Taking of Evidence in International Arbitration

27 November 2025

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Roadmap

- Case study: LNG price review arbitration
- Issues that can and do arise in an arbitration
- Role of disclosure

Background: Liquefied natural gas ("LNG")

Liquefied Natural Gas ("LNG")

- Gas is delivered in pipelines where connections exist.
- Where there are no direct pipelines, gas is shipped as LNG
  - Where markets are not easily accessible by pipeline transport, gas is typically bought and sold as liquefied natural gas or **LNG**.
  - LNG is natural gas that is cooled until it changes from a gaseous state into a liquid state (-161° C).
  - Cooling the gas to liquid form reduces the gas's volume by approximately 600 times and allows economic transport over long distances, especially those which are otherwise not connected by pipeline.
  - The first commercial deliveries of LNG were from Algeria to the UK. In the late 1960s and 1970s, LNG production and transport began in the Pacific.
  - Since 2000, there have been numerous LNG facilities constructed or renewed in Australia, Indonesia, Oman, Russia, Qatar, Peru, Russia, etc.

LNG Lifecycle

Offshore production

Liquefaction and cargo storage

Cargos shipped on LNG tanker

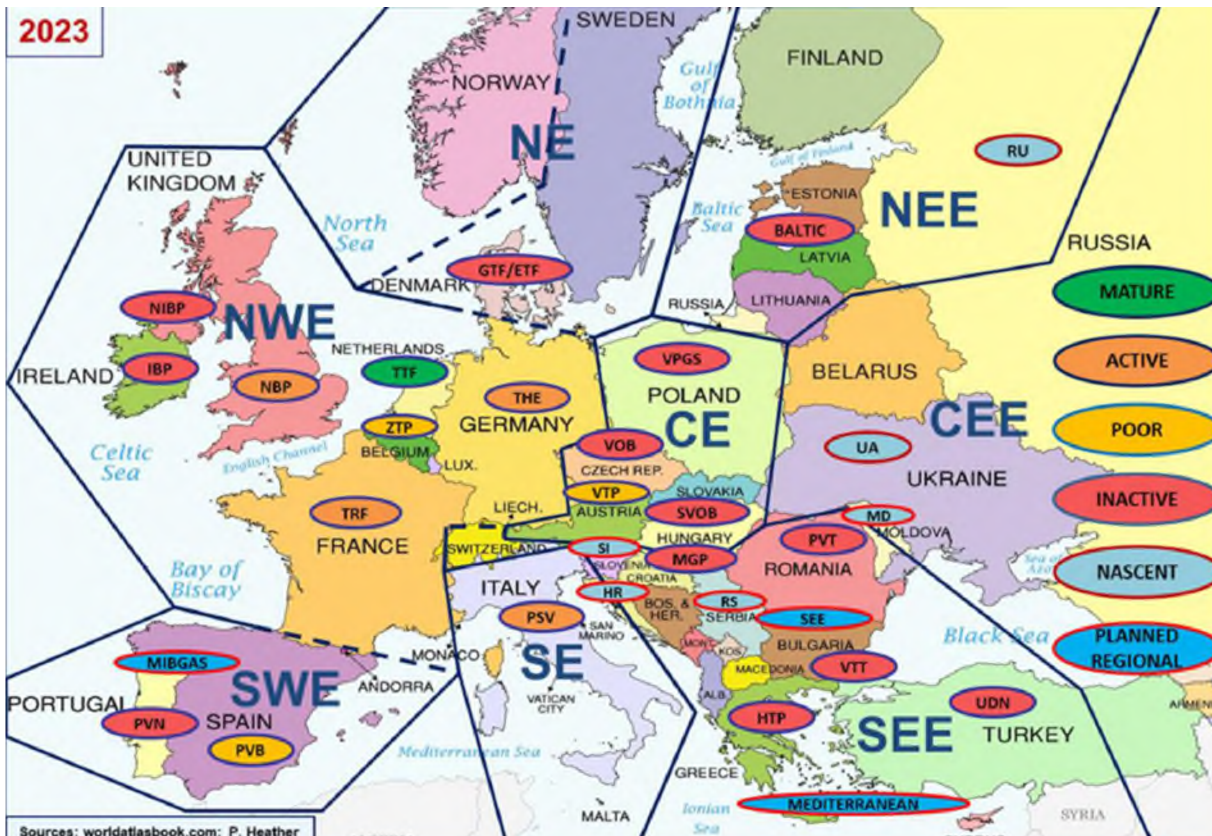
Tanker arrives; regasification

Transmitted to consumers by pipeline

Gas consumed

How is gas sold?

