MAALOUF
ARBITRATION

The Calcasieu Paradox

The Venture Global Arbitrations reveal fundamental changes in the LNG industry without reshaping it

Ruchdi Maalouf[†]

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1. This paper examines the series of arbitrations commenced by the buyers of the Calcasieu Pass LNG project against Venture Global (the ***Venture Global Arbitrations***). They are the most significant LNG arbitrations to date.

2. It is based solely and exclusively on publicly available information[1], and on the author's analysis. The author was not involved in any Venture Global case and did not receive any confidential information. This paper does not imply that public information reflects the full factual or evidentiary record before the arbitral tribunals.

3. The analysis benefitted greatly from the peer reviews of outstanding experts. The author is deeply grateful for the invaluable feedback of the following persons:

- **In the LNG Industry**: my LNG.now[2] friends (in particular Keiji Akiyama[3], Morten Frisch[4], Jabir Ben Haj Taieb and Jean-Christian Heintz), Clara Tan, and Pierre Terzian.
- **In the legal and dispute resolution communities**: Professor Charles Jarrosson, Nadya Rouben, Boris Telyatnikov, Salim Moollan, Marie Sfeir-Slim and Peter Roberts.

[†] **Ruchdi Maalouf** is an independent arbitrator and former LNG executive. He has worked in the gas industry as a lawyer, project developer, commercial executive, and is now an arbitrator. Additional information and contact details are available on his website: **maaloufarbitration.com**.

[1] This includes regulatory filings (SEC, DOE and FERC), New York court and FERC proceedings, and various press releases and articles.

[2] LNG.now, a collective of LNG professionals specialised across all areas of LNG, including engineering, commercial and legal (**lng.now**).

[3] Mr Akiyama is an independent consultant and the principal of Akiyama LNG Technology Consultant Office.

[4] Mr Frisch is the senior partner of Morten Frisch Consulting, and a global reference in strategy, negotiation and price review.

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The following abbreviations are frequently used and summarised here for ease of reference:

COD	Commercial Operation Date
DOE	Department of Energy
FERC	Federal Energy Regulatory Commission
HRSG	heat recovery steam generator
ICC	International Chamber of Commerce
LNG	liquefied natural gas
LNG SPA	LNG sale and purchase agreement
mtpa	million ton of LNG per year

I. OVERVIEW

4. Commenced between 2022 and 2024 (and still ongoing in three instances), the Venture Global Arbitrations arise from an LNG project that began producing and exporting substantial volumes of LNG in early 2022 but did not declare its Commercial Operation Date (***COD***) until April 2025, notwithstanding that production levels during much of that period approached nameplate capacity.

5. The buyers contend that Venture Global improperly prolonged the commissioning period, failed to declare COD when the facility met the contractual criteria, and thereby avoided delivering LNG during a period of unprecedented global LNG market volatility following the start of the Ukraine war. Venture Global maintains that COD could not be declared earlier because the facility was not yet commercially operable within the meaning of the LNG sale and purchase agreement (***LNG SPAs***), that technical issues (particularly those relating to the HRSG units and certain gas pretreatment systems) constituted force majeure, and that it acted at all times as a reasonable and prudent operator (***RPO***).

6. The Venture Global Arbitrations have sparked intense debate within the LNG industry because they engage core elements of the traditional commercial expectations of foundation buyers in greenfield LNG projects. This is particularly relevant for LNG project development, LNG project contracting, and, more broadly, LNG disputes. Each of these areas involves different activities, persons and expertise:

- **Project development**, which is the perspective of the commercial LNG managers who structure and negotiate LNG projects;
- **Contracting**, which is the perspective of the in-house and private practice lawyers who draft the LNG contracts; and
- **LNG dispute resolution**, which is the perspective of the arbitration practitioners.

7. A cross-disciplinary discussion is needed for a proper understanding of the Venture Global Arbitrations. Each perspective informs the others and no overview is possible from a single point of view. The purpose of this paper is to provide a contextualised and analytically overview. In order to do so, it will:

(i) reconstruct the publicly known chronology of the Calcasieu Pass project, from early DOE filings to COD and subsequent arbitral outcomes (**Chronology**);

(ii) explain the commercial features of the Calcasieu Pass project, including its business model, the technological approach adopted, and their relation to the disputes (**Commercial Perspective**);

(iii) analyse the contractual issues in dispute, including the structure of US greenfield LNG SPAs, the commissioning and COD provisions, and the force majeure and RPO standards (**Contractual Analysis**);

(iv) examine the arbitral processes and outcomes to date and explain why parallel proceedings under near-identical contracts can legitimately lead to different results (**LNG Arbitration**); and

(v) reflect (briefly) on the implications of these cases for LNG projects, LNG contracting practice, and the future landscape of LNG arbitration (**Final Observations**).

8. To situate the disputes in their proper context, each section begins with an overview of the subject-matter in order to provide the necessary background.

9. None of the analysis presented is intended to opine on the conduct of any party, nor on the correctness of any arbitral award. Discussions of contractual interpretation, project management, or operator conduct are intended only to illustrate how the issues arise in context.

II. CHRONOLOGY

10. This chronology sets out the publicly known sequence of events relating to the development, commissioning, operation and eventual COD of the Calcasieu Pass LNG project, as well as the steps that ultimately led to the various arbitrations brought by its long-term buyers. It is intended as a reference framework for the analysis that follows. Key dates are in bold.

A. PROJECT CONCEPTION AND EARLY REGULATORY STEPS (2010-2015)

11. Starting in 2010, and even before Venture Global was incorporated, several companies applied each year to the Department of Energy (***DOE***) for authorisations to export LNG produced in the USA. By 2012, there were about 30 applications per year, a trend that peaked in the middle of the decade and continued until 2019[5]. Part of the reason so many applications were made was the ease with which they could be submitted. The cost for an export permit to countries with a free-trade agreement with the USA was USD 50. Most applications (including Venture Global's first application) were filed without material investments, sometimes with just an option to rent land for the project rather than a proper lease.

12. Venture Global started as Venture Global LNG LLC, a company incorporated in Delaware in 2012. Public information about the entity's early history is sparse (including its actual date of incorporation). Shortly after incorporation, Venture Global started developing its first LNG project.

13. On **13 May 2013,** Venture Global LNG LLC filed its first application with the DOE to develop an LNG export project at Calcasieu Pass in Cameron Parish, Louisiana[6]. It made additional applications on 13 May 2014[7] and 9 February 2015[8], each increasing the size and scope of the project.

14. On 4 September 2015, it applied to the Federal Energy Regulatory Commission (***FERC***) for the authorisation to develop the Calcasieu Pass terminal. The application envisaged an innovative design using several small scale "*integrated pre-cooled single mixed refrigerant (SMR) blocks*" with an aggregate nameplate liquefaction capacity of 10 million ton of LNG per year (***mtpa***) and a "*peak achievable capacity of up to 620 Bcf per year under optimal operating conditions (equivalent to 12.0 mtpa)*". The application contained several volumes of documents, including engineering and design submissions.

B. COMMERCIALISATION AND LNG SPA EXECUTION (2016-2018)

15. Between 2016 and 2021, Venture Global successfully marketed the Calcasieu Pass project, ultimately selling 8.5 mtpa (out of the 10 mtpa nameplate capacity) of long-term LNG through a series of LNG SPAs. These included:

[5] See DOE docket rooms (hyperlink)

[6] Docket 13-69, granted by order 3345 of 27 September 2013.

[7] Docket 14-88, granted by order 3520 of 10 October 2014.

[8] Docket 15-25, granted by order 3662 of 17 June 2015.

- 19 January 2016: Shell (initially 1 mtpa for 20 years, later increased on 4 April 2018 to 2 mtpa).
- 25 September 2017: Edison (1 mtpa for 20 years).
- 30 April 2018: Galp (1 mtpa for 20 years).
- 17 May 2018: BP (2 mtpa for 20 years).
- 14 August 2018: Repsol (1 mtpa for 20 years).
- 28 September 2018: Orlen (1 mtpa for 20 years, later increased on 2 September 2021 to 1.5 mtpa).

16. On 14 November 2018, Venture Global signed an LNG SPA with Venture Global Commodities LLC (its affiliate) for a volume defined as the excess production above the nameplate design capacity of 10 mtpa (the ***Intercompany Excess Capacity SPA***) thereby retaining the marketing of the peak capacity of the plant[9].

17. In parallel, it started developing a second project called Plaquemines LNG. It applied to FERC on 28 February 2017, and FERC authorised the project on 30 September 2019. The Plaquemines project consists of two phases, with each phase comparable in size and design to Calcasieu Pass.

C. CONSTRUCTION, FINANCING AND FIRST LNG (2019-2022)

18. On **21 February 2019,** FERC authorised Venture Global to start the construction of the Calcasieu Pass export terminal[10].

19. On 22 February 2019, Venture Global submitted the first implementation plans for the terminal.

20. On **6 March 2019,** FERC approved Implementation Plan 1, enabling mobilization and site preparation. Works started shortly thereafter.

21. On **19 August 2019,** Venture Global announced a final investment decision and financial close for the Calcasieu Pass LNG project[11]. COD was anticipated in 2022.

22. In 2021, it sold the remaining LNG on a short-term basis, and on similar terms and conditions as the long-term Calcasieu Foundation SPAs, reaching the nameplate capacity of 10 mtpa, through:

- A 3-year LNG SPA for 1 mtpa with Unipec on 18 September 2021; and
- A 5-year LNG SPA for 0.5 mtpa with CNOOC on 9 December 2021.

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[9] Although not directly relevant to this paper, it is noteworthy that Venture Global's 2024 Annual Report states "*VG Commodities is party to an LNG sales and purchase agreement, or the VG Commodities BP SPA, with BP Gas Marketing Limited, […], pursuant to which, once COD occurs under the Intercompany Excess Capacity SPA for the Calcasieu Project, VG Commodities has contracted to resell at least 50% of the LNG generated by the Calcasieu Project in excess of its nameplate capacity (subject to an annual cap at the option of the buyer). The VG Commodities BP SPA is structured as a 20-year, FOB sales contract […].*"

[10] Venture Global Calcasieu Pass, LLC, 166 FERC ¶ 61,144 (2019).

[11] https://www.prnewswire.com/news-releases/venture-global-announces-financial-close-for-calcasieu-pass-lng-300903651.html

23. On 1 October 2021, Venture Global informed the DOE that construction was proceeding "*so as to commence operations as quickly as feasible*", first exports of LNG were expected in late 2021, and full operations were anticipated to commence in mid-2022.

24. LNG production began in January 2022.

D. *UKRAINE WAR, COMMISSIONING, AND EARLY EXPORTS (2022)*

25. On **24 February 2022**, the Ukraine war started. This event provoked a panic on the global gas markets due to a fear of shortages and an unprecedented increase of gas prices.

26. On **1 March 2022**, Venture Global loaded its first commissioning cargo and sold it in France. During the commissioning period (usually short) and before COD, Venture Global would market the commissioning cargoes itself and would not deliver any LNG to its buyers under the LNG SPAs.

27. On 1 April 2022, Venture Global informed the DOE that it would continue exporting LNG during commissioning and that full operations were anticipated to commence in early 2023.

