

PANEL 3: QUANTUM AND PRICING ISSUES IN DISPUTES ALONG THE LNG PROJECT LIFE CYCLE

Natasha Ashby, Manuel Conthe, Colin Johnson, Benno Kimmelman, Miguel Nakhle, and Timothy G. Nelson

MR. NAKHLE: Okay. Welcome back, everyone. There are people that are still coming in, but I guess we'll get started with the afternoon session. My name is Miguel Nakhle, I'm a senior vice president with Compass Lexecon here in Houston. And, as I mentioned this morning, I'm co-chairing the conference.

This afternoon we have two very interesting panels. The first panel of this afternoon is called Quantum and Pricing Issues in Disputes Along the Liquefied Natural Gas Project Life Cycle. The moderator of this panel is Tim Nelson, who, as many of you know, is a New York-based partner of Skadden Arps in the international arbitration and litigation practice. He has practiced in Australia, England, and New York and has been involved in a wide variety of commercial and investment arbitrations, including the energy sector, some of which have involved complex issues of quantum. And, as you can see in Tim's bio, he has recently acted also in LNG disputes, which I hope he will be able to tell us some of that experience as well.

Tim will introduce to you the other panelists. So thank you very much.

MR. NELSON: Thank you very much for those kind words. We have a very distinguished panel. And what we'll be doing this afternoon is having, as best as we can, an interactive discussion.

We have to my right Benno Kimmelman, who's co-chair of Sidley Austin's global international arbitration practice, with a strong focus on commercial and treaty disputes. And if you read his bio, you will see he has had experience in the oil and gas and LNG field. He is also an adjunct professor at law at Brooklyn Law School, and is an adviser to the ALI's project on the Restatement of the Law of International Commercial Arbitration.

Next to him is Colin Johnson, who's Vice President in the energy practice at Charles River Associates. He has a long history of involvement in energy and infrastructure projects, in a number of capacities, including participant and financial adviser, and has acted as an expert witness in over 30 cases. He has particular expertise in relation to project finance in emerging markets, having worked in over 50 countries, and some of those geographies will be relevant to what we're discussing here.

Then to my far left we have the distinguished arbitrator Manuel Conthe of Spain, now a full-time independent international arbitrator as well as having a column in Spain's leading business newspaper. He is a lawyer and economist, with a recognized expertise in finance and energy markets in M&A transactions. And he's served as an arbitrator since 2010 and previously was a senior civil servant, rising from 2004 to 2007 to be chairman of Spain's CMNV, the equivalent of the U.S. Securities and Exchange Commission. CNMV. He's also written a number of books on economic and political paradoxes and game theory.

And then to my immediate left I have Natasha Ashby, Vice President of Law and Corporate Affairs at Atlantic LNG of Trinidad and Tobago. In her 15-year career at Atlantic, she has held senior managerial positions in the commercial team and treasury, finance, and risk. She oversaw the financing of Train 1 of Atlantic, both from a legal and treasury perspective; Train 4 expansion, including the construction agreements, sponsor agreements, and purchaser and sale agreements; and various arbitrations and reopeners, of which we hope to hear more. For myself, it's been a wonderful experience working with Atlantic, and we're privileged to have Natasha on the panel to share directly her experience of what it is like to be on an LNG project of enormous significance.

LNG is special in the following sense in the energy world: It is extremely capital intensive to build the train facilities that are involved in converting natural gas into liquefied natural gas. As anyone who has been involved in that kind of project knows, the project financing of LNG trains begins with the constituent players having to get together often involved in the equity structure, sometimes with either a major oil or gas company providing the upstream feedstock that goes into the LNG train, sometimes with a state-owned oil or gas company serving that role.

Often, the long-term supplier uptake arrangements are a vital part of the originating package of contracts that go to secure project financing. And so at the beginning of an LNG project, wherever it may be, there is a lot of paper and a lot of emphasis going into building long-term certainty, certainty of supply and certainty of revenue and offtake around the facility.

Inevitably, just because these things involve a lot of expenditure and a lot of different players, they have spun off a number of arbitrations. And so if you go around the world to where the major LNG trains are located, obviously, Trinidad is the biggest LNG facility in our hemisphere, but the others that have been involved in significant arbitrations are the Qatari plants, Australian plants, there has also been recent reported arbitrations involving Peruvian, Egyptian, and, to an extent, although there is less transparency about the cases, the Indonesian and Nigerian LNG operations.

The kinds of disputes that have happened cover virtually every dimension of the LNG project, from construction to royalties to upstream to uptake and to pricing, which is a close cousin of natural gas pipeline (and other) pricing disputes.

To kick off on that issue for panel discussion, I just wanted to read to you the facts of a reported 2012 ICC award between Edison and Qatar Rasgas. The pricing dispute there involved a long-term supply contract between an Italian outfit, Edison, and the Qatari supplier. A price reopener arbitration was brought in March 2011, with the buyer seeking to reduce the price paid for LNG on the grounds that it had been forced to sell the gas or resell the gas at a loss, because the prices it was paying were indexed to the price of oil. It alleged that the liberalization of the European gas market had completely changed the price dynamics and meant that they were now loss making. Reportedly, a tribunal awarded GBP 450 million to Edison, applicable retroactively. I use that as an illustration of both the scale of that kind of dispute and the fact that it shows that price reopening is a special kind of arbitration.

So the fundamental question on price arbitration: I'll quote Clemenceau, the great French president, who said that "war is far too important to be left to the generals." And so my question, meant to provoke, not to offend, is: Is pricing too important to be left to the arbitrators? And is the pricing structure of the contract

an appropriate thing for arbitrators sitting in a legal capacity to be dealing with?

