.

2.5.10. Finally, in line with the Actual Scenario, I consider that OPaL would have incurred no additional capital expenditure over the remaining life of the HDPE Plant, and I disregard maintenance expenses.

My assessment of OPaL's losses in relation to Incremental Costs

2.5.11. I assess OPaL's losses related to Incremental Costs to be INR 4.9 billion as shown in the table below: xxx

2.5.12. My assessment of OPaL's losses in relation to incremental costs exceeds the cap on the contractor's liability of 20% of the price of Daelim Contract, which I assess at INR 2,899 million at the date of at which I assess OPaL's losses.

2.5.13. I have assessed OPaL's losses as at 30 November 2019 so as to take advantage of data on actual costs and production so far as possible. Had I performed the assessment as at the date the Contract was terminated in 2011, the resulting number would have likely to be under the cap, but it would be necessary to add interest from 2011. Further calculation can be done on this basis if necessary"

49. OPaL's case in regard to the incremental costs claim in the quantum proceedings is that when the SoC dated 2.1.2016 was filed, the plant had not

commenced commercial production; that the commercial production commenced in May 2017 and usually a ramp up period of 18 to 21 months is required for production to stabilise petro-chemical plants; that the stable production was achieved during June 2019 in respect of the plant constructed by Samsung; that by the time the pleadings were filed in the quantum hearing, the actual figures became available with reference to Samsung's capital costs and operational efficiencies; and that it therefore updated its claim by making use of the actual figures and Mr. Flower used this data from the production between April and September 2019 as characteristic of stable production. It is submitted that the claim made in the SoC-Q dated 10.1.2020 continues to be a claim for loss of NPV made in the SoC dated 2.1.2016 but with updated figures by taking note of certain actual figures in place of assumed figures relating to inputs. What has been retained and what has been updated are stated to be as under:

Description	EIL Report	Up-dated claim
DAELIM capital costs	Bid	Bid
DAELIM operational efficiencies	Bid	Bid
Samsung capital costs	Bid	Actual
Samsung operational efficiencies	Bid	Actual
Product segment mix	Assumed	Actual

50. DAELIM seeks rejection of the claim for loss of NPV relating to OPaL's increased cost (described by DAELIM as 'Incremental Costs Claim'). It contends: According to the Liability Award, what could be urged by OPaL and considered by the Tribunal in the quantum hearing is the loss of NPV claim as formulated by EIL and as set out in the SoC dated 2.1.2016. While OPaL can update its claim for damages to account for the actual data or particularising the

claim for loss of NPV on the footing of EIL NPV methodology, OPaL is not entitled to make a NPV claim by adopting a different methodology[27]. OPaL's claim in the SoC for INR 409.28 crores towards loss of NPV was premised on the difference between the guarantees and technical parameters set out in the respective bids of DAELIM and Samsung. The decision of the Tribunal in its Award (on Liability) dated 28.12.2018 makes it clear that the quantum tranche hearing was to enable OPaL to detail and submit factual and expert evidence on the validity and quantum of the NPV claim set out in its SoC dated 2.1.2016[28] (for the difference in NPV between the DAELIM and Samsung bids). Instead, OPaL is now trying to proceed on the basis of a completely re-formulated claim for the '*overall extra cost to OPaL of building and operating the plant*'[29]. OPaL is now making a completely new NPV claim with reference to the differences in the actual costs of producing Mitsui HDPE products against the theoretical cost of producing the same products using hypothetical DAELIM-CP Chem plant[30]. OPaL's claim in the quantum proceedings is a new and reformulated claim is also evident from the fact that while the EIL's calculations (on the basis of which NPV claim for INR 409.29 crores was made in the SoC dated 2.1.2016) took note of

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[27] Transcript of hearing dated 17.11.2020 - p18/14-25 (also at F7/2912 at 2930) – Mr. Yim's statement: '*We are not disputing that in the appropriate circumstances, the Bwllfa principle will allow him to update information at the quantum stage, but this is not simply updating information. If it was simply updating, he could update the actual capital costs [incurred], he could update the actual product cost, but it has to be on the [same] methodology. It has to be on the same categories. He cannot be updating by changing the categories of products. He cannot be updating by changing the methodology of the NPV. That's not updating, that is substantially changing the case.*'

[28] Paras 7 and 25 of the striking out application dated 23.9.2020

[29] Para 8 of the striking out application dated 23.9.2020

[30] Para 9 of the striking out application dated 23.9.2020

the annual sales revenue, Mr. Flower's report, which is the basis of the claim in the SoC-Q does not take note of the sales revenue.

51. DAELIM contends that such a departure/alteration in methodology is contrary to the directions contained in the Liability Award dated 28.12.2018 and therefore would be barred by the principles of *res judicata*. DAELIM contends that even the Tribunal cannot change the methodology that has been accepted as the basis for the claim, in the Liability Award as once the award is made, the Tribunal would be *functus officio*. In support of these contentions, DAELIM relies upon section 19B(1) of International Arbitration Act, the decision of the Singapore High Court in *ASG Vs. ASH* - (2016) 5 SLR 54, the decision of the Singapore Court of Appeal in *LW Infrastructure Vs. Lim Chin San Contractors* - (2013) 1 SLR 125, several international arbitral awards and the passages from Gary Born's *International Commercial Arbitration (2nd Edn)* - paragraph 24.02[B][(4], Jeffrey Waincymer's *Procedure and Evidence in International Arbitration* (2012 Edn) - paragraph 16.19.2 and Bernard Hanotiau's *Complex Arbitrations: Multiparty, Multicontract and Class Actions* - paragraph 543[31].

52. The basic components for the purpose of evaluation were (i) economic value derived from the bidders' quoted conversion efficiency; (ii) CAPEX, that is, bidders' lump sum quoted price; (iii) OPEX, that is, operational

[31] Paras 26 to 33 of the striking out application dated 23.9.2020

costs for electrical power, catalysts, steam, nitrogen, cooling water sand maintenance. NPV had to be calculated for each techno-commercially acceptable bid considering the said three factors taking into account plant life of 20 years from the date of NOA and a discount factor of 10%. The bidder obtaining the highest aggregated evaluated NPV for the plant was considered for award of work. EIL, on evaluation of the two bids (DAELIM and Samsung), concluded that DAELIM bid would result in a higher benefit INR 409.28 crores to OPaL when compared to the Samsung bid based on the following inputs/criteria:

(i) The capital cost was INR 1,091.54 crores under DAELIM's bid and INR 1,028.29 crores under Samsung's bid. If CAPEX alone, that is cost of construction of the plant, was taken into account, DAELIM's bid was higher than Samsung's bid by INR 63.25 crores.

(ii) The operating cost was for a period of 20 years from the date of issue of NOA. As the first three years was the construction period, effectively the operating cost was taken for the remaining 17 years. The operating cost was taken as a constant/uniform figure of INR 2,444.49 crores per year (made up of INR 32.75 crores as fixed operating cost and INR 2,411.74 crores as variable operating cost) in respect of DAELIM. The operating cost was assumed/taken as a constant/uniform figure of INR 2,518.12 crores per year (made up of INR 30.85 crores as fixed operating cost and INR 2,487.27 crores as variable operating cost) in respect of Samsung.

(iii) The sales revenue was taken as a constant/uniform figure of INR 2,761.88 crores per year in respect of DAELIM and INR 2,758.82 crores per year in respect of Samsung.

(iv) The net cash flow was arrived at by deducting the capital costs and the operating costs from the sales revenue. By applying a discounting factor of 10% per year in regard to each year's net cash flow, EIL arrived at the NPV for each year. The total of the NPV for 20 years in respect of DAELIM's bid was INR 1,000.08 crores and in respect of Samsung's bid was INR 590.80 crores. The difference between the NPV of 20 years net cash flow in respect of the two bids was INR 409.28 crores. When DAELIM committed breach and the contract had to be awarded to Samsung, the said INR 409.28 crores became the loss of NPV to OPaL.

Thus, the sum of INR 409.28 crores which was found by EIL to be the difference between the NPV of DAELIM's bid and Samsung's bid, forming the basis for awarding the contract to DAELIM, was adopted by OPaL in the SoC dated 2.1.2016 as the basis for claiming damages from DAELIM due to loss of NPV.

53. However, during the quantum hearing, OPaL deviated from the EIL calculations for arriving at the damages for NPV loss. Though the broad structure was adopted, significant departures were made from the methodology used to determine the NPV loss in the SoC-Q dated 10.1.2020 based on the assessment by its expert Mr. Andrew Flower. The changes were:

(a) Instead of calculating the plant life as 20 years from the date of NOA (6.1.2011 in respect of DAELIM and 29.4.2011 in respect of Samsung) adopted by EIL for calculating the operational cost, the NPV was calculated based on a plant life of 25 years from the date of commencement of the operations of the plant (March 2017 to March 2042).

(b) The sales revenue was one of the factors that were taken into consideration by EIL for the NPV calculations as the NPV was calculated by applying a discounting factor on the net annual cash flow which was derived by deducting the CAPEX and OPEX from the sales revenue. On the other hand, the assessment/calculation of NPV by Mr. Flower did not refer to or take note of the sales revenue, nor discounted the net annual cash flow.

(c) EIL had taken the figures of both capital costs as also operating costs of DAELIM and Samsung from their respective bids. On the other hand, Mr. Flower took the capital costs and operating costs in respect of DAELIM from DAELIM's bid but took the capital costs and operating costs in respect of Samsung from the actual amounts incurred by OPaL. In so far as the product segment mix, EIL had proceeded on assumed figures, whereas Mr. Flower's calculations were based the actual figures.

54. OPaL contends that EIL did not have the benefit of the actual figures either in respect of CAPEX or OPEX when it calculated the NPV with reference to both the bids; that by the time of quantum hearing, as actual CAPEX and OPEX figures were available in respect of execution of the project by Samsung; and that therefore, the calculations relating to NPV loss were made on the basis of bid figures in the case of DAELIM and on the basis of actuals in the case of Samsung. In regard to plant life, OPaL contended that the contract contemplated the plant life to be of 25 years from the date of commencement of the operations and therefore the OPEX calculations were made for 25 years instead of 20 years taken by EIL. In so far as sales revenue figures which formed an integral part of the EIL calculations, it was submitted that the sales revenue figures were not relevant

for the purposes of ascertaining the OPEX and the NPV was calculated on the basis of CAPEX and OPEX figures without reference to the sales revenue.