28. On 30 September 2022, it further informed the DOE that full operations were anticipated to commence in Q3, 2023.

E. ARBITRATION AND FORCE MAJEURE (2022-2023)

29. On **1 December 2022**, **BP filed for arbitration** against Venture Global under the rules of the International Chamber of Commerce (***ICC***).

30. On **28 March 2023,** Venture Global notified FERC that Calcasieu Pass was able to produce LNG but would remain "*in the commissioning phase because it continues to face periodic reliability challenges impacting the facility*". Venture Global added that employees had observed water loss from heat recovery steam generator (***HRSG***) units 2 and 3 in November 2022. These were attributed to water loss from leaks in the welds between the upper carbon steel header and finned tubes of the HRSG units. Venture Global added that it had "*notified our long-term customers that, due to the estimated time it will take for GE to resolve the HRSG issues, commercial operations will be delayed*". **The press reported a couple of days later that Venture Global had declared force majeure under the LNG SPAs.**

31. On 31 March 2023, Venture Global informed the DOE that full operations were anticipated to commence in Q1, 2024.

32. On **1 May 2023**, **Edison filed for arbitration** against Venture Global under the rules of the London Court of International Arbitration (*LCIA*).

33. On **11 May 2023**, **Shell filed for arbitration** against Venture Global under the rules of the ICC (case 27797/PDP).

34. According to the Monthly Construction Status Reports (publicly filed by Venture Global), the Pre-Treatment Work Area was completed in August 2023 and the "Terminal Commissioning" Work Area was last mentioned in "Current Work Activities" in September 2023. In fact, very little information was made publicly available, because most of the details were deemed privileged by Venture Global.

35. In **August 2023**, each of **Repsol and Galp filed for arbitration** against Venture Global under the rules of the ICC.

36. On 29 September 2023, Venture Global informed the DOE that full operations were anticipated to commence in Q4, 2024.

37. On 10 October 2023, Venture Global applied to FERC for permission to modify the HRSG system, which FERC granted on 12 October 2023.

38. On 11 December 2023, BP and other buyers started regulatory proceedings before FERC, to complain that Venture Global already satisfied the requirements to put Calcasieu Pass in-service in 2022, and had started operating it commercially. BP requested that FERC order Venture Global to disclose certain information that had been withheld from the buyers. The regulatory process before FERC was withdrawn in 2024.

39. On **23 December 2023**, **Orlen filed for arbitration** against Venture Global under the rules of the ICC. At that point, all Calcasieu Pass long-term buyers had filed for arbitration. The amounts claimed were estimated between $6.7 billion and $7.4 billion in aggregate.

40. In March 2024, **Unipec**, a short-term buyer, also commenced arbitral proceedings against Venture Global.

41. In January 2025, Venture Global's Plaquemines LNG project started exporting commissioning cargoes. COD was announced for phase 1 in 2026 (but has not occurred yet).

42. On 23 January 2025, Venture Global, Inc was listed on the New York Stock Exchange. Consequently, Venture Global disclosed detailed information about its projects due to the regulatory disclosure obligations (relied upon here).

F. COD AND FIRST ARBITRAL OUTCOMES (2025-2026)

43. On 25 March 2025, Venture Global applied to FERC to place the Calcasieu Pass terminal in service.

44. On **15 April 2025**, Venture Global declared **COD** and started deliveries under its long-term SPAs.

45. On **12 August 2025**, **Venture Global** announced that it **won its arbitration against Shell**.

46. On **8 October 2025**, **BP won its arbitration** against Venture Global. According to a press release by Venture Global: "*The award issued by the arbitration tribunal found that VGCP* [Venture Global Calcasieu Pass] *had breached its obligations to declare COD of the Calcasieu Project in a timely manner and act as a "Reasonable and Prudent Operator" pur-*

suant to the SPA, along with certain other obligations. Remedies will be determined in a separate damages hearing, which has not been scheduled but is anticipated to occur in 2026. A final award is expected to follow the damages portion of the hearing. Based on the terms of the award issued by the arbitration tribunal, the Company does not anticipate that the final award will be subject to the seller aggregate liability cap in the SPA".

47. On 9 October 2025, Unipec and Venture Global settled their arbitration. Venture Global commented in a filing: "*The settlement has no material impact on the Company. This arbitration is now resolved in its entirety*."

48. On 10 November 2025, Shell applied to the New York courts to set aside the arbitral award against Venture Global.

49. On **21 January 2026**, **Repsol lost its arbitration** . According to Venture Global, "*the arbitration tribunal found that VGCP* [Venture Global Calcasieu Pass] *had acted as a "Reasonable and Prudent Operator" in accordance with the SPA in declaring COD on April 15, 2025, and denied Repsol's claims in their entirety. Additionally, the arbitration tribunal awarded fees to VGCP.*"

50. On 2 March 2026, the New York courts rejected Shell's application to set aside the arbitral award against Venture Global.

51. On **26 March 2026**, **Edison and Venture Global settled** their arbitration after reaching a negotiated resolution.

52. As of 25 June 2026, two arbitrations were still pending against Galp and Orlen, as was the final award on quantum in the BP arbitration.

III. COMMERCIAL PERSPECTIVE

53. This section examines the Venture Global Arbitrations from the perspective of the LNG industry. It aims to situate the disputes within their broader commercial environment by explaining how LNG projects operate, why commissioning and COD matter, how Venture Global's business model differs from established practice, and why the Calcasieu Pass commissioning period has been viewed as unprecedented.

A. BACKGROUND

(a) Overview of LNG projects

(i) The LNG Industry

54. Oil and gas exploration was traditionally focused on finding oil deposits. Where natural gas was discovered alongside oil in a reservoir, the associated gas was often flared while the oil was recovered. For decades, exploiting gas reserves required transportation by pipeline, a method that became prohibitively expensive as distances increased. "Stranded gas", *i.e.* natural gas discovered in remote locations (without associated oil), was often uneconomic to transport to market. The industrial development from the mid-20th century of technologies to liquefy natural gas for transportation by ship enabled the exploitation of remote gas reserves by providing an alternative to pipeline transportation.

55. Natural gas consists predominantly of methane (CH_4). Unlike propane and butane, methane cannot be pressurised and bottled for transportation. However, methane can be converted into a liquid (liquefied natural gas or ***LNG***) when cooled at very low temperature (-164 C). LNG can then be loaded onto ships and delivered across the globe. LNG returns to gaseous state as its temperature increases, a process known as boil-off.

56. The LNG industry encompasses the entire chain of activities from the extraction of gas in the ground to the delivery of natural gas to end-users. The various elements are known as the **LNG chain**, including:

- **Upstream** (natural gas production, pipeline transportation to liquefaction facilities)
- **Liquefaction** (gas treatment, transportation to the liquefaction plant, storage in cryogenic tanks);
- **Transportation** (special vessels to transport LNG with adequate storage systems and dedicated port infrastructure);
- **Reception** (LNG tanks for storage, infrastructure to return the cool liquid gas to gas form, and connexion to a pipeline system); and
- **Delivery of natural gas** (buyers and users connected to the LNG terminal by a pipeline system).

57. The early LNG industry did not have a market: it was a simple web of bilateral relationships where producers were sellers and exporters, and gas users were buyers and importers. It took time for an LNG market to grow, first as a long-term market, more

recently as a short-term market. What started as a small club of companies engaged in long-term commercial relations has become a commoditised global market. In the past 20 years, a liquid short-term market developed where nearly a third of the LNG produced globally is now traded.

(ii) LNG Projects

58. To develop an LNG project, each element of the LNG chain needs to be in place. LNG projects rely on the existence of complete solutions, from proven gas reserves[12] to an existing gas market. In the early days of the industry, it may have required to construct all the necessary facilities: the upstream developments (including the infrastructure to build a liquefaction terminal such roads and ports), the ships to transport the LNG, and the receiving terminals.

59. Given their scale and costs, LNG projects rely on project finance, where the lenders may provide finance for the development of the gas fields, the construction of the liquefaction plant, and the building of the LNG ships that would transport the LNG production. To ensure the security of the offtake, the entire LNG production is sold in advance to buyers with a good credit-rating and adequate gas demand.

60. Thus, the cornerstone of LNG projects was and remains the LNG SPA, which secures the offtake and provides the cashflow to repay the project lenders for the tenure of the loans. The LNG SPA has unique elements that explain many features of the LNG industry:

(i) It is signed before the liquefaction plant is built, which means that sales take place in the future, with an uncertain start date.

(ii) Its duration is aligned with the tenure of the project loans, which means that the buyers undertake to receive LNG for 15 to 25 years, starting from an undefined future date that could be years away.

(iii) The price is agreed at a time where the market conditions when the LNG is delivered cannot be known. Early projects could only be subscribed by buyers who were able to pass on the cost of gas to their final users, typically state-owned monopolies. This also meant that when gas markets were liberalised, LNG importers needed a mechanism to correct the contract price when it became uneconomical (known as LNG price review), notably in Japan which was the largest LNG import market for decades.

61. From early on, project developers indexed LNG to the price of oil. This was useful for many reasons:

- There was no liquid gas price that could be used as an index (this is not true today).
- The gas produced for liquefaction was developed specifically for the LNG project, *i.e.* not subject to a market price.

[12] The source of the feedgas for LNG production is traditionally sourced from nearby gas fields (such as the North Field in Qatar). In some configurations, the LNG project purchases the feedgas under a long-term gas sales agreement. It is also typical to use the feedgas in the liquefaction process and for the plant to consume a portion of it to produce the LNG (up to 12 and 15% of the feedgas). In the LNG projects in the lower 48 states of the USA, an alternative approach is to purchase the feedgas on the grid under shorter term gas sales agreements.

- When conducting oil and gas exploration, an exploration company does not know initially if a potential hydrocarbon deposit may contain oil, gas or both. Exploration economics were therefore modelled primarily on oil prices, which were liquid, widely traded, and suitable for long-term financial modelling.
- LNG was sometimes used as a substitute to oil or pipeline gas (also often priced against oil): its value could be benchmarked against oil price when that was the case.

62. A relevant aspect of LNG projects is the period between the end of construction of the LNG liquefaction plant, and the beginning of commercial deliveries. During that period, the LNG plant is commissioned and any problem is rectified. That period presents specific difficulties to the LNG industry due to the nature of LNG for two reasons.

63. Firstly, commissioning poses storage problems. LNG storage tanks which have a limited capacity. During commissioning, the LNG produced is stored in the LNG tanks. Once full, production is interrupted until the tank is emptied and the LNG loaded on a ship. If the commissioning process stops before a full cargo is produced, it may be necessary to load a partial cargo on a ship. That may pose several problems:

(i) The cargo loading date may be uncertain, which would require a ship on standby at increased cost.

(ii) The cargo quantity may be uncertain, which may pose transportation and marketing problems.

64. Secondly, commissioning LNG does not always comply with contractual specifications.

65. For these reasons, commissioning LNG represented a risk and a cost for the project, which were addressed specifically in LNG SPAs. With the growth of a short-term LNG market, these risks have become less acute.

