Gas Pricing Disputes

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1. There remain in force many long term international gas supply agreements made prior to 2004-5 when a prolonged period of price stability came to an end. Most of them have some type of price review clause. During the subsequent period of sustained volatility in energy prices, price review rights have, from my experience, been invoked with increasing regularity.

2. Until recently the primary movers have tended to be sellers who felt that the increased value of energy products generally was not being adequately reflected in price formulae which had been negotiated in more stable market conditions. My impression is that over the past six months that pattern is beginning to change. It is now buyers who are becoming concerned that a glut of gas, particularly when traded internationally as LNG, is depressing the resale value of gas relative to the price of other energy products (particularly oil) against which gas has traditionally been priced.[2]

3. The topic is likely to remain controversial. Recent briefings in The Economist[3] have noted that despite the evolution of local markets for spot gas, and the increasing ability to trade natural gas as LNG over long distances, many market participants, both on the production and consumption side still regard the long term gas supply agreement as an important element in their commercial relationships. In an industry where the infrastructure required for both production and consumption involves massive capital investments, this is hardly surprising. Utilities crave long term security of supply. Producers need the assurance of an enduring market for their product. When I use the phrase "long term" in this context I am referring to contractual relationships which need to last well beyond the horizons of current price forecasts. We are talking here about agreements for up to 20 years or more incorporating "take or pay" obligations.

4. Putting an objective value on natural gas in a way which will remain acceptable over such

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[1] This is an up-dated version of material presented by the author at a combined AIPN/ICC conference on Dispute Resolution in the International Oil and Gas Business held in Paris in October 2011.

[2] The reasons for the increased supply, particularly of shale-gas, are described in a special report entitled "An Unconventional Bonanza" in The Economist of 14 July 2012.

[3] "The future of natural gas": The Economist, 6 August 2011; also the report of 14 July 2012 referred in the previous footnote.

long periods stretches the abilities of even the very best transaction lawyers. Save for North America there has historically been no widely accepted and transparent spot market price indicator. Although attempts are now being made to collate and publish spot price information in a number of jurisdictions the market remains illiquid in many places and the adequacy of the available database open to question. Even if one was able to envisage a fully liquid market emerging tomorrow with perfect access to price information, the fact is that much of the available gas worldwide would still be locked into existing long term agreements which will remain in run off for some time to come. I suspect that we are still some way away from a universal gas reference price which commands the same respect as a Platts Oilgram Price Report for Brent or WTI.

5. When the European natural gas industry was in its infancy back in the 1960s the Dutch developed a pricing model which remains influential to this day. It is sometimes described as a "netback approach".[4] The assumption was that the purchaser would be a utility which would be selling the gas to end users in competition with other fuels such as refined oil products. The price at the point of ultimate re-sale would need to be competitive with these alternatives. From that price deductions would need to be made for the costs (including capital costs) of distributing the gas from the point of delivery by the producer to the point of consumption. The resulting "net" value could then form the Base Price or starting point from which the price payable to the producer would be derived.

6. The lawyer's difficulty came at the next stage. The Base Price could hardly remain fixed in aspic for 20 years. But conventional forms of indexation were not apposite. If there is one component of consumer price indices worldwide which tends to be more volatile and less predictable than many of the others it is the cost of energy products. In the absence of a statistical indicator of gas prices, the only real option was a basket of price indicators for competing energy products such as oil. This was not ideal because there was no guarantee that the prices at which gas and competing fuels would remain competitive with one another in the end user market would move in tandem. Over twenty years gas might gain or lose in attraction or value relative to other fuels for any number of reasons.[5]

7. Succeeding generations of transaction lawyers have been confronted with this problem by their commercial clients.[6] The result was something generally known as the "price review" or "price re-opener" clause. Litigators such as myself now find ourselves

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[4] For a detailed description of the evolution of this model see the paper by Anthony Melling entitled 'Natural Gas Pricing and its Future - Europe as the battle ground' published last year by the Carnegie Endowment for International Peace. See also the IEA Report on 'Security of Gas Supply in Open Markets: LNG and Power at a Turning Point', OECD/IEA, 2004 particularly at page 100.

[5] The advent of supplies of shale-gas provides an example. Few would have predicted this twenty years ago.

