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Agenda

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The value of future damages claims in energy: proven, probable or possible?

Identifying competition law infringements in the energy sector is challenging, as is subsequently quantifying any damage potentially caused by such infringements. Are there any 'typical' infringements found in the sector, and what issues are encountered when assessing the associated damages?

The enforcement of competition law, and the fines associated with any breaches of that law, help to deter anti-competitive behaviour by firms and thereby promote competition. Competition infringements distort market outcomes and reduce overall welfare. This means that competitors' sales and profits may be lower than they would otherwise have been, and consumers may pay inflated prices or receive a lower-quality service.

Damages claims against firms found guilty of anti-competitive conduct allow affected parties to recoup their losses. Alongside public enforcement, the European Commission has encouraged private damages claims, recognising that the victims of anti-competitive conduct are entitled to receive compensation for damages incurred, and has provided guidance to courts to facilitate the quantification of damages.[1]

Energy markets have been the subject of a number of competition investigations in recent years, and would appear to be a fertile ground for damages claims. However, the assessment of the relevant market dynamics and value of harm can be complex—energy markets are often characterised as having lumpy and long-lived capital investments, high barriers to entry and oligopolistic market structures that shape competition,[2] elements of natural monopoly, and the need for access rules in distribution networks.

Focusing on private enforcement of competition infringements, this article investigates the scope for follow-on damages claims along the energy value chain based on several recent competition infringements. It looks at where future claims may be forthcoming and how they could be assessed, from the perspective of either a claimant or a defendant.

The counterfactual and the energy value chain

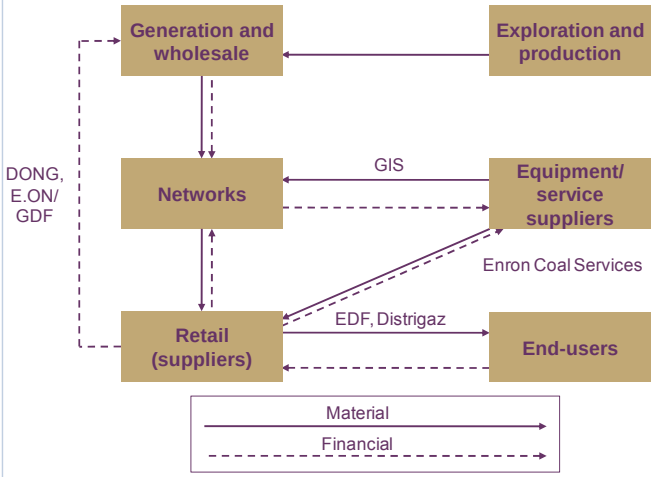
The quantification of damages requires an economic analysis of the counterfactual—ie, what would have happened if the infringement had not taken place. By comparing the factual with the counterfactual scenario, estimates can be made of the differences that were caused by the infringement in terms of quantities sold and prices paid.

In the energy sector, an assessment of the counterfactual requires an understanding of the competitive dynamics that are likely to have driven firms' pricing and quantity decisions and their consumption behaviour in the various parts of the energy value chain. Figure 1 below illustrates the value chain, highlighting the material and financial flows, and shows how infringements in upstream parts of the chain affect inputs, costs and market dynamics in downstream markets. The dynamics in each part help to determine what proportion of inflated costs was passed on by potentially affected parties, and to understand the upstream price and volume impacts.

Mapping the nature of the distinct parts of the value chain also helps in understanding the types of competition infringement that can occur, as shown below.

- Wholesale electricity markets are characterised as having excess capacity in off-peak periods, often frequent 'tight' market conditions in peak periods (in which supply has difficulty in meeting demand), and relatively low elasticity of demand. In such an environment, it has sometimes been found that dominant operators may have both the ability and

Figure 1 The energy value chain



Note: The examples of companies and financial flows are indicative but not exhaustive.
Source: Oxera.

the incentive to charge excessive prices or withhold capacity. These conditions may also be present to facilitate the collusion of operators through market-sharing.[3]

- Network owners and operators are typically granted monopoly licences, with their prices or profits regulated. Where network companies also own upstream or downstream businesses, a concern can exist that they may be able to refuse access (or provide discriminatory access terms) to competing upstream or downstream companies.