(iii) LNG Companies

66. A slow and gradual commoditisation of LNG led to the emergence of a wide range of market participants. They can be grouped into the following categories:

- **LNG producers**. These entities tend to mainly sell LNG. They are the LNG export projects which can be owned by a national oil company (for example Sonatrach in Algeria), a joint venture between a national oil company and oil majors (for example Nigeria LNG), or a private concern, such as Venture Global.
- **Utilities**. These companies mainly buy LNG, either for their own use (as a power company for example), or as a wholesaler in their country. This is the case of Edison (power) or KOGAS (wholesaler).
- **Traders**. These companies primarily buy and sell LNG, which often involves a presence in different parts of the LNG chain to lower risk and increase profitability. Examples include the large commodity traders such as Trafigura and Vitol.
- **Portfolio players**. These companies aggregate various LNG supplies to resell them. They tend to be major actors in LNG production, LNG trade and often downstream

gas trade. They also tend to be the largest and most global LNG companies. Significant portfolio players include Shell, TotalEnergies and BP.

67. Most participants in the LNG industry have trading desks balancing supply and demand through the sale and purchase of cargoes, and through financial instruments. This is called "optimisation".

(iv) LNG Production in the USA

68. Until the end of the 2000s, the USA was a gas producer with depleting reserves. It was anticipated that the country would become an LNG importer by 2010. However, the development of technologies to extract oil and gas from shales changed the course of (LNG) history[13]. As the shale oil and gas industry grew, the USA started producing enough natural gas to become an exporter instead, and became the largest LNG producer in the world in less than 20 years.

69. LNG projects in the USA follow different models from traditional LNG projects[14]. In the "lower 48"[15], there is a liberalised gas market where natural gas can be transported by pipeline and traded. Due to the abundance of natural gas on that market, new US projects from the 2010s did not need upstream developments to produce LNG and could rely on gas purchased on the market.

70. Two types of project structure were pursued:

(i) Some projects decided to build liquefaction plants and sell liquefaction capacity. An LNG offtaker buys natural gas on the market, delivers it to the liquefaction plant, pays a fee to use the plant, and lifts the LNG. In this structure, the owner of the liquefaction plant never comes into ownership of the gas or the LNG. It is known as the "tolling" structure.

(ii) An alternative and innovative structure was developed by Cheniere, a US company who had just built an import terminal in Louisiana (at a time where the USA did not need to import LNG anymore) and needed to repurpose it. Cheniere offered to sell LNG instead of plant capacity, arranging to purchase gas on the market itself. Its model resembled traditional LNG sales, but differed in some aspects. It has been called the "quasi-tolling" structure.

71. Unlike in traditional project, the ability to source the natural gas from the market in the USA allowed the development of projects without upstream investments. Cheniere's model gave an option to the buyers to cancel a cargo, subject to sufficient notice, and pay a fee corresponding to the capital costs of the liquefaction plant. This had not been done before.

72. Another factor contributing to Cheniere's success was its transparency strategy to persuade the market. It made a considerable amount of information publicly available, including the signed LNG SPAs. Venture Global took a different approach, even though it used the Cheniere contracts as template (as many other companies did).

[13] The technology was developed at the end of the 1990s.

[14] With the exception of Alaska which is not connected to the lower 48 liquid and liberalised gas market.

[15] The 48 contiguous states, excluding Alaska and Hawaii.

73. Following Cheniere's success, dozens of companies tried to emulate its model. Competition was fierce, and every project needed to differentiate itself to attract buyers.

74. Despite the ease with which a DOE filing can be made for an LNG project, it is noteworthy that gas markets and the oil and gas industry are highly regulated in the USA. This is relevant to the Venture Global Arbitrations.

(b) The Parties

(i) Venture Global's buyers

75. It is important to distinguish the buyers according to what type of LNG company they are, because the delay to COD impacted them differently. Their expectations, commercial strategies, and interpretation of their contractual obligations were not identical.

76. **Shell** is considered the world's largest LNG trader and portfolio player. Its annual revenue in 2025 was EUR 228 billion. It buys and sells LNG and the primary purpose of the Calcasieu Pass LNG SPA would be to add the volumes to its portfolio.

77. **BP** is also a portfolio player. Its annual revenue in 2025 was EUR 167 billion. It buys and sells LNG and the primary purpose of the Calcasieu Pass LNG SPA would be to add the volumes to its portfolio.

78. **Repsol** is a Spanish energy company. Its annual revenue in 2025 was EUR 79 billion. Although Repsol is involved in the LNG trade, the volume of the Calcasieu Pass LNG SPA would be significant in its portfolio.

79. **Orlen** is a Polish gas importer. Its annual revenue in 2025 was EUR 69 billion. Its main LNG activity is to import LNG in Poland. The Calcasieu Pass LNG SPA represents 25% of its LNG purchases.

80. **Galp** is a Portuguese energy company. Its annual revenue in 2025 was EUR 15 billion. The Calcasieu Pass LNG SPA represents 40% of its LNG purchases.

81. **Edison** is an Italian power company owned by EDF (France). Its annual revenue in 2025 was EUR 9 billion. The Calcasieu Pass LNG SPA represents 25% of its LNG purchases.

82. Given that the Calcasieu Pass buyers are major energy companies, it is fair to say that the Venture Global Arbitrations are significant for the LNG industry, even beyond the huge value of the claims.

83. It should be added that Orlen, Shell, EDF, Unipec and CNOOC are also long-term offtakers from phase 1 of Plaquemines LNG, while others Calcasieu Pass buyers are also offtakers of phase 2.

(ii) Venture Global

84. Venture Global, Inc is listed on the New York Stock Exchange since 23 January 2025. It is the parent company of a group of companies developing LNG projects and trading activities. The corporate history of the Venture Global entities is beyond the scope of this paper.

85. Calcasieu Pass LNG is the first LNG project developed by Venture Global. A brief chronology of Calcasieu Pass LNG is included in the Chronology. Its peak production capacity is 12.4 mtpa.

86. Following the success of Calcasieu Pass LNG, Venture Global is implementing an ambitious plan to become the largest LNG producer in the world. Their projects currently include:

- **Calcasieu Pass LNG**, which is in operation with a peak capacity of 12.4 mtpa, all permitted. In December 2025, the project exported close to 1 mtpa which puts its current annual capacity at close to 12 mtpa.
- **Plaquemines LNG**, which is being commissioned (also in a prolonged commissioning phase), with a peak capacity of 35 mtpa. 24 mtpa are currently permitted. In December 2025, the project exported close to 2 mtpa which puts its current annual capacity at close to 24 mtpa.
- The **Plaquemines Expansion** project, which is in development, with a peak capacity of 31 mtpa. The project was proposed in November 2025.
- The **CP2 Project**, which is in construction, with a peak capacity of 35 mtpa.
- The **CP2 Expansion Project**, which is planned with a peak capacity of 11.7 mtpa.
- The **CP3 Project**, which is planned with a peak capacity of 58.3 mtpa.

87. Venture Global currently exports *circa* 36 mtpa, equivalent to 8.8% of the 2024 global LNG exports. Its production capacity is 37.4 mtpa, equivalent to 7.6% of the 2024 global LNG liquefaction capacity. If all the Venture Global projects are built and permitted, Venture Global would reach a peak export capacity of 183.4 mtpa. To understand the significance of this number in 2024 terms: it is equivalent to 37.3% of the total current global liquefaction capacity (of 492 million tons), or 45.2% of the total LNG sold (406 million tons).

88. A final observation: Venture Global is involved in a wide range of law suits. In its own words (2025 Annual Report): "*We are involved, and may in the future become involved, in disputes as well as legal proceedings with public authorities, shareholders, suppliers, contractors, customers, land-owners, current or former employees, and others.*"

B. KEY COMMERCIAL ISSUES

89. What are the key issues in the Venture Global Arbitrations for the LNG industry? There are three, and they inform the background and the substance of the disputes:

- Venture Global managed its technical difficulties by declaring force majeure and delaying COD while producing LNG in material quantity. This is not how companies have traditionally resolved construction issues. To look at this in context, it is interesting to look at Venture Global's business model and how it differs from other projects (see (i) below).
- Venture Global claimed force majeure to delay COD, stating technical reasons which hindered commissioning but not LNG production. The design of the Calcasieu Pass plant may help understand some of the problems (see (ii) below).

- A long delay to COD is at the heart of the dispute. What Venture Global did is unprecedented and seen as challenging the foundations of the LNG industry. This needs to be placed in context and explained (see (iii) below).

(i) Venture Global's Business model

90. Venture Global differentiated the Calcasieu Pass project in two ways to market it successfully: through a novel technological solution (see below), and by being cheaper than the competition.

91. The traditional way to monetise an LNG project is through LNG price, which includes the project's profit margin. LNG price is determined by market conditions, but financing is conditional on an LNG price that provides a healthy return on investment and a manageable breakeven period. Under this approach, commissioning LNG is not treated as source of revenue. The decision of how to monetize the commissioning LNG will be specific to what the parties agree in each project. The delivery obligations, allocation and price of the commissioning LNG will be determined according to their agreements.

92. Venture Global followed another approach. The Calcasieu Pass project was advertised and marketed as "low-cost LNG"[16], which practically means LNG at a price below competition. A lower LNG price implies a lower margin, closer to a breakeven price[17]. This commercial approach suggests that Venture Global pursued a different business model, and relied on generating revenues from sources other than the LNG price: peak production LNG, the sales of commissioning cargoes, and, arguably, the exponential growth of the company.

93. **Peak production LNG**. Venture Global marketed the facility as a 10 mtpa plant, while building a 12.4 mtpa plant where it reserved 2.4 mtpa for itself. Venture Global used a low price to attract buyers, and reach a final investment decision for Calcasieu Pass LNG, while counting on the excess nameplate capacity for revenue. According to Venture Global's own statement (2024 Annual Report): "*We expect that any excess LNG produced by the Calcasieu Project above the nameplate capacity of 10.0 mtpa will be sold to VG Commodities under an Intercompany Excess Capacity SPA for the Calcasieu Project*."

94. **Commissioning sales**. Venture Global publicly stated it considered the commissioning period as a revenue generating one. It is not clear whether it was always its intention with Calcasieu Pass LNG, but it expressed that intention clearly for later projects (2024 Annual Report): "*we have been generating proceeds from the sale of commissioning cargos at the Calcasieu Project since the first quarter of 2022 and at the Plaquemines Project since January 2025, and expect to do so at each of our other projects during commissioning prior to achieving COD for the relevant project or phase of a project*."

95. **Exponential growth**. As mentioned above, Venture Global has demonstrated ambitious plans to grow and has already achieved significant growth. It is also telling that Venture Global made a new application with the DOE each year from 2013 to 2016.

[16] Venture Global describes itself as a provider of low-cost LNG.

[17] See Clara Tan "Venture Global Weighs Its Global LNG Strategy Amid Rising Costs", Energy Intelligence, 26 August 2025.

96. In conclusion, it is plausible that Calcasieu Pass LNG did not implement a traditional business model. If Venture Global had declared COD before the plant was able to reliably produce above nameplate capacity, then Venture Global could have incurred losses: increased construction costs, decreased sales revenue from LNG SPA sales and lower peak LNG production, and potentially liability for shortfall and delivery delays.

(ii) Plant design

97. Venture Global delayed COD in Calcasieu Pass due to technical problems encountered during commissioning. It proposed a modular small-scale liquefaction model using 18 small trains, each with a capacity of 0.6 mtpa. Their approach to construction was innovating: it consisted of replicating small-scale LNG trains in large numbers through modular units. Novelty inherently carries a risk of delay.