[6] Cases in which the problem is simply ignored and the original price formula remains untouchable for 25 years or more are comparatively rare these days. The contracts made by the UK Gas Council (a state entity) back in the 1960s and subsequently inherited by British Gas after privatisation in the late 1980s provide both an example and a warning. By the mid-1990s some of that gas had become seriously over-priced.

debating the fruits of their labours often several decades later. An early model was something called the Troll clause which was originally used in long term sales of gas to continental utilities from the Norwegian sector of the North Sea.[7]

8. Some of the textual features of the Troll clause have found their way into price review clauses not just in Europe but also in the Far East and elsewhere. Its adaptation has not always been free from difficulty. There is no standard wording and subtle differences between wordings which look as though they originated in the same precedent may be material. However the basic structure of these price review clauses tends to have a number of features in common:

   a. The clause identifies some kind of "trigger' event which permits the review procedure to be invoked either immediately or at some defined periodic anniversary date.[8]

   b. A procedure for negotiation and dispute resolution is then prescribed

   c. Some kind of express or implicit criteria are provided against which possible revisions to the price formula can be weighed up and assessed.

   d. Provision is made for accounting adjustments including balancing payments once the new price has been determined.

   Dispute resolution is a subject in itself. I shall limit myself to a few specific observations about it at the end of this paper. Accounting adjustments are normally straightforward once the substance of the change in formula is determined. The headline points which invite controversy tend to revolve around what I call (a) the trigger event and (b) the criteria for revision.

The trigger

9. Some triggers are essentially mechanistic. For example the deal may be that there is a right to demand a price review whenever the price generated by the existing formula changes by more than x% and/or less than y%. In a gas pricing context this approach is not very satisfactory. Where a review is triggered it tends simply to shift the argument into a debate about criteria for revision. The same is true of price review rights which trigger automatically at a periodic anniversary. Like any mechanistic arrangement it can operate unfairly. The price generated by the existing formula may remain stable at a time when prices being paid by end users of gas are collapsing. In such a case a mechanistic

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[7] There is some learning in Norway on this and related clauses: see A Brauteset, E Hoiby, R Pedersen and C Michelet, *Norsk Gassavstetning , Rettslige Hovedelementer* (1998)

[8] In a 20 year agreement it is not unusual to have 4 or 5 year gaps between regular price reviews but giving each party one or two "wild cards" - ie., the right to invoke the review procedure at an intervening date if the trigger event is satisfied. Of course it is not essential to link price review rights to trigger events as such. The simplest clause gives an automatic right to claim a periodic price review regardless of circumstance.

trigger may not operate despite the emerging mis-match between the contract price and the value of the gas.

10. A common alternative is to use a fluid concept such as a significant change in the energy market occurring between the contract date and the review date. Such triggers can focus on changes in the international market into which the seller sells its gas and/or the end user market in which the gas is consumed. If appropriate they can emphasise that the significant change should be sustained rather than short term.

11. It might be thought that a fluid concept of this kind was intended to transform the debate into one of fact in which skilled commercial arbitrators or experts should be well capable of forming a fair view on what is and is not significant. The context in which questions about significant change arises is a debate about the value of gas. A change which has nothing to do with value is hardly going to qualify as significant. The relevant time horizon is also reasonably clear. In the context of a 20 year agreement with a four year review cycle an arbitrator is hardly likely to attach much significance to a change which is only expected to last weeks or months.

12. Despite the open-end nature of a "significant market change" as a concept, one should not underestimate the ingenuity of lawyers instructed to resist a price revision in coming up with all manner of supposedly implicit restrictions on what should constitute a significant change.

13. For example it is not uncommon for a trigger provision to focus on changes in the energy market of the buyer particularly where the buyer is a utility based in a particular country (X). In the face of such a clause I have heard it argued that the significant change must be specific to country X and that if a like change has occurred in many other countries then the change does not qualify as a trigger event. The argument is particularly egregious where X is a member state of say, the EU, and the significant change arises out of regulatory intervention which is common to other member states.

14. Another problem is long term and sustained changes in market trading range. Most commentators would describe the 1970s oil price shock as a significant change in the energy markets at that time. The same is probably true of events since 2004 when Brent moved significantly above the range in which it had traded for the previous 20 years. I have heard it argued that such a significant market change cannot qualify for price review trigger purposes at any rate where the existing price formula is in some way linked to an oil price index. The argument is that whether significant or not in terms of common parlance, the oil price change is catered for in the existing price bargain and cannot of itself warrant a revision to the price formula.

15. There is a logical difficulty in this argument. Parties which enter 20 year gas supply agreements incorporating price review clauses are not generally intending to make a 20 year speculation on the relationship between the value of gas and the movement of the price indicators in the original price formula. They are intending to agree a price *subject to price review*, whatever that may mean. I do not see any *a priori* reason for treating the right to a price review as some kind of exception or hardship clause to which resort can

only be made *in extremis* unless the clause expressly says so.[9] The burden is doubtless on the person invoking its review rights to prove that the clause has been triggered and to prove what revision should be made. That does not mean the burden should be especially difficult to discharge.[10]

16. When commercial people talk about the market being up or down they are talking about price. I do not think that a change in the energy market ceases to be significant just because its affect is felt only or primarily in the price. If commercial people agree that a price review can be triggered by a significant change in the energy market that must I think include a significant and sustained change in the range within which the market is trading.

