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CAPACITY TO COMPETE: RECENT TRENDS IN ACCESS REGIMES IN ELECTRICITY AND NATURAL GAS NETWORKS

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Abstract

Ensuring access to a truly ‘European’ energy grid for every consumer and supplier in the European Union is a core objective of the single market project. From the first wave of liberalization directives up until the ‘draft’ framework guidelines of September 2010 on capacity allocation and congestion management being prepared by ERGEG on behalf of the new Agency for the Cooperation of Energy Regulators (ACER), the objective of the access regime in both sector is similar: to creating capacity to compete. The objective of this paper is to review and compare from a legal point of view the evolution of the EU access regime in the electricity and gas sectors. We find strong similarities for two otherwise very different sectors, as well as an influence of the electricity regime on the gas regime. The sector-specific regulatory regime, supported by the use of competition law, organises a market design in both sectors based as much as possible on short-term capacity allocation with a liquid secondary trading platforms. The imposition of UIOLI mechanisms and an increased focus on firmness of capacity is certainly the way forward but implementation still is an issue. The right portfolio of capacity durations that are to be proposed by TSOs also remains an open question. The specific features of these two commodities result however in slightly different results in practice. In electricity, the development of market coupling initiatives creates new regulatory challenges but price convergence is now in sight. In gas, the progress has been slower and efficiently functioning spot markets are yet to emerge.

Keywords

Access Regime, Electricity, Gas, European Union, Competition Law, Framework Guidelines

Introduction[1]

Ensuring access to a truly 'European' grid for every consumer and supplier in the European Union is a key objective of the single market project since the beginning of liberalization. Competitive reforms in Europe were based on the fundamental insight that the gains from competitive energy trade would increase with the size of the market. Ensuring access creates a threat of competitive entry and thus constrains dominant operators to price outputs nearer competitive levels, even when new imports do not in fact occur.[2] Moreover, by providing links between otherwise isolated areas, it not only reduces prices but also contributes to security of supply. However, unavailable cross-border capacity, different market designs or lengthy and discriminatory access procedures still continue to hamper market integration despite the apparent efforts of Transmission System Operators (TSOs) and national regulators towards harmonization.

A key problem of today's access regimes is obviously the management of contractual congestion on cross-border interconnection. They exist both in electricity and gas. Contractual congestions occur when existing physical capacities offered by the TSOs are fully contracted, and are sometimes then under-used, which does not maximize the use of the existing physical capacity. Contractual congestions thus create a problem of capacity allocation and congestion management (CACM). As a result, EU energy infrastructures do not allow for any real competition among the former incumbents or new players and prices in neighbouring markets only converge slowly.

Devising an efficient and non-discriminatory third-party access (TPA) regime, both to national networks and interconnection as well as transit pipelines for gas, has therefore been a core objective of the EU regulatory regime from the very beginning. Failure of the sector-specific regulatory framework on this issue has also more often than not been superseded by the use of competition law. Despite all these efforts, the access regime still remains a core preoccupation of national regulators and the Commission. Only one proof of this is that among the very first 'draft' framework guidelines being prepared by ERGEG on behalf of the new Agency for the Cooperation of Energy Regulators (ACER); two of the guidelines address CACM in both electricity and gas.

The objective of this chapter is to review and compare the evolution of the access regime in both electricity and gas. We will see strong similarities for two otherwise very different sectors, as well as an influence of the electricity regime on the gas regime. We will also see that interactions between access regimes at national and cross-border levels are very different in both sectors. This chapter will review both access regimes in turn before drawing some concluding remarks.

1. In Search of a Suitable Market Design for CACM on Interconnection: The Main Challenge for Access Regimes in Electricity

As opposed to the gas sector, the link between TPA regimes to national networks and interconnection is somewhat limited in electricity. Obtaining access to interconnections indeed most often creates a parallel right to access national networks on both sides of the line, which facilitates cross-border trade. At the national level, ensuring non-discriminatory TPA for internal transactions remains an enduring problem leading to numerous regulatory decisions and subsequent appeals in several Member States. The management of national congestions by TSOs might sometimes also have an effect on cross-

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1 This paper will be published in B. DELVAUX, M. HUNT and K. TALUS (eds.), *EU energy law and policy issues* (Brussels: Euroconfidentiel 2011).

2 S. BORENSTEIN, J. BUSHNELL and S. STOFT, 'The Competitive Effects of Transmission Capacity in a Deregulated Electricity Market', 31(2) *RAND Journal of Economics* (2000), p. 294-325.

border trade.[3] This is however more a problem of *enforcement*, whereas the problem of interconnection is still a long-lasting problem of *market design*, recently leading to several new initiatives. The objective of this first part is therefore to review and discuss the evolution of the EU access regime for electricity network, with an extensive focus on interconnection and on the recent draft framework guidelines of September 2010.

A. Sector-Specific Regulation and TPA to National Networks

In the early 1990s, Member States' opposition to TPA (except in the UK) led the Commission to draft a directive on TPA under Art 86(3) EC, which is the EC Treaty article used for the liberalization of telecommunications. However, both the Member States and the European Parliament opposed this initiative and the Commission abandoned the text in October 1991. Following a proposition from France, the Council asked the Commission to examine the possible co-existence of TPA with the single buyer model. After five years of intense negotiation, the European Parliament, and then the Council in 25 July 1996, accepted a compromise.[4]

The modalities of the organization of TPA were at the centre of all conflicts during the negotiations leading to the first directive. To reach a consensus, the directive introduced three alternatives: negotiated TPA, regulated TPA and single buyer. These systems could be combined and had to similarly ensure non-discrimination and transparency (Art 16). These systems were in principle to *'lead to equivalent economic results and hence to a directly comparable level of opening-up of markets and to a directly comparable degree of access to electricity markets'* (Art 3(1)). In the negotiated TPA system, supply and network access transactions are de-coupled. Eligible market players must contract for supply and then negotiate access with the TSO (Art 17(1)). This system could also apply for access to the distribution network (Art 17(2)). To facilitate negotiations, TSOs and distribution system operators (DSOs) had to publish indicative access tariffs based on the average prices charged in the previous year (Art 17(3)). In the regulated TPA system, access tariffs had to be fixed by the relevant national authorities.[5]

In the single buyer system, the producer and the eligible customer contracted on a certain volume, then the single buyer bought the electricity from the producer at the price agreed between them minus the cost of transport and distribution due to be published pursuant to Art 18(1)(i). The electricity was then resold to the buyer at the price primarily agreed with the producer. In the case where the single buyer did not have a duty to buy, negotiated or regulated TPA applied. The single buyer model raised important problems of transparency and accounting unbundling, and there were often two single buyers in practice, one for transport and one for distribution. Overall, the systems of TPA and single buyer were not so different in practice. France, which had rejected the former during the negotiations, finally implemented a regulated TPA system. This is also why the single buyer system was not retained in the first gas directive and subsequently in the second electricity directive.

In the second directive, the negotiated TPA and single buyer models were cancelled, mainly because of a structural lack of transparency. We note that the new Directive 2009/72/EC does not bring any novelty to TPA as compared to the second directive. Art 32(1) of Directive 2009/72/EC states that: *'Member States shall ensure the implementation of a system of third party access to the*

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3 This has been shown by the recent *Svenska Kraftnat* case where the national Swedish TSO probably curtailed the available capacity on the Sweden-Denmark interconnection to alleviate internal congestion, thereby impairing single market integration.

4 We note that the principle of TPA is only one dimension of the access regime. The market design for transport activities, aiming to set the right incentives for TSOs through unbundling and the organization of sector-specific regulators in charge of over-viewing access must also be highlighted.

5 For a case study, see J-M. Glachant, U. Dubois and Y. Perez, 'Deregulating With No Regulator: Is the German Electricity Transmission Regime Institutionally Correct?', 36(5) *Energy Policy* (2008), p. 1600-1610.

transmission and distribution systems based on published tariffs, applicable to all eligible customers and applied objectively and without discrimination between system users. Member States shall ensure that these tariffs, or the methodologies underlying their calculation, are approved prior to their entry into force in accordance with Article 23 and that these tariffs, and the methodologies — where only methodologies are approved — are published prior to their entry into force'. Three main reasons for refusal were included in the legislation. First is the lack of capacity. In this case, any refusal must be justified and TSOs/DSOs must provide relevant information on measures that would be necessary to reinforce the network. Second are public service obligations imposed by Member States within the meaning of Art 106(2) TFEU (Art 2(14)). Third is *force majeure*, referred to as 'sudden crises' in the directives (Art 42). Finally, the directives include provisions on tariff methodologies and transparency as excessive tariffs could *de facto* lead to discriminatory exclusion of the competitors of the vertically-integrated utilities.