98. The reasons for their choice are beyond the scope of this paper, but modular developments allow savings in time and costs. The modules can be built on a production line and assembled at the site. This allows a shorter construction period and more reliability in the project schedule. However, the small-scale modular model had two disadvantages: adopting it at large scale, as venture Global did, was untested, and it used a less efficient liquefaction process. In contrast, Cheniere and the other projects used conventional size liquefaction and technology, with traditional liquefaction trains that can produce several million tons of LNG per year (4 to 6 typically).

99. When Venture Global eventually reported its commissioning problems publicly on 28 March 2023, it described them as follows: "*failures in the 5 horizontal heat recovery steam generator (**HRSGs**) units that facilitate combined-cycle power generation by converting waste heat in the power island to steam, which drives the facility's 2 steam turbine generators. In November 2022, during normal commissioning activities, Venture Global employees observed water loss from HRSG units 2 and 3. We later determined that the water loss resulted from leaks in the welds between the upper carbon steel header and finned tubes of the HRSG units. Initially, we sought to contain the weld leaks by accessible weld repair or tube plugging, while asking the supplier, General Electric (GE), to investigate the cause of the leaks. Although these circumstances do not raise any safety concerns, the units will require extensive repairs and replacements before the power island can function reliably and as designed*."

100. The HRSGs recover heat from the primary power source and convert it to additional power through a steam generator. Venture Global informed FERC in a letter on 28 March 2023 that Calcasieu Pass LNG "*continues*" to face periodic reliability challenges impacting the facility, an issue that was "*demonstrated and reported through the failure of the reliability test of the power island reported to FERC last Fall*". In fact, there were no public filings reporting any issue during that period. Nothing is mentioned in the Monthly Construction Status Reports[18], but it seems the reliability issues were reported in the Weekly Commissioning Status Reports. These were not publicly disclosed nor released to the long-term buyers, a contentious point for some buyers, such as BP who raised it in its arbitration against Venture Global.

[18] It appears from the Monthly Construction Status Reports (filed with FERC from March 2019 to March 2025) that no activity was recorded under the "Terminal Commissioning" heading after September 2023. Yet, COD was only declared on 15 April 2025.

101. In its 2024 Annual Report, Venture Global commented on the delayed COD as follows: "*Construction of the Calcasieu Project is substantially complete and the project is currently undergoing a multi-faceted commissioning program to complete the facility's components, bring them to design specification and establish reliable and safe facility-wide operating conditions and to prepare for the commencement of lender-required performance reliability testing. Significant work related to commissioning, carryover completions, and rectification is ongoing and includes remedying unexpected challenges with equipment reliability identified during the first-time implementation of our innovative design and configuration, and reliability testing. We believe such work will need to be completed before certain components operate as intended and the facility can be fully commercially operable, and COD can occur.*"

102. Does the quote above suggest that reasons other than the HRSG issue delayed COD? Were there additional problems that contributed to the long delay? This is what Venture Global seems to imply in the same report: "*we have completed substantial remediation work on the heat recovery steam generators, or HRSGs, of the power island system that was necessitated by the manufacturer of such equipment, General Electric, having implemented a change in method of fabrication that led to substantial leaking that was identified during commissioning tests. As of December 31, 2024, among the other ongoing rectification work, our gas pre-treatment units underperformed and were not able to pass their required performance tests. In January 2025 and February 2025, pre-treatment units "A" and "C" passed their required performance tests, respectively, though we are validating the test results for unit "C" with the independent engineer appointed by the lenders*[19] *under the Calcasieu Pass Credit Facilities. We continue to engage in remediation efforts with UOP, the manufacturer, to improve pre-treatment unit "B" so that it will achieve the designed levels of performance and redundancy and pass its required performance tests.*"

103. One possible source for the technical difficulties stems from the stringent regulatory regime that applies in the USA. FERC requires extensive technical details for projects filing for permits. These technical details require advanced engineering expertise. As described above, many projects were able to apply for permits with limited expenditure at the DOE stage. FERC applications required more substantial, and costly, plans fairly early in the project development process, when project developers often sought to limit their costs. They sometimes used contractors with limited experience. As a consequence, initial designs were often less than satisfactory. Once filed with FERC, it becomes difficult to make substantial rectifications, which can limit a project's ability to correct early design flaws.

104. There are also known technical issues relating to gas in the USA that would be expected to affect a small-scale liquefaction design using SMR and pipeline gas. A common issue in the USA is caused by the removal of propane and butane from natural gas by the upstream producers. The natural gas purchased by the LNG producers on the grid needs to be treated to remove heavier hydrocarbons that are still in the gas. In a traditional LNG plant, the propane and butane normally present in the gas are used to "wash down" the heavy hydrocarbons. Due to their absence in the pipeline gas in the USA, clogging of the cryogenic heat exchangers (cold boxes) is a common issue. Frequent defrosting of the affected units is necessary to unclog them. With frequent stoppages, the liquefaction plant cannot reach peak production capacity.

[19] It could be argued that the independent engineer appointed by the lenders under the Calcasieu Pass Credit Facilities would have the same objective as Venture Global, namely for Venture Global to earn as much money as possible.

105. Venture Global's statements in its 2024 Annual Report are consistent with this possibility: "*Due to our unique project configuration (which includes many mid-scale liquefaction trains, which are delivered and installed sequentially) and development approach, it is necessary to commission and test our LNG facilities sequentially over a longer period of time than traditional LNG facilities with substantially fewer, larger-size liquefaction trains. [...] Despite the longer than expected commissioning process at the Calcasieu Project due to certain unexpected challenges with equipment reliability that we are in the process of remediating, during the year ended December 31, 2024, the Calcasieu Project exported 140 LNG commissioning cargos. [...] We are targeting to complete all remediation work and achieve COD on April 15, 2025, after the project has completed its commissioning process and testing and is capable of safely and reliably producing its designed nameplate levels of LNG volumes*."

(iii) Extension of the commissioning period

106. Whether the extension of the commissioning period was unavoidable and contemplated or not, the delay to COD is a major issue for the buyers. LNG prices reached unprecedented levels in 2022-2023 after the beginning of the Ukraine war: the buyers had to buy replacement cargoes at a price much higher than the LNG SPA price.

107. That situation on the market was unexpected and unforeseeable. Unexpected because it had never happened before, and unforeseeable because an extreme price hike[20] was triggered by the conjunction of several unlikely events which included the failure of the European energy market to function as intended, the failure of the European energy market to maintain adequate inventory[21], war, sabotage to gas pipelines, market perception of gas shortages (*i.e*. panic), competition for LNG between European and Asian buyers, inadequate and delayed intervention of the regulatory authorities, etc. A similar dislocation did not happen in the oil markets following the closure of the Hormuz Strait in March 2026, arguably because strategic oil reserves were sufficient to prevent foreseeable shortages.

108. During the commissioning period (between 2022 and 2025), the buyers did not receive any LNG from Calcasieu Pass LNG. Expected volumes under their long-term contracts were not delivered. In LNG trading practice, such volumes would typically be sold to other parties in advance, possibly (but not necessarily) subject to the same terms and conditions. The shortfall had to be covered. As a result, the Calcasieu Pass LNG buyers had to buy replacement LNG on the short-term market at a highly inflated price while Venture Global was selling cargoes from Calcasieu Pass LNG on the short-term market at the same high price.

109. From an industry perspective, the buyers would not have anticipated the delay to COD. It was unprecedented for an LNG terminal to produce, and export, large quantities of LNG while under force majeure and in the commissioning period.

[20] To illustrate the extreme nature of the price increases, from average historical values below 20 euro/MWh until May 2021, TTF Front-Month gas prices (a European gas price index) peaked at 319 euro/MWh on 26 August 2022, a factor of 16!

[21] The events leading to the dislocation of the European gas market are complex and beyond the scope of this paper. However, it is useful to note that Russian deliveries were reduced from the second quarter of 2021. Gazprom reduced its deliveries to its long-term buyers (in accodance with the minimum quantities allowed under the contracts) and stopped selling spot gas on the market. Furthermore, Gazprom did not refill its gas storage facilities in Germany, the Netherlands and Austria. The European gas market was therefore in a weak position to face disruptions in gas deliveries.

C. Conclusion

110. Did a lucrative spot market, which unexpectedly appeared after the start of the Ukraine war, have an influence on Venture Global's conduct? Or would COD have been delayed regardless, due to the specificities of the Calcasieu Pass project? This paper does not attempt to provide definitive answers to these questions. To a large extent, the Venture Global Arbitrations revolve around the particular circumstances of Calcasieu Pass LNG. The public record contains an incomplete picture.

111. Industry commentators have been very critical of Venture Global, and particularly how the delayed COD undermines a cornerstone of long-term LNG projects. Some anticipated that Venture Global's conduct would deter future buyers. Yet, Venture Global's fortunes, so far, do not seem to have been affected by these disputes. The Venture Global Arbitrations have not undermined its ability to develop new projects, as illustrated by the announcement of a final investment decision for CP2 LNG on 28 July 2025.

112. Another factor that may determine the impact of the Venture Global Arbitrations on the LNG industry is the outcome of the pending and future disputes. At the time of writing, Venture Global has won two cases (against Shell and Repsol), lost one (against BP), and settled two (with Edison and Unipec). Two more cases are pending, and the industry is very likely to draw lessons from the ultimate results.

113. Will the Venture Global Arbitrations prompt parties to draft COD provisions differently in future contracts? This is unlikely in the author's view. The nature of the LNG is business and the scale of the purchases are such that a buyer who expects large volumes of LNG in the future will not have a contingency volume replacement plan if the seller fails to deliver. Past the longstop date for the commencement of deliveries, the seller will be in default. What is more likely is that buyers (in future projects) will ensure that a seller would have no incentive to extend the commissioning period, either by being entitled to receive the commissioning cargoes until COD, or by insisting on a firm and irrevocable COD[22].

114. Finally, this paper does not examine the Plaquemines LNG project where COD also appears to be delayed. A second wave of arbitrations against Venture Global would also be significant, and may alter some of the analysis, but let us not speculate.

[22] Venture Global has started to sign a new type of LNG SPA where the obligation to deliver LNG begins as of a pre-established future date. They are named "Firm Start SPAs" in the 2025 Annual Report.

IV. CONTRACTUAL ANALYSIS

115. This section examines the Venture Global Arbitrations from the perspective of the project lawyer, who is the draftsperson of the LNG SPAs and other project agreements. It will address how the Venture Global LNG SPAs may have allowed the disputes to unfold, and how contract drafting could prevent similar disputes.

A. BACKGROUND

116. The development of projects such as Calcasieu Pass LNG generates a complex and wide set of legal agreements. LNG project lawyers (both in private practice and in-house) draft contracts that can be broadly categorised as agreements relating to the execution of the project (construction, services, sales, transportation, etc.), and agreements relating to the financing of the project.

117. The project agreements converge in the LNG SPA, where the LNG from the project is sold in advance, before construction of the production facilities even begins.

(a) Terminology

118. An LNG SPA is a contract for the sale and purchase of LNG. It defines the quality and quantity of the LNG sold, the LNG facilities, LNG transportation, LNG price and invoicing, and LNG measurement and testing. LNG can be sold by cargoes or through an annual volume (which will be broken down in cargoes and adjusted yearly). This will depend on many factors, including the purpose of the sale, the source of the LNG, and when the LNG will be delivered.

