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**The EU Third Package for Gas  
and the Gas Target Model:  
major contentious issues inside and outside  
the EU**

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**Katja Yafimava**

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## **Preface**

Despite considerable emphasis on European supply, demand, trade and pricing, the OIES Gas Research Programme has published relatively little research focussing specifically on transportation and regulatory issues connected with the Gas Directives and the Third Package. Given the importance of this evolving legal/regulatory framework for the future of European gas markets and all of their stakeholders, both EU and non-EU, it has become important to fill this gap in our research and this paper is the start of that process.

Academic literature on the Gas Target Model and the gas network codes is relatively sparse, partly due to the complexity of the subject matter and partly to the fact that, while concepts and principles have been laid down, details are still evolving and for this subject – as in so many other aspects of European gas – the detail is very important. Only four of the 12 EU network codes will have been finalised by 2014, and many national network codes remain at a very early stage of development. These relatively technical and complex regulatory issues promise to greatly influence, and even potentially overwhelm, the hitherto largely political and security commentary on building new pipelines and LNG terminals in order to diversify EU gas supply sources and routes.

This paper sets out the evolving regulatory landscape and the debates on key issues of capacity allocation and congestion management. Its secondary focus is the impact on Russia, as the main external supplier of gas to Europe, and in particular the impact on Gazprom's existing contracts and its plans to build a great deal of new pipeline capacity for exports to Europe.

Katja Yafimava's previous work on European gas transit issues has equipped her very well to deal with the complexities of European gas transportation. Her participation as an expert on the EU-Russia Gas Advisory Council has exposed her to the complexities of the legal/regulatory regime and the arguments surrounding Russian concerns about the 3<sup>rd</sup> Package.

Jonathan Stern

Oxford, April 2013

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## **Summary**

As the Third Package for Gas, which aims at further liberalisation of the EU gas market, became law in March 2011, it added a new impetus to the process started by the First and Second Gas Directives and Gas Regulation 1775, i.e. transformation of EU gas market structures. This paper seeks to understand both the process and its end-point as signified by the Gas Target Model (GTM), which has been under development since 2011.

The paper's main focus is on the contentious issues of the Third Package and the GTM, as seen by major suppliers of gas to the EU, notably Russia. While not being applicable to non-EU suppliers, the Third Package and the GTM will have an impact on Gazprom investment and trade relations with EU buyers. This paper rehearses Gazprom's concerns, including 1) mismatch between supply (commodity) and transportation (capacity) contracts likely to be caused by the division of the EU into zones and application of an 'entry-exit' tariffication model, and 2) regulatory treatment of new pipeline infrastructure.

The paper analyses the Third Package, in particular insofar as transportation (transit) issues are concerned. The paper also looks at the progress achieved so far on the development of the GTM and analyses its major components (division of the EU gas market into entry-exit zones, entry-exit tariffication, capacity allocation, and congestion management mechanisms).

## 1. The Third Package and the Gas Target Model: constructing a new architecture for the EU gas market

The process of liberalising the EU gas market, which can be traced back to the 1980s, has been extremely slow, mostly due to the fact that neither the founding EEC Treaty (1957) nor the Maastricht Treaty (1992) provided the Community with the competence to develop energy policy. Hence any legislative action, which could be interpreted as an attempt to develop such a policy, ran the risk of being perceived by EU member states as lacking legitimacy. This explains the Community's decades-long quest for a formal treaty-based competence in the energy sector, which materialised only in November 2009 when the Lisbon Treaty was ratified.

However, even before it acquired this competence in 2009, the Community was able to expand its energy *acquis communautaire*<sup>1</sup> by using its (shared) competences in the areas of the development of the Single European Market (SEM) (this, in turn, justified the application of European competition law) and the development of European environmental policy. By linking the issues arising from the development of the SEM and environmentalism with those of energy, the Community was able to legislate on matters affecting the energy sectors of member states, and thus secured a shared authority in the energy sector without having formal competence. Such authority sharing was made possible by the 1987 Single European Act (SEA), which introduced a qualified majority voting (QMV) procedure on matters concerning the development of the SEM, which enabled the Community to adopt legally-binding measures affecting the energy sectors of member states without having their unanimous agreement.