55. OPaL contends that it is entitled to change the method and basis of calculation as the entire issue relating to quantum was left open to be urged and decided in the quantum hearing vide the following observations in para 124 of the Liability Award:

> "The question as to what factors should be taken note of, or what legal principles should be applied for ascertaining the extra cost/burden, which is legal injury suffered by OPaL as a consequence of the breach and the quantum of such extra costs/burden on OPaL in getting work executed through another contractor by the NPV method are matters for consideration at the quantum hearing. Nothing stated above is intended to be acceptance or recognition of the calculations or claim of OPaL for damages on the basis of loss of NPV under Clause 8.4.1.1 read with Clause 8.4.1.2 of GCC."

56. But what requires to be noted is that whatever rights are reserved and whatever questions are left open are for the purpose of proving the quantum claim as pleaded in the SoC dated 2.1.2016 and not to make a different claim by using the same description: '*claim for compensation for loss of NPV*'.

57. OPaL's claim for INR 409.28 crores towards compensation for loss of NPV in its pleadings, evidence and arguments in the first stage of (liability) hearing was based on the following premises: (i) The operating costs would be calculated in respect of a plant life of 20 years from the date of NoA (including the construction period). (ii) The NPV will be calculated by considering three factors (economic value derived from bidders' quoted conversion efficiencies, CAPEX and OPEX) and this would be done by applying a discount factor of 10% on the net cash flow per year and the net cash flow would be arrived at by

deducting the OPEX and CAPEX from the sales revenue. This was the basis of the claim, and the Tribunal directed a quantum hearing with reference to the claim so made in the SoC on the basis of EIL's NPV calculations. The question that can be considered during the quantum hearing, therefore, is whether OPaL has made out a case for awarding damages on the basis of NPV claim as pleaded in its Statement of Claim based on the EIL calculations. In other words, OPaL had to establish the claim by justifying the capital costs, the fixed operating costs, the variable operation costs and the sales revenue adopted/assumed by EIL to arrive at the net cash flow which was subjected to an annual discounting of 10% for 20 years, to arrive at the NPV. This was made clear in paragraphs 116 to 124 of the Liability Award dated 28.12.2018 and the said finding is binding upon the parties during the quantum hearing. OPaL has adopted a different method of calculating loss of NPV which involved (a) changing the plant life period for purpose of calculations of loss of NPV as 25 years from commencement of operation (March 2017 to March 2042) instead of 20 years from the date of NOA (28.4.2011 to 28.4.2031); and (b) changing the calculation of NPV adopting a calculation of NPV by applying a different discounting factor to the difference between the total of capital costs and operating costs of DAELIM bid and the actual costs and operating costs of Samsung (instead of the method adopted by EIL by applying a discounting factor of 10% to the annual net cash flow (which is arrived at by deducting the capital costs and operating costs from the sales revenue). The goalpost cannot obviously be shifted after the play has commenced.

58. The fact that the sales revenue was not taken into account in the revised claim made in the quantum hearing (that is, NPV is now calculated on the difference between OPEX figures taken from DAELIM's bid and the OPEX figures drawn on the actuals in respect of Samsung's bid) is admitted by Mr. Andrew Flower in the Joint Statement of Quantum Experts dated 21.8.2020 on matters agreed by the two experts - Mr. Andrew Flower (OPaL's Expert) and Mr. Chaitanya Arora (DAELIM's Expert). The relevant portion of the joint report is extracted below[32]:

Issue		Comments
A2	Incremental cost claim	The Quantum Experts agree that the Incremental Costs claim, as calculated by Mr. Flower, relates to potential differences in OPaL's capital and production costs between Samsung's plant (Actual Scenario) and Daelim's proposed plant (Bult-For Scenario), on an NPV basis. The Quantum Experts agree that the Incremental Costs claim, as calculated by Mr. Flower, does not account for potential differences in OPaL/s revenues between the Actual Scenario and the Built-For Scenario. Mr. Arora considers that revenues and costs should be considered in combination.

59. It thus becomes clear from the above that OPaL has not chosen to prove what it has pleaded in the SoC; and what it has chosen to prove is not pleaded and is contrary to the pleadings in the SoC dated 2.1.2016. The contention of OPaL that it has merely updated its claim made in the original SoC with reference to what transpired between the filing of the SoC and the trial during

[32] D/194 at 196

quantum hearing cannot be accepted. Therefore, the claim of OPaL for compensation for loss of NPV as pleaded in the SoC-Q is liable to be rejected.

60. The next question for consideration is whether the Tribunal should, on the basis of material on record, find out whether any part of the NPV claim as pleaded by OPaL in the quantum hearing, is made out? DAELIM does not dispute the fact that subsequent events can be taken note of to mitigate/reduce the claim for damages calculated with reference to the date of breach and consequently, DAELIM does not dispute that the Tribunal can take into account the up-to-date evidence while assessing compensation. This involves consideration of the questions (a) whether OPaL has made out the case as put forth in the SoC-Q (quantum hearing)? and (b) If the claim as pleaded in the SoC-Q is made out, then whether it can be re-worked on the basis of what was pleaded in the original SoC, for making any award towards the NPV claim?

(a) Whether OPaL has made out the NPV claim as put forth in the SoC-Q?

61. As noticed earlier, Mr.Flower, OPaL's quantum expert, gave his first expert report dated 10.1.2020 and the said report is the basis for the NPV claim of OPaL in its SoC-Q dated 10.1.2020. DAELIM filed the reports of its quantum expert, Mr. Chaitanya Arora, dated 10.1.2020 and 22.6.2020. To narrow down the controversies, the two quantum experts (Mr. Flower and Mr. Arora) filed a 'Joint Statement of Quantum Experts on Matters Agreed' dated 21.8.2020[33]. In

[33] D/194-199

regard to the areas of disagreement (that is, in regard to matters on which there was no agreement between the quantum experts), Mr Flower filed his Second Expert Report dated 23.9.2020[34]. When DAELIM brought out certain inconsistencies/mistakes in the first and second reports of Mr. Flower during the hearing, Mr. Flower filed a third report dated 12.1.2021 purporting to rectify the errors in the earlier reports.

62. At the outset, what requires to be noticed is the fact that OPaL has changed the quantum of the Incremental Cost Claim made in its SoC thrice during the quantum hearing. *First*, it changed the original claim of INR 409.28 crores made in the SoC dated 2.1.2016 to INR 491.05 crores in its SoC-Q dated 10.1.2020 based on Mr. Flower's first report dated 10.1.2020[35]. *Second,* during the quantum hearing, OPaL raised the Incremental Cost Claim from INR 491.05 crores to INR 531.66 crores based on Mr. Flower's Second Expert Report dated 23.9.2020[36]. *Third*, on certain errors being pointed out in the calculation of the loss/damages, OPaL reduced the Incremental Cost Claim from INR 531.66 crores to INR 318.7 crores as per Mr. Flower's Third Expert Report dated 12.1.2021.

63. For ready reference, the Incremental Cost Claim tables given by Mr. Flower in his first, second and third reports are extracted below:

Incremental Cost Claim calculated by Mr. Flower in his first report dated 10.1.2020[37]:

[34] D/200-268
[35] D/1-64 at 18
[36] D/200-268 at 259
[37] D/1 at 18

Table 2.1 OPaL's losses related to Incremental Cost (INR, million)

	FY 2012 to FY 2020	**FY 2021 to FY 2042**	**Total**
Incremental Costs	1,130.5	9.428.3	10,558.8
Capitalisation of the past Incremental Costs	(272.5)	-	(272.5)
Discounting of future Incremental Costs	-	(5,375.8)	(5,375.8)
Total	**858.0**	**4,052.5**	**4,910.5**

Incremental Cost Claim calculated by Mr. Flower in his second report dated 23.9.2020[38]*:*

Table 6.6 OPaL's Incremental Cost Claim (INR, million)

	FY 2012 to FY 2020	**FY 2021 to FY 2042**	**Total**
Incremental Costs	1,216.8	10,005.9	11,222.7
Capitalisation of the past Incremental Costs	(269.1)	-	(269.1)
Discounting of future Incremental Costs	-	(5,637.0)	(5,637.0)
Total	**947.7**	**4,368.9**	**5,316.6**

Incremental Cost Claim calculated by Mr. Flower in his third report dated 12.1.2021*:*

Table 2.1 Revised assessment of OPaL's Incremental Costs (INR, million)

	FY 2012 to FY 2020	**FY 2021 to FY 2042**	**Total**
Incremental Costs	870	5,971	6,841
Capitalisation of the past Incremental Costs	(290)	-	(290)
Discounting of future Incremental Costs	-	(3,364)	(3,364)
Total	**579**	**2,607**	**3,187**

64. The reasons given by Mr. Flower in his first report dated 10.1.2020, for deviating from the bid evaluation NPV calculations of EIL on the basis of which the claim was originally made in the SoC dated 2.1.2016, for calculating the loss/damages (vide paras 2.5.1 to 2.5.13 of his first report dated 10.1.2020) have already been extracted above.

65. The reasons given by Mr. Flower in his second report dated 23.9.2020 for reviewing and revising the incremental cost as from INR 10,558.8 million to INR 11,222.70 million and consequently increasing OPaL's loss from

[38] D/200 at 259

INR 4,910.5 million to INR 5,316.6 million, after capitalisation of past incremental costs and discounting future incremental costs, are as under:

> "6.5.1. I set out below my revised assessment of OPaL's Incremental Costs Claim, which reflects the various adjustments I discussed in this section, and which include:
>
> - Adjustment to actual production costs in FY 2018;
> - Adjustment to the input cost of comonomer: I now rely on an input cost of USD 1,190 per MT;
> - Adjustment to the input cost of catalysts and co-catalysts: in the But-for Scenario, I now rely on the costs set out in the Daelim Bid, absent any alternative credible source; and
> - Adjustment to the input costs of additives: in the But-For Scenario, I also now rely on the costs set out in the Daelim Bid, absent any alternative credible source.
>
> 6.5.2. In addition, I adjust OPaL's production of HDPE (in both Scenarios) in FY 2029, as explained at paragraph 4.3.3. I also account for OPaL's revised WACC of 8.9% (instead of 8.7%), as explained at paragraph 3.3.39, and correct a mistake identified by Mr. Arora in this discounting of the cash flows (and which increases my assessment)."

66. The reasons given by Mr. Flower in his third report dated 12.1.2021 for reviewing and revising the incremental cost as from INR 11,222.70 million to INR 6,841 million and consequently reducing OPaL's incremental costs claim from INR 5,316.6 million to INR 3,187 million, after capitalisation of past incremental costs and discounting future incremental costs, are as under:

> "2.1.1. As the Tribunal is now aware, the HDPE Plant's accounting records as provided to me for the purposes of my work in this arbitration, contained an error as to the costs of one additive: Zinc Stearate. As became apparent on 11 January 2021, Zinc Stearate was initially recorded as having a cost of INR 10,000 per kg in OPaL's accounting records as opposed to a more realistic cost of INR 107 per kg. I was unaware of this error prior to 11 January 2021.
>
> 2.1.2. The explanation of how this error occurred (and how it has since been corrected) is set out in the witness statement of Mr Rajendra Parakh dated 12 January 2020[39]. He also explains why the correction was not communicated to the OPaL legal team or to me.