119. The term LNG SPA is used very broadly to refer to different categories of contracts. For example, a type of agreement called the Master LNG SPA[23] has a different structure and objectives, but is called an LNG SPA by many. "Proper" LNG SPAs come in three categories: "greenfield SPAs", "brownfield SPAs"[24], and "portfolio SPAs"[25]. These distinctions are not always appreciated.

120. The Calcasieu Pass LNG SPAs fall within the category of **greenfield SPAs**. In new LNG projects, LNG SPAs are concluded before a final investment decision is made. New LNG projects are very costly to develop (requiring billions of US dollars of capital investments), and debt finance is necessary. Loans are serviced and repaid from the proceeds of LNG sales. To secure financing, LNG projects need to secure revenue through the advance sale of the entire LNG production to creditworthy buyers, and for a duration correlated to the tenure of their loans. The greenfield SPA is the cornerstone of LNG project development.

[23] As the title suggests, the master LNG SPA is not a sales agreement but an agreement setting master terms for future sales.

[24] Brownfield SPAs are LNG SPAs for sales from a project already built and paid for. They differ from greenfield SPAs because there is no construction risk, the project is already operating (no uncertainty on COD), and already financed (no imperative for a long contract duration and free pricing).

[25] Portfolio SPAs relate to sales from a portfolio of LNG supplies. They further differ from greenfield and brownfield SPAs because there is no single source of LNG (origin of LNG varies and the source tends to be a contract rather than a plant) and have a different risk profile.

121. Greenfield SPAs have distinctive features to reflect the risks and constraints of the project, and address, for example:

- **Construction** risks (delays, adequacy of the plant);
- Risks attached to **deliveries commencing at a future date** (market risks, price risks);
- Uncertainty of a **final investment decision** (termination risk); and
- **Financing** constraints (default, cashflow adequacy).

122. These risks are interdependent. Delay risk is primarily addressed in the provisions on commissioning and start of commercial operations (COD). The future nature of deliveries is addressed in the COD provisions, and sometimes in the price review clause (if there is one). Uncertainty on an investment decision is addressed in conditions precedent. The LNG SPA reflects the financing constraints through the duration of the contract, and through the credit support requirements, including the credit-rating (and eligibility) of a buyer.

(b) The Calcasieu Pass LNG SPAs

123. The key issues in the Venture Global Arbitrations relate to commissioning, COD, force majeure, the RPO standard, termination, and aggregate liability.

124. None of the Calcasieu Pass LNG SPAs has been published. However, they are greenfield SPAs: their structure and most of their provisions follow industry practice. The Venture Global Arbitrations revolve around the interpretation of a handful of provisions where the Calcasieu Pass LNG SPAs may be different. The following discussion rests on two additional assumptions:

- The terms and conditions of the Venture Global LNG SPAs are essentially the same for each buyer.
- The LNG SPA drafted by Cheniere for the Sabine Pass LNG project (***Cheniere SPA***) was used as a model for the Calcasieu Pass LNG SPAs templates[26].

125. These are reasonable assumptions. Greenfield SPAs with multiple buyers tend to be on similar terms. The first draft is prepared by the seller, and the final versions of the LNG SPAs need to be acceptable to the lenders. Lenders' requirements typically prevent material changes to the risk allocation in the contracts. In addition, the seller as the operator of the plant and as the contract manager needs to perform its duties consistently. Commercial terms such as price and quantity are for the parties to decide. For many other terms and conditions, only minor variations are likely to be acceptable to the lenders.

126. Furthermore, Venture Global's 2024 Annual Report describes the LNG SPAs with the foundation buyers in general terms, a strong hint they are on similar terms and conditions.

127. A comparison of the commissioning provisions between the Cheniere SPA and the Venture Global-BP Calcasieu Pass LNG SPA shows sufficient similarities to consider that the Cheniere contract was the basis of Venture Global's template (see details below). The

[26] Several Cheniere SPAs relate to Sabine Pass. Quotes herein are taken from the Amended BG Cheniere LNG dated 25 January 2012.

commissioning provisions in the Cheniere SPA are in clause 4.3. In the Venture Global-BP Calcasieu Pass LNG SPA, it is also in clause 4.3. The clauses are similar in addressing the same risks in the context of a novel greenfield US project, and use a similar wording.

B. COMMISSIONING AND COD

(a) Traditional commissioning and COD clauses

128. When a greenfield LNG SPA is signed, a final investment decision has typically not been made and construction not begun. The supply period of an LNG SPA will start in the future and its precise date cannot be determined. An LNG SPA will set out a mechanism to determine the date commercial supplies begin, *i.e.* COD. Before COD, the newly built LNG liquefaction plant will be tested and started, *i.e.* commissioned.

129. Traditionally, LNG SPAs govern the period prior to COD. LNG commissioning provisions set out an interim egime where different rules apply to LNG sales and liability.

130. **Commissioning** is the technical phase where a plant is tested and put into operation. Until the Venture Global Arbitrations drew attention to it, LNG commissioning was considered an arcane aspect of LNG SPAs. During commissioning, the plant is tested and finetuned to ensure it complies with the performance and specifications contractually agreed. An LNG plant needs to demonstrate that it can produce the volume and quality of LNG at the required rates. This introduces two critical, but separate, requirements in the commissioning process:

(i) The contractor responsible for the construction of the plant must demonstrate that it has met its contractual obligations with respect to plant operation and completion of the plant construction; and

(ii) The plant owner must demonstrate that it can meet contractual LNG volumes within the LNG product specification under the SPA to each long-term buyer.

131. The commissioning provisions in LNG SPAs have evolved in the past 20 years. They are not standardised because they are intricately linked to the specificities of a project. Their contents reflect the issues they are intended to address although a reasonable level of similarity can be observed across LNG SPAs.

132. Long-term supply agreements do not necessarily need to cover a commissioning period. The use of commissioning clauses in LNG SPAs is historical. In the early days of the LNG industry (as stated above), there was no gas market to sell excess LNG to because the LNG trade was essentially bilateral. The sellers needed the buyers to take all the LNG produced, and the LNG SPAs contained provisions on the sale of excess gas to the buyers. During the commissioning period in particular, an LNG producer needed help from its offtakers for practical reasons: to undertake the commissioning a plant, the liquefaction facilities must be operated, and the LNG produced needs to go somehwere. Storage space in the tanks is limited, and once full, the LNG tanks need to be emptied (and the LNG loaded onto ships) for the commissioning to be completed.

133. **Seller liabilities at the start of the LNG project**. An LNG project will seek to eliminate any risk of breach, and in particular of shortfall, at the start of the production. In this respect, the commissioning clause is intended to eliminate breaches relating to

quantity, quality and scheduling before the project begins commercial operations. Three mechanisms are used to minimise liability at the beginning of the project:

(i) The commissioning clause, which mitigates liabilities relating to commissioning sales under the contract;

(ii) A funnelling mechanism, which helps align the start of supply with the end of construction and commissioning; and

(iii) The right for the seller to deliver replacement LNG or gas from any source, should the project be delayed.

134. Commissioning takes place during the funnelling mechanism. Although the time available for commissioning is limited by the longstop date, completion of commissioning is not typically a condition precedent to COD.

135. **The commissioning clause** defines the commissioning period and determines:

- When the plant is ready for commercial deliveries (COD);
- The future date commercial deliveries start (the funnelling mechanism); and
- What happens to LNG produced before commercial deliveries begin (the commissioning provisions).

136. **Commercial Operation Date** or **COD**[27]. In long-term commodities supply agreements, the date when deliveries start is generally defined in the contract. It is not the case in greenfield LNG SPAs, where the production plant has not been built yet, and where the deliveries need to start when the LNG plant is ready to be operated commercially. When the supply period begins (COD), the LNG SPA applies in its entirety, in particular its liability regime, including the obligation to take or pay and the liabilities for shortfall and off-specification LNG.

137. **The funnelling mechanism** is a complex mechanism in the LNG SPA to allow the parties to determine the start date in the future. It usually includes the following characteristics:

- The start date is determined in relation to a train (where there are several trains marketed at the same time);
- Several windows (4 or 5) are appointed by the seller to narrow down COD (the "funnelling" mechanism);
- The first window (of 12 months generally) is nominated after the project investment decision is made, with a longstop date[28] typically 3-4 years after the LNG SPA is effective;
- COD is deemed to take place on the last date of the final window; and
- Any force majeure taking place during that period extends the times agreed in the LNG SPA (subject to termination for prolonged force majeure).

[27] COD or commercial operation date is not a term of art. The term determines the start of the supply period in the LNG SPA. Common expressions are "date of first commercial delivery", "first production date", "commercial operation date" or simply "start date".

[28] The longstop date is a cut-off time for COD to start.

138. **The commissioning period**. The commissioning period is the time when commissioning takes place. It is defined as the period between the date of the first LNG delivery (known as the "first production date", or "date of initial supply") and COD. The commissioning period typically lasts a few months in a conventional project. During that time, the seller usually keeps the buyers informed of the progress of commissioning.

139. **Commissioning liabilities**. Selling LNG during the commissioning periods carries specific risks. As the plant may face problems, there is uncertainty on the time it will take to produce a cargo, on the specifications of the cargo and on the various terminal processes. The commissioning provisions set a transitory regime for LNG sales prior to the full implementation of an LNG SPA. Alternatively, an older practice was to provide for a no breach regime where the parties were expected to use reasonable endeavours to deliver and take a commissioning cargo.

140. As production during the commissioning period is expected to be irregular, commissioning clauses will give flexibility for the seller to determine the size of the commissioning cargo delivered, so that a shortfall will not create a liability, while expecting the buyer to lift a full cargo lot in order to allow the LNG storage tank to be unloaded. LNG SPAs also include a specific liability regime for failure to deliver or to take a commissioning cargo, subject to less strict obligations on modifying the delivery schedule and the delivered quantity. This liability regime may also be subject to the duration of the period between the date a commissioning cargo is offered to a buyer, and the time of delivery.

141. **Commissioning sales**. Who has the right to take the commissioning LNG is a matter for the parties in the LNG SPA. It is customary to offer the commissioning LNG to the long-term buyers.

142. In older LNG SPAs, it was common for commissioning cargoes to be sold at a discount of the contract price. Economically, this would have reflected the risks of additional cost of shipping and the volatility of the short-term market price. Alongside a move away from a no breach regime for failure to deliver or take, a recent trend is to sell the commissioning LNG at the contract price or at price based off a short-term index (such as TTF of JKM, price markers in Europe and Asia respectively).

143. While the repayment of the project loans and bonds would be expected to begin at the start date, the commissioning period may also generate revenue for the project. The decision of how to monetize the commissioning LNG will be specific to what the parties agree in each project. The delivery obligations, allocation and price of the commissioning LNG will be determined according to the LNG SPA.

(b) Commissioning and COD in the Calcasieu Pass LNG SPAs

144. While the Calcasieu Pass LNG SPAs follow a traditional structure including commissioning provisions, a funnelling mechanism and a longstop date[29], the details of their commissioning and COD provisions deviate from traditional LNG SPAs.

[29] Venture Global has disclosed the longstop date in public filings stating that under the LNG SPAs, COD had to occur "*by March 2024*" (which can be extended in certain circumstances, including in connection with a force majeure event).