The 1994 European Court of Justice (ECJ) ruling, which recognised that electricity was a good 'like any other' rather than a public service, further strengthened the Community's ability to develop the Internal Energy Market (IEM) *acquis* in the gas sector. Once electricity was confirmed as being subject to SEM rules, it became very difficult for member states to argue that gas was different. By treating energy as a commodity and applying a QMV procedure, the Community adopted inter alia the Gas Transit Directive, 1991; the First Gas Directive, 1998; the Second Gas Directive, 2003; Directive concerning measures to safeguard security of natural gas supply, 2004 and Gas Regulation 1775, 2005.<sup>2</sup> The contribution of the above documents towards the creation of the EU single gas market was slow and limited, although it was strengthening over time.

Predictably, the Transit Directive was a largely procedural document (due to a failure of member states to agree on third-party access (TPA) to transmission pipelines), with no provisions on transit tariffs, capacity allocation and congestion management

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<sup>1</sup> A collective term for EU legal/regulatory framework.

<sup>2</sup> Directive (EC) 1998/30 concerning rules for the internal market in natural gas [1998] OJ L 204/1 ('First Gas Directive'); Directive (EC) concerning common rules for the internal market in natural gas and repealing Directive (EC) 98/30 [2003] OJ L 176/57 ('Second Gas Directive'); Regulation (EC) 1775/2005 on conditions for access to the natural gas transmission networks [2005] OJ L 289/1 ('Gas Regulation 1775'); Regulation (EC) 009/715 on conditions for access to the natural gas transmission networks and repealing Regulation (EC) 2005/1775, OJ L 211/36 ('Gas Regulation 715'). There were also other Directives, including Directive (EEC) 1991/296 on the transit of natural gas through grids [1991] OJ L 147/37 ('Transit Directive'). See Yafimava (2011) for a detailed analysis of major transportation-related provisions of these documents.

procedures. The First Gas Directive (which operated in parallel with the Transit Directive) left member states to choose between regulated and negotiated TPA to transmission; both Directives were repealed by the Second Gas Directive, which eliminated the notion of transit and awarded an identical treatment to all gas flows inside the EU, irrespective of whether they were cross-border(s), by mandating regulated TPA to all transmission on the basis of tariffs (or methodologies) approved by national regulatory authorities (NRAs). Neither the Second Gas Directive nor Gas Regulation 1775 prescribed any concrete tariffication model; however the Regulation set the requirements which tariffs must meet, which made it uncertain that any model other than entry-exit (EE) could comply with them.

As, despite the avalanche of Directives and Regulations adopted since the early 1990s, the EU single liberalised gas market had failed to make serious progress, the European Commission (EC) began to use EU competition law – its most powerful instrument to implement the SEM – more and more actively. In 2005, the DG COMP launched its Energy Sector Inquiry (ESI), which demonstrated that the Second Gas Directive and Regulation 1775 did not provide the necessary framework for achieving the objective of a competitive and transparent internal gas market, mostly because the legacy transportation (capacity) contracts largely remained beyond their reach. The Inquiry also demonstrated that EU competition law did not provide sufficient means for changing those clauses in the legacy contracts that were incompatible with new regulation. In particular, it showed that access to transit pipelines, transit congestion, and transparency of access to transit networks could not be tackled effectively solely through application of competition law.

Therefore, the EC adopted a fundamentally new approach aiming at changing the structure of the EU gas market. It developed a third generation of new IEM legislative proposals, which would be capable of rectifying the problems identified by the Inquiry. In July 2009, the EC adopted the Third Gas Directive and Regulation 715 (repealing the Second Gas Directive and Regulation 1775). These two documents form a part of a wider set of IEM Directives and Regulations which (together with a set of other documents) became known as the “Third Energy Package for Gas” (the “Third Package”).

The EC views the Third Package as the ultimate means for creating a single liberalised EU gas market, and has vowed to achieve this goal by 2014.<sup>3</sup> As the Third Package became law in the EU in March 2011, it added a new impetus to the process of transformation of EU gas market structure started by the previous generations of gas Directives and Regulations.

The Third Package major requirements include:

- unbundling of transmission (transportation) assets in the form of either ownership unbundling (OU), or independent system operator (ISO), or independent transmission operator (ITO);<sup>4</sup>

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<sup>3</sup> European Council (2011).