- Pursuant to bilateral long-term contracts between producer/exporter (seller) and importer (buyer).
- In one-off "spot" transactions between buyer/seller or on the market.



Long-term contracts

- For decades, gas was exported to importing countries only under long-term sale and purchase contracts.
- These contracts are referred to by a variety of acronyms:
  - LTCs (long-term contract)
  - GSAs (gas sale agreement)
  - GSPAs (gas sale and purchase agreement)
  - SPAs (sale and purchase agreement)
  - GSFAs (gas sales framework agreement)
  - MSPA (master sale and purchase agreement – another name for a framework agreement)
- All of these contracts have their own specific provisions, but there are typical provisions we can identify across them.

LNG:

FOB & DES

- There are two general types of LNG SPAs:
  - FOB SPAs (“Free on Board”)
    - The buyer goes to the seller’s LNG facility and loads the LNG onto its own ship (or one that it hires).
  - DES (“Delivered Ex Ship”)
    - The seller loads the LNG onto its own ship and delivers it to the buyer.
  - Some SPAs provide for both DES and FOB deliveries.

Risk allocation

- Under long-term SPAs, the typical risk allocation is:

The **buyer** assumes the **volume risk**.

The **seller** assumes the **price risk**.

- Seller's obligation: to make a specific volume of gas available to Buyer at agreed intervals.
- Buyer's obligation: **to take or pay** for a specific volume of gas.
- These amounts are not always identical.

Risk allocation

- "Take-or-pay" means that a buyer agrees:
  - it will offtake a pre-determined volume of gas/LNG made available by the seller

  or

  - it will nevertheless pay for that pre-determined volume, even if it does not ultimately offtake that much gas.
- Without buyers' take-or-pay commitments, a seller could not finance an LNG project.

This commitment to take or pay for a pre-determined volume is known as the "*volume risk*."

Risk allocation

- In order to undertake the volume risk, buyers need to be assured that the price they pay for the gas will remain viable over the long term of the contract.
- The buyer's volume commitment would not be sustainable if the buyer had to incur a financial loss when reselling the gas, for years on end.
- Parties typically include a **price review clause** that permits either party to seek a revision of the contract price.

The fact that the price can be reviewed and revised at pre-determined intervals is often known as the "*price risk*."

Contract Price

- SPAs typically price gas according to a contract price formula.
  - Pursuant to the price formula, the Contract Price will vary over time.
  - The Contract Price is often indexed to a commodity.

Contract Price

Europe:

- Historically, in European contracts, the price formula consisted of a negotiated base price (“P_0”) indexed to a basket of competing alternative fuels (often gasoil, heavy fuel oil, and/or coal).

$$P = P_0 \times (0.30 \times GO) + (0.2 \times LSF) + (0.10 \times HC)$$

- Prior to ~2010, there was no market price for gas. Gas was priced based on oil prices, which served as a proxy for market prices.
- By 2010, two major market disruptions occurred:
  - Economic downturn commencing in 2008 (Demand)
  - USA began producing shale gas as a result of “fracking” (Supply)

Contract Price

Europe:

- As a result, the gas market became much more “liquid”.
- A supply surplus allowed market participants to trade gas at market “hubs” in a way they had not before.
- These hubs thus began to set a price signal for gas.
- Oil prices and gas prices began to decouple and diverge from one another.

Contract Price

Rise of trading hubs:

Contract Price

Europe:

- A wave of price review arbitrations began.
- Under the terms of most contracts, a party could ask for a change in price based on unforeseen changes in market circumstances.
- The move toward hub pricing and away from oil pricing was one of those changes.

Contract Price

Europe:

- More and more frequently, price formulae are incorporating (to varying degrees) hub pricing. This is done by:
  - Indexing the contract price (or a portion of it) to a specified price on a specified hub (a physical and virtual transfer point) – i.e. 50% of the price = month-ahead pricing at the TTF Dutch hub ("TTF MA").
  - Creating "price corridors" or "price collars" where when the Contract Price exceeds the hub price by a certain amount, the Contract Price or a portion of the Contract Price has a floor and ceiling relative to hub prices.