17. It does not follow that the bargain inherent in the existing price formula should count for nothing once a price review has been triggered. The weight to be attached to the existing price formula will depend on the criteria by reference to which the formula falls to be revised. To that different topic I shall now turn.

Criteria for revised formula

18. It would be possible to have a price review clause which, once triggered, would require the parties (and in default of agreement an expert or arbitrator) to start again from scratch with a completely clean sheet of paper. I have not encountered such a clause. I have the impression that one of the reasons why this approach tends not to be favoured is that it would involve an elaborate inquiry even in a case where the significant change which had triggered the review could be catered for by some minor adjustment to the existing formula.

19. Most of the review clauses that I have seen try in some way to relate the price revision to the energy market change which has triggered the review. In other words they seek to value the change rather than valuing the gas afresh. They also very sensibly recognise that the whole exercise is likely to be either unworkable or capricious unless the expert or arbitrator is given a fairly wide discretion over the content of any revision. Contractual criteria can operate well enough as guidelines but any attempt to dictate a price revision in a mechanistic fashion is unlikely to work fairly in all the diverse circumstances in which it may have to apply.

20. A further feature in some price review clauses is a stipulation requiring that the new price be set at a level which will enable the buyer to market the gas "economically' in its own

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[9] There are historic precedents for using traditional hardship type wording as the trigger for a price review. The English Court of Appeal had to rule on one back in 1982: *Superior Overseas Development Corporation and Phillips Petroleum v British Gas Corporation* [1982] 1 Lloyds Rep 262. My impression is that a "hardship" formulation has been unusual in more recent times.

[10] Many review clauses expressly stipulate that the price generated by the existing formula is to continue unless and until revised pursuant to a price review. I do not think there is any magic in this kind of formulation. It reflects the importance which transaction lawyers attach to continuity of pricing. No-one would want the entire agreement to fail for want of a price.

end user market. Such clauses usually operate as a cap on the new price. Unless stated otherwise they tend not to prevent an expert or arbitrator from setting a price below the cap.

21. In a clause which values the change rather than valuing the gas and which gives the expert or arbitrator some discretion in how he goes about his task, the bargain inherent in the existing price formula can and should carry considerable weight. A few examples illustrate this.

22. It is not unusual for an escalation formula to be designed to smooth out changes in the contract price. Various techniques are available for this purpose. A 12 month moving average of an oil price index will provide some smoothing but in the process it can introduce a time lag effect which means that the contract price is out of kilter with the market. Another method is to limit the proportion of changes in indicator prices which gets passed through into the contract price. This will mitigate the effects of peaks and troughs in the energy market. The arrangement will only work fairly so long as the market trading range remains centred around the Base Price.

23. Where the pass through of oil price indicator to contract gas price is deliberately set artificially low it is sometimes argued that there can be no need for a price revision just because the market moves into a permanently higher or lower trading range. The resulting prejudice to seller or buyer is said to be a necessary consequence of the bargain. I am sceptical about this at any rate where the evidence suggests that at the time of contracting the package of Base Price and low pass through factor may have been designed to distribute the benefits of the smoothing effect equally between the parties. The better view is that where a price review is triggered and the market has moved into a permanently higher or lower trading range then the Base Price should be re-set to suit the new trading range. There may then be a case for preserving some of the smoothing effect of a low pass through factor going forward provided there is some confidence that the benefits and burdens will be shared. In very volatile and unpredictable markets that may present difficulties.

24. Another smoothing device is the "S" curve so-called because of its visual appearance when the contract gas price is plotted against oil prices on a graph. The formula has a central section between two inflexion points set at the upper and lower limits of the expected trading range of the oil price indicator. Between these points the contract gas price may respond closely to changes in the oil price. At the upper and lower ends the effect of extreme movements in the oil price is diluted by the use of a lower pass through factor.

25. For price review purposes this type of arrangement raises specific problems. If a significant energy market change has taken the market trading range permanently outside the inflexion points (whether up or down does not matter) there may be a persuasive case for re-setting the inflexion points to suit the new market reality rather than adhering to out-dated inflexion points for the next 20 years. Whether it would make sense to scrap the S-curve altogether raises different issues. The parties clearly wanted some degree of smoothing effect whenever the market moved outside its long term trading range. One

can expect an expert or arbitrator to want to try and preserve that effect even in a different market.