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[39] Mr. Rajendra Prakash, CW6, has filed an additional affidavit dated 13.1.2021admitting the mistake in regard to the cost of Zinc Stearate and has given the following reason for the mistake :

> "OPaL had received Zinc Stearate as free issue material from the consortium of Tecnimont SpA, Italy, and Tecnimont Pvt Ltd India (contractor) under a lump sum turnkey contract with them for setting up OPaL's LLDE Swing Plant at Dahej.

2.1.3. In any event, I have corrected my assessment of the ICC claim for this error, and now use a cost for Zinc Stearate of INR 107 per kg.

3.2.1. Zinc Stearate is used in the production of two grade types: PE-80 and PE-100. I correct cost of Zinc Stearate from INR 10,000 to INR 107 per kg and update the total production costs of these two grade groups in FY 2018, FY 2019 and H1 2020. This results in the reduction of HDPE Plant's actual costs.

3.2.2. I calculate the correction of the error in the Actual Scenario reduces OPaL's ICC to be INR 2.30 billion.

3.3.6. The correction of the error in the cost of Zinc Stearate therefore results in the reduction of the cost of additives in the But-For Scenario which, together with my adjustment of Mr. Arora's figure (with respect to FY 2018 and FY 2019), results in the reduction of the ICC to INR 3.19 billion (INR 318.7 crores)."

67. DAELIM contends that even assuming that OPaL is entitled to change the basis of the claim from EIL calculations relied upon in the SoC to Mr. Flower's calculations relied upon in SoC-Q, the several errors in Mr Flower's calculations would render them wholly unreliable necessitating rejection. DAELIM relied upon its expert's (Mr. Arora's) sixth report dated 14.1.2021 (to be read with his earlier reports) to contend that the Incremental Cost Claim of INR 5,317 million of OPaL (vide Mr. Flower's second report dated 23.9.2020) contains several errors. Mr. Arora has listed the 'adjustments' required to be made in the ICC amount of INR 5,317 million to correct the errors in the calculations of Mr. Flower, which are extracted below:

INR in Millions

Sl. No.	Description of the adjustment (reason for the reduction)	Reduction in ICC Amt	ICC Amt after such reduction
	Assessment of ICC by Mr. Flower in his second report		**5,317**
1	Correction for Zinc Stearate error (input cost being taken as INR 10,000 per Kg instead of INR 107 per Kg)	(3,016)	2,311
2	Correction for loss period: Loss period being treated as FY 2012 to FY 2032 (20 years from the date of Samsung MoA)	(489)	1,811

OPaL had recorded this free issue Zinc Stearate as its opening raw material in SAP. At this juncture the actual was mistakenly recorded at Rs.10,000 per kg even though the standard cost was recorded as Rs.107 per kg."

	instead of FY 2017 to FY 2042 (25 years from the date of commencement of the plant life as contended by OPaL)		
3	Correction on account of date of assessment being taken as 11.2.2011 and excluding the effect of interest using Mr. Andrew Flower's incremental cash flow (adjusted for specific assumptions)	(1,046)	765
4	Correction on account of Elutriator Change Order as 3 additional Elutriators were required for hypothetical DAELIM plant	(49)	716
5	Correction by reason of neither technology having a cost advantage in the production of **non-bid grades**	(79)	637
6	Correction on account of **Dry blend cost** - Unit production cost for the hypothetical DAELIM plant would have been US cents 0.5 per lb of HDPE, higher than implied by the bid for grades produced using the dry blend approach (grade H524 in the PE-100 category)	(108)	529
7	Correction in capacity utilisation - 80% from FY 2026 to FY 2042	(26)	503
8	Correction due to Tax - OPaL would incur a tax rate of 30% on incremental cash flows which was also reflected in the estimate of OPaL's WACC	(148)	355
1-8	ICC Amount with reference to ICC claim of INR 5,317 million		355

68. The Tribunal will now consider the correctness/justification for the some of the components of the OPaL's Incremental Cost Claim of INR 5,317 million.

Re. Error in the rate of Zinc Stearate:

69. In his calculations to arrive at the loss of NPV claim as INR 5,317 million, Mr Flower has assumed a rate of INR 10,000 per Kg in respect of one of the additives (Zinc Stearate). In his third report dated 12.1.2021, Mr. Flower has admitted that the HDPE Plant accounting records as provided to him for the purpose of his assessment contained an error as to the cost of an additive - Zinc Stearate; that for the purpose of the Incremental Cost Claim calculations, the cost of Zinc Stearate was taken as INR 10,000 per kg as opposed to the actual cost of INR 107 per kg; that he became aware of the said error only on 11.1.2021; and

that on recalculation of the Incremental Cost Claim after reducing the cost of the Zinc Stearate (one of the additives) from INR 10,000 per kg to INR 107 per kg and by applying a 25% 'decrease' to the cost of additives in the *But-For Scenario* for FY 2020-2042, the reduction would be to an extent of INR 2,301 million. Mr. Andrew Flower therefore corrected the OPaL's Incremental Cost Claim as a result of which, its claim of INR 5,971 million stood reduced to INR 3,187 million[40].

70. DAELIM disputes that Rs 5,317 Million claimed by OPaL as ICC would be reduced only by INR 2.3 billion on the correction of the error in the rate of Zinc Stearate. DAELIM contends that the reduction should be INR 3.016 billion. Mr. Arora, DAELIM's expert, while not seriously disputing the reduction by reason of the price of Zinc Stearate being reduced from INR 10,000 per kg to INR 107 per kg in the actual scenario, does not agree with the logic of Mr. Flower reducing 25% of the cost of additives in the *But-For Scenario* for FY 2020-2042. Mr. Arora states that it is not appropriate to update the cost of additives for the hypothetical DAELIM plant in the *But-For Scenario* for the following reasons:

> "First, updating Table 4-1 of my Third Report for the error in the Zinc Stearate input cost (per kg of input) shows that the change in Samsung's additive input costs (per kg of input) from the bid toH1 FY 2020 was significantly lower than I previously calculated (112% vs negative 10%). This indicates that the 112% increase in Samsung's additive input cost I previously observed as primarily driven by the error in the Zinc Stearate input cost. Given my understanding that additive prices are only broadly (rather than perfectly) correlated, and that Daelim and Samsung

[40] The conclusion of Mr. Flower in para 3.3.6 of his third report dated 12.1.2021: "*The correction of the error in the cost of Zinc Stearate therefore results in the reduction of the cost of additives in the But-For Scenario which together with my adjustment of Mr. Arora's figures (with respect to FY 2018 and 2019) results in the reduction of the ICC to INR 3.19 billion.*"

only share some (but not all) common additives, a negative 10% difference in this context does not appear to justify an adjustment.

Second, for the two common additives that appear to be used by the Samsung plant and the hypothetical Daelim plant for which OPaL provided a cost assumption for bid evaluation and has reported costs of the actual Samsung plant (phenolic antioxidant compound code AO-3 and organophosphorus compound code P-1), the prices appear to have increased over the period, rather than declined.

Third, as explained above, I have not seen any evidence suggesting the hypothetical Daelim plant would exhibit a similar improvement in additive consumption rates. Therefore, any adjustment that reflects this improvement in additive consumption rates would be unsupported."

71. Mr. Flower, OPaL's expert, in his third report dated 12.1.2021, agrees with Mr. Arora that the reduction due to error in the price of Zinc Stearate would be around INR 3.016 billion. The reason given by him for restricting the reduction to INR 2.3 billion (instead of INR 3.016 billion) is as under:

"3.3.8. Were I to have adjusted only for the actual scenario for the error related to Zinc Stearate, I would have arrived at the same amount as Mr. Arora of INR 2.3 billion (that is, INR 5.3166 billion *less* INR 3,016 billion).

3.3.7. He (Mr. Arora) has taken the view that only the Zinc Stearate error should be corrected (i.e. that only the costs in the actual scenario were affected). In other words, he suggests that I should not adopt my methodology to match his; that I should maintain my approach to estimating the Daelim additive costs by reference to bid only."

72. When DAELIM brought out the glaring error in the cost of Zinc Stearate assumed by Mr. Andrew Flower in calculating the *actual scenario* position, OPaL admitted the error and agreed to rework the Incremental Cost Claim by reducing the extra cost assumed in respect of Zinc Stearate. It is not disputed by Mr. Flower that if only the said cost adjustment relating to Zinc Stearate is made, the Incremental Cost Claim would stand reduced from INR 5.316 billion to INR 2.3 billion. While purporting to correct the said error relating to the cost of Zinc Stearate, it was illogical for Mr. Flower to reduce the cost of additives by 25% in the *But-For Scenario*.

73. The Tribunal therefore holds that the reduction due to the error in the price of Zinc Stearate should be INR 3.016 billion.

Re. Calculation of 'loss' period:

74. The question is whether the NPV calculation should be based on a plant life of 25 years from the commencement of the plant's actual operational life (March 2017), or 20 years from the date of Notice of Award to DAELIM (6 January 2011)?

75. There is a dispute as to the length of life of the Plant and the date of commencement of the Plant life. OPaL contends that the life of the Plant should be 25 years from the date on which commercial operations commenced. As commercial operations commenced in March 2017, OPaL contends that the period to be taken into account for assessment of damages would be 25 years (March 2017 to March 2042). In support of the said contention, OPaL relies upon the Basic Engineering Design Basis - Part B, forming part of the Bid Documents, the owner had desired the plant life to be 25 years[41] as seen from the following provisions:

> "5.3 **Plant Life**
>
> 5.3.1 Licensor and Engineering Contractor shall take a default plant operating life as 15 years with nil salvage value for economic calculations. If Owner prefers otherwise, fill below:
> **Owner desires to have plant life of 25 years. Components requiring replacement (such as furnace, radiant coil, etc.) within 25 years of life need to be specifically identified.**
>
> 5.3.2. Licensor and Engineering Contractor shall take default plant equipment design life as follows:…
>
> ….If Owner prefers otherwise, fill below:

[41] Clauses 5.3.1 and 5.3.2 of Basic Engineering Design Basis Part B – R56 – B3/791 at 830

(a) **All components should be designed for 25 years plant life. Refer point No. 5.3.1**."