Overall, the access regime to national network in electricity has been strengthened over time and lies on three pillars which have been developed in the three packages: a non-discriminatory access regime, strong regulators to overview it and unbundled TSOs. Certain problems however remain: the strict definition of possible objective justifications when TSOs refuse access, the quality of regulatory decisions and the expediency of appeal processes, and the concrete implementation by TSOs of priority access to renewable energy into the grid.[6]

B. Access to Electricity Interconnections: The Early Days

It is interesting to see that as early as the beginning of the 1990s, addressing the functioning of interconnection has been a core objective of the Union and the Commission. We were however still far from addressing the market design of CACM. It was more a preliminary period with two major objectives: introducing principles of non-discrimination and transparency, and most importantly freeing interconnection from long-term priority access contracts signed before liberalization.

1. The Transit Directive: A Preliminary Step

Cross-border exchanges of electricity in the European Union started before any public authority at the Union or Member State level started to address the issue. Incumbent operators spontaneously started to exchange electricity mainly for technical and security-of-supply reasons and thus started to develop interconnections. Incumbent electricity operators started early to set up associations to facilitate cross-border exchanges with a view to ensuring security of supply and limiting unnecessary investments in the network. These associations were mainly regional in scope. Prior to liberalization, interconnections had therefore primarily a solidarity purpose.

Following the Single European Act of 1986, Energy Commissioner Mosar invited Member States to engage in single market integration, an orientation which was approved by European energy ministers at the Council of 2 June 1987. However, no legally binding act was enacted at the Union level before the Transit Directive.[7] The Transit Directive can be considered as a preliminary step. It was adopted on the 29 October 1990 under the co-decision procedure. The Transit Directive restated that increasing the size of electricity markets will allow for a better use of production and transmission capacities. The directive also stated that cross-border interconnections are important for social cohesion and a balanced development of the European Union. Lastly, the directive recalled the

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6 On priority access, see the material presented at the workshop of the Florence School of Regulation on this issue: http://www.florence-school.eu/portal/page/portal/FSR_HOME/ENERGY/Policy_Events/Workshops/2010/EU_Energy_Law_Policy

7 Directive 90/547/EC of 29 October 1990 on the transit of electricity through transmission grids, O.J. 13.11.1990, L 313/30.

importance of interconnections for security of supply. In practice, however, it was long on generalities and short on concrete regulatory actions.

Some duties were nonetheless imposed on Member States and national TSOs. In particular, TSOs had a legal duty to negotiate access without discriminating between access seekers. In case a satisfactory solution could not be found, the conflict had to be referred to the Commission and national authorities, and an arbitration procedure could be set up. Member States were also to notify the Commission of any existing transit contract (Art 2(3)). Overall, the Transit Directive aimed more to set up the conditions for the emergence of a competitive market than to truly create it. The Transit Directive was subsequently abrogated by the second liberalization Directive of 2003 (Art 29) and replaced by Regulation 1228/2003.

2. The Commission and Export/Import Monopolies: The Beginning of a 'Litigation' Approach

The Commission has early on taken a litigation strategy to start opening European electricity markets to competition. The recent line of access cases analysed in part 2 of this chapter are nothing new in this regard. As expressed in the Commission White Paper of 1995,[8] European energy policy mainly lies in the direct application of the EC Treaty and aims, among other objectives, to enable the creation of a true single market for goods and services. However, the application of free movement and competition rules to electricity firms long appeared impossible due to the exclusive and special rights they enjoyed in most Member States.[9] In view of the long negotiations on the first liberalization directive and the relative inertia of several Member States, the Commission nonetheless tried to use these provisions to accelerate opening. The European Court of Justice (ECJ) was asked to rule on the applicability of free movement and competition rules to electricity for the first time in the early 1980s. The first objective of the Commission was to remove the exclusive legal rights to supply, which appeared to contradict competition rules and most importantly the free movement of goods.

The Commission started by leveraging on third-party complaints against import and export monopolies. The first of these decisions by the Commission was *Ijsselcentrale,*[10] where the Commission attacked the import and export monopoly of SEP, a cooperative regrouping the four main Dutch electricity producers holding the transmission assets. The Commission judged that the cooperative constituted a restrictive agreement, and thus unduly infringed Art 85 EC (new Art 101 TFEU), and that the application of competition rules did not preclude SEP fulfilling its public services obligation, hence excluding exemption under Art 90(2) EC (new Art 106(2) TFEU). This decision was much criticized by electricity operators as it occurred in the middle of the negotiations for the first liberalization directive.

By attacking only one firm at a time, the Commission could not realistically reach its objectives in a foreseeable time frame. A few months later, the European Commission thus addressed a letter questioning national legislation on import and export monopolies to nine Member States (Denmark, Spain, Greece, Ireland, Italy, the Netherlands on electricity; and Belgium, Portugal, France and Denmark on gas). Following the receipt of unsatisfactory answers, the European Commission decided to attack these restrictions in five Member States (Belgium, Denmark, Spain, France and Portugal) before the ECJ under Art 30, 34 and 37 EC (new Art 34, 35 and 37 TFEU). The Commission was explicitly supported by the UK which had opened its market as early as 1989 under the *Electricity Act* (1989). The ECJ recognized the discrimination, which *de facto* did not require further examination under Art 30 and 34 EC. However, the ECJ deemed that the Commission did not sufficiently ground the fact that the conditions to benefit from exemption under Art 86(2) EC were not fulfilled and none

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8 European Commission White Paper, *An Energy Policy for the European Union*, COM(95) 682 final of 13.12.1995.

9 The situation was further complicated by the perceived strategic importance of the energy sector and the links between governments and the energy sector. The same factors still play a role in today's energy policies.

10 Case IV/32.732 *Ijsselcentrale*, O.J. 16.01.1991, L 28/32.

of the Member States were condemned. After export/import monopolies, the Commission decided to address the problem of long-term priority access rights linked to the long-term contracts signed before liberalization between incumbents.

3. Freeing Interconnections from Long-term Priority Access Rights

Given contractual congestions on most EU borders, granting such rights for a substantial amount of the capacity of the interconnector and for a long period could amount to a monopolization of an essential facility and hence an abuse of a dominant position, depending on the market position of the right holder.

Up until 2006, about 40% of all interconnector capacities are still granted in the form of long-term priority access rights to the former incumbents (often called 'grandfathering' rights) to fulfil their long-term obligations of supply signed before liberalization, although the situation is slowly improving.[11] As concerns already existing and amortized interconnectors owned by dominant firms (the old merchant lines), the Commission intervened on several occasions to ensure that long-term priority access rights do not block market access for competing suppliers.[12] The Commission indeed systemically deemed long-term capacity reservations signed before liberalization to be abuse of a dominant position under the antitrust rules and required that 100% of capacities be freed up (*UK-French submarine interconnector*,[13] Skagerrak cable and Denmark-Germany interconnectors[14] following the merger *VEBA/VIAG*[15]). For the UK-French submarine interconnector, 100% of the capacity then had to be auctioned on the basis of 3 years bilateral contracts (1500MW divided in 50MW blocks) and concurrently annual (50MW in 1MW blocks) and daily (150MW in 1MW blocks) auctions.

The relative but general antitrust tolerance towards risky infrastructure investment[16] seems impossible to justify objectively for existing and amortized infrastructure. Foreclosure effects of new long-term priority rights on existing capacity, which would not be directly linked to new investment in that infrastructure, indeed cannot be counter-balanced by arguments related to the need for investment. The same applies to the prolongation of historical contracts beyond their originally foreseen end date when this possibility is foreseen in the historic transport contract. [17]

A first indication on how European Courts assess long-term priority access rights to interconnectors was given by the ECJ in its ruling on grandfathering rights on Dutch interconnectors in the *VEMW* case of 7 June 2005.[18] This case was referred to the ECJ under former Art 234 EC (new

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11 ERGEG, Regulation (EC) 1228/2003 Compliance Monitoring, Second Report, Ref: E08-ENM-03-05 (2008).

12 *Role of Interconnectors in the Electricity Market. A Competition Perspective:* MEMO/01/76 of 13.3.2001.

13 *UK/France Electricity Interconnector*: IP/01/341 of 12.3.2001. In this case, the French and British TSOs, which were dominant on the transmission market between France and the UK, owned the submarine interconnector and had allocated 100% of the capacity to EDF.

14 European Commission press release IP/01/30 of 11.01.2001. Statskraft, E.ON and Elsam together had long-term priority access rights for 100% of the Skagerrak cable and 34% of the Danish/German interconnector for 20/25 years.

15 Case COMP/M.1673 *VEBA/VIAG*, O.J. 10.7.2001, L 188/1.

16 H. NYSSENS and D. SCHNICHELS, 'Energy', in J. FAULL and A. NIKPAY, *The EC law of Competition* (OUP, 2007).

17 However, the Commission recognised the legitimate need for long-term capacity reservations where there was a clear linkage with a substantial new investment. Comp/E-3/37.921 – Viking Cable, O.J. 5.9.2001, C 247/11-12. Today, this situation would be covered through a merchant exemption under the sector-specific regulatory framework.