And maybe kick it off with Manuel and have his comments.

MR. CONTHE: Yeah, definitely, I think arbitrators can decide pricing issues, provided they know the dynamics of the industry, the logic of the contract and all the facts. They should be aware that in LNG projects the remarks made this morning by Jose Alberro about the electricity market apply: they are very capital intensive projects, which are supposed to be amortized over, say, 20-40 years and the amounts involved are huge. Consider, for instance, in Australia, the Gorgon project is a \$64 billion project. In Russia and Siberia, Yamal, \$24 billion. And you need to know what's going to be the revenue stream supporting that significant upfront investment. So you need to do an initial DCF analysis. And, of course, someone has to take the risks. They can be taken by the sponsors of the project or they may be shifted to some extent to a buyer who takes a long-term commitment to "take or pay" on the basis of a fixed price.

But what happens if, in the meantime, there is a big surprise, what Donald Rumsfeld would have called a "known unknown" or even an "unknown unknown"? That's what happened in the case of LNG contracts when the European Commission started liberalizing the gas market in Europe and simultaneously the gas markets gradually decoupled from oil. This raised very important legal issues not to be addressed by energy experts but by people with expertise in interpreting contracts and the law; and that's where arbitrators play an important role: even if sometimes there is an economic issue at stake, you need to be a lawyer to interpret the price re-opener clause. But, at the same time, you need to have enough economic knowledge to understand the logic driving the contract and what would be the consequences of any decision, if applied to all outstanding contracts. Because it may seem fine to allow one of the parties, the purchaser, to benefit from unexpected lower prices; but then this might leave sponsors of LNG projects with significant stranded costs, since they will be unable to recover their huge investments.

Again, turning back to electricity, that was precisely the famous problem of "stranded costs" for electric utilities in the 1990s when

the electricity markets were liberalized in many countries. Because once markets are liberalized, prices typically converge to marginal costs, so that those who originally made the investment to act as suppliers are later unable to recover the huge investment costs that they incurred. So, to decide these disputes you need a mix of expertise in both economics and law.

MR. NELSON: I think Benno wants to say something.

MR. KIMMELMAN: Thank you, Tim. I think the question really isn't whether this is appropriate for arbitration or for arbitrators, because the reality is that it's before tribunals because parties put arbitration clauses in their contracts. The real question is what kind of arbitration is this, if that's what they've agreed to. And I think it's fundamentally different from every other kind of commercial arbitration I've seen, save for one specific kind in the intellectual property context and that's because we're not talking about damages in this context, really, at all. We're not talking about one party having done anything wrongful or intentional in any way to the other party. We're talking about a long-term contract, 15, 20, 25 years, contracts that the law all around the world has dealt with in many respects, with respect to hardship and with respect to changes and circumstances. But it's a contract where the parties have agreed that the pricing – and the pricing is a complex formula in every one of those contracts – it needs to be able to change, because the circumstances under which this commodity is bought and sold around the world can change dramatically from month to month or from year to year.

And so the question is what kind of dispute do you have when one party invokes the price re-opener. I suggest that you have an arbitration that is fundamentally not about legal issues, although it is a contract and the price re-opener provision is a contractual provision. It is fundamentally about expert opinion from the perspective of the seller and the buyer that often is dramatically different, in large part, because the perspective of the sellers and of the buyers are dramatically different and their circumstances and the economics they both deal with are quite different. And so you have an arbitration where oftentimes the only witnesses are expert witnesses. Sometimes a fact witness, one or two, but oftentimes none. And the tribunal is being tasked with making a decision which tribunals normally don't make. It is changing a

contract term for approximately a three-year period. It could be less. It could turn out to be more. But tribunals and judges do not generally change contract terms, and in these cases they are changing the most important contract term in the contract, because when you multiply the changes, whether up or down, by the quantity of LNG that is generally sold under these contracts, it is always, I think in virtually every case, tens to hundreds of millions of dollars with a swing going either way. And so it is really a different kind of animal, I suggest.

MR. NELSON: Natasha, as one who's experienced it up close, how do you feel?

MS. ASHBY: Well, Tim, before I start, thanks for the introduction. I hope I'm not going to be accused of doing what panels are usually accused of, splitting the baby, but it depends. As you alluded to at the start of the panel discussion, the enterprise is a complex animal where parties are motivated and incentivized to get along for a long period of time and to ride out blips and the cyclical natures of the market in order to ensure that an enduring cohesive enterprise survives, and that's the basis for these price re-opener provisions. They are to level the spikes and troughs, such that no party is disadvantaged.

Now, when you look at the basis of the re-opener provision from this perspective, then what you are seeing is a very straightforward economic analysis which benefits from the perspective of experts as to what has or has not occurred and what is the impact of this occurrence on margin, on economic viability, on the interplay between indices or commodity prices, et cetera. Oftentimes, however, in these re-opener arbitrations, and they get to the point of an arbitration when the prescribed period of negotiation has broken down, there are a number of procedural issues to be determined prior to the determination of the price, such as whether the trigger has actually occurred, whether there are, in fact, changed economic circumstances, whether or not in some contracts for certain models the buyer's end user market is, in fact, the same as it was anticipated to have been five years ago or ten years ago. This is where it becomes complicated and you have that interplay between the determination of what is at its base a core legal question to be determined by a panel and thereafter a pure economic one of margin and of value

and of change in economic circumstances. The latter is within the purview of the experts and where, as Benno mentioned, without fully understanding the consequence of decisions, certain of these inputs are changed marginally, a party can feel a tremendous punitive impact from a provision that was only meant to prevent one party from being disadvantaged and another from receiving a windfall. It really depends on the nature of the dispute as to which forum it is best placed in.