<sup>4</sup> The issue of unbundling of transmission assets was fiercely debated during the drafting stage of the Third Package, with the EC advocating mandatory ownership unbundling when the transmission system operators (TSOs) would both own and operate a transmission network. However, due to a strong resistance of many member states, two other (less strict) options – ITO and ISO – were also introduced. Under the ITO option, a TSO is preserved as part of the vertically integrated gas undertaking conditional on full compliance with the extensive list of requirements designed to ensure

- certification of transmission system operators (TSOs) meeting the unbundling requirements;
- entry-exit (EE) organisation of access to transmission system networks i.e. entry capacity must be booked independently from exit capacity, obligatory from September 2011 and the abolishment of the practice of setting tariffs on the basis of contract paths;<sup>5</sup>
- development (on the basis of non-binding Framework Guidelines (FG)) of 12 (binding) pan-European Network Codes (NCs) (as listed below<sup>6</sup>) on cross-border issues:<sup>7</sup>
  - capacity allocation and congestion management rules<sup>8</sup>;
  - balancing rules;
  - rules regarding harmonised transmission tariff structures;
  - interoperability rules;
  - network security and reliability rules;
  - network connection rules;
  - third party access rules;
  - data exchange and settlement rules;
  - operational procedures in an emergency;
  - rules for trading;
  - transparency rules;
  - energy efficiency regarding gas networks.

Two new EU-wide agencies – the Agency for Cooperation of Energy Regulators (ACER) and the European Network of TSOs for Gas (ENTSOG) – were created, which in consultation with the EC are developing the aforementioned FG and the NCs.

The new elements introduced in the Third Package are set to change the existing architecture of the EU gas market – both in terms of its structure and its (EU and non-EU) actors’ behaviour – heralding a transition to a new model of the EU gas market. The usual difficulties associated with any transition will be multiplied by the fact that at the time when the Third Package was introduced, the EU gas market was not a single liberalised market but rather a collection of 27 national markets (of which 2 currently have no gas markets although both have plans to create them), each liberalising under its own model and at its own speed (tolerated under the First and Second Gas Directives and Gas Regulation 1775).<sup>9</sup> Furthermore, the Third Package

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its independence from the latter. Under the ISO option, an independent system operator (ISO) is appointed upon a proposal from the vertically integrated gas undertaking, to operate a transmission network, while the network ownership would remain unchanged.

<sup>5</sup> Gas Regulation 715.

<sup>6</sup> Bartok (2010).

<sup>7</sup> These EU-wide Network Codes for cross-border issues are being developed in addition to separate national Network Codes.

<sup>8</sup> Although Capacity Allocation and Congestion Management rules were originally envisaged to be part of one NC, the decision was made later to develop these rules separately. Thus capacity allocation issues are covered by the Capacity Allocation Mechanisms (CAM) NC, whereas congestion management rules are covered by the separate annex (‘Congestion Management Procedures’) in Gas Regulation 715.

<sup>9</sup> EC (2012b). Since September 2011, the EC has launched 19 infringement cases for non-transposition of the Third Gas Directive. By 24 October 2012, only 12 cases had been closed and the rest of the proceedings are ongoing.

outlined only the major requirements for the single EU gas market, providing a general framework within which it should develop, and it has inevitably left many issues to be defined, and elaborated on, at the level of EU and national secondary legislation.<sup>10</sup>

Ensuring that the adoption and implementation of the Third Package leads towards a creation of a single liberalised EU gas market – rather than towards further fragmentation – requires a clear *vision*, from all stakeholders, of the main characteristics of such a market. In particular, *the end-point* of the liberalisation journey, set in motion by the Third Package, needs to be defined, understood, and agreed upon by all stakeholders; once the end-point is defined, *the process* of how to get there (i.e. who does what and in what time frame) will also become clearer.