Contract Price

Asia:

- In Asian LNG SPAs, the price is typically linked to oil via the **JCC**.
  - JCC is the "Japan Crude Cocktail" or "Japan Customs-cleared Crude Oil Price" and is the average price of customs-cleared crude oil imports into Japan.
- Price formulae are typically expressed as a percentage of JCC – for example "13% JCC." This % number is known as the "***slope***."
- Formulae may have "inflection points," which are designated high and low oil prices. Where the oil price exceeds the high inflection point or decreases below the low inflection point, the slope of the formula changes.
- Asia does not have a liquid gas hub. However, it does have a market price signal for spot gas: JKM (Japan Korea Marker).

Price Review Clauses

- Most but not all modern SPAs contain a price review clause.
- Price review clauses typically provide a mechanism setting forth how an SPA's price will be reviewed and/or revised. They may provide:
  - How a request for a price review should be made;
  - How frequently a request for a price review can be made;
  - What, if anything, must occur to "trigger" a price review;
  - What standards or requirements any revision to the price must meet;
  - What process follows in the event the parties are unable to reach agreement.

What is the purpose of a price review clause?

- The purpose of a price review clause is to give each party the right to have the contract price realigned in accordance with the terms of the clause, provided that any conditions for the realignment are met, including the requirements to trigger the review.

Price Review Clauses

- Frequency:
  - Typically, a price review clause establishes review periods of a specified length (*e.g.*, three to five years).
  - During each review period a party can request a price review once, after the specified period has concluded – so once every three years, or once every five years.
  - Some SPAs permit “wildcard” or “joker” requests that can be used in addition to the usual review period request.

Price Review Clauses

- What must be established to "trigger" a revision of the Contract Price? It varies considerably from contract to contract.

- **<u>In Europe</u>**, typically there must be a change in circumstances in a defined (often geographical) market, which:

  - Is of a specified level of seriousness (*e.g. substantial or significant*)

  - Is beyond the control of the party/parties; not foreseeable/expected

  - Has a specified effect (*e.g. contract price no longer reflects value of Natural Gas in Buyer's end user market*)

- **<u>In Asia,</u>** often there are no trigger requirements other than the passage of a specified period of time.

  - For example, a party could trigger a price review every five years, regardless of whether there has been a change in market circumstances.

Price Review Clauses

- Limited number of price review clauses in public domain.

One example: *Atlantic LNG* (European Clause)

If at any time either Party considers that ***economic circumstances in Spain beyond the control of the Parties, while exercising due diligence, have substantially changed as compared to what it reasonably expected when entering into this Contract*** or, after the first Contract Price revision under this Article 8.5, at the time of the latest Contract Price revision under this Article 8.5, ***and the Contract Price resulting from application of the formula set forth in Article 8.1 does not reflect the value of Natural Gas in the Buyer's end user market***, then such Party may, by notifying the other Party in writing and giving with such notice information supporting its belief, request that the Parties should forthwith enter into negotiations to determine ***whether or not such changed circumstances exist and justify a revision*** of the Contract Price provisions and, if so, to seek agreement on a ***fair and equitable revision*** of the above-mentioned Contract Price provisions in accordance with the remaining provisions of this Article 8.5.

… If agreement is not reached within six (6) months from the date of notifying the request for Contract Price revision, either Party may submit the matter to arbitration ….

Issues which may lead to arbitration

Have the trigger requirements been met?

- Whether the asserted change in circumstance occurred?

"economic circumstances in Spain … have substantially changed"

- What is the correct review period?

"***as compared to what it reasonably expected when entering into this Contract*** **or, after the first Contract Price revision under this Article 8.5, at the time of the latest Contract Price revision under this Article 8.5**"

- Did the asserted change occur in the review period? Or is it a continuation of something commenced prior to the review period?
- Whether the asserted change is "significant" or "substantial"?
- Whether it was foreseeable? Beyond a Party's control?