MR. NELSON: So maybe I can address this to Colin. We've heard there is a risk of small features of a pricing mechanism being, essentially, maladjusted or skewed in a way that has a bad effect on one party. Lawyers are not great with formulas: they might think they're doing something very benign, and it turns out to have a hundred-million-dollar impact. What's the best mechanism for arbitrators and lawyers, using appropriate experts, to safeguard against that?

MR. JOHNSON: I think that, actually, one of the best ways that would help in terms of many of these cases would actually be greater use of a tribunal-appointed expert. It's something that many tribunals have shied away from. We can't have a fourth arbitrator. We can't have everything decided by the financial person that we're using.

However, I think that if the tribunal themselves are careful in terms of the way that they frame the terms, they can use that expert in a way to just cross-check the ideas that they're using, to think through what the implications of some of that might be.

One other way that could be used is to come up with a partial decision, if you like, which sets out some of the principles that they seek to apply and then puts it back to the parties and to their experts to set out what they consider that that would mean in practice. Now, that gives greater ability to test the solution, but, at the same time, you open up, in effect, a whole second round, almost a second case on what the tribunal meant, what they should have said, what this is actually going to mean; and that's why I think that the tribunal having the tribunal expert themselves, they can debate with that person and use what's been said by the two party experts and that would be a better solution.

MR. NELSON: Just on that point, just to touch on what Benno said earlier, it's a different animal to normal arbitration. If you're sitting in the room, does it have a different feel? Do the legal submissions have a different flavor to them? Is it more of a roundtable, with the experts having an "additional" voice as the advocate?

MR. KIMMELMAN: The room doesn't look different. The room doesn't feel different. The nature of the evidence is at least 90 percent (if not more) economic analysis and testimony, oftentimes not just by one economist, but sometimes there are separate areas of expertise that are required that deal with the market and with certain other aspects of the trigger. So it's just that it's the facts that one is dealing with are usually complex, they're usually economic, and they impact both elements of the analysis that go into the price review mechanism.

The trigger – the condition for there to be a price adjustment – has embedded within it economic-type concepts, which every tribunal, I think, will feel it needs economic input on. Has there been a change in economic circumstances? By definition, that begs for an economic response. Has it been significant? And, of course, what does significant mean? In the market, which market are you looking at? Are you looking at the end user market? Are you looking at some greater market? And so that's just the trigger.

And then once the tribunal concludes that the trigger has been satisfied, then there is the question of the adjustment itself, which is the pure quantum aspect; and that requires a tremendous amount of analysis because that's where the numbers come into play and where the formula can be or may be, in fact, altered in ways that will have a long-term impact.

So the importance of the expert and the centrality of the expert, I think, is what I meant by saying it seemed like a different animal.

MR. NELSON: Any comments on that?

MR. CONTHE: Yes. I don't share that view, because it is true that to determine whether the trigger has been activated, probably the view of the experts is key. But then the rest of the dispute is pretty similar to other cases, the only difference being that the damage here is the result not of an action by any of the parties,

but just of maintaining the status quo. One of the parties, the purchaser, may say: “Well, if we stick to the old contractual price, you are inflicting damage on me, because I have a mismatch: I’m selling now gas at the liberalized low prices prevailing in Europe , while you want me to keep paying you a fixed price linked to oil. The tribunal needs to do something to prevent that damage from continuing.”

And I agree, of course, that in finding solutions to that predicament the view of experts is essential. But I don’t think the tribunal needs to appoint a new expert. In my experience, a good tribunal should be able to bring together the experts from both sides and extract from any information necessary to find a reasonable solution. Finding that solution is, essentially, a legal problem, not an economic one, and that’s why I think arbitrators have a role to play here.

MS. ASHBY: I’d put a slightly different perspective than Manuel into the room. Whilst I do value the input of the lawyers there are some areas of the determination of price adjustments which are highly specialized such as, the use of one index as opposed to another, how the indices correlate and the adjustments that are made to cater for that correlation, not only at a point in time, but as price re-openers are meant to project into the future, how they will continue to relate going forward – given a certain set of market conditions. All of this in an attempt to ensure that the pricing formula as adjusted will endure for not only the prescribed three-year period until the next possible re-opener, but further into the future. This is a highly specialized discourse which could have unforeseen consequences.

MR. KIMMELMAN: I think one could probably put together a panel of people who are on the seller’s side and on the buyer’s side, and they might well have the same reaction to the process, meaning that a lot of money is at risk. The issues are very complex. They’re highly economic. And some tribunals may be, frankly, better at it than others, in terms of sorting through the issues. But I think both buyers and sellers feel this is of such importance to us, to our – it’s fundamental to the business, that maybe isn’t there a way that we can have greater control over the process?

And so some suggestions have sometimes been made that because the process is – has two elements, the trigger and the

adjustment could one bifurcate -- many of these cases are, in fact, bifurcated by the tribunal. So once there is a decision as to the trigger, that there would be an opportunity for the parties to sit down at the table again, because in every one of these cases the parties have gone through months, if not years, of trying to sort out their differences unsuccessfully; but once they know the trigger issue is decided and that there will be adjustment, there may be a better -- it may be more -- a better environment in which to speak. Or one could have mediation to try to move the parties together, because they do have -- I mean, this is the classic case of the parties are tied together for about 20 years and they need what each other has and this is about how you split the money, really. And so those might be alternatives. The problem, though, with bifurcation is that in a world where arbitration is being criticized for being too long and too expensive, most of the time it's thought -- and this is generally true, that a bifurcated process will certainly lengthen it and will probably cost more, unless the bifurcation leads to a resolution, and then, net/net, it will be a more economic process. But those are possible ways of trying to give the parties more control.