As the pan-European NCs, which are currently under development (with differing degrees of advancement<sup>11</sup>), will constitute the major building blocks of the single liberalised EU gas market, it is important that their provisions are also in line with the common vision of such market. In 2010, the 18<sup>th</sup> Madrid Forum invited the EC and the regulators to ‘explore... the interaction and interdependence of all relevant areas for network codes and to initiate a process establishing a gas target model’.<sup>12</sup> A number of studies exploring and advancing various potential ‘gas target models’ were prepared both by the Council of European Energy Regulators (CEER)<sup>13</sup> and by external actors.<sup>14</sup> Building on this work, in July 2011 CEER produced its *Draft Vision for a European GTM*<sup>15</sup>, and in December 2011, following the public consultation process, published its final conclusions paper *CEER Vision for a European GTM*,<sup>16</sup> which was endorsed by the 21<sup>st</sup> Madrid Forum in March 2012.<sup>17</sup>

The CEER Gas Target Model (GTM) provides the vision of what a single liberalised EU gas market should be. It defines *an end-point* of the liberalisation process of the EU gas sector as *establishing functioning wholesale markets and connecting them with one another as well as ensuring secure supply to and economic investment in these markets*; it also suggests how this end-point might be achieved (with major provisions to be laid down in NCs).<sup>18</sup>

The GTM envisages that functioning wholesale markets will be structured as ‘entry-exit zones, where entry capacity is allocated separately from exit capacity so that any gas that enters the zone can be delivered, at least commercially, to any exit point in that zone’; each EE zone is to have its own hub (or virtual trading point, VTP). However, putting in place entry-exit zones is not a sufficient condition for creation of a functioning wholesale market. The CEER GTM paper says that the following conditions also need to be met for such a market to be present: ‘a sufficient presence

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<sup>10</sup> In particular, the definition of an entry-exit (EE) zone, including its suggested size, and a list of envisaged EE zones were all absent.

<sup>11</sup> The Capacity Allocation Mechanisms NC was the first Network Code to be developed, and it is in the most advanced form, having reached the comitology stage. The next in line are Balancing, Tariffs, and Interoperability NCs.

<sup>12</sup> Madrid Forum (2010).

<sup>13</sup> CEER (2010), CEER (2011a).

<sup>14</sup> Glachant (2011); Ascari (2011); LEGG (2011); Clingendael (2011); Frontier Economics (2011).

<sup>15</sup> CEER (2011b).

<sup>16</sup> CEER (2011c).

<sup>17</sup> Madrid Forum (2012).

<sup>18</sup> CEER (2011c).

and low concentration of players active in the wholesale market, availability of gas from diverse sources, multitude of customers (i.e. sufficient demand for gas), as well as a certain level of trade in terms of total volume of gas traded compared to the volume of gas consumed (i.e. churn ratios)<sup>19</sup>. The paper details these provisions by providing a reference set of parameters (such as a churn rate of 8, a Herfindahl-Hirschmann index of less than 2000,<sup>20</sup> gas from at least 3 sources, a total annual gas demand within the EE zone of at least 20 bcm, a residual supply index more than 110% for more than 95% of days per year). The crucial parameter in the GTM's 'definition' of the functioning wholesale market is the size of the EE zone - not less than 20 bcm. However, according to Cedigaz, in 2011 only six EU countries (UK, France, Germany, Italy, the Netherlands, Spain) and Turkey (within the wider European geography), had annual gas demand higher than 20 bcm.<sup>21</sup> This suggests that the GTM envisages creation of EE zones which include *more than one* EU member state.<sup>22</sup>

The GTM envisages that those EU member states that are *able to create a functioning wholesale market* within their national territories will create *national market areas* (i.e. one EE zone per member state). Whereas those member states that are not able to create a market area within their territories will create either *trading regions* (i.e. a single EE zone for transmission and a single VTP for trading gas between at least two member states (or parts thereof), but maintain 'national end-user zones' in different member states for distribution and balancing of forecasting errors), or *cross-border market areas* (i.e. a single EE zone for transmission and distribution with a single VTP, encompassing at least two member states (or parts thereof)).<sup>23</sup> These proposals indicate that the GTM envisages a progressive reduction of the number of EE zones inside the EU and hence a reduction of the amount of cross-border interconnection points at which shippers would need to book capacity, thus potentially simplifying the process of (both existing and new/incremental) capacity allocation. In line with the GTM, national regulators were tasked to assess market liquidity and the degree of market integration by the end of 2012, with a view to potentially increasing (where necessary) both liquidity and integration by means of establishing cross-border trading regions.<sup>24</sup>