76. On the other hand, DAELIM contends that the Plant life should be taken as 20 years commencing from the date of NoA (6 January 2011) occurred and therefore the assessment period would be 20 years from 6 January 2011. It relies upon the NPV method of calculation prescribed in the Bid Evaluation Criteria ("BEC"). Section C, Clause C1, Para 3 of BEC provides[42]:

> "NPV shall be calculated for each techno-commercially acceptable bid considering the above three factors[43] taking into account **plant life of 20 years from date of NOA** and a discount factor of 10%. The bidder obtaining the highest aggregated evaluated NPV for the plant shall be considered for the award of the work."

OPaL contends that Clause 5.3 of Basic Engineering Design Basis would prevail over the provisions of Section C, Clause C1, Para 3 of BEC which is intended to be used only for the limited purpose of Bid Evaluation. OPaL also relies upon the statement of Mr. Kim (RW3) that DAELIM was aware that plant life was 25 years[44] and the statement by Dr. Kaus (DAELIM's technical expert) that plant life refers to the time that the plant is expected to be in operation and that would typically be 20 to 25 years[45]. Reference was also made to the evidence of Mr. Karthik Balasubramaniam (CW7) that such plants, normally run for more than 40 years, that Mitsui plant in Turkey is running more than 32 years and Mitsui's own plant is running for more than 40 years[46].

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[42] Appendix A9 to Instructions to Bidders – Section C, Clause C-1 para 3 – Ex. R56 – B1/95

[43] The three factors are: (i) Economic value derived from bidders' quoted conversion efficiencies; (ii) CAPEX (bidders' lump sum quoted price); and (iii) OPEX (operational cost for electrical power, catalysts, steam, nitrogen, cooling water and maintenance).

[44] T3/112/4-5

[45] T4/108/7-9

[46] T1/167/14-23

77. Clause D3 of Bid Evaluation Criteria (BEC)[47] in Appendix A9 to the Instructions to the Tenderers provides:

> "In case of any contradiction between BEC and a section appearing elsewhere in the Bidding Documents, provisions of BEC shall supersede all such sections."

In view of the said categorical provision, Clause C1 of BEC will prevail over Clauses 5.3.1 and 5.3.2 of Basic Engineering Design Basis Part B.

78. EIL report dated 10.8.2017[48] regarding techno-economic valuation of bids, shows that NPV in respect of the bids of DAELIM and Samsung for HDPE Plant, was calculated by taking the plant life as 20 years from the date of NOA:

> "Cash flow for **life cycle of 20 years i.e., Construction time + plant life** was calculated based on Expense towards CAPEX, OPEX and Sales Revenue generated from the product. Cash flow arrived by adding the revenue minus the CAPEX and minus OPEX and calculated on year wise up to life cycle of 20 years".

The NPV calculations by EIL regarding the bid of DAELIM and the bid of Samsung, to arrive at the NPV of DAELIM bid as 1000.08 Crores and the NPV of Samsung bid as 590.80 Crores, also clearly show that NPV is calculated for a plant life of 20 years (including the construction period of 28 months), the capital cost being shown in the first three years and the operating cost being shown in the fourth to twentieth year[49]. Mr. Virat Mishra (CW1), OPaL's witness who was examined in the liability tranche clearly admitted this position[50]:

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[47] Ex. R56 – B1/97
[48] Ex. C42 – B19/8172 at 8176
[49] EIL Calculation Sheet relating to DAELIM is annexed to EIL's Email dated 5.1.2021 and letter dated 16.03.2021 - B17/7712 and B17/7736. EIL calculation sheet relating to Samsung is annexed to EIL's letter dated 16.03.2011 - B17/7725.
[50] Transcript (liability hearing) – 20.12.2017 – p44 Lines 17 to 20

> "(Mr. Yim) - I am putting to you that at the highest to all tenderers the plant life was, at the highest, was to calculate the NPV for 20 years.
>
> (A): NPV - for NPV we were considering 20 years. Agreed."

79. The pleadings and evidence in the liability sharing was on the premises that the claim for damages on NPV basis was calculated by taking the plant life as 20 years from date of NOA. In fact, EIL did the techno-economic evaluation by taking the plant life of 20 years and found that DAELIM's bid was more advantageous than the Samsung bid. Having proceeded on that basis, OPaL cannot at the stage of quantum hearing, for the purpose of calculating the loss, change the plant life to 25 years, that too commencing from the date of commencement of commercial operations instead of the NOA date. It is well settled that moving of goal posts is not permissible once the game has begun.

80. Therefore, there is considerable logic in the contention of DAELIM that OPaL desired that the design should be for a plant life of 25 years, the intention was to have a plant with a life of 20 years (made up of 28 months as construction period and the balance being the operation period), the remaining 5 years being merely a buffer.

81. In view of the above, the Tribunal holds that for the purpose of calculating the extra cost/assessment of damages, the plant life shall be taken as 20 years from the date of NOA (plant life including the construction period).

Date of assessment of damages:

82. OPaL contends that Indian law allows assessment of damages on the date of breach/termination or on the date of hearing/judgment by taking note of subsequent events. It contended that the loss as at the date of breach/termination (2011) was calculated in the EIL Report as INR 409.28 crores; that the Incremental Costs Claim made by it is on the basis of damages assessed as on 30 November 2019 with the benefit of information up to that date; and that events subsequent 2011, when taken note of while calculating the damages as at the time of hearing/judgment (taken by OPaL as November 2019), actually reduced the Incremental Cost claim from INR 409.28 cores to INR 307 crores[51]. OPaL also submitted that the reason for shifting the date of assessment of damages from 2011 to November 2019 was that it would not be fair or just, when assessing damages in the year 2021, to ignore the developments between 2011 and 2021. For example, knowing well that the plant did not commence commercial operations until 2017, OPaL could not ask the Tribunal to award damages as on 2011 which proceeded on the basis that the production at the HDPE Plant would be from the year 2013.

83. Illustrations (a) and (c) to Section 73 of Indian Contract Act 1872 make it clear that damages become due and have to be assessed with reference to the date of breach. Section 73 reiterates the common law principle that the

[51] OPaL's Closing submissions dated 19 February 2021, page 31 paras 87 and 88

measure of damages is the difference between the 'contract price' and the 'market price on the date of the breach'.

84. The general rule that damages should be assessed as on the date of breach/commission of wrong is not an inflexible rule, but is a rule that has to be relaxed appropriately depending on the nature of the breach and the manner of remedying the breach as will be seen from the following illustrations:

(a) *The simplest example is breach of a contract for sale of goods (or shares, etc.), where there is a readily available market for the goods, either for the buyer to buy if seller commits breach or for the seller to sell if the buyer commits breach, and where the market price on the date of breach is ascertainable. In case of such breaches where it is easy to assess the loss by ascertaining the difference between the market rate as on the date of the breach and the contract rate, the general rule that damages should be ascertained on or around the date of breach will have to be strictly applied.*

(b) *The next example is about a construction contract which is a more complex contract - a contract for construction of a factory (awarded to a contractor through an elaborate tender process) which requires to be performed during several years, where the contractor abandons the work (either at the beginning or midway or at the end stages) resulting in termination of the contract by the employer. In such a case, there is no 'ready' market where, on the date of abandonment or consequential termination (or immediately on the next day), the employer can award the balance work to another contractor and ascertain the extra cost. Necessarily, the employer will have to measure the work done and the work remaining to be done, call for tenders for completion of the remaining work, process the bids*

received, hold meeting with bidders and award the work to an alternative contractor. In such a case, ascertainment of the 'market rate' as on the date of breach would mean ascertainment of the market rate by a tender process which may normally take between 4 to 6 months. Thus, even though the damages are assessed with reference to the date of breach/termination, the actual assessment would take around five months for measuring the work done, for ascertaining the remaining work to be done, and for entrusting the balance work to an alternative contractor through a tender process enabling the extra cost to be ascertained/assessed. Therefore, where a construction contract awarded to a contractor is terminated for breach and where the only way of ascertaining the extra cost is by re-tendering the work, the reasonable time required for preparing the fresh tender documents, inviting tenders, processing the tenders received and selecting the alternative contractor would be acceptable for ascertaining the 'market rate' or 'extra cost'. [For example, if the contract is terminated for breach on 1.4.2020, and the employer calls for fresh tenders on 1.6.2020 (as preparation of fresh tender documents would require two months) and awards the work to an alternative contractor on 1.9.2020 (as processing and evaluating the tenders would take around 3 months), the actual ascertainment of extra cost would not happen on the very date of breach (1.4.2020) but on 1.9.2020 (date of award of work to alternative contractor)]. In such a case, even though the ascertainment of the loss is on a date which is five months after the date of breach, it would be treated as assessment of damages as on the date of breach as there is no readily available 'market rate' on the date of breach and it requires 4 to 5 months to ascertain the excess cost to be incurred]

The court or tribunal will therefore assess the damages with reference to the date of breach/termination. But whether such assessment should be on the date of

breach itself or on a subsequent date and whether any subsequent event should be taken note of would depend on the nature of the claim for damages. In a claim for damages by the employer, for breach by a contractor in a construction contract, the court or tribunal should assess damages as on the date of breach and consequential termination, which would take note of the reasonable time required to identify an alternative contractor and award the work to such contractor. The court may also, while awarding damages, take note of any subsequent events that that may reduce the claim/mitigate the loss. The basis of the claim and the quantum of the claim cannot be changed unless the claimant has sought and obtained the leave of the Tribunal to make a fresh or different claim. OPaL has not done so in this case.

85. Where the claim is already decided and the scope, nature and content of the liability are crystalised leaving only the actual quantification of the liability so determined for consideration in the quantum proceedings, it may not be possible or feasible to take note of the events that occurred subsequent to the liability award for deciding the quantum of the compensation. Any such exercise would be barred by the principles of *res judicata*. In this case, OPaL took immediate steps to get the project executed through Samsung. On the request of OPaL, its Project Management Consultant - EIL, calculated the extra cost by adopting the NPV method. The present arbitration was commenced in the year 2012 by OPaL issuing a Notification of Arbitration. If the proceedings had

concluded and the award had been made within the usual time for such arbitrations (that is, a year or two), compensation would have been calculated with reference to the date of breach. Merely because the proceedings prolonged due to the several acts of the parties, the manner of calculating compensation or the date on which the assessment should be made cannot change, nor can the compensation be different. For the above reasons, it is held that in a construction contract as in the present case, the damages will have to calculated/ assessed as on the date of breach/consequential termination as explained in illustration (b) in para 84 above.