MR. CONTHE: Well, I disagree with my colleagues. If the parties want to have control of the case, then they should negotiate and agree among themselves the solution. But they typically go to arbitration precisely because they have failed to agree and then someone else, a third party, needs to adjudicate the dispute.

Besides, the terms of your comparison between expert determination and arbitration seems to me unfair, because you are comparing a very enlightened expert who is knowledgeable about everything and is able to find a solution to the dispute with a tribunal consisting of pretty ignorant members, who apparently don't know much about the consequences of their decision. To be fair, you would need to compare either an ignorant expert with a very ignorant tribunal or a very enlightened expert with a very enlightened tribunal.

MR. NELSON: Rumsfeldian.

MR. CONTHE: Yeah. Always, even if the price re-openers are not explicitly about the question of "hardship," the issue of hardship -- that is, whether unforeseen developments have made the original

contract too burdensome for one of the parties – is always in the back of everybody’s minds. And that’s pretty much a legal issue. So this is a mix of legal and economic issues, and that’s why, for me, it’s not for economic experts to settle the whole thing, even if the trigger issue is mostly an economic one and here experts should have a bigger say. Experts are definitely essential. But, in my view, they are not the best place to address the legal issues always implicit in these disputes.

MR. NELSON: Just briefly, Natasha, when a re-opener is in the air, whether or before the notice has been given, in your experience, what are the percentage chances that you get from that point to a negotiated solution -- as opposed to an adjudicated solution?

MS. ASHBY: There are parties who will enter into the period of negotiation with that being their absolute intention, to reach a negotiated outcome without recourse to arbitration. Arbitrations are expensive. They are long. Further, as typically the arbitration provision provides for the price to be adjusted from the date on which the price reopener notice was issued, the impact of an adjusted price has some retrospective impact. There is therefore an incentive for the parties to seek a meeting of the minds and to get it sorted out.

Unfortunately, however, the negotiation period is sometimes approached in the same manner as the arbitral proceedings. You bring your expert. I’ll bring mine. You have an adjustment in your favor and I have one in my favor and we see if we meet in the middle.

To touch briefly, though, on Benno’s comment on control, what I have noticed is parties seem to be moving away from, arbitration provisions and in some instances these are replaced by an expert determination on a very limited and predefined scope, in an attempt to regain a bit of that control and to have some certainty as to what a potential result might be. In the event that the negotiations do not bear fruit, recourse is to an expert who is jointly appointed by both parties.

MR. NELSON: I wanted to ask Colin: How do you, from a technical perspective, go about evaluating the buyer’s marginal movements and profit and margin, and from a technical perspective,

what things go into considering the market in which the buyer is participating?

MR. JOHNSON: Well, I think that comes back to part of the original discussion in terms of what does the contract say, because it's why there is this interaction between both the lawyers and the experts and you can't have just one or the other because the experts have to be instructed in the sense of what is the provision here.

Take Atlantic, for example. When you're talking about two completely different marketplaces, you're talking about Spain and the eastern coast of the U.S. That doesn't apply in every situation. So you can't say, right, this is exactly how we define the marketplace without understanding what the contract allows for, without understanding whether it's talking about hardship and, if so, is that just for the buyer, or is it looking at the market as a whole.

The other thing that you've got to consider sometimes in terms of these contracts is that where you have a buyer that is part of a large group, when you consider the marketplace, that buyer and its group can actually have a significant influence on the market. So, to what extent can you take all of that into account. This is why you have this iteration – the procedure doesn't really allow for an iterative process, but there are steps to be gone through and that's why I talk about having a tribunal expert that can help talk about, issues such as what are the issues in defining this marketplace, how does that tie back to the contract? Therefore, what do the tribunal, as lawyers, need to decide to then instruct the experts and say "we want you to look at the market in this way." That then helps to stop a complete divergence in terms of instructions to experts.

MR. NELSON: And does the buyer need to open its books to disclosure? See, the lawyers have to get in somehow.

MR. JOHNSON: From most buyers' perspective, they are hugely reluctant to do so, when you've got this much money, and it's a commercial issue that is often going to be repeated in other markets around the world or if it's a buyer for one market, with other sellers into that marketplace, they will not want to open their books. What can be done, to some extent, and I think there is probably more of this that could be done than is done at present,

is to take a close look at some of the accounting details that are already out there, because often there are details in terms of what they say about the market and their profitability that can be used. I think there is an intermediate step – not full open books – I don't think that you're realistically going to get parties to sign up for that, but that you can actually use some of the publicly-available information.

MR. NELSON: Any thoughts?

MR. KIMMELMAN: Well, I think one of the characteristics of these kinds of arbitrations is they tend to be limited in terms of the sharing of information, sometimes because the price review provisions themselves are quite express about the fact that the parties seeking the adjustment shall establish it with its own evidence and cannot seek any evidence from the other party. And so I've seen tribunals that have been very reluctant to allow any disclosure whatsoever, and so there is a limitation here and it's in the context of a situation where there is very – there is, clearly, unequal information. Sellers have very little information about the buyer's business. Sellers oftentimes have very little information about other sellers in the same market because all of these contracts are deemed confidential and are treated as such. And so when the question becomes, "If you think the trigger has been satisfied, what kind of adjustment is appropriate," and if the buyer argues for an adjustment based upon, end user pricing and about what it's able to sell in the market, it's hard for a seller to evaluate that because there is not so much information. If the question is that the adjustment is to be based upon other contracts coming into the country, border prices, well, then the question is there isn't all that much information about what the terms and conditions are of other contracts. So it's a very complex and difficult analysis to be made with very imperfect information.