18 For a full analysis of this judgment, see P. CAMERON, *Competition in Energy Markets* (OUP, 2007); L. HANCHER, 'Case C-17/03, VEMP, APX en Eneco N.v.v. DTE, Judgment of the Full Court of 7 June 2005', 43(4) *Common Market Law Review* (2006), p. 1125-1144 and K. TALUS, 'First Interpretation of Energy Market Directives by European Court of Justice – Case C-17/03 Vereniging voor Energie', 24 *Journal of Energy and Natural Resources Law* (2006), p. 266-281.

Art 267 TFEU) by the Dutch Administrative Court for Trade and Industry which had to rule on the legality of the long-term priority access rights of the former incumbent SEP (today NEA) on Dutch interconnectors. These long-term priority access rights were justified in the pre-liberalization period by the underlying long-term power purchase agreements with foreign producers. SEP had to ensure cheap and reliable electricity supply in the Netherlands and these contracts were thought to help it fulfil these public service obligations, thereby justifying the grant of an import monopoly. Following the first liberalization directive, the import monopoly of SEP was abolished and the electricity sector was partially unbundled. The transmission subsidiary, TenneT, was vested with network assets including the interconnectors on the German and Belgian borders. Following the transposition of the first liberalization directive in national law, the national regulator, DTE, enacted the Network Code which allocated long-term priority access rights to SEP on the international interconnectors, first for 50% and then 25% of the full capacity of these interconnectors until 2009, so that the company could fulfil its long-term purchase obligations. Three competitors of SEP, grouped in the professional association VEMW, decided to challenge these remaining long-term priority access rights on the basis of former Art 28, 81, 82 and 86 EC (new Art 34, 101, 102 and 106 TFEU), and Art 7(5) of the first liberalization directive.[19]

In the course of the proceeding, the Commission,[20] the Dutch state and the Advocate General Stix-Hackl all considered that these arrangements complied with EU law. Their arguments generally revolved around the general community law principles of legal certainty and legitimate expectations, in addition to the fact that SEP was truly vested with public service obligations at the time of contracting. The Dutch government similarly pointed out that these arrangements could also be considered non-discriminatory on the basis of Art 3(3) of the first liberalization Directive. The ECJ however dismissed this argument as Art 3(3) does not provide for derogations of Art 7(5) and 16. We cannot but notice here that a combined reading of the different articles of the first directive yields ambiguous results on this issue as Art 7(5) and 17(5) could be considered contradictory.

The solution adopted by the ECJ was to avoid considering the application of former Art 86(2) but rather to refer to Art 24 of the first liberalization Directive which gave the opportunity to Member States to apply for a transitional regime when liberalization resulted in some commitments of the former incumbents becoming impossible to fulfil. The Netherlands had not applied for derogation and the Court judged that unilaterally disregarding some provisions of the first liberalization Directive could amount to protecting the former incumbents and impairing competition.

This judgment has been very influential on both national and community levels. Several national regulatory and antitrust authorities have indeed started to assess priority rights in the light of this judgment. A year after the judgment the Commission also published a staff working paper[21] commenting on the decision. It went as far as arguing that in the light of *VEMW* any long-term priority access rights should be considered discriminatory in nature and thus non-compliant with the *second* liberalization Directive and Regulation 1228/2003 (analysed below), unless the Member states had previously applied for a transitional regime.[22] As we will see in the second part of this chapter, the *VEMW* case will have consequences reaching far beyond the electricity sector.

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19 Art 7(5) states: "*The system operator shall not discriminate between system users or classes of system users, particularly in favour of its subsidiaries or shareholders.*"

20 The European Commission had already taken this position in its XXXIIId Report on Competition Policy in 2003.

21 Commission Staff Working Paper on the Decision C-17/03 of 7 June 2005 of the Court of Justice of the European Communities, SEC(2006) 547 of 2006.

22 For a critical view of this Staff Working Paper, see K. TALUS and T. WÄLDE, 'Electricity Interconnectors in EU Law: Energy Security, Long-term Infrastructure Contracts and Competition Law', 32 *European Law Review* (2007), p. 125 – 137.

C. The Contribution of Regulation 1228/2003 and the Congestion Management Guidelines

This is in the context of the Florence process that ruled cross-border exchanges were incrementally negotiated between participants and subsequently made legally binding by the European Commission in the form of Regulation 1228/2003. Regulation 1228/2003 had a clear harmonization purpose, especially on cross-border tariff, as national tarification systems used too widely diverge, thereby creating trade distortions.[23] The guidelines were then introduced in 2006 under the comitology procedure to further clarify the requirements of the Regulation. The primary objective of Regulation 1228/2003 was to clarify the rules of the game in three core areas: cross-border tarification and inter-TSO compensation scheme, transparency and methods of cross-border capacity allocation.

The core legal documents addressing CACM on interconnection today are Regulation 714/2009[24] and the amended congestion management guidelines[25] (thereafter "the guidelines"). We note that the new Regulation 714/2009 which repeals Regulation 1228/2003[26] does not create any new substantive rules on CACM, except for a strengthened duty on TSOs to cooperate at the regional level (Art 12).[27] These documents are important for market players who wish to trade across borders as they set the framework within which national TSOs and regulators are to manage the allocation of cross-border capacities in a context of scarcity.

As physical capacities remain generally under-sized, an efficient allocation of existing capacities indeed becomes crucial. Even today congestion management methods in the European Union still tend to remain border specific and thus to differ across Member States, although harmonisation is slowly taking place. Congestion management methods are usually classified as market-based and non-market-based. Non-market-based mechanisms are usually less transparent and more prone to discrimination. It is especially important to have non-discriminatory methods when most TSOs remain weakly unbundled and thus could favour their affiliated generation and supply arms. Most importantly, non-market-based methods do not necessarily allocate the capacities to market operators who value them the highest. This is why they are not compatible with the regulations on cross-border exchanges. The two main non market-based methods are first come/first served and pro rata rationing. As its name indicates, a TSO which uses the first-come first-served method will allocate cross-border capacities following the date on which a request is received. When all the capacity is allocated, the application process stops. The usual criticism against this method is the potential for discrimination to the advantage of the parent company. In the case of a lack of adequate publicity and sufficient advance notice, and possible prior warnings informally sent to the parent company to ensure it applies on time, discrimination will occur and the capacity will not be allocated to the market player which necessarily values it the most. With the pro rata rationing method, all requests are accepted but capacities effectively granted *ex post* are limited according to a percentage relating to the over-subscription, the obvious problem here being strategic over-subscription. However, we note that a liquid and transparent secondary trading market would limit these shortcomings.

Market-based methods compatible with Regulation 714/2009 are explicit and implicit auctions. With perfect foresight and no transaction costs, these methods yield the same results in terms of social welfare, at least in the short term.[28] Auctioning is non-discriminatory as long as the process is

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23 Recital 11 of Regulation 1228/2003.

24 Regulation 714/2009of the European Parliament and the Council of 13 July 2009 on conditions for access to the network for cross-border exchanges in electricity, O.J. L 211/15.

25 As amended by Commission Decision 2006/770/EC, OJ L312/59.

26 Regulation (EC) n° 1228/2003 of the European Parliament and of the Council of 26 June 2003 on conditions for access to the network for cross-border exchanges in electricity, O.J. 15.7.2003, L 176/1.

27 A duty which was already partly present in the guidelines (para. 3)

28 L. DE VRIES, 'Securing the Public Interest in Electricity Generation Markets: The Myths of the Invisible Hand and the Copper Plate', PhD Thesis (2004), Delft University of Technology.

monitored fairly by the national regulator. The congestion rent perceived by the TSO has then to be used for decreasing the transmission tariff, guaranteeing the actual availability of the allocated capacity or reinvesting in the infrastructure.[29] Coordinated auctions for year-, month- and day-ahead capacities had to be implemented by 1 January 2007 within the seven regions defined by the guidelines.[30] The setting up of regions was primarily intended to facilitate an incremental harmonization of information exchanges, capacity calculations and optimisation of allocation. The 2nd ERGEG compliance report argued that the regional initiatives have been a key driver of improvements of compliance with the former Regulation 1228/2003 and guidelines.[31]

From an efficiency point of view, methods for auctioning are not equal. Explicit auctions make market players bid for sell/purchase of energy and only then for transport capacity. There is thus a time lag between capacity allocation and wholesale market clearance, which increases transaction costs and uncertainty.[32] Along with the requested capacity amount, applicants have to declare how much they are willing to pay for this capacity. These bids are ordered by price and allocated starting from the highest one until the available capacity is all used up. Usually the price is set to the bid price of the lowest allocated bid. The Sector Inquiry reported that on several borders (e.g. Netherlands/Germany and UK/France) capacity was nominated from the high price area towards the low price area, which is counter-intuitive. These arbitrage mistakes are likely due to the fact that capacity allocation ends before power exchange clearance, except in the case of market power abuse. Another concern with explicit auctions is the illiquidity of infra-day markets which do not allow for easy resale of electricity when price differentials reverse at gate closure.