86. OPaL submitted that though damages were to be assessed as on the date of breach/termination, Indian law recognises the fact that such assessment could be as on the date of the hearing/judgment if subsequent events that took place between the date of breach/termination/the date of hearing/judgment had an impact on the damages. Reliance is placed upon the judgment of the Supreme Court of India in *Fortune Infrastructure Vs. Trevor D'lima & Ors*[52] wherein the Supreme Court, after reiterating that the general principle for assessment of damages is 'compensatory', that is, that the innocent party is to be placed so far as money can do so in the same position as if the contract had been performed, held as follows:

> "**20.** Before we assess the damages, another important issue to be delved upon is the reckoning date for the purpose of assessing the damages. **Whether should it be from the date on which the breach took place or should it be from the date of judgment?**

[52] (2018) 5 SCC 442

> **21.** The learned counsel for the appellants, with some vehemence, argued that the rates of the property have considerably slumped due to downfall in the real estate market. Such submissions are to be tested as per the established principles of law. **As per the settled law, the damages become due on the date when the breach of contract takes place, and are normally assessed by the reference to the time of breach**. The aforesaid rule is based on the principle that the injured party is presumed to be in knowledge of the breach as soon as it is committed and at that time he can take appropriate measures of mitigation to control the loss flowing from the breach. **The courts may deviate from the aforesaid rule and fix appropriate date in the facts and circumstance of a case if the aforesaid presumptions could not be established or it would not be reasonable to follow the rule**. It may be noted that where there is non-delivery of the flat/house, and the developer has refused to provide alternative and equivalent accommodation, and the buyer lacks means to purchase a substitute from the market, then in such circumstances, damages would not be reasonable to be assessed on the breach date.
>
> **22.** We have already noted that the appellants were to perform the contract within a reasonable period of three years from the date of the agreement i.e. by the last quarter of 2014. Aggrieved by the delay in handing over the possession, the respondents (complainants) approached NCDRC for conveyance and in the alternative, prayed for damages. It is now settled that where a party sustains loss by reason of a breach of contract, the damages are to be granted so as to place the suffering party in the same position as if the contract had been performed. In light of the above, the damages other than consequential loss have to be measured at the time of the breach. However, the aforesaid rule is flexible which needs to be assessed in the facts and circumstances of individual case. In this case at hand, the respondents tried to execute the agreement and sought for conveyance of the property through NCDRC. In these circumstances, we may note that, even in the first appeal, offers were being made on behalf of the appellants to convey alternative properties, which were refused as being insufficient. **Therefore, in the facts and circumstances of this case, the damage need not be determined from the date of breach of contract**.
>
> **25.** ……There is no dispute about the fact that damages for the contractual breach are generally compensatory arising out of the breach. Therefore, the damages awarded should not be excessive and a court/tribunal needs to take a balanced approach so as to ensure right compensation." [Emphasis supplied]

The decision in *Fortune Infrastructure* reiterates the general principle that damages become due on the date when the breach of contract takes place, and are normally assessed by the reference to the time of breach. But it found that on the complex and special facts of that case involving deficiency in service by a developer, the said principle could not be applied. In that case, the complainant (before the Consumer Commission) had contracted in the year 2011 to buy a flat from the respondent developer and paid almost the entire sale consideration, that is, Rs.1.87 crores out of Rs.1.93 crores. The contract did not stipulate any delivery period. In the year 2015, the complainant approached the Consumer

Commission complaining deficiency in service, that is, non-completion and delivery of the flat and sought a direction to the respondent developer to complete the construction and deliver possession of the flat. The Commission allowed the complaint and ordered refund of Rs.1.87 crores paid by him and also directed payment of compensation of Rs.3.6546 crores, on the basis of the then prevailing rate of Rs. 65,000 per sq.ft.. In an appeal by the developer, the developer contended before the Supreme Court that due to a slump in the real estate market and the consequential reduction in the property rates at the time of breach, the market price of a similar flat was much less than the contract price and therefore award of compensation in addition to direction to return the amount paid was not justified. The Supreme Court held that as no period was fixed for delivery, the developer ought to have performed the contract within a reasonable period of three years, which meant that he ought to have delivered the flat by the last quarter of 2014. On the peculiar and special facts of the case, namely, non-delivery of the flat by the developer, refusal by the developer to provide alternative accommodation, the agreement not specifying any date for delivery of the flat as a consequence of which there was neither a failure to deliver the flat on an agreed date nor any 'termination' for breach by non-delivery on the agreed date, buyer's lack of means to purchase a substitute house from the market and the fact that it was dealing with a complaint under the Consumer Protection Act complaining of deficiency in service in regard to a contract which did not stipulate a time for performance, the Supreme Court observed that on the facts of the case, the settled

law that damages become due as on the date of breach of contract would not apply. The decision in *Fortune Infrastructure* cannot therefore be read as laying down a principle deviating from the general principle that for assessment of damages, the date of breach would be the relevant date. In this case, the principle applicable for award of compensation would therefore be the principle that loss should be assessed as on the date of the breach.

87. OPaL submits that where claims for continuing or future losses are assessed, the Tribunal should make use of the up-to-date information available. Relying upon the decision of the House of Lords in *The Bwllfa and Merthyr Dare Steam Collieries (*1891*) Ltd Vs. The Pontypridd Water Works Company*[53], decision of Court of Appeals in *Kennedy Vs. Van Emden*[54] and the decision of the Supreme Court of India in *Rajesh D Darbar Vs. Narasingrao Krishnaji Kulkarni*[55]*,* OPaL contended that the tribunal, while considering a claim for damages, should take note of the developments during the pendency of the arbitration and mould the relief which is more efficacious on the basis of the subsequent event/s.

88. In *Bwllfa*, the House of Lords, while considering whether it was right for the arbitrator to take account of the up-to-date evidence while assessing

[53] (1903) A.C. 426
[54] (1997) 74 P&CR 19
[55] (2003) 7 SCC 219

compensation, referred to the contention of the respondent therein and laid down the following dictum (by Lord Macnaghten):

> "It was contended by the respondents that the arbitrator ought to have rejected this evidence altogether, and to have been guided in making this award solely by facts and circumstances known at the date of the notice of October 15, 1898, and such inferences, if any, as to the probable course of future events as experts (if experts there can be no such matters) could properly have drawn at the date of the notice, supposing them to be unbiased and unprejudiced in their forecast by knowledge of what actually did occur. …
>
> If the question goes to arbitration, the arbitrator's duty is to determine the amount of compensation payable. In order to enable him to come to a just and true conclusion **it is his duty, I think, to avail himself of all information at hand at the time of making his award which may be laid before him**. Why should he listen to conjecture on a matter which has become an accomplished fact? Why should he guess when he can calculate? With the light before him, why should be shut his eyes and grope in the dark? The mine owner prevented from working his minerals is to be fully compensated – the Act says so. That means that so far as money can compensate him, he is to be placed in the position in which he would have been if he had been free to go on working." [Emphasis supplied]

But these observations will have to be read with reference to the facts in *Bwllfa* which neither related to breach of contract, nor award of compensation for breach. It was a claim for compensation under a statute - Waterworks Compensation Act 1847, which provided for the undertakers of the waterworks to provide full compensation for the value of land used for the purposes of the said Act. The said Act provided that if a mine owner desires to get the mineral lying under the land/property of the waterworks company, he should give 30 days' notice before commencing the work of mining coal; and if any danger is apprehended to the waterworks, the waterworks company may, by counter-notice, prevent working by the mine owner within a specified area, in which event, the waterworks company should pay compensation to the mine owner for preventing him from extracting coal from the land in question. The appellants who were the owners of coal seams under and near the waterworks gave the waterworks company a

statutory notice in September 1898 that they intended to work the coal. The waterworks company (respondents), by notice dated 15.10.1898, required the mine owners (appellants) to leave unworked a seam of coal lying under 5¼ acres of land *stating that they were willing to make compensation for the coal to be left unworked*. The parties went to arbitration in regard to the compensation. Due to delays for which neither party was to blame, the reference did not begin till June 1900 and the hearing was concluded in February 1901. The price for coal rose in value subsequent to the respondent's notice dated 15.10.1898 directing the appellants to leave the seam of coal unworked. The mine owner claimed that in consequence of the rise in price of coal, the compensation to be paid by the waterworks company should be assessed not on the basis of value of the mines and coal possessed at the date of notice dated 15.10.1898, but on the basis of the knowledge of the value which was subsequent to acquired. In April 1901, the arbitrator gave his award dated 26.4.1901 in the form a special case. He held that the compensation payable would be 2,950L if assessed on the basis of knowledge of the value of the mine and coal as on 15.10.1898 and that the compensation payable would be 5,650 L on the basis of knowledge of value which was subsequently acquired during the pendency of the arbitration. The House of Lords made the observations relied upon by OPaL, while holding that the mine owners were entitled to the larger compensation of 5,650 L on the ground that to arrive at a just compensation, the arbitrator had to avail himself of all information at hand at the time of making the award which included the increase in the price of

coal subsequent to 15.10.1898. The House of Lords made a distinction between assessing 'compensation for loss or damage' and 'compensation for risk purchase'. It held that the case did not involve any 'purchase' of coal or 'transfer of property' in coal; that the enquiry was not 'what was the value of the coal at the date of the counter-notice (15.10.1898)' but '*what would the mine owners have made out of the coal during the time it would have taken them to get the coal if they had not been prohibited from mining the coal'*. It is in that context that the House of Lords accepted the contention of the mine owners that the amount of injury sustained by them was no longer a matter of conjecture but had actually been ascertained as it was shown by the evidence that they would have repeated the full benefit, in process of working, of the increased value of the coal. The House of Lords (Earl of Halsbury) adopted the following reasoning for its decision:

> "…I think in this case that Phillimore J. stated the question of debate with perfect accuracy when he said that "**the true inquiry here is not what is the value of the coalfield or of the coal, but what would be the colliery company, if they had not been prohibited, have made out of the coal during the time it would have taken them to get it**."
>
> **It was not a purchase of the coal, nor is it analogous to a purchase of the coal**. It is what it is, and it appears to me that considering what it is I think the question propounded is solved by the statement of what it is. **If it were a purchase, the rights and liabilities and profits, if there were any, would pass to the purchaser, and it value, with all its possibilities, would pass at the time notice to treat was given**; but if the question is that which I think it was, then the person who had to make the calculation of what was the compensation ought to have arrived at the sum which experience has now shown to be the correct amount.
>
> It is true that he probably would not have been able to arrive at that sum accurately, but he ought to have contemplated such material as he had what would be the true sum. He ought to have considered the possible rise or fall of prices, but, as I have said, he probably would have made a mistake. We now know what would have been true sum, and the proposition badly stated appears to be that, because you could not arrive at the true sum when the notice was given, you should shut your eyes to the true sum now you do know it, because you could not have guessed it then."