145. **Commissioning cargoes**. In the Calcasieu Pass LNG SPAs, the seller has the ability to market the commissioning cargoes (although no details of its entitlement are known). Traditional LNG SPAs allocate commissioning cargoes to the buyers. This is the case in the Cheniere SPA where Cheniere has the obligation to sell "*Precommercial LNG*" (i.e. commissioning cargoes) to the buyer at roughly the same contract price as post-COD LNG.

146. The seller may decide to market it directly. It is not necessarily advantageous, a risk being that the production cost of the LNG may exceed the short-term market price at certain periods of the year It is noteworthy that, in the Venture Global Arbitrations, no dispute may have happened if Venture Global had not reserved the ability to market the commissioning cargoes itself. This is the commercial issue at the heart of the delayed COD.

147. **COD** is the only part of the Calcasieu Pass LNG SPAs where some provisions were publicised. Portions of sections 4.3 and 4.4 were disclosed by Venture Global during the FERC proceedings mentioned in the Chronology.

148. Section 4.3 of Venture Global's LNG SPA[30] defines COD as follows:

> *Subject in all respects to Section 4.4, the Day notified by Seller to Buyer in accordance with this Section 4.3 on which the Calcasieu Pass Facility is first commercially operable shall be the "Commercial Operation Date". For all purposes of this Agreement, the Commercial Operation Date shall not occur, and the Calcasieu Pass Facility shall not be considered "commercially operable", unless and until (i) all of the facilities comprising the Calcasieu Pass Facility have been completed and commissioned (including any ramp up period), (ii) the Calcasieu Pass Facility is capable of delivering LNG in quantities sufficient and quality necessary to permit Seller to perform all of its obligations hereunder and (iii) Seller shall have notified Buyer pursuant to and in accordance with this Section 4.3.*

149. Contrast this with Clause 4.3 of the Cheniere SPA:

> *4.3.1 Notwithstanding Section 4.2 to the contrary, if the Designated Train has not become commercially operable by the last Day of the Final Window Period as specified in Section 4.2.4, the Train 1 DFCD shall be the first Day on which the Designated Train is commercially operable as determined in accordance with Section 4.3.2, as notified by Seller.*
>
> *4.3.2 For all purposes of this Agreement, a Train shall not be considered "commercially operable" unless: such Train has been commissioned; such Train is capable of delivering LNG in quantities sufficient and quality necessary to permit Seller to perform its obligations in respect of such Train hereunder and its obligations in respect of such Train to any other customer who has an LNG sale and purchase agreement for the purchase and export of LNG from such Train [...]."*

150. There are two material differences between traditional COD and the Venture Global LNG SPAs. Firstly, COD is applied to the entire facility rather than each train: Cheniere's Sabine Pass provided for the commissioning of a train whereas Venture Global's Calcasieu Pass applies complete to the entire facility.

[30] Venture Global disclosed the wording of the clause for the BP, Shell and Orlen LNG SPAs in FERC proceedings.

151. Secondly, COD is subject to an additional condition: condition (iii) in Section 4.3 is specific to Venture Global. This clause creates some ambiguity. It clearly states that there is no COD until Venture Global has notified the buyer. It does not state when Venture Global makes this notification. In isolation, it seems to provide a third criteria for COD: Venture Global's discretion to declare it.

152. The materiality of this issue was confirmed in the Shell award where the tribunal held that declaring COD was a "judgment call" for Venture Global provided it acted as an RPO[31].

153. There are other differences relating to COD. Section 4.4 of the Venture Global LNG SPAs, which is referenced in Section 4.3 quoted above, provides:

> *Notwithstanding anything contained in this Agreement to the contrary, Seller shall not be deemed to be in breach of this Agreement, and shall not be liable in any manner to Buyer, as a result of the Commercial Operation Date not having occurred by any date certain.*

154. Section 4.4 excludes the seller's liability in case of delays to COD. This exclusion would be subject to any condition on the seller's ability to limit its liability (discussed below).

C. FORCE MAJEURE

(a) Overview of LNG Force Majeure

155. Force majeure events are common in the LNG industry. Force majeure is a civil law concept that is widely applied in international contracts through force majeure clauses.

156. **What force majeure is**. Force majeure is a contractual mechanism[32] that addresses the consequences of an unavoidable event in a contract. A force majeure clause protects a party from liability where a qualifying event has prevented or delayed performance of an obligation.

157. Force majeure is not a legal doctrine in common law jurisdictions such as England and Wales or New York. Under both laws, force majeure has no effect unless expressly set out in the contract. The scope, operation and consequences of force majeure depend on the terms agreed by the parties.

158. **LNG force majeure clauses**.Although force majeure clauses vary between contracts, LNG SPAs display a high degree of convergence. Firstly, LNG SPAs always include a force majeure clause. Secondly, while there is no standardised wording, most LNG force majeure clauses tend to contain similar features.

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[31] At the New York hearing held on 12 January 2026 in the annulment proceedings brought by Shell against the award in the arbitration won by Venture Global, Mark Friedman, counsel for Shell stated: "*if you go to the tribunal's actual findings at Paragraphs 196 and 197 of the award, what they say is, Whether to declare COD was a judgment call for VGCP* [Venture Global Calcasieu Pass] *to make so long as it did so in accordance with its obligation to act as a reasonable and prudent operator*." (Transcript, page 34, lines 9-12).

[32] Civil law force majeure is usually a statutory principle that applies in situation defined by law, but common law force majeure only exists in contract.

159. Typically, force majeure clauses in LNG SPAs contain the following elements:

- A definition of force majeure as a general principle;
- An exclusion of liability for delay or failure caused by force majeure;
- Conditions governing the conduct required to claim force majeure;
- An illustrative list of events constituting force majeure,
- A list of events excluded from force majeure;
- Procedural requirements to declare and to lift force majeure;
- A detailed obligation to mitigate the effects of the force majeure event;
- An obligation to resume performance once the force majeure event ceases; and
- Rights to terminate the LNG SPA if force majeure persists beyond an agreed duration.

160. **General principle**. A force majeure event is defined as an event outside the control of a party (and not caused by its fault or negligence), which could not be avoided, and which prevents or delays the performance of an obligation in the LNG SPA.

161. **Standard of conduct**. A party cannot rely on force majeure where its own negligence or lack of diligence contributed to the event. Moreover, a party claiming force majeure is expected to follow a standard of conduct. This standard of conduct may be expressly defined in the clause or the RPO standard may apply. Force majeure clauses usually provide that only a party that conducted itself as an RPO may invoke force majeure.

162. RPO definitions vary. The force majeure clause may not always use that terminology, but would include words to the same effect. The language is fairly harmonised and despite variations and tweaks, it consists of two elements:

(i) A duty to exercise the same degree of skill, diligence, prudence and foresight as a skilled operator; and

(ii) Compliance with international standards and regulation in the exercise of the duty.

(b) Specificities of Venture Global's force majeure claims

163. To the extent that the Calcasieu Pass LNG SPAs followed the Cheniere SPA's drafting, their force majeure clauses would would have followed a similar wording:

> *"Force Majeure" shall mean any act, event or circumstance, whether of the kind described herein or otherwise, that is not reasonably within the control of, does not result from the fault or negligence of, and would not have been avoided or overcome by the exercise of reasonable diligence by, the Party claiming Force Majeure [...], such Party [...] having observed a standard of conduct that is consistent with a Reasonable and Prudent Operator, and that prevents or delays in whole or in part such Party's performance of one or more of its obligations under this Agreement.*

164. The seller as operator of the LNG plant will be subject to a standard of performance in the LNG SPA, usually the RPO standard. The Cheniere SPA defines RPO as follows:

> *Reasonable and Prudent Operator: a Person seeking in good faith to perform its contractual obligations, and in so doing, and in the general conduct of its undertaking, exercising that degree of skill, diligence, prudence and foresight which would reasonably and ordinarily be expected from a skilled and experienced operator, complying with all applicable International Standards and practices and regulations and approvals of Governmental Authorities, engaged in the same type of undertaking under the same or similar circumstances and conditions*

165. Venture Global declared force majeure claiming that reliability issues in the HRSG units prevented or delayed COD. For force majeure to apply, Venture Global would need to establish that the HRSG issues:

- were not within its reasonable control,
- did not result from its fault or negligence,
- could not be avoided or overcome by the exercise of reasonable diligence, and
- occurred notwithstanding that it had "*observed a standard of conduct that is consistent with a Reasonable and Prudent Operator*".

166. The most unusual feature of the Venture Global Arbitrations is that force majeure was invoked in relation to a reliability issue in order to extend the commissioning period rather than to excuse a failure to deliver LNG[33] - which is traditionally the primary context in which force majeure is claimed under LNG SPAs.

167. Although the definition of force majeure does not, on its face, exclude events that affect commissioning or COD, it does require that the event "*prevents or delays in whole or in part* [the seller's] *performance of one or more of its obligations*". This raises the question of which contractual obligation was allegedly prevented or delayed by the HRSG issues. If it was the obligation to declare COD, the further question arises whether such an obligation constitutes the type of performance contemplated by the force majeure clause.

168. These issues sit at the intersection of contractual interpretation, commercial logic, and the parties' intentions. Without access to the evidence presented in the arbitrations (including the LNG SPAs), it is not possible to determine how the clause was applied in practice. However, it is reasonable to query whether contractual interpretation could override both common sense and the commercial purpose underlying the COD mechanism.

[33] It could be queried whether an extension of the commissioning period, which causes increased costs rather than an inability to produce LNG could constitute hardship. There is not enough information about the Venture Global Arbitrations to form a view on this point.

D. TERMINATION AND AGGREGATE LIABILITY

(a) Termination

169. LNG SPAs provide that if the duration of force majeure exceeds a certain duration (several years typically), one or both of the parties have the right to terminate the LNG SPA. This termination right may only apply after COD.

170. Before COD, the Cheniere SPA provides that if COD has not taken place 180 days after the end of the last window, a buyer can terminate the LNG SPA but only if the date has not been extended by force majeure. This is likely to apply also to the Venture Global LNG SPAs. In Venture Global's own words:

> *The Calcasieu Project has also notified all of its customers under the Calcasieu Foundation SPAs of a* force majeure *event in connection with the Calcasieu Project's HRSG units. As a result of such designation, the deadline for COD in such post-COD SPAs would be extended and such customers will not be entitled to terminate their respective post-COD SPAs as a result of failure to designate COD until June 2025.* [34]

171. If a buyer claimed successfully before an arbitral tribunal that the delays to COD were not excused by force majeure (as BP did), Venture Global's resulting breach would have triggered a buyer's termination right under the LNG SPA. That issue however was not raised in any arbitration according to Venture Global.

(b) Cap on liability

172. Traditional LNG SPAs cap the seller's liability for shortfall at a percentage of the LNG price. They do not include an "aggregate liability" cap.

173. The Cheniere SPA contains the following provision regarding aggregate liability (section 15.2.6):

> *15.2.6 Seller Aggregate Liability for Certain Events.*
>
> *(a) Notwithstanding any provision herein to the contrary, during any period in which the financing contemplated under a Direct Agreement or any re-financing thereof is outstanding, the maximum Seller Aggregate Liability as of any given date in respect of any occurrence or series of occurrences shall not exceed the Seller Liability Cap.*
>
> *(b) "Seller Aggregate Liability" shall mean, as of any date of determination, any and all liability of Seller to Buyer under this Agreement, excluding (i) any Seller liabilities under this Agreement for which Seller has already made payment to Buyer as of such date, (ii) any liability caused by the gross negligence or willful misconduct of Seller or an Affiliate of Seller and (iii) any amounts related to an indemnity obligation of Seller.*

[34] 2024 Annual Report.