- In retail markets, downstream suppliers compete to sell energy to end-users. Potential threats to competition include instances where incumbent downstream suppliers can tie in their end-users by committing them to long-term contracts. Such contracts may foreclose other downstream suppliers from potential end-users, and deter entry.

Generation and wholesale markets

Wholesale energy markets (eg, electricity, gas and crude oil) are characterised by oligopolistic market structures, which reflect lumpy capital investments, relatively fixed capacities over several years, and low consumer price-sensitivity. In recent years, the following practices in generation and wholesale markets have been subject to competition investigations.

- **Excessive pricing**—wholesalers may abuse their dominance by charging excessive prices. A claim filed against DONG Energy in Denmark[4] illustrates that the ability to charge excessive prices is particularly strong during periods of high demand, and when transmission capacity to adjacent regions is limited, which can reduce the effects of competition.

- **Capacity withholding**—a plant operator may withhold capacity when, in the absence of an objective reason, it does not use available capacity to produce energy that could have been sold at a price above the marginal cost. A dominant operator could have an incentive to withhold capacity if the profits from higher prices earned by its remaining capacity outweigh the loss of selling lower volumes.

- **Market-sharing agreements**—companies may agree to share markets by not supplying customers in markets reserved for other companies. An example of market-sharing is the (alleged) agreement between E.ON and GDF not to supply customers in each other's home markets (Germany and France) using gas shipped through the jointly constructed Megal pipeline.[5] The European Commission prohibited this (alleged) agreement, arguing that supplying gas to customers in Germany would have been profitable for GDF.

The anti-competitive practices described above typically have the effect of raising prices to downstream users. In order to determine the extent to which observed market outcomes differ from those that would have been observed in the absence of the infringement, specific energy market dynamics need to be taken into account—in particular, the fixed short-run capacities of supply and low elasticity of demand. Even without the infringement, prices during periods of high demand are likely to exhibit the following features:

- prices are likely to be high, reflecting the fact that the marginal cost of the incremental generation plant is higher during periods of high demand;

- prices may exceed marginal costs, even for the incremental generation plant. The extent to which prices exceed marginal costs increases with system 'tightness'—the more difficult it is for supply to meet demand, the higher the margins that can be earned. These higher margins provide incentives to investors to finance new generation, and the higher prices encourage consumers to reduce their energy consumption;

- prices are subject to greater volatility during periods when the balance between supply and demand is tight. Because of the greater uncertainty surrounding this balance, the price-setting mechanism may be temporarily distorted, resulting in price spikes.

The likely level of demand in response to prices is another factor to be considered. In order to determine counterfactual demand, inferences have to be made

about the response of downstream users to the counterfactual (ie, probably lower) prices. The factual scenario can be used to learn about downstream users' sensitivity of demand to prices. Demand considerations include whether downstream users would be likely to decrease or postpone consumption, or whether they can switch to other sources of energy.

To assess these features, bottom-up and top-down methodologies can be used in order to establish counterfactual prices.

- **Bottom-up methodologies** rely on supply costs to establish counterfactual prices. The counterfactual level of supply can be ascertained using various approaches, such as determining the hypothetical merit order, which describes the marginal cost of the incremental generation needed to meet (various levels of) demand; or determining the total cost of supplying energy by aggregating input costs, such as the opportunity cost of energy, transmission and distribution charges, and the costs of maintaining flexibility of supply. Once the counterfactual supply has been determined, prices can be established by matching counterfactual supply with counterfactual demand.

- **Top-down methodologies** use prices from comparable periods or markets to establish counterfactual prices. These might include prices charged by the companies concerned before and after the infringement, or prices charged by comparable companies during the infringement period. However, since excessive pricing and capacity withholding commonly concern periods of high demand, this may make it difficult to identify appropriate comparators, since periods of high demand are less frequent and may exhibit important differences relative to non-peak periods.