The House of Lords (Lord Robertson) clarified:

> "It follows that what is due to the appellants is not the price on a transaction of sale, **but compensation for a continuing embargo on working**. The sum to be paid would thus be whatever sum could best be made out to be the profit that would have been made by the appellants if they had been free to work."

It is thus clear that the decision in *Bwllfa* may not strictly apply to a case of determination of the 'extra cost' for executing/completing a construction work as a consequence of contractor's breach in failing to execute the work and resultant termination of the contract by the employer.

89. The decision of Court of Appeal in *Kennedy* related to a claim for damages against solicitors for professional negligence. OPaL relied upon the following observations of Schiemann LJ in *Kennedy*:

> "The overriding rule governing the awards of damages is that the party who has been injured should be awarded by the court a sum of money which, in so far as money can do this, will, when it is paid, fairly compensate him for the wrong which the defendant has inflicted upon him. That will often involve looking at what happened or might have happened shortly after the defendant's breach of duty, what has happened between breach and trial and what is likely to happen in the future… **The court, when making its award, will look at all factors known to it at the time of judgment**.
>
> In the present cases all the relevant facts were known by the date of trial. By contract, in many cases judgment will be before the wrongful act ceases to have a deleterious effect on the plaintiff. **In those cases, the court has to look into the future and award a figure which includes the value as at the time of judgment of best estimates of future loss or damage**. The putting of a present figure on future loss, which exercise will often involve making judgment as to possible future events rather than waiting to see what happens, is the price that has to be paid for early finality in litigation and certainty for the parties. Even in such cases, no one suggests that the court should add to the uncertainties by putting itself notionally into the position it would have been in had it tried the case the day after the wrongful act started to inflict damage.
>
> The present case is devoid of all such uncertainties. There is no advantage in this court, sitting at a time when all the facts are known, putting itself notionally into the position of ignorance it would have been in, had it been assessing the damages on the day after the wrong was inflicted. This would be to add pointless and avoidable uncertainties. In a personally injury case, no one would dream of submitting that the court should at trial assess damages by putting itself notionally into the position it would have been in had it been hearing the case on the day after the accident…
>
> **In the circumstances of the present cases, the task of the judge *on the date of judgment* was to award to each plaintiff that sum of money which would *on that date* put him as near as**

> **a money award could do so into the position he would have been in on that date had there been no negligence on the part of the solicitor**…"
>
> [Emphasis supplied]

Kennedy was also not a case of breach of a construction contract, but a case involving a claim for damages for professional negligence. In that case, the appellants who were underlessees of flats had taken a transfer of their respective underleases between 1982 and 1987 for a term of 55 years at a premium ranging from £ 29,000 to £ 1,65,000 and an annual rent ranging from £ 320 to £ 350. In 1990, the landlords informed that the rent was to be increased to £ 4,368 to £ 5,681. In view of it, the underlessees sued their respective solicitors for professional negligence in failing to advise that under the provisions of the Rent Act, premiums were unlawful and that they were prohibited from assigning leases for a premium. However, the Housing Act was amended with effect from 15.1.1989 allowing such assignments of leases at a premium. The trial judge therefore rejected the claim for damages on the ground that the underlessees did not suffer any loss having regard to the subsequent amendment to the law permitting assignment of long tenancies. The underlessees appealed. The Court of Appeal held that damages are to be awarded for real, not hypothetical, loss and should therefore be assessed on the basis of loss as at the time of the judgment. It approved the following reasoning of the decision rendered by a judge in Chancery Division:

> "First, to award damages in such circumstances appears to be to fly in the face of Lord Blackburn's dictum[56], which I need not repeat. Secondly, a plaintiff is always limited to the reasonable cost of mitigating a loss. If the loss can be avoided altogether, the damages are no more than the cost of achieving that. There is no reason why a different result should follow when the loss has been avoided altogether by outside intervention without any action by the plaintiff and before she is even award of it. Thirdly, as a matter of general principle, the court cannot ignore facts which are known at the date of the trial, certainly where those facts render certain that which previously had been a matter of conjecture… For all these reasons, in my judgment, on the facts of this case, the damages for failure to advise on the Rent Act prohibitions on premiums are nil."

90. In *Rajesh Darbar*, the Indian Supreme Court observed that where a new form of relief will be more efficacious on account of developments subsequent to the suit, it is but fair that the relief is moulded, varied and re-shaped in the light of the updated facts. The matter related to an election dispute under the Bombay Trust Act where the appellants contended that the thirty-eight persons whose names are included in the electoral roll were not eligible to participate in the process of election. In that context, the Supreme Court observed that the courts can take notice of the subsequent events and can mould the relief accordingly, subject to the rider that it can be done only in exceptional circumstances.

91. Thus none of the cases relied upon by OPaL relates to breach of a construction contract. DAELIM placed reliance upon the following observations of the House of Lords in *Golden Strait Corporation Vs. Nippon Yusen Kubishika Kaisha*[57] made while referring to the 'breach date rule' (that is, ascertaining the

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[56] The measure of damages is "t*hat sum of money which will put the party who has been injured, or who has suffered, in the same position as he would have been in if he had not sustained the wrong for which he is now getting his compensation or reparation*."

[57] (2007) 2 AC 353 – paras 79 & 80, 83

damages with reference to the date of breach) in a dispute between shipowner and the charterer of the ship:

> "…it (*that is, 'breach date rule'*) applies whenever there is an available market for whatever has been lost and its explanation is that the injured party should ordinarily go out into that market to make a substitute contract to mitigate (and generally thereby crystalise) his loss… The rule is easy to apply where, for example, goods or shares are traded: if it is the seller who is injured by the non-acceptance, he must, as soon as possible, re-sell the goods or shares at the available market price; …**But undoubtedly, the rule can be applied in more complex situations, for example, to building or repairing contracts… Where goods or shares are sold, the breach date rule is at its strictest. In other cases, however, time may well be needed before the injured party can reasonably be required to re-enter the market…**
>
> In my opinion, the owner's argument here seeks to extend the effect of the available market rule well beyond its proper scope and to do so moreover at the plain expense of Lord Blackburn's fundamental principle: To restore the injured party to the same position he would have been in but for the breach, not substantially to improve upon it. It is one thing to say that the injured party, mitigating his loss as the breach date rule requires him to do, thereby takes any future market movement out of the equation and to that extent crystalises the measure of his loss; it is quite another to say, as the owners do here, that it requires the arbitrator or court when finally determining the damages to ignore subsequent events (save where the defendants can demonstrate that at the date of breach some suspensive condition should inevitably – and immediately, have operated to cancel the contract)." [Emphasis supplied]

92. In view of the above, the Tribunal finds merit in the contention of DAELIM that there should be a hybrid approach - that is, assessing damages as at the date of breach [the words 'at the date of breach' being understood as explained in para 84(b) above], but by taking into account any subsequent event/s that will reduce the loss and consequently, the damages to be awarded.

Unsoundness of the calculations of damages by OPaL:

93. Mr. Flower found that the bids of DAELIM and Samsung differed in regard to the nature of inputs required in the production process as well as the quantity of inputs required. The inputs which were to be used in both technologies

and those which were specific to CP Chem (DAELIM bid) and Mitsui (Samsung bid)[58] as noted by Mr. Flower are extracted below:

Inputs		CP Chem technology	Mitsui technology
Items common to both technologies: Ethylene	Tonnes	341,025	347,506
Hydrogen	Tonnes	37	387
Power	KW	134,878,167	171,816,650
Steam (HP+MP+LP)	Tonnes	66,695	254,922
Nitrogen	NM3	22,811,174	17,716,511
Cooling Water	m3	70,291,911	107,275,045
Item specific to CP Chem technology Hexene-1	Tonnes	3,658	-
Isobutane	Tonnes	1,360	
Any other Chemical (Chemical-1)	Tonnes	1	-
Fuel Fired	MM kcal	19,688	-
Catalyst A	Tonnes	17	-
Catalyst B	Tonnes	48	-
Catalyst D	Tonnes	88	-
Catalyst I	Tonnes	19	-
Co-Catalyst A	Tonnes	15	-
Co-Catalyst B	Tonnes	72	-
Items specific to Mitsui technology Butene-1	Tonnes	-	5,455
Solvents (make-up) / Hexane	Tonnes	-	6,646
Any other Chemical (NaOH (100%)	Tonnes	-	1,072
DM Water	m3	-	138.430
Catalyst-PZ/PZ	Tonnes	-	23
Catalyst-TE	Tonnes	-	4
Co-Catalyst – Triethyl Alum.	Tonnes	-	63

94. The Tribunal finds, on a comparison of the inputs required in using CP Chem technology (DAELIM's bid) and Mitsui technology (Samsung's bid), that the assessment of damages by comparing the NPV of DAELIM's bid and Samsung's bid would be unsound and unreliable, as the two technologies use

[58] D/1 at 23-24 – culled out from *Appendice AF-2.9* to the First Report (summary of consumption per unit of output – the DEALIM and Samsung bids.

different additives and catalysts with differing quantities and different value. The following illustrations may explain the position.

Illustration 1*:An employer wants to set up a plant with a plant life of 20 years to manufacture/produce one lakh tons of 'Product P' of a prescribed specifications per year, assuring an output of ten tons of 'Product A' from 50 tons of raw materials to be provided by the employer. Several bids are received in response to a notice inviting tenders guaranteeing the above performance requirements. To find out the most advantageous and beneficial bid, the employer has to compare the bids received. For such comparison, there may not be any need for either the price of the 'Product P' or the price of the raw materials supplied, as both are constants. The comparison will therefore be only of Capex plus Opex quoted by the rival bidders. Capex refers to the cost of construction of the unit. Opex refers to the cost/expenses relating to operation of the plant (that is, cost of electricity, water, steam and gases) for producing the specified quantity of Product P from a specified quantity of raw material. As a consequence, though different bidders may bid for the said project using different technologies to achieve the contracted result, in view of the input and output parameters being constant (that is, the product being of prescribed specifications, the raw materials required and the quantity of Produce P produced being the same, the production being of a specified quantity per day/per year and the plant life having been specified), for the purpose of evaluating the bids or the benefits to the employer), there is no need to consider the input costs or the revenue from the outputs nor the 'profit' (that is, revenue by sale of output less cost of input). The comparative figures of Capex plus Opex would be the basis to evaluate the bids to choose the most advantageous bid, even though the bids may relate to use of different technologies for putting up and operating the plant. Even if some of the technologies offered may be of a higher capacity or of a longer life than what is required, that would not be relevant as what is relevant is the fulfilment of the*

three guaranteed requirements, that is, (i) the product being in accordance with the specifications, (ii) the capacity to produce the specified quantity per day/year and (iii) the life of the plant to produce the required quantities for the specified number of years. In such a case, if the contractor fails to complete the project and thereby commits breach and the work is awarded to another contractor using a different technology meeting the three guaranteed requirements, the extra cost incurred by the employer would be the difference in the aggregate of Capex and Opex. The input costs and the output revenue would not be relevant in such a case.