174. Similar provisions are likely to be included in the Venture Global LNG SPAs. A "*seller aggregate liability cap*" is mentioned in Venture Global's annual reports and certain press releases.

175. Such aggregate liability caps are excluded in certain circumstances. The Cheniere SPA makes it subject to gross negligence or wilful misconduct. According to Venture Global, the aggregate liability cap was not applied by the arbitral tribunal on BP's damages claim. It is unclear what actual determination the tribunal made.

E. CONCLUSION

176. The principal conclusion from a contractual analysis of the Venture Global Arbitrations is that they do not expose fundamental flaws in LNG SPA drafting. Rather, the issues that arose were highly specific to the Calcasieu Pass project structure.

177. Nevertheless, the LNG industry is likely to take steps to avoid a repeat of the circumstances that gave rise to these disputes. Minor refinements to LNG SPA templates can be anticipated in the following areas:

- **COD**. LNG buyers are unlikely to tolerate any meaningful seller discretion in declaring COD. Future LNG SPAs are likely to tighten COD criteria and notification requirements. Venture Global itself has since signed LNG SPAs with a firm start date.
- **Commissioning clauses**. Given the potential seller's commercial incentives associated with an extended commissioning period, buyers may seek to secure rights to purchase the commissioning cargoes at a price correlated to the contract price rather than a market price.
- **Force majeure**. Force majeure clauses contain lists of inclusions and exclusions that are routinely supplemented when new industry events take place. It is possible that future LNG SPAs will expressly exclude commissioning delays from force majeure whenever the plant is able to produce LNG.
- **Confidentiality**: one feature of the Venture Global Arbitrations was the unusually limited disclosure of information prior to COD. Future LNG SPAs may introduce more stringent disclosure obligations, particularly if force majeure is invoked by the seller.

V. LNG ARBITRATION

178. Arbitration is the dispute resolution mechanism of choice in LNG SPAs[35].

179. Historically, there have been few LNG disputes that were resolved through arbitration. The small number of reported cases related mainly to price review under long-term LNG SPAs - an amicable process that does not necessarily lead to arbitration.

180. As LNG has become increasingly commoditised, however, the industry is becoming less consensual and more contentious, with disputes becoming more frequent and more public. The recent arbitrations involving Venture Global illustrate this shift.

A. BACKGROUND

181. The following paragraphs provide an overview of key features of arbitral proceedings that are necessary to understand the structure and outcomes of the Venture Global cases.

182. Arbitration is a formal method of dispute resolution where parties submit a dispute to an arbitral tribunal (composed of independent and impartial individuals), instead of national courts, and the arbitral tribunal decides the dispute in a binding decision called an award. Parties to a contract typically agree that they will have recourse to arbitration in case of dispute at the time the contract is agreed in a clause known simply as an arbitration clause. Arbitration is a private and non-governmental dispute resolution mechanism. It is an alternative to domestic courts and excludes their jurisdiction on the merits of the disputes[36].

183. The power of an arbitral tribunal to resolve a dispute and make a binding decision only exists because of the parties' contractual agreement, provided the law permits it. The parties' agreement is contained in an arbitration clause in the contract[37]. The parties retain a wide discretion with the conduct of the arbitration as long as they are in agreement. They can settle the dispute, agree different arbitration rules or change the seat of the arbitration if they wish, but only if they all agree. When the parties do not agree, the arbitration clause, the arbitration rules chosen by the parties and the law will provide the arbitral tribunal the power to decide. The arbitral tribunal's extensive power to conduct the proceedings and make a decision exist within the boundaries of the contract and the applicable law[38].

[35] It is also common for technical issues to be subjected to expert determination.

[36] Unless the parties agree otherwise.

[37] However, any agreement to arbitrate is sufficient and it is open to two parties to jointly decide that a dispute will be resolved by arbitration even if a contract does not contain an arbitration clause. The key point is that almost all national laws allow parties to submit their international commercial disputes to arbitration instead of domestic courts.

[38] Although beyond the scope of this paper, it is important to note that international arbitration recognises the autonomy of the arbitration clause: once the parties have included an arbitration clause in a contract, the clause remains valid and binding even if the contract is found null and void. Furthermore, the power of the arbitral tribunal to rule on its own competence is generally recognised.

184. **Arbitration clause**. An arbitration clause sets out details of the arbitral procedure such as the number of arbitrators, the seat of the arbitration, the applicable arbitration rules, the language of the proceedings, and sometimes other details regarding the composition of the tribunal or the procedure. Arbitration clauses in LNG SPAs are usually detailed.

185. In relation to the Venture Global Arbitrations, it should be noted that each arbitration arises from a separate LNG SPA, each containing its own arbitration clause. Although the underlying contract terms and factual background may be similar, the arbitrations are legally independent and are not procedurally linked.

186. **Institutional vs *ad hoc* arbitration**. Arbitration is usually administered by an arbitral institution which provides oversight and procedural safeguards. The Venture Global Arbitrations are all institutional arbitrations subject to the oversight of the International Chamber of Commerce (the ICC) or, in one case, the London Court of International Arbitration (the LCIA). Alternatively, an arbitration may be conducted on an *ad hoc* basis, without institutional supervision, relying instead on the parties' agreement and national arbitration laws.

187. **Multiparty arbitration**. In some cases, it is possible to have an arbitration with more than two parties. In a situation where there are separate contracts with different buyers, a multiparty arbitration could take place if the parties decide together to do so. Arbitral institutions and arbitral rules would not allow a consolidation in such a situation.

188. **Constitution of the arbitral tribunal**. At the time a dispute is submitted by one party to arbitration, it is necessary to appoint an arbitral tribunal. The tribunal generally consists of one or three arbitrators. The members of the arbitral tribunal are appointed by the parties or on their behalf. In three-member tribunals, each party usually appoints one arbitrator (a co-arbitrator), and the two co-arbitrators or the institution appoint the presiding arbitrator or chair, who takes the lead in the conduct of the arbitral proceedings.

189. **Role of the co-arbitrator**. Although a co-arbitrator can be appointed by a party, he or she is required to be independent and impartial and does not act as an advocate for the appointing party. Arbitration enables parties to appoint individuals with relevant industry expertise, which can be particularly valuable in technically complex disputes such as LNG cases.

190. The industry expertise of arbitrators is often critical. One of the principal advantages of arbitration over court litigation is the ability of parties to appoint arbitrators from the industry: lawyers who have expertise in the commercial context and the technical intricacies of a dispute, and who have experience in the industry contracts.

191. **Seat**. Each arbitration is geographically connected to a jurisdiction and often a city where proceedings are deemed to take place (*e.g*. Paris, London or Singapore). This is known as the seat of the arbitration. The seat determines the procedural law governing the arbitration and the courts with supervisory jurisdiction. The seat is often decided by the parties in the arbitration clause. If the arbitration clause is silent, the arbitral institution or the arbitral tribunal will determine the seat of the arbitration. The seat of the arbitration may differ from the substantive law governing the contract. The law of the seat is particularly important because it governs how local courts may assist the arbitral proceedings, and how the award can be challenged.

192. **Role of the arbitral tribunal**. The arbitral tribunal is responsible for conducting the proceedings and deciding the dispute. It must determine the issues presented by the parties on the basis of the evidence presented during the proceedings. The tribunal must address all claims put before it and may grant only only those remedies requested by the parties and supported by the evidence and applicable law.

193. In the Venture Global Arbitrations, each party presented its case independently in each dispute. An exchange of information between the buyers would have been restricted by their confidentiality obligations, although Venture Global would have had the benefit of knowing all the arguments made against it. Each tribunal was appointed independently and each process run separately. Arbitrators in different cases have no access to any information on these, including their existence and the identity of the other arbitrators (unless publicly disclosed). There is no concertation and strict confidentiality at the tribunal level. Each tribunal can only decide the case before it on the basis of the arguments presented by the parties. This means that if, for example, Shell and BP made different arguments in their arbitrations, the tribunal could only consider the arguments before it. Different arguments might lead to different decisions.

194. **Expert witnesses**. As part of the evidence before the tribunal, the parties can appoint expert witnesses to provide reports and testimonies on specific questions of fact. Expert witnesses can be appointed by the tribunal in some cases. Experts can play an important role when a dispute involves complicated technical matters.

195. **Award**. The arbitral award is usually final. It can only be set aside for exceptional reasons, usually relating to serious procedural problems. A final award is usually enforceable everywhere in the world through simple recognition by the national courts. This makes an arbitral award more effective than a court judgement. This is the case when the jurisdiction of the arbitration is seated and the jurisdiction where it is enforced are parties to an international treaty on the recognition of international arbitral award known as the 1958 New York Convention.

B. Details of the Venture Global Arbitrations

196. Public information on the contents of the claims in the Venture Global Arbitrations are summarised below.

(a) Buyers' claims

197. All Calcasieu Pass long-term buyers started arbitrations claiming that Venture Global refused to acknowledge that the LNG project could declare COD.

198. **BP claims**. BP argued that Venture Global had breached its obligations to declare COD in a timely manner, failed to act as an RPO, and breached certain other obligations. BP also claimed that Venture Global had failed to provide sufficient information or access regarding the Calcasieu Pass project. Among other remedies, BP claimed damages ranging from $3.7 billion to more than $6 billion, with interest, costs and attorneys' fees.

199. **Shell claims**. For Shell, the arbitration's central issue was Venture Global's refusal to acknowledge that Calcasieu Pass had achieved the contractual requirements for COD on 24 October 2022. Shell was seeking damages of approximately $1.7 billion.

200. **Edison claims**. Edison asked the tribunal to order Calcasieu Pass (a) to declare COD or alternatively to deliver LNG cargos at the contract price; and (b) to pay damages of approximately $1.5 billion.

201. **Repsol claims**. Repsol asked the tribunal to order Calcasieu Pass (a) to declare COD or alternatively to deliver LNG cargos at the contract price; and (b) to pay damages in excess of $400 million.

202. **GALP claims**. Galp claimed, *inter alia*, that the Calcasieu Pass project was late to declare COD, disputed that the delay to COD constituted force majeure, and sought damages in excess of $400 million.

203. **Orlen claims**. Orlen claimed, *inter alia*, that the Calcasieu Pass project was late to declare COD, disputed that the delay to COD constituted force majeure, and sought damages in excess of $2 billion.

(b) Status of Arbitration and findings

204. **Shell arbitration**. The tribunal issued an award on 12 August 2025 dismissing Shell's claims. The tribunal unanimously found that Venture Global had not breached its obligations under the LNG SPA and that it had no liability to Shell. The tribunal held that Venture Global was not required to declare COD before the first window period in the contract (which was from 1 January 2023 to 27 September 27 2023), while Shell was arguing that COD had occurred in October 2022. The tribunal also found that, subject to acting as an RPO, Venture Global had some discretion to declare COD, depending on whether or not commissioning was sufficiently advanced, whether it was comfortable with the volume, and whether it was ready to declare COD.