Another solution complying with Regulation 714/2009 is implicit auctioning.[33] In implicit auctioning, the spot market as we saw is separated from the transmission capacity allocation procedure and closes after the transmission capacity has been allocated. In this system however, the allocation of cross-border capacities is managed by neighbouring power exchanges. Market players wishing to import or export directly place bids in the organized wholesale market and the market clearing procedure determines the most efficient amount and direction of physical power exchanges between the two markets. The management of capacities and wholesale energy bids is thus simultaneous.[34] This *de facto* cancels all the arbitrage possibilities and transaction costs for market players by re-integrating transport and production/consumption decisions for cross-border trade. Implicit auctions are thus the most economically efficient capacity allocation mechanism but explicit auctions are usually easier to implement as they are already widely used in the European Union. Implicit auctions would also allow for an easier coordination of capacity allocation for trade across several borders. Such a multilateral mechanism would nevertheless require coordination between national TSOs and preferably a single regulator for the whole area. In addition to better congestion management methods, Art 5 imposes transparency requirements on TSOs. Transparent methods for the calculation of available transfer capacities and the transmission reliability margin for each day must be approved by the national regulator. These calculations must be made public on a timely basis, particularly before the day of

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29 Art 16 and para. 6 of the guidelines.

30 According to the Commission's Communication on the application of the Regulation 1228/2003, this deadline could not be respected due to technical difficulties.

31 **ERGEG, *Regulation (EC) 1228/2003 Compliance Monitoring, Second Report,* Ref: E08-ENM-03-05 (2008).**

32 K. NEUHOFF, 'Integrating Transmission and Energy Markets Mitigates Market Power', CMI Working Paper 17 (2003), University of Cambridge.

33 In fact, implicit and explicit auctioning are now the only acceptable congestion management solutions (para. 2.1 of the guidelines).

34 It is beyond the scope of this chapter to go into the details of the implementation of implicit auctions. In the literature, the implementation of implicit auctions in the Nordic market is generally referred to as 'market splitting'. The expression 'market coupling' is generally used for the mechanisms developed by ETSO and the association of European Power Exchanges (EuroPex) at the French/Dutch/Belgian borders. In theory, 'market splitting' and 'market coupling' should yield similar results in terms of social welfare.

transport and must include week-ahead and month-ahead estimates with quantitative indicators on the reliability of such estimates. TSOs also have a duty to net commercial flows where feasible to maximise the use of the interconnector.

Even though the Regulations on cross-border exchanges and the guidelines can be considered as important steps forward, key parts of market design for CACM remained unaddressed, especially in view of the development of the market coupling initiatives involving power exchanges. We will now see to what extent the new draft framework guidelines fill these regulatory gaps.

D. The Project of Draft Framework Guidelines on CACM

As said above, the Third Package does not itself improve the market design for CACM in electricity. However, it brings innovation to the institutional side by creating an Agency for the Cooperation of Energy Regulators (ACER) and the European Networks of Transmission System Operators for Electricity and Gas (ENTSOE and ENTSOG) with a mandate to develop FG and network codes for the whole EU. ACER will have the obligation to submit to the Commission draft FG which set out clear and objective principles for the new network codes to be prepared by the ENTSOs (within 12 months). The new draft framework guidelines on CACM for electricity were published on September 2010.

1. Towards a Comprehensive Compound of Framework Guidelines and Network Codes

The idea of EU framework guidelines originated from ERGEG's concern that TSOs might develop EU network codes that did not address the right issues. The Commission will define priorities for network codes and ACER will only act upon its request (within 6 months). If the Commission is dissatisfied with the work of ACER, it can require a review of the draft guidelines submitted. If ACER fails to proceed, or if the ENTSOs fail to complete the requested draft network codes, the Commission can take the lead each step of the way. We note that the Third Package does not provide a clear definition of what draft guidelines should include and that there are also no clear provisions as to the binding effect of network codes. The list of network areas covered by the Regulation 714/2009 is very extensive and no priorities are provided in the legislation.

After satisfactory review of the content of network codes by ACER (within 3 months), the Commission may obtain approval via the 'regulatory procedure' (comitology). This also means that the Commission does not have to decide to make the EU network codes binding immediately, but the option is always there if TSOs are not fully complying. ACER will then monitor implementation of the codes and can eventually submit recommendations to the Commission, the European Parliament and the Council when it deems necessary.

We note that the powers of the Commission to adopt general binding measures on technical and operational cross-border issues are extended considerably. Originally limited to congestion management principles, inter-transmission system operator compensation mechanisms and harmonization of principles underlying the setting of charges applied to producers and consumers, the Commission's powers now extend to establishing cross-border network code areas and the certification of TSOs, as well as to require the provision of information, to determine the rules for the trading of electricity and lastly to determine details of investment incentive rules for interconnector capacity including locational signals. ACER will only have an advisory role here. The ENTSOs, however, can initiate the process of formulation of new network codes beyond the agenda set by the Commission (even though the process for review and adoption remains the same). Despite a proposed amendment by the European Parliament, ACER cannot enact binding guidelines for network codes.
The procedure for adopting network codes is also complex and uncertain, which is why ERGEG and the gas and power TSOs' EU trade bodies have started work on following the process foreseen in the Third Package for developing new EU framework guidelines, network codes and development plans as a test case, ahead of formal implementation.

2. The Project of Framework Guidelines on CACM of September 2010

The draft framework guidelines aim to complement and clarify (without replacing) the existing congestion management guidelines attached to Regulation 714/2009. They try to address some of the missing parts in market design for CACM in electricity. We note that these guidelines do not address the relationship between balancing and intra-day markets which will be treated otherwise. The guidelines pursue four objectives: (i) improve cross-border capacity use and enhance coordination, (ii) improve market design for the cross-border day-ahead market, (iii) make forward markets more efficient and (iv) achieve more efficient intra-day market.

The guidelines first aim to harmonize the methods used by TSOs for cross-border capacity calculation. The two methods to be used are Flow-Based (FB) and Available Transport Capacity (ATC). The FB method is a first best but raises serious technical (and institutional) feasibility problems, explaining why two options remain open. ENTSOE will have a duty to find a solution in case several capacity algorithms are used within the same control area and the capacity calculation method will have to be approved by national regulatory authorities (and made public).

An interesting innovation is that TSOs will have to create a common grid model describing the transmission network including the location of generation units and demand. Bidding zones for day-ahead, intra-day and long-term time frame will then have to be defined, and approved on a regional basis by the national regulatory authorities involved, according to efficiency criteria and not national borders. Several bidding zones are also possible in case structural congestions exist within one control area, when countertrade/redispatch is not the most efficient solution. The guidelines recall that curtailing interconnectors to alleviate internal congestion is usually not possible. In case no other solution was possible, it must be reported transparently to the national regulatory authorities.

For the first time, a document addresses in a little depth the regulation of day-ahead capacity allocation, unfortunately in still very general terms. The guidelines foresee that TSOs and power exchanges will have to cooperate to implement price coupling. However, the guidelines remain short of guidance on the mechanism itself, e.g. on the product offered or maximum prices. Principles of transparency and regulatory review are restated.

As regards forward markets, the guidelines foresee a system where financial or physical transmission rights would be equally acceptable for hedging purposes. Financial transmission rights between two given nodes in a power system with nodal pricing allow holders to receive the nodal price difference at these two nodes. Financial rights can thus be used as financial tools to hedge against locational price differences which in turn sets the value of financial rights. It is however complicated to see how financial rights could be used in Europe in the short term as national market designs are not harmonized enough and regulatory supervision over cross-border infrastructure is insufficient. Most liberalized power markets in the USA have been (or are about to be) able to implement financial rights. This for instance opens the possibility of a decentralised development of merchant investment being rewarded through the sale of the financial rights that new merchant investments create for the system as a whole. In the case physical transmission rights are used, a use-it-or-lose-it (UIOLI) mechanism will be imposed for resale of non-nominated capacity. This is positive as it maximises the use of available capacity and prevents anti-competitive capacity withholding. The physical rights owner will receive the financial resale value from TSOs. The UIOLI mechanism however requires the existence of a transparent and anonymous secondary trading platform, which is also foreseen in the guidelines.

As concerns intra-day capacity market, the fact that it helps manage intermittent generation is recognized. Implicit capacity trading is foreseen but as above matching processes and the definition of block bids is not investigated. Continuous trading is however likely to remain the capacity allocation method of choice in the foreseeable future, even though it can be combined with implicit auctioning. Firmness of intra-day capacity, regulatory monitoring, data transparency and non-discrimination between the different types of product will also have to be included in the network codes. TSOs will

have the duty to use suitable matching methodologies and capacity algorithms between the different products and timeframes.

Lastly, the guidelines last address several more general issues to complement the congestion management guidelines. It states that the 10-year network development plan will have to clarify where the congestions are and what the possible solutions are to implement. As concerns redispatching/countertrade, TSOs must coordinate at the regional level and make sure that congestion costs are fairly allocated by bidding zones or control areas. The guidelines also foresee adequate oversight of power exchanges when they organize market coupling, in particular to ensure non-discrimination between market participants or products. As a general principle, the guidelines emphasize the importance of firmness of capacities and compensation of capacity owners when they have been curtailed.