Illustration 2: *An employer wants to set up a plant with a plant life of 20 years to manufacture/produce one lakh tons of 'Product P' of a prescribed specifications per year, with the employer providing the required raw materials. Two bids are received in response to a notice inviting tenders guaranteeing the above performance requirements. One bidder specifies that 60 tons of raw materials (input) would be required to obtain ten tons of the specified product (output). Another bidder specifies 55 tons of raw materials (inputs) would be required to obtain the same quantity of the specified product (output). In that event, it may not be sufficient merely to take the aggregate of the Capex and Opex for ascertaining the comparative merit. It would also be necessary to consider the conversion efficiency (economic value) in addition to the Capex and Opex, as the difference in the quantity of raw material required would alter the input cost of the employer. Even where the economic value of the quoted conversion efficiencies has to be taken note of for deciding which is of higher benefit to the employer, it would still be a case of ascertaining the cost and expense between the two processes and would not involve assessing the 'profit' that would be derived by one or the other process.*

Illustration 3: *An employer wants to set up a plant with a plant life of 20 years to manufacture/produce one lakh tons of 'Product P' of a prescribed*

specifications per year with the employer providing the required raw material. Two bids are received in response to a notice inviting tenders guaranteeing the above performance requirements. However, the processes offered by the two bidders, while assuring the required performance/output, contain several variable factors both in regard to inputs and outputs as under (purely illustrative):

Sl. No.	Description	Offer of first bidder	Offer of second bidder
	Inputs required per Ton of the product:		
1	Raw materials *to be supplied by the employer*	5 Tons	6 Tons
2	*Chemicals (of known chemical compositions) to be supplied by the employer*	A - 50 Kgs. B - 70 Kgs. C - 100 Kgs.	A - 30 Kgs. B - 80 Kgs. D - 60 Kgs.
3	*Additives (known products) to be supplied by the employer*	F - 5 Kgs. G - 8 Kgs.	F - 4 Kgs. H - 6 Kgs.
4	*Catalysts to be supplied by the bidder at the specified price* ***(of undisclosed compositions and whose market value is not known)***	Catalyst - 3 Kgs.	Catalyst – 2 Kgs.
	Output		
5	*The product (Product P for production of which bids are invited)*	1 Ton	1 Ton
6	*Bye-product (which is also a saleable item of lesser value than the main product)*	100 Kgs. of bye-product M	110 Kgs. of bye-product N
7	*Waste bye-product (of nil value) removal of which involves additional maintenance and time*	10 Kgs.	Nil

In this illustration, the Capex and Opex can be ascertained or calculated, but calculation of the economic value of the quoted conversion efficiencies/inputs and outputs becomes very difficult having regard to the several variables with different values. As the above table shows, to calculate the economic value of the quoted conversion efficiencies, the employer will have to assess the cost/expense (that is, cost of inputs - items 1 to 4, and the expense relating to removal of waste output - item 7 in the case of first bidder; and cost of only inputs - items 1 to 4 in the case of the second bidder) and the revenue from the bye-product - item 6. For the purpose of calculating the NPV for selection of the more beneficial bid, it may be possible to take the value of items 2, 3 and 4 as constants and that there is no

difference in regard to output items 6 and 7. But if the NPV method of calculation is to be adopted to find out the 'extra cost' involved in allotting the work to the second bidder in the event of breach by the first bidder, it will not be possible to treat the cost of input items 2, 3 and 4 as constants, nor will it be possible to treat output items 6 and 7 to be equal or constant. As the prices of these items would keep on varying over the course of 20 years, it will be next to impossible to calculate which would be more beneficial to the employer.

95. The above illustrations demonstrate that it may be possible and feasible to calculate the 'extra cost' to the employer on awarding the work to the second bidder by NPV method in projects of the kind described in illustrations 1 and 2 but will not be possible in projects of the kind described in illustration 3. The numerous variables with fluctuating prices make it impractical and inaccurate to calculate the conversion efficiency factor in illustration 3. Comparison becomes very difficult where two different technologies require use of different additives/catalysts of varying quantities to the main raw materials. Difficulty would arise when the products are different - where one technology gives one ton of the 'product' and one ton of 'waste' (such waste being of nil value); and the second technology gives one tone of the 'product' and half a ton of a different 'product' (off-specification) having a value and half a ton of waste which has no value. In such a case, evaluation of the cost and evaluation of revenue becomes necessary and becomes complex. Difficulties would also arise where inputs required are of different quantities and value and the outputs are also of different quantities and value. More difficulties would arise where inputs

have any additives/catalysts which are of different compositions and value. Much more complex would be the position where inputs consist of 'raw materials' plus 'catalysts' (whose composition/ingredients are made secret) *plus* chemicals *plus* additives of different numbers, which would mean that even the smallest variation in the quantity may result in a huge difference in the economic value.

96. What EIL did was to keep the cost of raw materials as 'constant' and the revenue from the product also as 'constant' while comparing the two technologies to arrive at the conversion efficiency.

97. The Project of OPaL for which the bids of DAELIM and Samsung were received fall under the category referred to in illustration 3. The quantities of operational requirements relating to Hydrogen, Power, Steam, Nitrogen and Cooling water, which make up the Opex also vary. The quantities and nature of catalysts and additives vary. The cost of some of the catalysts are not known. In such a situation, it will not be possible to find out with any certainty whether there is any extra cost at all and if so, what would be quantum of such extra cost.

Whether OPaL has established the quantum of loss for award of damages?

98. The Tribunal has found that in cases where the two technologies use different additives/catalysts and/or where the quantities of the additives/catalysts and standard inputs are different, it will not be possible to find the 'extra cost' as the determination would involve assessment of revenue, expenditure and profits

which is barred by the contract, apart from the complexity and the impracticality of comparing the inputs and outputs in projects using different technologies.

99. The Tribunal also finds that OPaL has not chosen to prove what it pleaded in support of its claim for damages of INR 409.28 crores towards compensation for loss of NPV; and that the method adopted by Mr. Flower for calculating the damages as INR 5,317 million by way of compensation of loss on account of NPV suffers from serious and fundamental errors requiring rejection. The Tribunal has considered three major errors out of the eight errors listed by Mr. Arora, DAELIM's expert, in the calculations of by Mr. Flower which are sufficient to hold that Mr. Flower's methodology was both contrary to the contract and proceeded on erroneous assumptions. In this view, it is not necessary to consider the other errors listed by Mr. Arora (in the table in para 67). It is held that OPaL has failed to prove the NPV loss in respect of the claim for INR 409.28 crores subsequently restricted to 20% of contract value.

What is the remedy of OPaL if it has not proved the actual damages?

100. What is the position if a claimant (injured party) establishes breach of contract by the respondent (person committing breach), but fails to prove or is not in a position to prove the consequential loss which would determine the compensation to be awarded? The well settled principle is that where there is an infraction of a legal right, even if such infraction does not give right to real

damages, yet it would give a right to nominal damages. Proof of actual damage is necessary for award of substantial damages.

101. OPaL contended that in a case where breach and loss are proved, if the Tribunal finds that the extent of loss is difficult to prove or incapable of being calculated with certainty or precision, it may still be possible to award substantial damages even though the extent of loss is not proved. It relied upon the decision of the Calcutta High Court in *Gambhirmull Mahaprasad Vs. Indian Bank Ltd.*[59], where the principle was explained thus:

> "The fact that damages are difficult to estimate and cannot be assessed with certainty or precision does not relieve the wrong-doer of the necessity of paying damages for his breach of duty, and is no ground for awarding only nominal damages. A distinction must be drawn, however, between cases where the difficulties are due to uncertainty as to the causation of damage, where questions of remoteness arise, and cases where they are due to the fact that assessment of damages cannot be made with any mathematical accuracy. Lack of relevant evidence may make it impossible to assess damages at all, as where the extent of the loss is dependent upon too many contingencies, and in such cases, where the liability is established, nominal damages only may be awarded. Where it is established, however, that damage has been incurred for which a defendant should be held liable the plaintiff may be accorded the benefit of every reasonable presumption as to the loss suffered. Thus the Court, or a jury doing the best that can be done with insufficient material, may have to form conclusions on matters on which there is no evidence, and to make allowance for contingencies even to the extent of making a pure guess;…."

The aforesaid view was reiterated in *Ashok Kumar Nath Vs. Union of India*[60]. OPaL next relied upon the following observations of the Kerala High Court in *State of Kerala Vs. K Bhaskaran*[61]:

> "**But, it by no means follows that in every such cases, only nominal damages are recoverable. A distinction has to be drawn between a case of lack of total evidence which renders it impossible to quantify damages and cases which present difficulty in assessing damages because of the nature of the damage to be proved, and the difficulty in assessing it is not a ground for refusing substantial damages**. Courts are bound to try to get at that sum of money which put the wronged party in the same position as that in which he would have been, if he had not sustained the wrong which entitles him to claim damages. A judge has got

[59] AIR 1963 Cal 163
[60] 2017 SCC OnLine Cal 15685
[61] 1984 SCC OnLine Ker 198

> to assess damages as best as he could on the materials available. He is not justified in declining to estimate the damage merely because the plaintiff could not adduce the best evidence but has to decide what the proper measure is, having regard to all the attendant circumstances and proved facts in the case. Of course in the matter of granting reasonable compensation when it is proved that one of the parties to the contract has committed breach of contract, a degree of arbitrariness is always likely to be present. To what extent the arbitrariness can travel is the crucial question. The answer is, the assessment must have the character of fairly reasonable certainty."

102. DAELIM contended that even if any damages are to be awarded, only nominal damages are to be awarded as there is no satisfactory proof of actual loss and as the evidence shows that the cost of completing the project through Samsung was less than the cost of the project awarded to DAELIM; and that the evidence renders it impossible to find with any degree of certainty that OPaL had in fact suffered any actual loss/damage or to assess the quantum of such loss or damage. DAELIM further contended that though Indian law recognised award of nominal damages where there is no actual loss or injury or where there has been a violation of legal right but no or insufficient proof of actual damage, the amount awarded should be literally nominal.

103. In this case, the Tribunal has held that OPaL has failed to prove loss. This is not a case where the finding is that loss has been suffered but that it is difficult to prove the amount of loss. The Tribunal has found that while breach is proved, OPaL has failed to prove that it has suffered loss by reason of such breach. In the circumstances, the decisions relied upon by OPaL to contend that substantial damages can be awarded even where the exact amount of loss is not proved, will not apply.