"economic circumstances in Spain beyond the control of the Parties, while exercising due diligence, have substantially changed as compared to what it reasonably expected when entering into this Contract"

Issues which may lead to arbitration

Have the trigger requirements been met?

- What benchmarks are relevant in assessing whether the change occurred?
- What weight should be given to any mandatory considerations or benchmarks?
- What market/market level should be assessed?

"the Contract Price resulting from application of the formula set forth in Article 8.1 does not reflect the value of Natural Gas in the Buyer's end user market …"

- Is the asserted change already reflected in the prevailing price?

"***whether or not such changed circumstances exist and justify a revision"***

Price Review Clauses

- An Asian PR Clause might read:

Within six (6) months after the beginning of every consecutive five (5) Contract Years, either Buyer or Seller may request a review of the Contract Price.

Upon such request, the Parties shall meet and discuss in good faith and review the Contract Price. The discussion will include whether a change to the Contract Price is appropriate. Buyer and Seller will take into consideration issues including (a) whether either Party is at a material disadvantage compared to other long-term contract prices of LNG imported to Korea; and (b) broader market circumstances prevailing and expected to prevail in Korea.

If the Parties have not reached agreement to revise or reaffirm the Contract Price within six months of either Party requesting a review of the Contract Price, either Party may seek to extend by written request the Parties' discussions, including with regard to what actions are to be taken.

Price Review Clauses

- Price Review Clauses may specify certain mandatory considerations or benchmarks that the parties must take into account in assessing the price revision request
  - "In reviewing the Contract Price in accordance with a request pursuant to sub-Article 14.5(a) above ***the Parties shall take into account levels and trends in price of supplies of LNG and Natural Gas into Korea, such supplies being sold under commercial contracts currently in force on arm's length terms***, and having due regard to all characteristics of such supplies (including, but not limited to quality, quantity, interruptability, flexibility of deliveries and term of supply)."
  - "Buyer and Seller will take into consideration issues including (a) whether either Party is at a material disadvantage compared to other long-term contract prices of LNG imported to Korea; and (b) broader market circumstances prevailing and expected to prevail in Korea."

Typical issues in price reviews

Issues regarding the adjustment:

- Is there a standard in the contract regarding adjustment of the price ("fair and equitable" or otherwise?)
- Are there specified benchmarks to consider? (e.g. "long-term contracts into Japan")
- Which benchmarks should be considered?
- How should they be assessed or weighted?
- Transaction price approach or delivered price approach?
- What is the Parties' past practice with respect to how to revise the price?
- Which level of the market is relevant? (import prices, wholesale/hub prices, downstream prices, etc.)
- Which geographical market is relevant?
- What about shipping? What, if anything, do we do with it?
- Can the price formula be rewritten entirely (change of structure) or only amended?

What does the price review clause say about:

- How a price review may be requested, *i.e.*, are there any trigger requirements;
- What the parties must do once a party initiates/triggers a price review;
- What are the factors that the parties must consider when discussing whether to revise the price;
- How long the parties must “discuss”;
- What happens if the parties are unable to reach agreement.

Price Review clause

Clause X: Price Review

Within six (6) months after the beginning of every consecutive four (4) Contract Years, commencing on the fourth (4th) anniversary of the Commercial Start Date, either Buyer or Sellers may request a review of the then Contract Price whereupon Buyer and Sellers shall have good faith discussions and may agree whether a change to the Contract Price is appropriate to apply from the beginning of such consecutive four (4) Contract Years for the remainder of the Contract Term. As a basis for the discussion, Buyer and Sellers will take into consideration various factors including whether the then current Contract Price has become a serious disadvantage to either Buyer or Seller, as well as trends in the price of oil and gas in the region.

Jurisdictional issues

- Is there jurisdiction to arbitrate a price revision?
- In relation to price review arbitration, Asian SPAs generally fall into the **three categories** along a "**jurisdictional spectrum**":

Category #1

No price review clause OR

Express exclusion of price review arbitration

Category #2

Price review clause exists BUT

No express reference to arbitration

Category #3

Price review clause expressly provides for arbitration

Dispute resolution clauses in SPAS

- Most SPAs have broad dispute resolution clauses:

"The Parties shall discuss in good faith discuss and attempt to amicably resolve all disputes arising out of or in connection with this Agreement including, without limitation, any dispute as to the construction, validity, enforceability, breach, or termination of this Agreement. Any dispute not resolved within sixty (60) days of after either Party gives written notice of dispute shall be settled in accordance with the ICC Arbitration Rules. The language of arbitration shall be English, the place of arbitration shall be Singapore. The number of arbitrators shall be three (3), appointed in accordance with the ICC Rules. The decision of a majority of the arbitrators shall be final and binding upon the Parties."