MS. ASHBY: The type and reliability of information presented is also dependent on the regulatory regime in the end user market and whether or not the information is readily available. Sometimes the contractual provisions attempt to assist the seller by prescribing the type of information the buyer must present and so give some insight – without wholesale access to the buyer's books. The buyer must establish that it is not capable of making the prescribed rate of return or margin or economically sell, based on its portfolio

into particular markets and/or particular sectors of certain markets. However, yet again, sometimes you are at the mercy of a verification that relies on a robust data pool, and that's where the difficulties come into play.

MR. CONTHE: Well, I tell you, there is an interesting case which is in the public record because it's an ICSID arbitration, between a private consortium, Pluspetrol, and Peru's state-owned company, Perupetro.¹ In this case, Perupetro used a consultant (I think it was Galloway) to determine where the LNG sold by Perupetro to the Pluspetrol consortium had finally been sold, in order to determine how much royalties Pluspetrol had to pay to Perupetro. There was no discovery, but Perupetro's consultant was clever enough to trace the final destination of the LNG. This was in early 2011, when, shortly after the Fukushima accident, gas prices spiked in Asia and Europe. What Perupetro's consultant discovered was that the consortium's marketing agent, while initially buying the LNG from Pluspetrol and storing it in the U.S. immediately sold it in Asia and in Europe, where prices were much higher. Of course, Perupetro wanted its royalties based on the actual price obtained by the marketing agent at the final destination.

In this case, there were interesting legal issues concerning the interpretation of the original license contract and the valuation agreement entered in late 2010, which were for the tribunal's arbitrators, not by economic experts, to decide.

In the end Perupetro prevailed, even if Pluspetrol did not get the high final prices in the Asian markets, as it had sold the product to its marketing agent. But the tribunal, in application of the contracts, condemned Pluspetrol to pay something like \$50 million to Perupetro (which subsequently Pluspetrol tried to recoup from its marketing agent in a separate arbitration). So sometimes a good consultant makes up for the absence of discovery.

MR. NELSON: My experience in appointing arbitrators for an electricity dispute which did not involve pricing is that, upon hearing the names of parties and that one of them was an electrical

¹ *Pluspetrol Perú Corp. v. Perupetro S.A.*, No. ARB/12/28, Award (ICSID May 21, 2015).

company, these name brand arbitrators would first ask the question, “is this a pricing dispute?” And their willingness to act, I can’t say for sure, may well have hinged on the answer to that question. There was a discernible relief when I told them no, this is not a pricing dispute.

Last year in *Global Arbitration Review*, there was a report about the “Damietta” project arbitration, in which USD \$270 million was reportedly claimed for penalties associated with the performance of that plant. It was reportedly held that the claimant couldn’t bring the claim because it had assigned all of its rights connected with the project to an offshore security trustee acting on behalf of the banks.

Manuel, do you have some insight into that or related cases?

MR. CONTHE: Well, I have public information on that case. It involved a joint Spanish-Italian venture, “SEGAS,” participated in by Spain’s Union Fenosa Gas and Italy’s ENI, which entered a contract with Egypt’s EGAS to buy and liquefy in the port of Damietta natural gas produced in Egypt. The dispute was a consequence of the Arab Spring, when the new Arab president decided to cut off supplies of gas to SEGAS’s liquefaction plant to divert the gas to the local market because there were revolts all throughout Egypt. The domestic price of fuel in Egypt was very high, and the government decided to cut off gas exports and divert the entire supply to the local market. Actually, the Damietta liquefaction facility has been idle since 2012. So there is no possibility whatsoever of recovering any costs, because there is no activity.

As a result, the two companies, the Spanish and the Italian one, sued Egypt in two different arbitration cases, one ICC contractual dispute and a separate ICSID investment arbitration case. But, as reported in *Global Arbitration Review*, the claimants lost the ICC case, apparently because they had assigned their rights under the contract to a special purpose company which was formally the owner of the Damietta liquefaction facility and was, also, partially owned by the lenders who had financed its construction. For me that’s a very surprising result, because it’s logical for lenders to take an interest in the SPV, which, as it is typical in project financing, is meant to centralize the revenue stream which will

cover the expenses of the project. And in many other areas of “securization,” it’s very common for the originator of the product, be it a mortgage or any other asset, to assign the revenue rights to a special purpose, but remaining as the lender of record under the original contract.

But in this case, to the extent that the rights to get that revenue have been assigned to the SPV, owned by, essentially, the lenders, the claimants were deprived of action and lost the commercial arbitration. From what I’ve heard, the ICC defeat has also doomed, for all practical purposes, the ICSID case.

In my view, the arbitrators in this particular case did not seem to consider the practical consequences of their ruling, because if you diminish the rights of the claimant just because it assigns some of its rights to a vehicle to facilitate the funding of the project, in the long run you may be putting in jeopardy the funding of projects, I do not know all the details of the case, but I wonder whether they took too narrow a legalistic view of the case.

MR. NELSON: That raises a couple of issues. One is upstream supply problems. Was this supplier a state-owned supply?

MR. CONTHE: Yes, EGAS is a state-owned Egyptian gas company.