E. Conclusion on Electricity

Overall, from the early days of liberalization up until the new framework guidelines on CACM, the EU has been trying to find a suitable and harmonized market design for interconnection. The draft framework guidelines clearly constitute an additional step in the right direction and show that the institutional architecture created by the Third Package is able to deliver concrete solutions in the most technical areas. However, it can be noted that several weaknesses will still have to be remedied sooner or later, in particular the issue of the duration of capacity rights and the regulation of power exchanges.

With the development of market coupling, we see the end of a long-term trend towards the implementation of a market design with ever shorter duration for cross-border capacities. However, market players also need longer duration, and not only up to 3 years.[35] Freeing interconnectors from grandfathering rights made sense and, as we saw, brought consensus. But due to the enduring problem of the low physical capacity of interconnectors, a policy trade-off certainly exists between re-allocating capacities on a short-term basis to allow access to more competitors in the short term and reallocate at least part of the capacity on a long-term basis to benefit from the long-term efficiency advantages of cross-border long-term supply contracts (investment and longer-term entry). More precise guidelines on these issues would be welcome.

The regulatory framework for power exchanges and market coupling initiatives also still remains much of a problem. Power exchanges are now key actors in the process of single market integration. By implementing market coupling and merging across borders, they contribute to price convergence and increased liquidity. However, it remains to be seen whether their incentives are, as they claim, truly aligned with the market integration project. As concerns market coupling, we note that the guidelines barely touch on algorithms, block definitions and matching processes, where inefficiencies can easily emerge. In addition, the guidelines as they stand do not provide any path towards harmonization at the EU level. The relationship between TSOs and power exchanges also remains unaddressed, save the existence of a general obligation to cooperate. Lastly, the competences of national regulators on power exchanges have not been clarified. By stating a general right of regulatory oversight, they merely restate what already exists in the directive and do not address the current regulatory gaps. In the years to come, the regulation of power exchanges and market coupling at EU level are likely to become major issues.

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[35] See the interesting discussion in ERGEG, *Draft Benchmarking Report on Medium and Long-term Electricity Transmission Capacity Allocation Rules*, E09-ERI-23-03, 26 February 2010.

2. Third-party Access in Natural Gas Markets: Competition Law and Sector Specific Regulation

If the main access issues in EU electricity markets relate to access to cross-border capacity and the related congestion management, the issues in natural gas markets are access to transit and import capacity. The problem was widely documented in the 2005 – 2007 Sector Inquiry where the new/potential entrants voiced concerns over access to import facilities, transmission networks, transit pipelines[36], storage[37], etc.[38] This difference in electricity and gas is connected with the differences in the market organisation, which in turn relates to the differences in electricity and gas. Where electricity is generated at multiple locations across the EU and the markets have historically been restricted to the national borders of each Member State, natural gas production is restricted by geological factors to certain areas, most of which are located beyond the borders of the EU.[39] As such, natural gas has to be transported from the production to the consumption areas. The natural gas network is therefore by necessity more "international" than electricity networks are. This type of market organisation requires that the potential market entrant can access both transit and import capacities to bring the natural gas from the delivery point to the consumption area. It is no surprise that the recent Commission competition law enforcement on access issues has focused on these areas.

A Competition Law and Third Party Access

As was noted above, the main access issues in the electricity sector relate to the cross-border interconnector capacity. Prior to the ECJ judgement in case C-17/03, VEMW and others[40], the capacity in many of the interconnectors was reserved through long-term capacity reservations which where based on the pre-liberalisation legacy contracts. The continuing validity of these capacity contracts was recognised by the Commission. The judgement of the ECJ underlined the need to ensure TPA and suggested that many of the existing capacity reservations would be discriminatory and prohibited. The judgement had far reaching effects in the electricity markets and access conditions improved.[41] The approach of the Commission changed radically after the judgement, resulting even in a suggestion that "[i]n substance and spirit, the Court ruling is therefore applicable to the grant of preferential transmission and distribution capacities of natural gas."[42] While it would seem that the

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36 The DG Competition report on energy sector inquiry (SEC(2006)1724) 10 January 2007, p. 60.

37 *Ibid*., p. 66. It is beyond the scope of this paper to examine the access issues relating to storage. We note that the development in this respect has been slower than in case of TPA to pipelines.

38 *Ibid*., p. 45 *et seq*. The same issue was also raised in many of the competition inquiries such as GDF Suez, E.ON or ENI. These cases will be examined below.

39 Despite the recent changes in the natural gas markets, EU 27 is a net importer of natural gas, increasingly dependent on a very few producing countries. While some EU Member States, the UK and the Netherlands in particular, possess natural gas resources and others have potential for developing non-conventional natural gas resources, the bulk of natural gas for the EU comes from three sources: Russia (42 percent), Norway (24 percent), Algeria (18 per cent). (Commission Staff Working Document accompanying the Second Strategic Energy Review, Europe's Current and Future Energy Position Demand – Resources – Investments 13.11.2008 (COM/2008/781 final), p. 9.) However, when looking at these figures, it must be noted that the indigenous production in the EU represents 36 percent of the total supplies and together with Norwegian supplies the figure is 55 percent. Even with the potential emergence of shale gas, the more general picture is unlikely to change dramatically (Eurogas, Long Term Outlook for Gas Demand and Supply 2007-2030. Available at www.eurogas.org).

40 Case C-17/03, VEMW and others, [2005] ECR I-4983.

41 For just one example, see Z. BROCKA BALBI and M. BARRA, "Italian Rules on Interconnection Capacity Allocation - Before and After the "VEMW" Case" 1 *OGEL* (2007), www.ogel.org.

42 Commission staff working paper on decision C-17/03 of 7 June 2005 of the Court of Justice of the European Communities (SEC/2006/547), 26 April 2006.

judgement is not directly applicable to the natural gas sector[43], the recent competition law practice seems to have effectively extended the rationale of the C-17/03 to the natural gas sector. The outcome in these cases has been the release of a substantial proportion of the capacity in various pipelines. Examples of this extension are the recent decisions in GDF Suez[44] and E.ON.[45] These cases will now be briefly examined.

1. The Cases

In GDF Suez, the Commission initiated proceedings after finding that certain measures of GDF Suez might prevent or reduce competition in downstream supply markets for natural gas in France: '*in particular, a combination of long-term reservation of transport capacity and a network of import agreements, as well as through under-investment in import infrastructure capacity*.'[46]

To address these concerns, GDF Suez proposed to immediately release a large share (approximately 10%, corresponding to around 7 bcm per year[47]) of its long-term reservations of gas import capacity into France, both for LNG re-gasification terminals and pipelines, in favour of third parties[48] and to continue to reduce its share of these reservations to below 50% in 2014 calculated from the total long-term capacity reservations for each year. There will also be a supervisory scheme in place to ensure that the long-term capacity has effectively been released and that this capacity has been offered to third parties.[49]

The commitments do not prevent GDF Suez from booking interruptible and short-term capacity. Similarly, in the event of insufficient demand for the capacity, the dominant or established companies, as the case may be, can only book capacity on a short-term basis. If the wording of Regulation 715/2009[50] is followed, this means capacity reservations for less than one year are allowed for GDF Suez.

The E.ON case follows the same rationale: significant reduction of its firm long-term capacity reservations in the German pipeline system.[51] The proposal of E.ON was offered in response to concerns that certain E.ON practices may have constituted a breach of EU rules on abuse of a

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43 While the Commission recognises that there are significant differences in the natural gas and electricity market regulation, the Commission fails to explain what the effect of these differences is. Similarly, it fails to recognise some of the most central and relevant differences. First, the First Gas Market Directive did not contain a provision similar to Article 24 of the First Electricity Market Directive. Secondly, the directive recognises that long-term commodity contracts may require availability of long-term capacity. Finally, Article 32(1) of Directive 55/2003/EC does recognise the continuing validity of certain pre-liberalisation capacity contracts. (L. HANCHER, "Case C-17/03, VEMP, APX en Eneco N.v. v. DTE, Judgment of the Full Court of 7 June 2005", (2006) 43 *Common Market Law Review*, p. 1144).

44 Case COMP/B-1/39.316 — Gaz de France (gas market foreclosure).

45 Commission press release, "Antitrust: Commission welcomes E.ON proposals to increase competition in German gas market" (MEMO/09/567), 17 December 2009.

46 Commission press release, "Antitrust: Commission opens formal proceedings against Gaz de France concerning suspected gas supply restrictions", (MEMO/08/328), 22 May 2008.

47 Commission press release, "Antitrust: Commission accepts commitments by GDF Suez to boost competition in French gas market – frequently asked questions", (MEMO/09/536), 3 December 2009.

48 With certain restrictions on, for example, the potential buyers profile in terms of demand, payment guarantees to be provided and availability or likely availability of specified natural gas volumes.