However, events on the ground might develop *faster* than the regulatory framework envisaged to underpin them (specifically, the NCs), and *differently* from the GTM's

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<sup>19</sup> CEER (2011c). This definition of churn echoes the definition provided in the Energy Sector Inquiry - the ratio between total volume of trades and the physical volume of gas consumed in the area served by the hub. Alternative definitions are provided by P. Heather, who defines churn generically as 'the number of times a 'parcel' of the relevant commodity is traded and re-traded between its initial sale by the producer and final purchase by a consumer', and gross market churn as 'total traded volume to the net delivered total amount, represented by the hub area's physical demand' including exports (see Heather (2010) and (2012)). The difference between Heather's definition of 'gross market churn' and the CEER's 'churn' appears to be that the former includes not only gas consumed inside the zone but also transit flows which are traded but not consumed inside the zone.

<sup>20</sup> The HHI (Herfindahl-Hirschman index) estimates an overall concentration level in a market and is calculated by summing the squares of the individual market shares of all the firms in the market, see EC (2004b).

<sup>21</sup> Cedigaz (2012).

<sup>22</sup> This is supported by the fact that the 18<sup>th</sup> Madrid Forum Conclusions also contemplate 'the creation of cross-border balancing zones'.

<sup>23</sup> Draft Vision for a European gas target model, CEER. Also see Boltz (2012).

<sup>24</sup> For example, an establishment of a trading region, which would include Slovakia, Czech Republic, possibly Hungary, and (part of) Austria is currently under consideration.

vision. Consequently, the resulting gas markets might not ‘fit’ well with the regulatory framework and/or the GTM, thus potentially requiring both to adapt – which inevitably would be extremely difficult given the legal complexity of getting 27 member states to agree on necessary changes. There are two examples below, one showing how market development might differ from, and another showing how it might conform to, the GTM’s vision.

Although the GTM says that creation of *national* market areas would be a first step towards creating larger zones, one could also imagine the possibility of one member state forming a single EE zone with a neighbouring member state (or part thereof) sooner than its own *national* EE zone develops. This could potentially happen, for instance, if a single cross-border German-Dutch (Gaspool/TTF) EE zone develops sooner than a single national German zone (Gaspool/NCG). This seems all the more likely as the formation of a single German EE zone (a merger of Gaspool and NCG) is believed to be ‘a very political issue’ and, even if embarked on, would be fraught with serious difficulties and take time to accomplish.<sup>25</sup> Both Gaspool and NCG each are operated by 6 TSOs and, as noted by Heather, although the German regulator BNetzA stated that it would see ‘the increased benefits of a unified system’ it has decided to leave it up to the 12 German TSOs to decide when and whether to proceed with the merger.<sup>26</sup> It appears that the German TSOs are predominantly against the merger, arguing that its estimated cost of €3 billion (mostly because of additional transportation capacity that would need to be built for the merger to be possible) would by far outweigh the benefits.<sup>27</sup> Nonetheless, it cannot be ruled out that (despite its high cost and the reluctance of TSOs) BNetzA may push for the merger if it observes no voluntary action by TSOs in this direction, particularly if it is believed that the present zonal fragmentation might have made the German system’s response to the February 2012 shortfall of Russian gas supply, more challenging.<sup>28</sup> By contrast, while Germany is struggling to form a single national EE zone, the Dutch EE zone appears to be in a good position to expand beyond its national borders. Indeed, the first cross-border market coupling scheme between the Netherlands and Germany became operational in May 2012, with the transport services of two Dutch Gasunie-owned TSOs – Dutch GTS and German Gasunie Deutschland (one of the 6 Gaspool TSOs) – combining into a single transport service.<sup>29</sup> Although this does not mean that a new single EE zone (which would include the Netherlands and northern part of Germany) has already been created, this would seem to be a logical next step.

Another example is provided by the vision for the eastern Austrian regional market area (which became operational on January 1, 2013). A subsequent formation of the Central East European trading region is envisaged, with this trading region initially to include eastern Austria, and expand further eastwards to include Slovakia, then the Czech Republic, and eventually Hungary; 2017-18 is believed to be the time frame for

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<sup>25</sup> Heather (2012).