Jurisdiction

- What types of jurisdictional issues might arise?
  - Does the price review clause provide for arbitration where the parties are unable to agree on whether to revise the contract price?
  - If it is ambiguous—i.e., does not say what happens if the parties discuss but are unable to agree—how might either side argue?

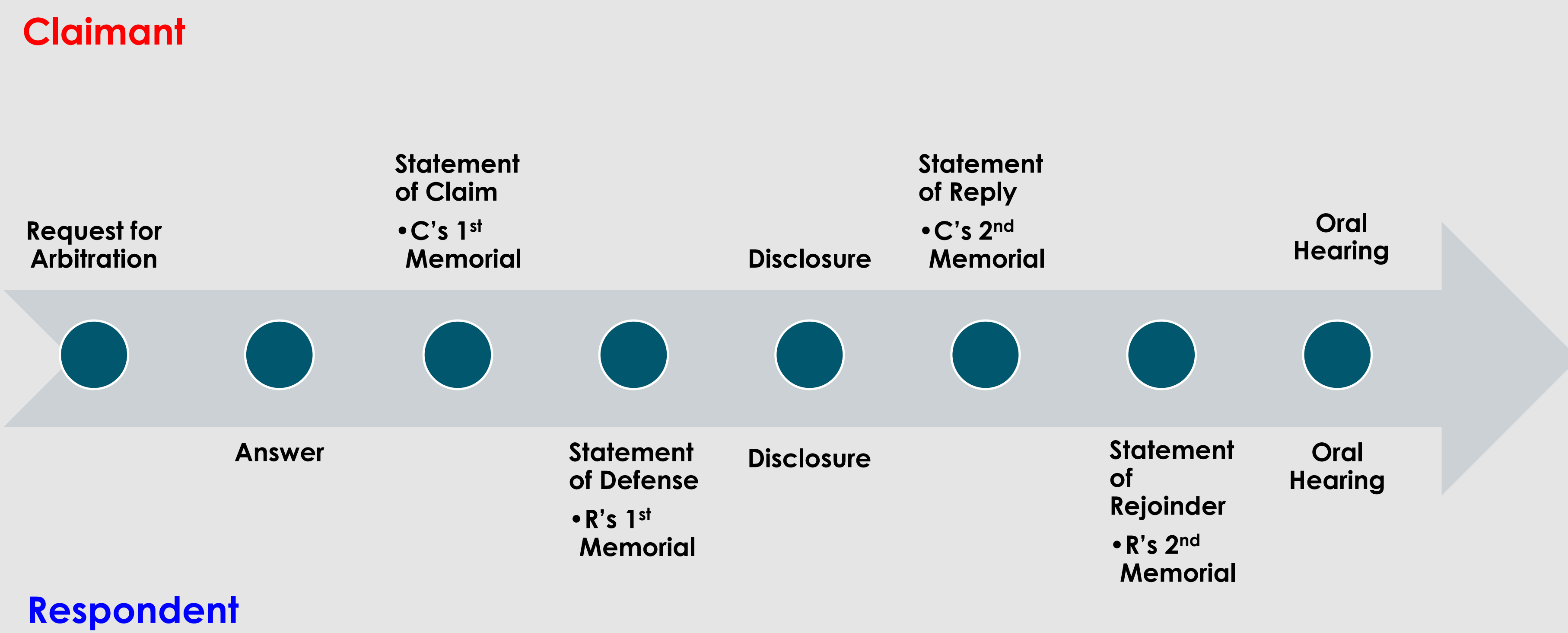
Jurisdiction: Yes/No?

In arguing for/against jurisdiction, what are some considerations that the tribunal or parties may put forward?

Other jurisdictional issues:

- What happens when a Party proposes an adjustment for the first time only in its arbitration defense?
- What happens when a Party seeks to revise not just the price but the non-price terms?