49 COMP/39.316 - GDF foreclosure. Proposed commitments available at:

http://ec.europa.eu/competition/antitrust/cases/decisions/39316/proposed_commitments.pdf.

50 Regulation (EC) No 715/2009 of the European Parliament and of the Council of 13 July 2009 on conditions for access to the natural gas transmission networks and repealing Regulation (EC) No 1775/2005, OJ L 211, 14.8.2009, p. 36-54.

51 COMP/39.317 - E.On gas foreclosure. Commission press release, "Antitrust: Commission welcomes E.ON proposals to increase competition in German gas market" (MEMO/09/567), 17 December 2009.

dominant position. The concern in this case was that E.ON may have closed off competitors from the market by booking almost the entire capacity at key entry points into the gas network on a long-term basis.

On 4 May 2010, the Commission adopted a decision that rendered the commitments offered by E.ON legally binding. According to the decision, E.ON would reduce its firm bookings in the entry points of its German gas network to approximately 15 per cent by October 2010 and further to 50 per cent in the high-caloric gas market area and in E.ON's grid for low-caloric gas to 64 per cent of the pipeline capacity. Like in GDF Suez, the decision does not prevent E.ON from booking short-term or interruptible capacity. The next sections will now examine and contextualize these capacity related decisions.

2. The Analysis

GDF Suez and E.ON are among the few recent competition law cases driven by the Commission to open up transportation capacity and alleviate capacity related foreclosure. Others include the ENI[52], E.ON[53] and RWE[54] inquiries where the end-result was divestiture of certain network assets. The difference to these cases, ENI and RWE for example, is that the GDF Suez and E.ON cases focus on these two companies as shippers, not as TSO's. Where the commitments in the TSO-related cases aim at eliminating the incentive to discriminate and the correction of market distortion in the long-run, the GDF Suez and E.ON commitments result in an immediate and long-term release of capacity[55], which will, given the duration of the commitments and the developments in the sector specific regulation (examine below), if properly overseen, also result in a permanent structural change in the markets.

In addition to continuing the access related case law, the present cases also follow the rationale of the earlier Distrigaz[56] decision where the Commission imposed certain percentages as thresholds between activity that is considered anticompetitive and activity which is allowed. In Distrigaz, the thresholds were defined in percentages calculated from different supply volumes.[57] In GDF Suez and E.ON, the threshold of 50 percent of the total capacity represents, according to the Commission, a workable balance between the rights of companies and the need to create competitive conditions, *i.e.* capacity to compete.[58] While the fifty-fifty split of the capacity seems somewhat formulaic, the outcome in these two cases follows the same rationale that was adopted on the regulatory front in relation to the Nabucco pipeline. Here, the exemption decision under Article 22 of the Directive 55/2003/EC imposes a capacity cap on the share of annual capacity which the shareholders, all dominant undertakings in their home-markets, can book at the total of all exit points.[59] As such, the regulatory exemption from TPA in the Nabucco case only covers half of the pipeline capacity.

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52 COMP/39.315 – ENI..

53 Cases COMP/39.388 – German Electricity Wholesale Market and COMP/39.389 — German Electricity Balancing Market.

54 COMP/39.402 – RWE Gas Foreclosure.

55 In ENI, the commitments include a pledge not to prolong or renew any transport contracts or to enter any new contracts as a shipper before the divestiture, except through market-based or public methods and only for reverse flow capacity towards other directions than Italy. The rationale being that any prolongation, etc. would effectively circumvent the rationale of the divestiture.

56 COMP/B.1/37.966 – Distrigaz (15.1.2008).

57 For details, see A. DE HAUTECLOCQUE, "EC Antitrust Enforcement in the Aftermath of the Energy Sector Inquiry: A Focus on Long-term Supply Contracts in Electricity and Gas", in Delvaux B., Hunt M. & Talus K. (eds.), *EU Energy Law and Policy Issues* (Brussels: Euroconfidentiel 2008).

58 Commission press release, "Antitrust: Commission accepts commitments by GDF Suez to boost competition in French gas market", (IP/09/1872, 3 December 2009).

59 Commission exemption decision in Nabucco (CAB D/2008/142), 8 February 2008).

Both E.ON and GDF Suez raise several interesting and highly complicated issues. First, whilst they do not directly address the questions relating to pre-liberalisation contracts, they highlight the difficulties in balancing legal certainty, protection of legitimate expectation and other related legal principles and the need to develop functional natural gas markets, including natural gas transportation capacity markets. The voluntary nature of the commitments of the discussed cases effectively circumvented these difficult questions.[60] Second, by favouring the short-term capacity contracting, these cases raise the issue of direction. Are we moving from the traditional long-term nature of the natural gas business towards a model marked by an increasingly short-term rationale? The third issue raised by these contracts relates to natural gas commodity contracts. These three issues will be further examined both in the next sections relating to competition law enforcement and in the following sections relating to regulatory measures in TPA.

3. Addressing Foreclosure in EU Natural Gas Markets: Capacity vs Commodity Contracts

While the E.ON and GDF Suez cases primarily concern long-term capacity contracts, they are also closely linked to long-term commodity contracts. These cases have finally provided indications on how EU competition law will be applied to upstream commodity contracts that are used to import significant volumes of natural gas to the EU area. The Commission has for some time recognised that long-term contracts have an important role to play in European gas markets and should be left as an option for the suppliers as long as they comply with EU regulation and especially EU competition laws.[61] However, little light was shed on what was meant by '*as long as they comply with EU competition law*'. Clearly, the GDF Suez and E. ON cases indicate that the key question is the volumes covered by these contracts. The long-term nature *per se* is not a problem but, instead, the focal point of the competition law enforcement is the large volumes these contracts cover. In essence, the rationale of the approach of the Commission seems to be that (i) long-term contracts have a foreclosing effect, (ii) this is true for both the long-term upstream commodity contracts and the long-term capacity reservation contracts and (iii) this foreclosure effect can be addressed in two ways: by attacking the supply foreclosure created by the upstream commodity contracts or by attacking the infrastructure foreclosure created by the capacity contracts. The capacity-related case law now suggests that the Commission has decided to adopt the second approach. No doubt this choice is closely related to the complicated nature of long-term upstream commodity contracts signed between the producer and the EU purchaser. These contracts have significant legal, political and economic aspects.[62] In addition to questions like legal certainty and protection of legitimate expectations and the complicated economic effects for both the EU markets and the external supplying markets, including the demand security to enable large scale investments on continuing bases, the (geo)political aspects of these contracts speak heavily in favour of allowing long-term contracting with the external suppliers. The possible move away from such contracts should be left for the markets to decide. As such, the solution to allow long-term contracting with the upstream suppliers and instead focus on the infrastructure foreclosure is welcomed. However, just as with the commodity contracts, it is necessary to take a pragmatic

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60 Council Regulation (EC) No 1/2003 of 16 December 2002 on the implementation of the rules on competition laid down in Articles 81 and 82 of the Treaty, OJ L 1, 4.1.2003, p. 1–25. However, even in the absence of a specific article to that effect, the Commission is obliged to respect the proportionality requirement as a general principle of EU law in these cases.

61 This has been noted, for example, in the Second Gas Market Directive, preamble 25, Security of Gas Supply Directive, preambles 8 and 11, Communication from the Commission, Inquiry pursuant to Article 17 of Regulation (EC) No 1/2003 into the European gas and electricity sectors (Final Report) COM(2006) 851 final p. 10, the Communication from the Commission to the Council and the European Parliament also recognises that despite many positive effects, long-term agreements also serve to foreclose markets; Communication from the Commission to the Council and the European Parliament – Prospect for the internal gas and electricity market, (COM(2007) final), p. 16.

62 See for example, K. TALUS, 'Long-Term Upstream Natural Gas Contracts and EC Competition Law – Efficiencies under Article 81(3) and Objective Justifications under Article 82' in *EU energy law and policy issues* (Brussels: Euroconfidentiel 2010).

approach to long-term capacity contracts and recognise both the legal and the economic aspects of these contracts.

4. Capacity Releases

There are a number of questions that should be carefully considered when requiring significant capacity releases. In particular, it must be noted that there is a significant difference between an investment being made in accordance with market-based principles and that being made under state funding or state protection.[63] In the first situation, the investor assumes the full commercial risk associated with the investment and the commercial logic suggests that the company should be rewarded both for the investment and the risk. Where the investment does not carry a risk, because of state funding or special rights, the investor should not be rewarded as in the previous example. Where a company investment is undermined through forced access or a similar intervention by public authorities, the incentive of that company and others active in the same market to invest in new infrastructure is significantly reduced. The situation is very different concerning investments made under special or exclusive rights. However, it is of paramount importance to note that even in this situation, the interventionist policy may under certain circumstances have a negative effect on investment. Where the policies of the public authorities are not transparent and where they do not seem to follow a clear and predictable logic, the uncertainty that follows might reduce the incentive to invest. The uncertainty about future policies may, at least in the short term, reduce the willingness of the market players to make significant up-front investments. Acting in a transparent, coherent and predictable way is essential to avoid this. This may be achieved through specific guidance by public authorities or through case law. It is submitted that in a situation of significant policy change, "from state to market" or the like, there is a particular need for guidance and the approach of the Commission of working through exemplatory cases, is only the second best option for guidance. A clear statement of future policy would provide best for the legal certainty that the market players need in this situation. Here, the approach of the Commission in the context of case C-17/03, VEMW and others[64] can be criticised. While the previous case law and the Commission had supported the continuing validity of the pre-liberalisation capacity contracts, because of considerations like legal certainty, and while to the Commission, congruently with its case law, supported the validity in the proceedings, it made a significant change of policy further to this judgment, this change of policy was to a certain extent called for. While the approach of the ECJ was indeed much narrower and more negative than the previous case law of the Commission, the judgment did not require a significant change of direction as the Commission interpretation of the judgment shows. It is especially damaging that the Commission chose to mask this change of direction under a very liberal and expanding interpretation of the judgment.