<sup>26</sup> Heather (2012).

<sup>27</sup> BNetzA (2012).

<sup>28</sup> The February 2012 events resulted in transmission constraints in southern Germany, with the Open Grid Europe, Bayernets and Terranets networks being affected, and some interruptible contracts interrupted, including to several power plants. Constraints in north-west Germany which did not allow for substitution of lost Russian supplies from other sources are believed to be one of the reasons for the tight situation. For analysis of the February 2012 events’ impact on the European gas markets see Henderson and Heather (2012).

<sup>29</sup> GTS press-release, 23 March 2012.

these developments.<sup>30</sup> This trading region will constitute one EE zone with a single VTP, and will include all transmission (including transit) flows.

These two examples demonstrate that the ‘events on the ground’ – particularly in north-west Europe – might well overtake the development of both the regulatory framework and the GTM’s vision.<sup>31</sup>

*Connecting markets* is another major element of the GTM which aims at improvement of the efficiency of interconnection (including cross-border) capacity usage. The GTM supports the approach taken by the (draft) CAM Network Code, which prescribed allocation of all *existing* (technical and, where relevant, additional) capacity exclusively via auctioning of a set of standardised bundled firm capacity services of different durations (yearly, quarterly, monthly, daily, and within-day) and starting dates, to be offered at each interconnection point (see Section 2.1).<sup>32</sup> The GTM does not appear to have made a definitive choice between whether such capacity auctions should be explicit or implicit<sup>33</sup>; overall the GTM appears to be more in favour of explicit auctions but suggests carrying out pilot projects allowing testing an implicit auction in case it would make the use of interconnection capacity more efficient.

By virtue of being a vision for the EU single gas market, the GTM is also concerned with longer-term issues such as *ensuring necessary (interconnection) infrastructure investment and secure supply*. The GTM appears to be undecided on the means of allocating *new/incremental* capacity, noting that national regulators proposed to ‘implement and design a harmonised approach’ in which the Open Seasons (OS) principle can be applied on a ‘coordinated and ongoing basis’, and tasking CEER to develop proposals on how to ‘identify and integrate new capacity, based on market demand established through coordinated market-based procedures’ (see the CEER paper on incremental/new capacity overviewed and analysed in Sections 2.3.1 and 2.3.3).

Although the GTM is not legally binding, its importance should not be underestimated given that it sets out a common EU vision on what its future gas market should be, and hence it is logical to assume that this vision should be translated into legally binding documents as the market develops. Importantly, the GTM itself can evolve: according to CEER the GTM ‘should be evaluated and if necessary further developed *after* the implementation of the NCs on capacity allocation mechanisms, gas balancing, harmonised transmission tariffs and interoperability of networks in 2013, as well as in the light of the work on incremental capacities in 2012 and their practical implementation’.<sup>34</sup> It is worth noting that CEER, just as the EC, views these four NCs as the major building blocks of the liberalised EU gas market, and reserves the right to revisit the GTM once these four NCs are in place.

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<sup>30</sup> In 2011, the total gas demand in these four countries was around 38 bcm.

<sup>31</sup> See a series of articles on the related topics: Jepma and Katz (2012a), (2012b), (2013).

<sup>32</sup> Draft CAM NC defines ‘bundled capacity’ as a corresponding entry and exit capacity on a firm basis at both sides of every Interconnection Point.

<sup>33</sup> Under explicit auctions, capacity is auctioned separately with traders buying commodity separately on commodity markets. Under implicit auctions there is no separate auctioning of capacity as it is made implicitly available together with commodity, see Neveling (2011).

<sup>34</sup> CEER (2011c).

## 2. New EU Regulatory Frameworks: work in progress

While the GTM has offered a vision of how the stages of evolution of the EU single gas market should develop in different time-frames, and the Third Package has outlined an overarching legal/regulatory framework for such a market, the major provisions of how this vision is to become a reality and how this framework is to function, are being laid down in the Network Codes (NCs).<sup>35</sup> These NCs are under various stages of development, the Capacity Allocation Mechanisms (CAM) NC being at the most advanced (comitology<sup>36</sup>) stage. Overall, 12 NCs are envisaged (see Section 1), and the EC emphasised that the following four NCs – CAM, Balancing, Tariffs, and Interoperability – as well as Congestion Management Procedures, are the major blocks that need to be in place to reach the ‘single liberalised EU gas market by 2014’ goal.