MR. NELSON: So that’s one dynamic. Another is a broader question of whether profound market events, and I think Fukushima was mentioned earlier, can have an impact on this industry, especially when they’re sensitive to things that disrupt their financing. Do you, either Colin or Benno, have any comment on that kind of dynamic, namely, upstream problems being driven by larger events?

MR. JOHNSON: I’ll pick up, to some extent, the broader point that you made in terms of Fukushima. Part of the issue that is going to make this an interesting place for disputes, I think, for the foreseeable future is the very fact of what we talked about that makes it special, it’s the global nature, “swing” cargos and the ability to actually, even when a ship is on the high seas, physically move them and say, yes, I know that was going to Colombia but now it’s going to Japan instead.

Now, there have historically been destination clauses that prevent that. Those may or may not continue to apply in the same way in the future. I see that the Japanese fair trade commission has talked about this being monopolistic, and that's an ongoing issue that's being determined there.

But the marketplace is also changing, that more and more of the cargos are under short and midterm contracts. So we're talking about 28 percent of the world market in 2016 was under these short and midterm contracts, spot market or shorter term ones. That is expected to increase up to 43 percent in the next few years. What does that do? That does the sort of thing that we're seeing in India with GAIL, looking and saying, between regulation (which Natasha talked about) and the shorter term spot market sales undercutting our prices, we can't survive in these longer term prices. So what it means is that you have a very complex international set of changes and any one of those – Fukushima was a prime example – can cause a spike or can cause the market to change dramatically. That can impact very much in terms of which way this market is expected to go in price terms.

MS. ASHBY: To pick up on that point and, also, on the Peruvian case that Manuel mentioned, what we are seeing is the impact again of unforeseen circumstances. In a lot of instances, when these provisions were drafted, the concept of reloadings, of ship-to-ship transfers, these were not envisioned. Whereas it was always contemplated that parties would act in a manner to take advantage of arbitrage opportunities, it was not envisioned that this could be done by reloading a cargo or a ship-to-ship transfer, and this in turn impacts the interpretation of destination provisions regarding the buyer's end user market.

As you saw in the Peruvian case where a point properly put to a panel of legal experts was what is, in fact, the intention of this provision, what was it meant to achieve and trying to ensure that in looking at the pricing provision, that despite the technological improvements in a dynamic industry across the period, that that intention was still met at the end of the day, namely to ensure that the producer got a modicum of the value of the product where that product was, in fact, sold and consumed.

MR. KIMMELMAN: I think that Natasha is right. It's events in the world, like Fukushima, but others, and technology change, because the fact is that reloading changed the entire dynamic. Now, suddenly, the buyer had the ability to take cargos that were purchased under a long-term contract and, essentially, turn them into spot market transactions, which had historically always been something that only a seller could do. And what that means is that the cargo itself, at the point of delivery, has a value far greater than whatever the value is in the market of the buyer, because now the buyer can, basically, reach the global market and resell. And so these are both changes that trigger a price review, and once that happens, they can change, obviously, the value of the commodity being delivered to the seller.

MR. JOHNSON: And just on that, it's interesting to see even with some of the established players, Osaka Gas has now got a resale capability that it's negotiated of 3 million tons per annum by 2020. Petrobras felt it needed to give that flexibility because of changes in the marketplace. But it comes back to your point about where is the final market.

MR. CONTHE: Well, market operators play a useful role in arbitrating gas prices across the world. And this explains why the prices of different markets around the world have converged significantly and now there are no such big differences as in the past between Asian markets, like Japan and Korea, Europe's and those here in the U.S.

But, at the same time, this raises the fundamental problem which I mentioned at the beginning. If you are expected to invest huge amounts of money in a project which is supposed to be profitable over 40 years, but you need to sell your output in a cut-throat competitive market, at unknown future prices, well, then that's a very, very difficult proposition to sell to your lenders, because they won't have any guarantee of a predictable revenue stream. Probably the solution, which we are seeing here in the U.S., is to have much smaller liquefaction facilities, like floating facilities, so that rather than investing \$54 billion, you just need to sink \$15 billion. But even so at some point someone will have to bear the risk of the mismatch between a capital intensive industry and the fierce competition in the good market it sells. Probably

regulators will also have to bear in mind that sometimes too much competition can defeat the viability of some industries.

Let's recall that an excellent economist, John Kenneth Galbraith, wrote in 1962 in his "American Capitalism" that "the foreign visitors brought to the United States to study American production methods and associated marvels visit the same firms as do authorities of the Department of Justice in their search for monopoly." Galbraith's point was that to invest huge amounts of money for a long-term purpose, you need to have some degree of certainty as to future cash flows. How to achieve it? Galbraith recommended advertising, and that's fine in some other industrial areas, but definitely not in a commodity like gas, where everything is driven by price.

So either you need to find gas buyers who are willing to take long-term contracts on a "take or pay basis" or you need to spend less and/or resort to a tolling model, under which you just charge a fee for your liquefaction services and you finance the project on the basis of that fee, which is supposed to be independent of the absolute price of the gas being liquefied. Unless you find some trick or solution to that predicament, it's very difficult to reconcile huge sunk project costs with absolute cut-throat competition in the goods market.

MR. NELSON: I was going to go on to that issue of take or pay and uptake agreements, because there is another fruitful source of disputation. I wanted to ask the panel, especially in light of what's been said about the global market: If you're an offtaker or if you're a party to a take or pay agreement, what is the extent or the nature of the damage that you will now be seeking as a result of not being supplied with LNG? Let's assume that the contract mandates a given quantity per year and that that isn't, for whatever reason, delivered. What is the kind of damage dispute or damage calculation that comes out of that, especially in light of what we've been saying about this "limitless" range of global opportunity?