Networks

The networks used to transport energy can be characterised as natural monopolies in which efficient market outcomes rely on access arrangements with network users, and increasingly on interconnection with neighbouring markets. Given that network charges are typically subject to price or rate of return regulation, the predominant risk of competition law infringements relates to access to the network, and the potential for refusal to supply.

Incentives may exist for a system operator—either an integrated energy undertaking or an independent system operator—to deny access to its network for a number of reasons. For example, ENI,[6] an integrated gas undertaking in Italy, allegedly denied other downstream suppliers access to cross-border gas pipelines (which it jointly owned and controlled), reducing competition for its downstream business.

Also, an independent system operator may face incentives to deny access in order to meet its designated objectives—for example, an objective to ensure that prices remain uniform across a country.

Refusal to supply can foreclose downstream suppliers from potential end-users, harming them through lost market share or because they have to pay charges that could be considered excessive, given the inferior quality of the network capacity provided. To determine the extent to which observed market outcomes differed from those that would have been observed without the infringement, two forms of refusal to supply can be considered: capacity hoarding and capacity degradation.

Capacity hoarding concerns refusal to supply when the system operator either does not provide capacity even though it is available, or deliberately takes actions resulting in no capacity being available. Capacity hoarding means that affected downstream suppliers cannot deliver energy to end-users, since no capacity is available for them.

- **Long-term bookings**, made by the network company on behalf of its downstream business, reduce the network capacity available for competing downstream suppliers by constraining them in supplying to potential customers. Downstream competitors would need to demonstrate that no capacity was assigned to them even though they exercised credible demand. Damages incurred by downstream competitors may consist of forgone profits on customers that they could not supply because access to the network was denied. In the counterfactual, downstream competitors would not have been constrained in accessing network capacity when supplying profitable customers.

- Another form of capacity hoarding is **curtailing transmission**. The independent system operator in Sweden, Svenska Kraftnät, has the designated objective of ensuring uniform electricity prices across Sweden. To deliver on this objective, it had to curtail transmission capacity connecting Sweden to Denmark during periods when its domestic network was congested as a result of high demand.[7] The curtailment was necessary to prevent electricity being transferred from Sweden to Denmark during periods when prices were higher in Denmark. This transfer would have led to price differences across Sweden, since electricity prices would have been higher in the region bordering Denmark (from where electricity would be transferred).

  Without the curtailment, Swedish operators would have transferred electricity to Denmark during periods when prices were higher in Denmark. This transfer would have put downward pressure on prices for

Danish end-users, and upward pressure on prices in the Swedish region bordering Denmark. To establish counterfactual volumes and prices in this case, the following two points need to be recognised.

- The interdependence between the Swedish, Danish and adjacent markets needs to taken into account when establishing volumes and prices. Supply in these markets is highly interrelated, since operators would transport their electricity to the market where they obtain the highest margin between price and supply costs.

- The volume of electricity transferred to Denmark depends on the price difference between Denmark and Sweden, and on the differences in the costs of supplying electricity (eg, due to transmission and distribution charges).

Capacity degradation concerns system operators offering inferior quality. For example, integrated energy undertakings may discriminate against downstream suppliers, impairing their ability to use offered capacity by increasing their costs. Downstream suppliers may argue that the charges they have to pay, or which are usually regulated, are excessive given the inferior quality. Downstream suppliers may be harmed because supplying energy over the network becomes unprofitable (as a result of lost sales), or they have to pay excessive charges (leading to higher actual costs).

Retail markets

Retail markets, in which energy products are sold to end-users, are characterised by their relatively low capital intensity compared with upstream parts in the value chain. Member States across the EU have attempted to open retail markets up to competition in a move away from a 'vertically integrated' model.

A key competition concern in retail markets relates to the competitive effects of long-term contracts between incumbent suppliers and end-users. Such contracts may reduce the mobility of end-users, making it more difficult for competing suppliers to attract end-users and possibly frustrating entry by competing suppliers, leading to higher energy prices in the long run. For example, Distrigaz, the incumbent supplier of natural gas in Belgium, was supplying most large end-users through long-term contracts. The European Commission argued that this extensive use of long-term contracts foreclosed other suppliers from end-users, and accepted the commitments proposed by Distrigaz to reduce its use of these contracts.[8]

As in the other parts of the value chain, specific energy market dynamics need to be taken into account when establishing the counterfactual.