B. Sector Specific Regulation and TPA to Natural Gas Pipelines

Much like what was examined in the context of the sector-specific electricity market regulation, the development of the sector specific regulation for natural gas from Directive 30/1998[65] to the second and now third energy law packages has been remarkable. The first natural gas directive reflected the limits of the political possibilities of the time and with options on regulated and negotiated TPA should be considered only as the first step towards a more market oriented regulatory model. The

63 Similarly, M. MOTTA, *Competition Policy: Theory and Practice* (Cambridge University Press 2005), p. 68.

64 Case C-17/03, VEMW and others, [2005] ECR I-4983.

65 Directive 98/30/EC of the European Parliament and of the Council of 22 June 1998 concerning common rules for the internal market in natural gas OJ L 204, 21.7.1998, p. 1-12.

second energy market package with Directive 55/2003[66] and Regulation 1775/2005/EC[67] took a significant step towards a regulatory system that can accommodate the emergence of a further degree of competition. It pushed the progress in all the key areas of the natural gas market regulation including level of unbundling, regulatory supervision and TPA. However, contrary to the initial expectations, that regulatory body failed to create competitive natural gas markets in the EU. This failure was documented in the Sector Inquiry and has thereafter been widely debated.[68] The latest step along the way to competitive markets is the third legislative package, together with the previously discussed competition related case law. We note that the new regulatory framework extends the application of the TPA rules to new areas and pushes the obligations of the TSO to a new level by, for example, highlighting the investments and the need to ensure long-term viability of the system. Clearly, the visible trend throughout this development from first to second and third packages is a move towards a more comprehensive regulation of TPA and more towards shorter term capacity reservations. This will be illustrated in the below discussion. This section will now examine these recent developments of the TPA regimes under EU energy regulation. In general terms, the TPA in the sector specific regulation relating to EU natural gas markets is developed through three levels of regulation with very different levels of detail. The general framework is established in the third natural gas market Directive 73/2009/EC[69] which, as will be examined below, establishes the basic rules and principles of TPA. The content of these rules and principles are then further specified in Regulation 715/2009 on conditions for access to the natural gas transmission networks. This regulation focuses on the access issues and complements the more general natural gas market directive. However, the third and most detailed level of regulation are the network codes and guidelines that can be adopted on the basis of Regulation 715/2009. As the "devil often lies in the details", the focus of this regulatory section will be on the development of this third level of regulation and the current developments with TPA related guidelines.

As mentioned above, the general framework and minimum requirements to TPA in the natural gas sector are laid down in the Directive 73/2009/EC. At this general level, the access rules are not very different from those governing TPA to electricity networks. In the most simplified terms, the directive requires that the regulated TPA regime is based on published and pre-approved tariffs that are applied in a transparent and non-discriminatory way. In addition, there are provisions addressing many related issues such as balancing, details on publishing (though most elements are left for the national regulators to decide) and on fixing or approving the tariffs or the methodologies for their calculations (though again most details, including return on risk or investment incentives, are left for the national regulatory authorities), etc. The obligation under Article 13 of the directive to ensure that sufficient cross-border capacity is constructed also relates to the TPA.

Access refusals follow the model of the second natural gas directive and access may be refused where there is (i) lack of capacity, (ii) public service obligation imposed by the Member States and (iii) on the basis of serious economic and financial difficulties with take-or-pay contracts. Access refusal must be reasoned and Member States may choose to ensure that the TSO/DSO makes the necessary enhancements to the system when it is economical to do so or when the customer is willing to pay for such enhancements in capacity or connection (Art 35).

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66 Directive 2003/55/EC of the European Parliament and of the Council of 26 June 2003 concerning common rules for the internal market in natural gas and repealing Directive 98/30/EC, OJ L 176 , 15.7.2003, p. 57-78.

67 Regulation No. 1775/2005/EC of the European Parliament and of the Council of 28 September 2005 on conditions for access to the natural gas transmission networks, OJ L 289, 3.11.2005, p. 1-13.

68 For example, see the 2008 - 2010 editions of *EU energy law and policy issues* and OGEL/OGELFORUM issues and discussions (www.ogel.org).

69 Directive 2009/73/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in natural gas and repealing Directive 2003/55/EC, OJ L 211, 14.8.2009, p. 94-136.

Article 41 (6) of the Directive requires that the national regulatory authorities draft the procedures for the allocation of cross-border capacity and congestion management. However, in practise, the details of this requirement are largely left for the more detailed Regulation 715/2009, which, in Article 13, includes a list of factors that the TSO and the national regulatory authority must consider. These include: cost-reflectivity or requirement of a market based system such as auctions (reflecting the market value instead of costs), need to provide investment incentives, mandatory use of separate entry-exit point systems for network charges and the need for convergence of the national systems in the longer term.

The basic requirement of Regulation 715/2009/EC is that the capacity allocation must facilitate new investments and be compatible with market mechanisms such as spot markets and trading hubs. While the regulation specifies that the TSOs should promote the development of energy exchanges, the coordinated allocation of cross-border capacity through non-discriminatory and marked based solutions, with special attention to implicit auctions for short-term allocation (Art 12(2)), does not provide much guidance on the practicalities of this cooperation. This is presumably left for the TSO's to decide. In line with the need to promote developments of cross-border exchanges of natural gas and trading opportunities, the tariffs for entry and exit capacity must be set separately and, as in the more general provisions of Directive 73/2009/EC, must be cost-reflective or based on market value.[70] As in all parts of the energy acquis dealing with access issues, the requirements of non-discrimination and transparency accompany the more detailed provisions.[71]

According to Article 14, the TSO should offer (a) both firm and interruptible and (b) both short-term and long-term TPA. According to Article 2 of Regulation 715/2009, long-term capacity means a capacity right of one year or more and short-term capacity means less than one year. According to the guidelines annexed to the regulation, TPA should be offered down to a minimum of one day.

In the event of contractual congestion the regulation makes a clear distinction between situations of unused and fully used capacity. This distinction is of relevance to the question of pre-liberalisation transit contracts. Where contractual congestion occurs, any unused capacity should, according to Article 16(3), be offered on a secondary market, at least on a day-ahead and interruptible basis. Where this capacity is released on interruptible basis, the primary capacity holder can recall the capacity if need be.

However, where possible, at least a part of the unused capacity should be offered as firm capacity (para. 4 of the guidelines annexed to the regulation). According to the Commission staff working document,[72] this means that in the event that capacity is persistently left unused, a firm use-it-or-lose-it principle would advocate in favour of total loss of capacity. Here, capacity would first be temporarily taken away from the primary capacity holder and, in the event of continuous unused capacity, the capacity would be permanently lost. This is to reduce the possibilities of capacity hoarding. From an enforcement cost point of view, it is also logical to treat this type of structural surplus of capacity differently from occasionally unused capacity.

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70 Article 13 and 16(2) of Regulation 715/2009/EC. The now explicit prohibition of point-to-point pricing plays in favor of new entrants as it eliminates the advantages to the incumbents caused by the "portfolio effect". For this see, C. JONES (ed.), *EU Energy Law: Volume I: The Internal Energy Market: The Third Liberalisation Package* (Brussels: Claeys&Casteels 2010), p. 326.

71 Article 13 of Regulation 715/2009/EC.

72 Commission staff working document on capacity allocation and congestion management for access to the natural gas transmission networks regulated under Article 5 of Regulation (EC) No 1775/2005 on conditions for access to the natural gas transmission networks (SEC(2007)822) 12.6.2007.

C. Future Developments: CAM Pilot Framework Guidelines

As was examined in the first part of this paper, the third package introduced a mechanism based on the cooperation of the Commission, the ACER and the ENTSOs under which framework guidelines can be adopted. In the natural gas, these guidelines can cover issues such as network security, interoperability rules or CACM rules.