MR. JOHNSON: Essentially, there is a limitless range, in theory. In practice, it will be a lot less than that for any particular cargo and any particular contract, but it will be, okay, where could this be sold, what could actually be earned from it; and, therefore, alternatively, what obligations does the off-taker have. So if we look, for example, at the current Chinese situation, where supply

is tight, if they don't have the gas to actually put into the pipelines, then that could cost significant amounts and that could be the measure of the damages.

MR. NELSON: Depending on how the contract's drafted.

MR. JOHNSON: Exactly. Yes, that goes for all of it. No question.

MS. ASHBY: I was about to say that, from my perspective, it's whatever the contract says.

MR. NELSON: Exactly.

MS. ASHBY: And the contract is usually quite detailed and prescriptive as to what you can get and what you have to do to get it, and there is usually an obligation to mitigate and that's, to me, as far as it goes.

MR. CONTHE: But am I right, you are saying the supplier cut off supply to the buyer?

MR. NELSON: Let's assume there is an annual quantity that just isn't delivered, for whatever reason.

MR. CONTHE: Well, I think, frankly, economically, that's pretty straightforward, because it is very much like the failure of delivery of substantial product. And you need to compare the contract price with the spot price in the market, which is the opportunity cost for the buyer to replace the missing LNG. In theory, you could benefit from the cut-off if the take or pay price was higher than the spot price at the time of the cutoff. In that case, you don't have any claim for any compensation.

But if the contract price is lower than the spot price, you are, of course, entitled to such price difference over the foreseeable period of the delivery failure; in financial markets, that is a well-known approach.

MS. ASHBY: Yes, the specific formulation is one of cover. So that the party failing to supply is obligated to 'cover' the exposure of the buyer who now is caused to procure supply from another source, with the usual stipulations that the buyer makes reasonable efforts to mitigate its losses.

MR. KIMMELMAN: And so the good news is that now, because it's really a global market, there are lots of sources to, basically, go to in order to cover and many buyers are in a business providing, power, electricity in their country. So they're going to need to – if they don't receive delivery, they're going to need to replace it, and there is going to be evidence of what it costs to buy as opposed to what it would have cost under the long-term contract. So I think that in some ways that's an easier calculation than the price re-opener question, right?

MR. NELSON: But would you agree that it's very, very common in these contracts for there to be pre-agreed road rules about the extent of compensation in those situations?

MR. KIMMELMAN: I don't know if I'd say "the extent of." There will be a definition of what will be compensation, and the mitigation principle, in big capital letters, permeates the agreements because the quantities here are large. And so the seller will want to ensure that the buyer acts in a commercially reasonable manner.

MS. ASHBY: Yes. What the majority of these project sponsors have been very good at doing is front-loading. They hire many of the people in this room prior to signing on the dotted line. So they bother to understand what is the potential exposure, get their arms around that and cap in a very prescriptive manner the exposure for foreseeable categories of default. The intention is that everyone knows the rules of the game and what they're in for.

MR. NELSON: And, in fact, I mean, the phrase take or pay, that itself, now, we're talking about, really – when you talk about take or pay, you're talking about – I suppose most people know instinctively what take or pay means, but you're talking about something now that is the reverse of the failure to supply?

MR. KIMMELMAN: Correct.

MR. NELSON: The pay is a form of damages, isn't it?

MS. ASHBY: Yes.

MR. NELSON: Or is it? If an offtaker has an obligation to pay in lieu of taking, put it that way.

MR. KIMMELMAN: But it's usually more complex than that.

MR. NELSON: Yes.

MR. KIMMELMAN: Because, usually, if a buyer doesn't take, it usually has a time limitation within which it can take in the future and at some point that ability runs out and then, nevertheless, it still must pay. So, yes, it is, in a sense, like a liquidated damages provision, because you've defined what the obligation is and what the result is if you don't honor the obligation.

MR. JOHNSON: But you could still get into significant discussion about exactly when and how.

MR. KIMMELMAN: Yes, exactly.

MR. JOHNSON: And, therefore, what prices apply.

MR. KIMMELMAN: Right.

MR. CONTHE: As I said before, the approach we are discussing is almost identical to the process followed in the futures and securities market when a central counterparty has to close the position of someone who has failed to deliver at the delivery time. That failing party has to bear the difference between the price at which the contract was entered and the spot price at which the position was liquidated.

MR. NELSON: I will ask a general question to the panel, and each of them can soothsay into the future as to any future developments with regard to the industry and the disputes that can occur within this industry. Can anyone hazard a guess as to the future direction of this industry in terms of disputes and, of course, damages?

MR. JOHNSON: Okay. I've touched on a little bit of it. You have a mix of ongoing long-term, relatively fixed contracts with an increasing number of short-term, but with more volatile pricing. You have more players coming into the market, both in terms of the countries and those that are actually exporting. At present I think we're looking at 18, but that could go up. And, particularly, I think on the offtake side, with the floating storage and re-gasification units, I think, currently we're looking at 35 countries, if I'm correct,

where there are off-take facilities, but that could increase significantly. What does that mean? More players, more volatility underlying it, more changes in the marketplace, because it exposes more different parts of the world. Overall, I think more disputes.

On the other side of it, the fact that you've got increasing impact from renewables on some of these marketplaces. Tim and I were talking earlier, the levelized cost of electricity for new solar plant in India is now said to be below gas. That's the way Europe's going. What does that do to that end market for gas, and how does that then change the position of people that are sitting on long-term buy positions, assuming that they've got that marketplace there?

MR. NELSON: Any other thoughts on the future?