Timeline of an Arbitration



Bifurcation

- A measure used to promote procedural economy, by allowing the tribunal to first decide on discrete issues;
- Where there are issues that can be decided on a preliminary basis and can be easily separated from the rest of the dispute
  - Jurisdiction
  - Admissibility
  - Liability
- Can be refused where the preliminary ruling would also require consideration of the merits of the case
  - In which case bifurcation would be counterproductive and have no economic advantage

2021 ICC Rules:

Bifurcation

- The 2021 ICC Rules do not contain a specific rule on bifurcation but rather allow tribunals discretion.
- Bifurcation is contemplated in Appendix IV – Case Management Techniques:

  "a) Bifurcating the proceedings or rendering one or more partial awards on key issues, when doing so may genuinely be expected to result in a more efficient resolution of the case."

2020 LCIA Rules:

Bifurcation

- The 2020 LCIA Rules do not contain a specific rule on bifurcation but allow the tribunal discretion.
- The updated rules created a new "Early Determination" procedural mechanism (Art. 22.1(viii)) that encourages tribunals to dispose of a claim or defense early.
- Article 14.1(ii) of the LCIA Rules:

  "a duty to adopt procedures suitable to the circumstances of the arbitration, avoiding unnecessary delay and expense, so as to provide a fair, efficient and expeditious means for the final resolution of the parties' dispute."
- Article 14.6(iv):

  "deciding the stage of the arbitration at which any issue or issues shall be determined, and in what order, in accordance with Article 22.1(vii) below"

Bifurcation

- Bifurcation entails splitting arguments into two phases—which are typically either (1) jurisdiction and liability, or (2) liability and damages.
- If there is concern about whether the tribunal has jurisdiction to hear all (or part) of a claim, the parties may choose to bifurcate proceedings.
- The major arbitral rules allow tribunals wide discretion to bifurcate proceedings.
- If granted, this would result in the parties and the tribunal determining a separate timetable to hear the bifurcation.

What are the pros/cons of bifurcation in a price review arbitration?

- Which party might request bifurcation?
- How would they bifurcate the proceeding?

Role of witnesses

- Fact and expert witnesses have different, but equally important, roles in an arbitration—the goal of which is to assist the tribunal with assessing the merits of a claim.
- For damages, fact witnesses are key in bringing context to any damages evidence.
  - E.g., employees in the financial or accounting departments, role in the financial negotiation of relevant contracts.
- Important for providing background to the decisions made by the party during a project, or negotiation in a price review.
  - This background may provide much-needed context about the contemporaneous documents put forward by the parties.
- Authenticate and explain the documents in the record.
- Credibility is an important consideration in determining whether to put an individual forward as a fact witnesses.

Role of experts

- Quantum experts act as independent expert witnesses, typically engaged to calculate or assess damages claimed by either party (and respond to and asses the damages claimed by the opposing party).
- Experts typically have not been contemporaneously involved with the underlying facts at issue in the arbitration.
- Either the tribunal or the parties may appoint quantum experts, though each party will typically appoint its own.
- Experts will need to be careful not to take an adversarial position.
- Independence and non-partiality is a key consideration for any quantum expert.
- Besides quantum experts, there may also be legal and technical experts.

What types of fact and expert witnesses may be needed in a price review arbitration?

Fact witnesses

- Someone who participated in the negotiation of the SPA and/or the price review.
- Someone who is familiar with the industry in which the LNG is delivered.
- Someone who is an employee of either party, typically in a technical or supervisory/management role.

Expert witnesses

- Someone familiar with the gas and LNG industry, with a focus on the commercial and economic aspects of natural gas supply contracts.