205. **BP arbitration**. A hearing on liability took place in September 2024. The tribunal issued an award on liability on 8 October 2025. The tribunal found that Venture Global had breached its obligations to declare COD in a timely manner and act as an RPO pursuant to the LNG SPA, along with certain other obligations. Venture Global added that based on the terms of the award, it did not expect the aggregate liability limitation to apply. A quantum award is expected in 2026.

206. **Repsol arbitration**. The hearing took place in November 2024 and the tribunal issued an award on 15 January 2026. The award determined that Venture Global had not breached its obligations under the LNG SPA and acted as an RPO in declaring COD on 15 April 2025. The tribunal denied all of Repsol's claims and required it to pay arbitration costs.

207. **Edison arbitration**. The hearing took place in October 2024 and an award was anticipated in 2026 before the parties settled.

208. **Galp arbitration**. The hearing for this arbitration proceeding took place in June 2025 and an award is anticipated in 2026.

209. **Orlen arbitration**. No details are currently available.

(c) Shell's attempt to vacate its award

210. On 10 November 2025, Shell filed a petition with the New York Supreme Court, Commercial Division, seeking to vacate the arbitral award. Shell alleged that Venture Global had "*engaged in fraud or misconduct by misleading the Tribunal about the existence of documents reflecting communications it had with about the central issue in the dispute: whether the Facility was ready for commercial operation in 2022*." Shell's claims relate to the testimony of a technical expert acting for Venture Global. It alleged that important information had been withheld.

211. Shell's application was rejected on 2 March 2026.

C. Key Arbitration Issues

212. The Venture Global Arbitrations attracted considerable attention within the LNG industry. Numerous online posts, commentary pieces, press articles and discussions continue to circulate. An observation worth repeating is that perception may matter more than substance when too little is known.

213. This section does not examine the substantial claims, which are mentioned in other parts of this paper, because there is not enough information on the awards to comment meaningfully. Instead, it examines how the Venture Global Arbitrations are perceived by the industry and what issues it raises for international arbitration.

(a) Inconsistent outcomes

214. One recurring concern is the perceived inconsistency in arbitral outcomes: how could very similar contractual terms and facts result in different arbitral results[39]? This perception of inconsistency can negatively affect confidence in arbitration. However, there are many explanations for the discrepances in arbitral outcomes. While it may be tempting to attribute them to tribunals, counsel, experts, or the parties, there are substantive reasons that are more relevant and important to understand.

(i) Tribunals can only decide the claims presented by the parties

215. Arbitration is a creature of contract. It exists because the parties to a given contract agreed that disputes arising out of that contract will be resolved through arbitration. When a party initiates arbitration, it defines the issues to be determined. The tribunal is limited to deciding those issues before it. As a result, two arbitrations arising out of similar contracts and facts may nevertheless be framed differently by the parties, and therefore approached and decided differently.

216. For example, based on the limited public information available, BP appears to have alleged that Venture Global failed to provide sufficient information or access regarding the Calcasieu Pass project. It is possible that the other buyers did not make a claim on that basis.

[39] As detailed in this paper, a tribunal found for BP in the case it brought against Venture Global, while the tribunals in the cases brought by Shell and Repsol found for Venture Global.

217. Similarly, Shell argued that COD should have occurred in October 2022, which was earlier than the first window in the funnelling mechanism. Other buyers may not have advanced such argument.

(ii) Tribunals can only consider the factual record placed before them

218. An arbitral tribunal can only take into the facts presented by the parties during the proceedings. These facts consist of documents, witness statements and expert reports. They may differ from one case to another for many reasons, for example:

- One party may possess documents that others do not.
- A witness may have unique knowledge of certain events.
- An expert witness will be informed by the above and may either know technical facts that others do not, or present facts in a different way.

(iii) Subjective factors

219. The interpretation of the intention of the parties would still be specific to each contract. Even in situations where arbitrations arise under contracts containing the same terms, the interpretation of each contract requires ascertaining the intention of each party. Such intention cannot be absolutely objective by nature. An illustration could be found in a misrepresentation case: to ascertain misrepresentation under English law, reliance must be proven. Reliance is subjective by nature and cannot be expected in each case in parallel proceedings.

220. In addition, the conduct of each party is material. Some claimants may have adopted a different conduct, or the respondent may have conducted itself differently with different parties.

221. Furthermore, in a series proceedings such as the Venture Global Arbitrations, each claimant is affected differently by the alleged breaches of the respondent. When a tribunal forms a view about the conduct of a party, the consequences of that conduct may matter. If there was no breach of contract, there can be no contractual damages. However, a breach will not be considered in a vacuum: disproportionate consequences in the real world are likely to have legal consequences.

(iv) The Respondent's natural advantage

222. Finally, it should be noted that Venture Global was sued by several parties at the same time for similar facts. It was in an advantageous position to acquire incremental knowledge about the possible arguments against it. This knowledge may also have benefitted its legal representative if it was the same in each case.

(b) Perceived parallel proceedings

(i) Parallel proceedings

223. Parallel proceedings can be defined as two or more proceedings submitted to different arbitral tribunals where (i) one of the parties is the same and the core facts are the same, and (ii) the proceedings are further related insofar as the causes of action are substantially the same or the object of the actions are substantially the same[40].

224. Strictly speaking, the Venture Global Arbitrations are not parallel proceedings. However, they are closely related in the contracts and in the facts. Their outcome are independent, but one could imagine a scenario where overlap takes place, for example if an arbitral award forces Venture Global to take action that impact all the contracts.

225. **The possibility of conflicting decisions**. What would have happened if a tribunal had ordered Venture Global to declare COD? Theoretically, *res judicata* in one case should not have an impact on another case because the decision is binding only on the parties to the dispute and in relation to the contract in dispute. But what would happen if a tribunal's award ordered the seller to declare COD and the seller had to make a regulatory filing to that effect? And what would happen if two arbitral tribunals ordered the seller to take two contradictory courses of action, each with contradictory regulatory consequences? Presumably, once the courts have enforced the first decision, the second award could not be enforced by the same courts?

226. Although no arbitral decision affected the other arbitrations, the appearance of inconsistency may undermine arbitration. Divergent outcomes across similar cases can create the impression that arbitration is unpredictable, which may in turn concern LNG contracting parties who rely on arbitration as their primary dispute resolution mechanism.

227. Yet, as explained in the preceding section, it is possible and legitimate for separate tribunals to reach different results. Arbitration is fundamentally bilateral, contract-specific, and confidential. Each tribunal decides only the case before it on the basis of the evidence, arguments, and conduct presented by the parties in that particular arbitration. Differences in pleadings, factual records, expert testimony and contractual arguments naturally lead to different outcomes.

(ii) Possible remedies

228. There are tools to mitigate the risks inherent in parallel proceedings, particularly in institutional arbitration. These may include, provided the arbitrations are subject to the same rules:

- Joinder: the ability to join additional parties to an existing arbitration.
- Consolidation: the possibility to merge related disputes under several contracts into a single arbitration.

[40] This definition is borrowed from "Parallel Proceedings in International Arbitration", Salim Moollan's course at the Academy of International Law, The Hague , Brill Nijhoff, 2024.

- Concurrent proceedings before the same tribunal: separate proceedings before the same tribunal with the same procedural calendar and hearings, but separate awards.

229. One remedy that would apply even if the arbitrations were subject to different rules is a stay of proceedings, which is the power of a tribunal to suspend an arbitration until a specific issue is determined by another jurisdiction.

230. More generally, the parties have the power to decide the arbitral procedure: the parties can agree together an *ad hoc* process for a specific set of parallel proceedings, and use a mix of the mechanisms mentioned above. However, this presupposes cooperation, which is not usual after a dispute has reached the contentious stages.

231. Nevertheless, it should be recognised that only the LNG industry is in a position to take preventive action against parallel proceedings, for example through the adoptions of arbitration principles that would apply in LNG arbitrations. This type of initiative would require an industry-wide discussion.

D. CONCLUSION

232. Major problems are numerous in the LNG industry, so what changed? How could the Venture Global Arbitrations be described as "the first major LNG arbitrations"?

233. **The Venture Global Arbitrations had a psychological impact on the LNG industry**. They are a precedent and the first occurrence of something that was considered unthinkable by many until recently.

234. **The Venture Global Arbitrations reveal that a paradigm shift already took place in the LNG industry**. In recent years, trading disputes have become common. This is a consequence of the steep growth of the short-term LNG trade which did not exist some decades ago and represent a third of the global LNG trade today. The Venture Global Arbitrations suggest that the commoditisation of LNG, driven by the short-term LNG trade is also changing the LNG industry in relation to long-term projects.

235. **The historical reasons to avoid disputes are less relevant**. When the LNG market was limited to a small number of producers and buyers, there were two reasons to avoid disputes. Firstly, all the LNG companies had long-term contracts which they needed to continue operating: this disincentivises a contentious management of disputes. Secondly, given the size of the market, falling out resulted in a material loss of access to a portion of the market: each producer and importer had a material market share.

236. **A geographical shift of the market is also conducive to more LNG disputes**. It is generally held (rightly or wrongly) that Asian LNG buyers avoid dispute resolution mechanisms and arbitration. This may be partially true in disputes between East Asian parties and international counterparties. It is perhaps not surprising that Calcasieu Pass had two Asian buyers, only one of which started arbitral proceedings which they promptly settled. However, the LNG market has grown greatly outside of Asia. This is also illustrated by the Venture Global Arbitrations: none of the foundation buyers is Asian. New countries, new parties, new business models, new business cultures, new attitude, and new misunderstandings…And attitudes may also change across Asia.

237. **There are too many unresolved issues in LNG SPAs for more disputes to be avoide**d. Finally, one of the effects that dispute avoidance had on LNG SPAs is that numerous drafting shortcomings have been left unresolved. Contracting needs to be tidied up and loopholes mended. It is not unreasonable to anticipate that many will be revealed through future arbitrations.

VI. FINAL OBSERVATIONS

238. This paper has examined the publicly available information about the Venture Global Arbitrations in a critical context. Ultimately, only the facts matter and only the arbitral tribunals and the parties may know the facts.

239. The Venture Global Arbitrations are significant because they are a series of large scale disputes where all the long-term buyers of an LNG project have turned against the seller. The importance of the Venture Global Arbitrations also lies in perception. Even where the full facts remain unknown, the public information matters and influences commercial conduct.

240. The Venture Global Arbitrations do not signal that LNG SPAs are broken. Rather, they reflect the particular features and circumstances of the Calcasieu Pass project. In the author's view, they do not demonstrate a failure of good faith or commercial reasonableness by a party.

241. The Venture Global Arbitrations are also significant because many did not expect Venture Global to be successful in some of the arbitrations LNG parties involved in arbitration should bear in mind that LNG is a technical industry. LNG disputes require a deep understanding of the industry, the markets, the technical processes, the contractual structures and the legal principles. While it is tempting to delegate all technical matters to experts, it is rarely satisfactory if the tribunal cannot independently evaluate the industry issues in the case. Because parties typically have the right to appoint an arbitrator, that right should be exercised strategically to ensure that the tribunal includes members with relevant LNG or energy-sector expertise.

242. As for the outcome of the pending arbitrations, it is safe to predict they may go either way. Prior decisions in the other cases are not predictive of the results in the remaining proceedings. Nevertheless, it remains to be seen whether Venture Global's Plaquemines LNG, where COD also seems delayed, will lead to additional arbitrations.