104. Having held that substantive damages cannot be awarded where the aggrieved party has not been able to establish the loss and what could be awarded is only nominal damages, the next question for consideration is what should be the amount of such nominal damages? The English courts have held that nominal damages would mean award of a token sum. The English courts traditionally award a token sum varying between £2 and £5 as nominal damages. Indian courts, on the other hand, have held that what should be the amount to be awarded as nominal damages would depend on the facts of each particular case. In *Pravudayal Agarwala Vs. Ramkumar Agarwala*[62], the Calcutta High Court observed: "*Awarding of nominal damages does not connote that a trifling amount is to be assessed.*" In *Brahmdeo Narain Singh Vs. Members of the Notified Area Committee*[63], the Patna High Court held: *"Even in a case where nominal damages are only to be awarded, the extent of the same should be estimated with reference to the facts and circumstances involved."*

105. In *Vikas Electrical Service Vs. Karnataka Electricity Board*[64], the Karnataka High Court, in the absence of evidence regarding the quantum of loss, awarded nominal damages of Rs.25,000 as against the claim for Rs.50,500, on the following reasoning:

> "In the absence of any concrete material to show the extent of damage suffered by the plaintiff, one will have to resort to maxim 'nominal damages'.

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[62] 1954 SCC OnLine Cal 66 : AIR 1956 Cal 41 – followed in *Brahmdev Narain Singh Vs. Members of Notified Committee* – AIR 1965 Pat 179 – 1964 SCC OnLine Pat 100
[63] 1964 SCC OnLine Pat 100 : AIR 1965 Pat 179 at page 182
[64] 2007 SCC OnLine Kar 579 : ILR 2008 Kar 1304

Technically the law requires not damage but an injuria or wrong upon which to base a judgment for the plaintiff, and therefore an injuria, although without loss or damage would entitle the plaintiff to a judgment Lord Halsbury LC in *The Mediana* [(1900) AC 113] has said:

> "'Nominal damages' is a technical phrase which means that you have negatived anything like real damage, but that you are affirming by your nominal damages that there is an infraction of a legal right which, though it gives you no right to any real damages at all, yet gives you a right to the verdict or judgment because your legal right has been infringed."

It is sometimes said that the law presumes or implies damages in every breach of contract ….and that this therefore would justify an award of nominal damages in such cases without proof of actual loss. In support of this rationale, is often cited Holt C.J.'s famous dictum in *Ashby* v. *White* [(1703) 2 Ld. Raym. 938]: "Every injury imports a damage though it does not cost the party one farthing."

In the first place it explains nothing because it is a fiction, as those cases where there is clear evidence of no loss shown. In the second place it becomes confused with a very different type of case where the law is said to "presume damage". These are cases where the presumption is based upon the difficulty of assessing the loss, generally a non-pecuniary loss, of which the best example is the injury to the plaintiff's reputation protected by the tort or libel. Nominal damages may also be awarded where the fact of a loss is shown but the necessary evidence as to its amount is not given. This is only a subsidiary situation, but it is important to distinguish it from the usual case of nominal damages awarded where there is a technical liability but no loss. In the present case the problem is simply one of proof, one not of absence of loss but of absence of evidence of the amount of loss".

106. In *Gujarat Ginning and Mfg Co Ltd Vs. B. Swadeshi Mills Co. Ltd*[65] and *Firm Kooverji Becharlal Vs. Firm Adam Haji Primohamed Esakh*[66], the nominal damages awarded was Rs.100. In *Chaudhary Construction Co Vs. Delhi Development Authority*[67] the nominal damages awarded by the Delhi High Court was Rs.15,000. In *Vikas Electrical Service Vs. Karnataka Electricity Board*[68] the nominal damages awarded by the Karnataka High Court was Rs.25,000. In *State of Madhya Pradesh Vs. Recondo Ltd, Bhopal*[69], the nominal damages awarded was Rs.50,000.

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[65] 1938 SCC OnLine Bom 34 – Bombay High Court
[66] 1942 SCC OnLine Sindh CC 66 – Sindh High Court
[67] (1998) 1 Arb. LR 334 – Delhi High Court
[68] ILR 2008 Kar 1304 – Karnataka High Court
[69] (1989) MPLJ 822 at 831 – Madhya Pradesh High Court

107. While there is considerable force in the contention of DAELIM that in the absence of evidence establishing loss, what can be awarded is only nominal damages, the further contention that nominal damages would mean a sum not exceeding Rs.50,000, may not be sound. The Indian courts have not fixed any minimum or maximum in respect of award of nominal damages. The decisions cited by DAELIM and by OPaL relating to nominal damages referred to above, clearly say that what should be the quantum of nominal damages would depend upon the facts of each case. The cases relied upon by DAELIM to show that only sums ranging from Rs.100 to Rs.50,000 were awarded should be viewed in the context of the year in which the breach occurred and suits were filed for damages. The following table would show that the amounts awarded in the cases relied upon by DAELIM depended on the facts of those cases, the nature of reliefs sought, and the amounts claimed as damages. The said decisions cannot be understood as laying down a proposition that nominal damages should not exceed Rs.50,000:

Decision	Year of breach/Tort	Amount claimed	Amount awarded by the Court
1938 SCC OnLine Bom 34 – *Gujarat Ginnig* *Prayer was for accounts	1925	No amount specified*	Rs. 100
1942 SCC OnLine Sindh CC66 – *Firm Kooverji Becharlal* **Prayer was for assessment of damages	1936	No amount specified**	Rs. 100
1998 1 ARB LR 334 – *Chaudhary Construction*	1991	Rs.3,24,800	Rs.15,000
ILR 2008 Kar 1308 – *Vikas Electrical*	1997	Rs. 50,500	Rs.25,000
1989 MPLJ 822 – *State of MP Vs. Recondo*	1985	Rs.6,64,338	Rs.50,000

108. The present disputes relate to a failure to perform and consequential breach of a contract of the value of INR 4,593 million *plus* USD 138 million. The damages claimed were restricted to 20% of the contract value (which is around INR 307 crores). Having regard to the nature of disputes, the quantum of claim and the circumstances, the Tribunal (the majority of the Tribunal comprising Justice R.V. Raveendran and Justice G.S. Singhvi) is of the view that a nominal damage of INR 5,00,000 (INR Five Lakhs) would be just and reasonable [However, Mr. Peter Leaver QC, the other Member of the Tribunal, disagrees on this aspect and being of the view that the award of such sum by way of nominal damages is unjustifiable and inconsistent with authority, would award INR 500 by way of nominal damages].

109. As what is awarded is nominal damages assessed and determined under this award, OPaL is entitled to interest on the said amount only from the date of the award to date of payment. On the facts and circumstances, the Tribunal awards interest on the amount awarded, at 6% per annum from the date of award to date of payment.

Costs

110. Where a claimant has established breach and nominal damages are awarded, it is the claimant who would be awarded some costs. However, the facts and circumstances of the case will have to be taken note of in awarding costs.

111. The hearing in this arbitration has been held in three tranches as under:

(i) The Tribunal was constituted on 17.4.2015. DAELIM filed an application dated 21.8.2015 seeking a declaration that there was no arbitration agreement between the parties and that the Arbitral Tribunal was not validly constituted and does not have jurisdiction to decide any claim or issue. The said application objecting to jurisdiction, etc. was heard on 24.10.2015. The said application was rejected on 18.1.2016. The application was pending for about nine months.

(ii) The second tranche of hearing relating to liability was held on 18th, 19th, 20th and 21st December 2017. By reason of certain objections by DAELIM, one of the Members of the Tribunal resigned and withdrew from the arbitration and thereafter a new Arbitrator was appointed and the interrupted hearing relating to liability tranche was heard on 24th, 25th, 26th, 27th and 28th July 2018. The award on the issue of liability was rendered on 28.12.2018. The matter was pending in the stage of liability hearing from 18.1.2016 to 28.12.2018, for nearly three years. Many applications were filed and disposed of during this period.

(iii) In regard to the third tranche of hearing relating to quantum, the oral hearings were held on 4th to 8th and 11th to 14th January 2021 and written submissions were filed by the parties between 24.12.2020 and 15.6.2021. The matter has been pending in the quantum stage from 28.12.2018 to date, for more than two years and eleven months. Many applications were filed and disposed of during this period. The Tribunal has held in regard to quantum that OPaL is only entitled to nominal damages.

112. OPaL has filed cost submissions dated 15.6.2021 stating that it has incurred costs of INR 3,18,07,195, GB Pounds 9,02,647, Euros 5,84,164, SGD 1,39,384 and USD 23,177.

113. DAELIM has filed cost submissions dated 15.6.2021 stating that it has incurred costs of USD 26,59,912, USD 6,42,976, USD 38,925, USD 1,50,000, USD 5,91,079, USD 1,62,061, USD 15,99,044, USD 1,72,877, USD 26,860 and USD 3,25,000.

114. OPaL succeeded in the jurisdiction hearing (first stage). OPaL also succeeded in part in regard to the liability hearing (second stage) the Tribunal held that DAELIM has committed breach, that OPaL was justified in terminating the contract and that OPaL is entitled to damages from DAELIM in respect of the said breach. The Tribunal rejected OPaL's claim for 10% of the contract value as part of compensation for breach and the claim for award of INR 300.8 crores as compensation for loss on account of delay. The Tribunal held that the validity and quantum of the claim of OPaL towards compensation for loss of NPV (claim of INR 409.28 crores subsequently restricted to 20'% of the contract value) shall be considered in the quantum hearing. Thus, OPaL can be said to have succeeded on the question of jurisdiction (first tranche hearing); and partly succeeded and partly failed on the question of liability (second tranche hearing). In regard to quantum (third tranche hearing), the Tribunal has held that OPaL is entitled to damages for the breach, but OPaL has failed to prove any loss and consequently,

it is entitled to only nominal damages, thereby rejecting the claim for 20% of the contract value as damages. Having regard to the time spent in the first two tranches of hearings where OPaL broadly succeeded and the time spent in the third tranche hearing where DAELIM is found to be liable only for nominal damages, the Tribunal is of the view that interests of justice would require directing the parties to bear their respective costs.

Conclusion

115. The Tribunal, by this award, directs DAELIM to pay to OPaL a sum of INR 5,00,000 (INR Five lakhs) as nominal damages with interest at the rate of 6% per annum from this date (date of quantum award) to date of payment.

116. Both parties are directed to bear their respective costs. Consequently, no costs are awarded to either party.

G.S. Singhvi	Peter Leaver	R.V. Raveendran
Arbitrator	Arbitrator	Presiding Arbitrator