26. I mentioned earlier the concept of a 20 year speculation on the relationship between oil and gas values. If that were the true nature of the bargain then it might be said that there could never be any need to change the price formula because of changes in values however large these might become. A deliberate speculation of this kind is to be contrasted with what I believe to be the more common intention, namely an endeavour to track the evolution in the value of gas in the knowledge that the exercise can never be a perfect one and that both sides are willing to live with an element of imprecision. Ultimately many price review arbitrations involve questions of degree. Just how far has the price generated by the existing formula deviated from the objective value of the gas? What if anything, needs to be done to bring the contract price back on track?

The revision of the formula

27. Some lawyer arbitrators find algebra difficult. I am not sure that this necessarily disqualifies them from acting in price reviews provided they can understand what is going on inside an existing formula and have the ability to describe in words a solution which others can convert into symbols. But it helps to have a tribunal which is mathematically literate.

28. In cases where a tribunal decides that a price formula needs to be revised in a particular way my own experience, and indeed preference, is to have the tribunal describe their preferred solution in a Partial Final Award and leave it to the parties to prepare a revised formula which carries that solution into effect, with liberty to apply for a further award in the event of continued disagreement. I have never known this solution fail in practice and it avoids the embarrassment of having to challenge an award for an error in the algebra.

29. More fundamental are the difficulties which arise out of the range of options open to the Tribunal. In many cases the claimant will put forward one or more proposed revisions and the respondent will propose alternatives. In an adversarial procedure these proposals will inevitably be at opposite ends of the spectrum. It is not unusual for a tribunal to be looking for some middle way which may involve a "mix and match" of elements contributed by both sides. Particularly where the review clause gives the tribunal a wide discretion I can see no jurisdictional basis for challenging this philosophy but it is not without its dangers.

30. Where a price formula is negotiated at arms' length the end result is a package which may involve, for example, a horse trade in which an objectively "high" Base Price is traded against concessions on the indexation weights or vice versa. A tribunal cannot replicate this kind of trade-off and may not have available sufficient information from which to form an objective view of the consequences of a particular "mix and match".

31. Some commentators have suggested that for this reason a price review calls for some kind of "pendulum" arbitration in which the tribunal is forced to choose between the rival

solutions put forward by the parties and has no power to devise a solution of its own making. Such an approach may also discourage the parties from taking extreme positions and so facilitate settlement.

32. I am not convinced that pendulum arbitration would be the panacea which it is sometimes made out to be. A "pendulum" arbitration undoubtedly works with a monetary claim such as where C claims $100M, R argues for $50M and the tribunal thinks the correct figure is $60M. In such a case the tribunal's mandate under a "pendulum" arrangement is clear. It has to award US$50M.

33. A price review is different because of the package nature of a price formula. If the claimant puts forward package C and the respondent puts forward package R, a tribunal which is attracted by some (but not all) elements of both packages will lack objective criteria for working out whether its overall assessment is closer to formula C than R (or vice versa).

34. My own view is that where a tribunal is contemplating a "mix and match" of elements from both sides' proposals it should say so before proceeding to an award and give both parties the opportunity to comment on what the consequences might be. Neither side can then be taken by surprise and both sides have the chance to say why a particular mixture might turn out to be one-sided.

Dispute resolution

35. Long term gas supply agreements are very high value contracts. Partly for this reason they sometimes incorporate elaborate cascade dispute resolution procedures which proceed through mediation, expert determination and then arbitration as a last resort. I have nothing against such procedures but I would caution against adopting them wholesale in the context of a disputed price review.

36. Particularly where the contract envisages periodic price reviews, say every four of five years, it is not very satisfactory if the dispute resolution procedure is so elaborate that a recalcitrant party can spin it out until shortly before the price is due for yet further review.

37. Delays in resolution produce other problems which are specific to price reviews. Generally it will be apparent from the review clause that the object is to set a new price and formula by reference to the circumstances existing at the review date. If resolution is delayed the available economic and market data become contaminated by subsequent events. This can make resolution even more complicated with one side arguing that the Tribunal must put hindsight out of its mind and the other arguing that what has happened since the review date had always been predictable and should be allowed for anyway.

38. There is much to be said for including target[11] time scales in a price review procedure in

[11] I use the word "target" deliberately. The time scales need to be an aspiration which a Tribunal will take into account. To make it a condition of a valid process that the result must be announced with a prescribed time produces other problems.

order to focus everyone's attention on the need for expedition. There is no point in inserting an expert determination procedure into the overall process unless the scope for challenging the outcome of that procedure is kept within narrow bounds. It may also help if balances which are quantified upon the ultimate outcome of the process attract interest (at a generous rate) back-dated to the review date.

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