In addition to the discussions and conclusions in the context of the Madrid forum, it was decided that the work in the area of guidelines would start with a framework guideline and network code on capacity allocation.[73] After a request from the Commission, ERGEG assumed the role of ACER and eventually published its Pilot Framework Guidelines for Capacity Allocation on European Gas Transmission Networks on 10 June 2010.[74]

While not legally binding, as opposed to network codes and guidelines which are legally binding, such framework guidelines may lead to legally binding rules. Also, they are intended to set out the principles for the development of an eventual network code by ENTSO-G. As such, these guidelines should be taken to reflect the direction of the regulation in the area that they relate to. The next section will now examine these framework guidelines.

1. Access Rules and Congestion Management

Following the approach of Regulation 715/2009/EC, the logical starting point for the guidelines is that capacity should be offered as firm long and short-term capacity and as interruptible capacity. The capacity should primarily be firm. However, all capacity that has not been allocated, all surrendered capacity and any unused capacity that has been released through UOLI mechanisms should be offered to the market participants in order to maximise the use of the capacity. Presumably these additional categories of offered capacity can be offered as interruptible capacity.

The suggestion is that in the ratio between short-term and long-term capacity, at least 10 percent of the capacity would be offered as short-term capacity. The guidelines refer to the definitions under Article 2 of Regulation 715/2009 and as such, a short-term capacity may refer to anything up-to one year capacity contract. However, the guidelines also suggest that intra-day interruptible capacity should be made available. The lead time from the allocation to the use of the capacity will correlate with the duration of the capacity service.

This approach closely follows the pre-existing practise. For example, under the access regime adopted in the Nabucco project, 10 percent of the transportation capacity is reserved for short-term transportation capacity. Only if this short-term capacity is not booked can it be converted and offered as long-term capacity. Conversely, if long-term capacity is not booked, it can be converted into short-term capacity. Where capacity is released and made available to other market participants, it is offered as interruptible capacity on a short-term day-ahead basis.

The guidelines also propose integrating cross-border services and bundling of services so that one single allocation mechanism and nomination can be used to acquire capacity at connected entry-exit systems. This would not apply to pre-existing capacity contracts. However, in order to move to a bundled model, the guidelines propose that the capacity that becomes available at either side of the interconnection point would not be allocated beyond the expiration date for the capacity allocation of the other side of the interconnection point.

As for the capacity allocation mechanism, the suggestion is that firm capacity will be offered through online auctions. The guidelines require this for day-ahead auctions but also leave open the

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[73] Commission Discussion Paper on Third Package guidelines and codes, 18 September 2009, (D(2008) /C2/MS/MvS/FE).

[74] Pilot Framework Guidelines for Capacity Allocation on European Gas Transmission Networks (E10-GWG-66-03, 10 June 2010).

possibility for intra-day capacity auctions. For these situations however it does not rule out the use of a first-come-first-served mechanism which can indeed be more effective in situations with very short lead-times.

Other services, other than day-ahead services, can also be offered on a prorated basis in order to prevent distorted bidding behaviour. This is possible where the necessary regulatory controls and transparency requirements are in place. In a situation marked by lack of liquidity and sufficient competition, explicit auctions can be used for capacity hoarding. The first-come-first-served mechanism is generally prohibited and can only be used under certain conditions.

2. Pre-existing Contracts and CAM

One of the controversial aspects of the Guidelines is the approach to pre-existing capacity contracts. Here, the balance between sanctity of agreements and legal certainty meet the need to develop the market and the changing factual context of long-term contracts.

The guidelines suggest that all capacity contracts and/or relevant clauses in various general terms and conditions be amended within six months from the implementation of the future network code. Regardless of the specificities of a given contract and whether the contract allows for modifications, all contracts are to be modified to correspond to the new network code. Similarly, no tacit extensions can be allowed.

This approach has been opposed by the historic capacity holders, the incumbents. In addition to the opposition relating directly to the guidelines, the same issue, sanctity of contracts versus need to adapt the regulatory treatment to changing markets and changing policies, was already discussed in the context of the Sector Inquiry. Here the TSOs and special capacity holders suggested that the use-it-or-lose-it principle does not apply to transit capacities covered by pre-liberalisation capacity contracts.[75] Under the approach advocated by the current capacity holders, the so-called 'ship-or-pay' transport contracts allow the primary capacity holder to re-nominate typically until two hours before the relevant flow of gas will occur. Any unused capacity could therefore be released on the secondary market only with a very short notice and only on interruptible basis. This would not allow the potential users of the unused capacity very little, if any, time to secure the gas.

It is important to note certain factors when assessing the question of pre-existing capacity contracts. First, in many cases the capacity agreement has emerged through self-contracting: the vertically integrated operator has concluded a transit agreement with itself.[76] This will have an impact when examining the weight of arguments based on the *pacta sunt servanda* principle or sanctity of contracts. Second, in practice, many of the pre-liberalisation agreements were extended just months before the new access regime was introduced.[77] The vital importance of TPA as the main rule and the need to adopt a strict interpretation of any derogation from TPA was underlined by the ECJ in both the C-17/03, VEMW and others[78], and in the C-439/06, Citiworks.[79] This strict interpretation has affects on the application of Article 32(1) of Directive 55/2003/EC. Against this background it seems clear that the possible extensions of those contracts that might have initially been protected are no longer covered by the derogation under Article 32(1). It also limits the force of arguments based on sanctity of contracts. Finally, a distinction must be made to situations where specific conditions of capacity contracts are modified and where the entire contract is deemed unlawful.

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75 Article 32(1) of Directive 55/2003/EC recognises the continuing validity of certain pre-liberalisation capacity contracts. This is one of the legal bases for the arguments in favour of non-application of TPA rules on pre-liberalisation contracts.

76 C. JONES, *EU Energy Law: The Internal Energy Market* (Claeys & Casteels 2004), p. 60.

77 Preliminary report of sector inquiry under Article 17 Regulation 1/2003 on the gas and electricity markets (16 February 2006), p. 60-65.

78 Case C-17/03, VEMW and others, [2005] ECR I-4983.

79 C-439/06, Citiworks AG Flughafen Leipzig v Halle GmbH, Bundesnetzagentur, [2008] ECR I-3913.

D. Conclusion on Natural Gas

Looking at the developments over the last years, we note that significant progress has been made. The clear trend in the access regimes and capacity allocations is towards shorter and shorter capacity services. In a very short period we are moving from very long-term, 25 years and above, to very short-term capacity services, interruptible intra-day capacity being suggested by the guidelines. While this move towards shorter term services is in many ways a welcomed move (as it allows for new competition to emerge) the rationale and the nature of the natural gas business should not be forgotten. Clearly, short-term capacity is necessary for competition and development of the markets. However, it is equally clear that long-term capacity is necessary for investments and security of supply. Here, there is a need to consider the long-term nature of the natural gas business. With the move towards shorter and shorter TPA services, the risk of assimilation of short-term trading and price arbitrage and long-term investment based reservations is looming. Different transactions have a different economic rationale. Given that long-term commodity contracts continue to play a role in the EU natural gas supply, there is a need for long-term capacity contracts matching the commodity contracts. If this is accepted, long-term should be comparable to the economics of the commodity contract. One way of doing this is to allow the shippers to book consecutive multi-year capacity services.

Conclusion

The objectives of the TPA provisions of both electricity and natural gas regulations are very similar: to creating capacity to compete. The specific features and the development stage of these two commodities result however in slightly different routes towards this common goal. In electricity, the development of market coupling initiatives creates new regulatory challenges but price convergence is now in sight. In gas, the progress has been slower and efficiently functioning spot markets are yet to emerge. However, the rapid and fundamental changes to world LNG markets have caused a significant change in this respect and created favourable conditions for short-term trading. In addition to the significant increase of available volumes and decreases in LNG prices, there is also an important regulatory dimension to this development. The introduction of third party access along with ownership unbundling, driven by both regulatory changes and antitrust enforcement, has combined with elimination of destination clauses (and other historical elements of the market structure) to completely transform the regulatory context in which natural gas companies operate. These fundamental changes have had a significant impact on the markets and the spot trading in the EU natural gas markets have taken off.

It is interesting to see how far access regimes in electricity and gas have actually converged despite stark differences in the markets' organization. The sector-specific regulatory regime in the internal market directives organises a market design in both sectors based as much as possible on short-term capacity allocation with a liquid secondary trading platforms. Under competitive conditions with no distortions to the incentives of the capacity holder, the expectation is that the primary capacity holder resells all unused capacity on a secondary market to make a profit. This scenario should materialise where sufficient infrastructure is in place and the incentives of the capacity holder to make a profit from unused capacity are not distorted by other factors. Where this is not the case and where market structure allows the capacity holder to protect its market position through blocking entry or to make short term monopoly profits from higher commodity price, there is a risk that the primary capacity holder benefits more from hoarding capacity and blocking entry than releasing it. The imposition of UIOLI mechanisms and an increased focus on firmness of capacity in both sectors is certainly the way forward but implementation still is an issue. The right portfolio of capacity durations that are to be proposed by TSOs in both sectors also remains an open question. Long durations, way over three years, are needed to facilitate investment in both sectors but the optimal mix of short and longer-term contracts is likely to greatly differ.

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