In the absence of long-term contracts, the prices that the incumbent and other suppliers would have set would probably have been lower because the market may have been more contestable. Furthermore, when setting prices, other suppliers (ie, not the supplier concerned) may not have been able to set prices as high as they would have done in the presence of long-term contracts offered by the supplier concerned. When quantifying damages, it should be appreciated that claimants may have benefited from the high prices on their own sales that were made sustainable by the long-term contracts.

Long-term contracts may also affect non-price factors. When end-users are not committed to long-term contracts, they can choose their supplier according to the offers being proposed by the various suppliers. Determining the hypothetical response of end-users to offers requires their preferences and choice process to be assessed. Distrigaz may benefit from its knowledge of end-users' consumption to make tailored offers. To the extent that this increases end-users' satisfaction with services and supply, it may lead them to stay with Distrigaz, despite its higher prices.

Concluding remarks

The number of competition infringements across the energy sector exceeds the number of damages claims filed. Some of the damages actions that have been brought concern energy companies demanding compensation for the inflated prices that they had to pay for equipment, as in the GIS cartel, or services, as with Enron Coal Services. There would appear to be scope for further claims, and energy companies that might be at the receiving end of such claims are increasingly preparing their defensive case well in advance.

Quantifying damages requires a detailed economic analysis of the counterfactual—the nature of which is heavily driven by specific features of the energy sector (market, regulation and policy). To overcome the complexity of the counterfactual, it is necessary to identify where in the energy value chain an infringement occurs, and to understand the form and nature of that infringement. Only a thorough analysis can show which parties are affected by the infringement and how these effects materialised. The links, both upstream and downstream, are particularly important. Understanding the types of anti-competitive practice, and the methods used to quantify potential damages, can help energy companies—be they on the claimant or the defendant side—to assess the risks and potential consequences of practices that may be considered infringements. Such knowledge offers benefits to potential defendants and claimants alike.

[1] European Commission (2008), 'White Paper on Damages Actions for Breach of the EC Antitrust Rules'. Oxera and a multi-jurisdictional team of lawyers led by Dr Assimakis Komninos (2009), 'Quantifying Antitrust Damages: Towards Non-binding Guidance for Courts', study prepared for the European Commission Directorate General for Competition, December. European Commission (2011), 'Guidance Paper: Quantifying Harm in Actions for Damages based on Breaches of Article 101 or 102 of the TFEU. Consultation'.
[2] Oligopoly is a form of competition with a limited number of competitors.
[3] In which companies divide the markets between them and commit not to compete in each other's markets.
[4] OK, Scanenergi and Energy Danmark (2007), 'Businesses and Municipalities Claim 4.404 billion DKK in Compensation for Excessive Pricing of Electricity', press release, November 21st.
[5] European Commission (2009), 'Décision de la Commission du 8 Juillet 2009 relative à une procédure d'application de l'article 81 du traité CE Affaire COMP//39.401 – E.ON/GDF'.
[6] European Commission (2010), 'Commission Decision of 29 September 2010 relating to a proceeding under Article 102 of the Treaty on the Functioning of the European Union and Article 54 of the EEA Agreement (Case COMP/39.315 — ENI) (notified under document C(2010) 6701)'. The European Commission argued that ENI had refused supply to its gas transport network by long-term capacity bookings, managing its network in a discriminatory manner, and strategically underinvesting in its network. The Commission accepted the commitment offered by ENI involving a reduction in long-term capacity bookings and a more transparent system of network management.
[7] European Commission (2010), 'Commission Decision of 14 April 2010 relating to a proceeding under Article 102 of the Treaty on the Functioning of the European Union and Article 54 of the EEA Agreement (Case COMP/39.351 – Swedish Interconnectors).
[8] European Commission (2007), 'Commission Decision of 11.10.2007 relating to a proceeding pursuant to Article 82 of the EC Treaty (Case COMP/B-1/37966 – Distrigaz)'.