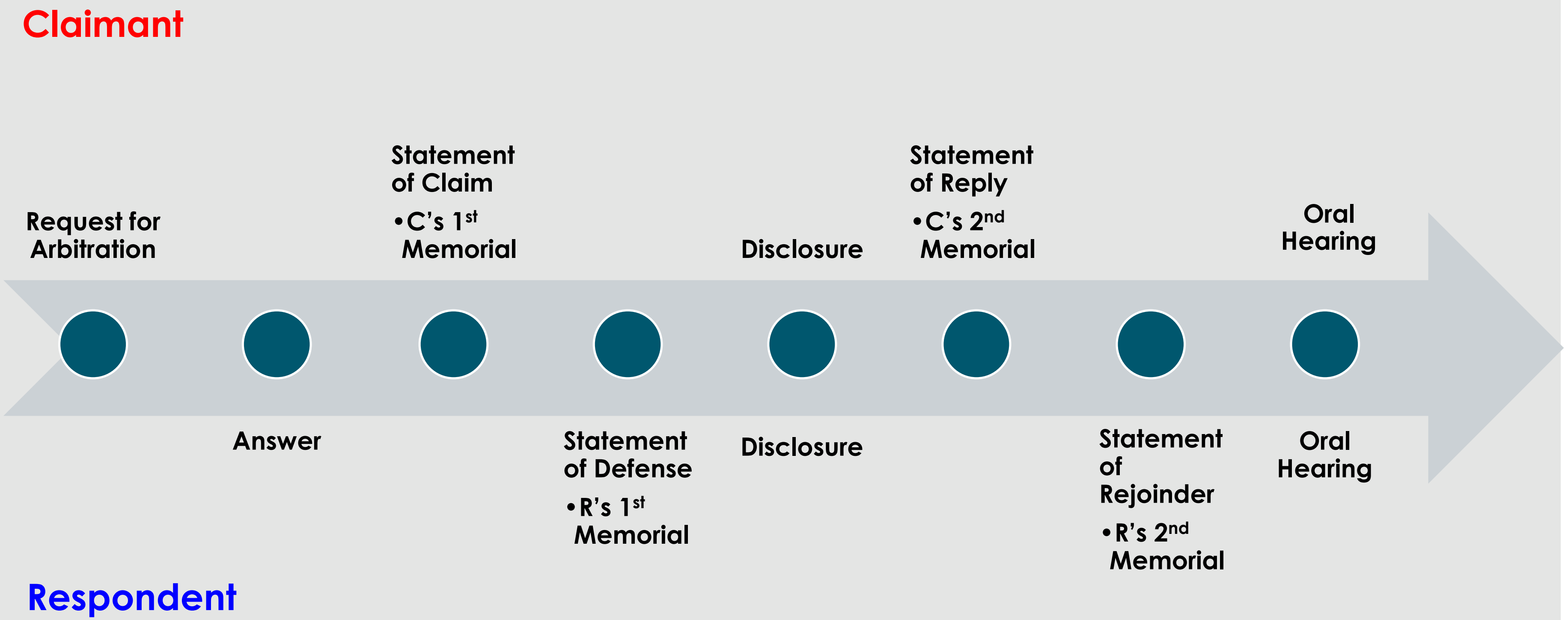
Why a price review dispute?

- Maintaining the risk allocation, with consideration of the parties' commercial bargain.
- Ensuring that the contract prices accurately reflect market conditions.
- Enhancing and ensuring the continuous nature of a long-term relationship.

Other typical natural gas disputes

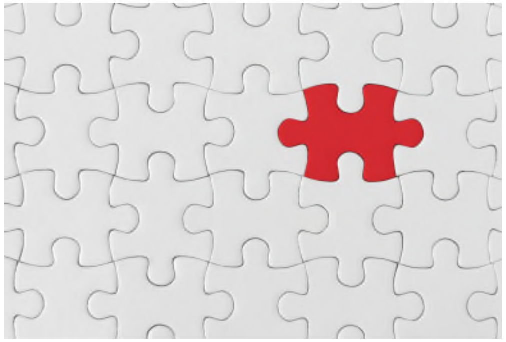
- Annual Delivery Programme (ADP)
- Delivery flexibility
- Force Majeure
- Diversions
- Make-Up
- Commissioning of new LNG projects
- Terminal operations

Timeline of an Arbitration



Role of disclosure

What you seek from the other side (their disclosure):



- What kinds of information might be relevant?
- What might one side want to know or ask for?
- What could be helpful or relevant to either fill in the gap to support your case or reveal deficiencies in opposing party's case?

What you may be required to disclosure (your disclosure):

- Consider the information that you may need to disclose but that might be harmful to your case.
- Depending on jurisdiction, the scope of disclosure may vary greatly.

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27 November 2025

Michelle Glassman Bock