MR. CONTHE: Yes. The gas world these days is a mixture across regions. Markets in the U.S. are fully liberalized markets, with spot prices playing a dominant role. European markets are a mix. And "take or pay" contracts are still common in Asia markets, as illustrated recently in Australia by Gorgon's success in lining up a number of buyers to off-take its gas on a long-term basis.

But the key issue is that typically Asian counterparties seldom sue or go to arbitration. Probably, they don't trust arbitrators or even experts, and they'd rather negotiate. But at some point they might take a more confrontational approach and say, well, let's solve this question, because I'm paying now a very high price for your gas and the markets here in Asia have been low for many years. I'm paying a huge premium and don't want to do it anymore. I will ask for some compensation. But unless Asian players change their natural attitude towards not litigating or going to arbitration, the scope for LNG disputes might be limited.

Obviously, the best solution would be to reduce the level of investment required by new projects. But it's pretty obvious that for years to come there is going to be oversupply of LNG, because LNG markets seem to follow what in Economics is known as the famous cobweb theorem: when prices are high, many suppliers come to the market, failing to realize that when all that new supply comes online, prices will plummet and they will be unable

to recover their investment. So there will be a cycle and it will take some time until this oversupply in liquefaction capacity is reduced.

MR. NELSON: Any more thoughts on the future?

MS. ASHBY: I hate to hazard a guess, because whatever we say now will be wrong in 60 seconds. I do agree that it's quite possible we're going to see a lot more arbitrations going forward. I think the nature of the disputes is going to change, as the industry is dynamic. And the number of disputes is likely to go up, especially in a scenario where there is potentially an oversupply and parties who have entered into long-term contracts are looking to get out of them and get more flexibility and the supplier is not enthusiastic about granting that flexibility.

MR. KIMMELMAN: And I would only say I just wonder how many people are going to feel comfortable in today's world and tomorrow's world to enter into long term contracts. The risks and the events located around the world seem to only be increasing, and so you wonder whether that's going to be the way to economically market LNG going forward.

MR. NELSON: A question out there.

MR. KAY: What about the other side of the equation? I actually think that there is a big concern, not a big concern for the market in terms of international arbitration and energy, because, more so than any other commodity or asset class, states have taken so much effort in trying to protect how those particular assets are moved around, that it's very difficult to actually enforce and collect on awards the way that energy is starting to flow. Now, renewable energy is a little bit different. But the people who are consuming more and more of the fossil fuels, even natural gas that we're talking about, the systems in which they're setting it up in make it very, very hard to collect. And so, international arbitration is a fantastic way to get a piece of paper, but let's say you get a billion-dollar judgment, it's a really, really nice, expensive piece of paper, right? But I don't think that we're going to have continuing arbitrations unless we're actually able to crack the nut of India and China and Russia and being able to actually enforce those awards around energy.

So just sitting here at this conference and thinking about it, I have a lot of concern that the industry itself is behind and that the arbitration community itself is behind and risks becoming ineffective.

MR. NELSON: Take a shot at it?

MR. KIMMELMAN: I spend a lot of time worrying about enforcing arbitration awards. But, I don't worry about it in the context of LNG because, think about it, in many situations the players, even if there is a price re-opener, they need each other. The supplier needs to have a steady stream for long term because they have an obligation to sell whatever it is they produce in their country. And if they owe money, they pay it. If they don't pay the money, then the supplier can divert the supplies and sell it on the spot market and maybe make more money. You're talking about a supplier on the one hand who has a commodity that if it isn't paid for, it can be used for some other purpose. Now, you may argue there is too much of it in the marketplace at a given point in time, and that may reduce its value, but it has value and it can be held. It's not going to disappear, within 30 days, 60 days, two months.

On the other hand, if money is owed to the buyer, because they have a steady stream of income, revenue coming from long-term contracts, have revenue with which to pay it and they want to preserve the relationship of the long-term contract. So there are real enforcement issues. But in the buying and selling of LNG I've never sensed that that was a problem.

MS. ASHBY: I'm actually not aware of any instance of an LNG-related award where enforcement was an issue, both by nature of the product, but also by nature of the majors that are involved in these projects. These are the Shells and Exxons and BPs of this world, and there generally aren't enforcement issues, in spite of what we may think of the arbitral award in question. Maybe in pipeline gas and oil, there are quite a few of those issues, but, generally, speaking, not in LNG.

MR. NELSON: I would submit that the power plays that you would see in the gas industry are actually, as Natasha says, more likely to be encountered in pipeline situations where you can get

a big supplier of gas literally turning off the spigot and causing there to be unfair pressure, in the view of the receiver; and then you could arguably say, well, that raises some enforcement issues, if the person holding the power is not going to comply with an arbitral award.

One of the pipeline cases I did, the Kardassopoulos case, involved the Caspian oil projects of the 1990s. The State Department of the United States insisted that all trans-Caspian to Med shipments of oil, this was an oil case, be routed across Georgia and Turkey and that there be huge amounts spent on a new pipeline, even though the Russians had a functional pipeline network. The reason the State Department, and I suspect the oil majors, insisted upon that was that they did not want the supply of Caspian oil to the West to be dependent upon the Russian pipeline system. They wanted to build their own.

LNG doesn't bring that kind of issue partly for the reasons that we've been discussing. And if there was somebody who just turned off the LNG train, that would be sort of a rather self-defeating act.

MR. KAY: To be fair, I was talking just more generally about nonrenewable energy than LNG specifically.

MR. NELSON: With no further questions, at this time, I'd like to thank my panel for this wonderful discussion.

(Applause.)