### 2.1 The CAM Network Code

At the time of writing, in April 2013, the CAM NC is going through a comitology procedure, and is expected to become legally binding and directly applicable in member states later in 2013. Prior to that, ENTSOG developed two drafts of the CAM NC – in March 2012 and September 2012. ENTSOG prepared its March 2012 draft on the basis of ACER’s CAM Framework Guidelines (CAM FG)<sup>37</sup>, and submitted it to ACER for evaluation. In March 2012 ENTSOG submitted the draft CAM NC to ACER for evaluation of the degree of compliance with its CAM FG and the fulfilment of the objectives of ‘maintaining security of supply and functioning of the internal market in gas and cross-border trade’. In June 2012, ACER issued its Reasoned Opinion on the March 2012 draft CAM NC acknowledging that it ‘generally shows a high degree of compliance’ with the CAM FG, while also stressing that ‘some specific provisions of the CAM NC are not in line with those of the FG or with the objectives set out therein or are out of scope’.<sup>38</sup> Taking into account ACER’s opinion, ENTSOG prepared its September 2012 draft CAM NC. In October 2012 ACER recommended this draft to the EC – albeit with significant qualifications – and the draft went into comitology in December 2012.

Below, the major provisions of both the March and September 2012 drafts are analysed, with the differences between the two highlighted (as per ACER’s Reasoned Opinion and our own analysis). Whenever both drafts are identical in respect of certain issues, we refer to the CAM NC simply as a ‘draft’ without specifying whether it is the March or the September one. We refer to the draft, which will appear at the end of the comitology procedure, as the ‘post-comitology draft’; notably, the post-comitology draft could differ from both the March and September draft NCs as both the EC and member states will have made further changes to it.

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<sup>35</sup> While the Third Gas Directive did not spell out a capacity allocation mechanism, Gas Regulation 715 stipulated that capacity allocation and congestion management *rules* (rather than principles) were to be defined in *network codes*. See Yafimava (2011).

<sup>36</sup> Comitology is a process by which regulation can be codified and which takes place in authorised committees where the EC is assisted by representatives of the Member States.

<sup>37</sup> ACER (2011a).

<sup>38</sup> ACER (2012a).

### **2.1.1 CAM Network Code: the March 2012 draft**

#### ***Interconnection Points and Entry-Exit Zones***

Given the importance of the CAM NC, which is the major instrument for capacity allocation, it is crucial to understand its scope. The draft CAM NC applies to ‘cross-border Interconnection Points (IPs) (physical and virtual)<sup>39</sup> as well as interconnections between adjacent entry-exit (EE) systems *within the same* member state...’. There is a potential difficulty with this definition of scope (because it refers to cross border IPs only and uses a singular tense for a member state) as it does not make it clear whether the CAM NC would apply to interconnections between adjacent EE systems that are not located within the same member state. This situation can arise when the ‘borders’ of at least one of such adjacent EE zones span beyond the territory of one member state. For example, should the EE zone, which would include northern Germany and the Netherlands (e.g. Gaspool/TTF trading region), develop, it is not clear whether the CAM NC would apply to interconnections between the Dutch EE zone and the southern German (e.g. NCG) EE zone. This paper argues that this problem could be avoided if the post-comitology draft CAM NC defines its scope simply as ‘Interconnection Points’, and defines an Interconnection Point as a physical or virtual cross-border interconnection point between two or more member states, as well as an interconnection between adjacent EE systems within the same member state, in so far as these points are subject to booking procedures by network users.

Another potential difficulty with the draft CAM NC definition of scope (and one which would be more difficult to rectify), is that this definition suggests that the CAM NC applies to cross-border points even if they happen to be situated (physically and virtually) inside the same EE zone. The situation when cross-border points are situated inside the same EE zone can arise when those member states that are unable to form functioning wholesale markets of their own (i.e. markets where annual gas demand would be higher than 20 bcm, see Section 1), will form either a market area or a trading region, both of which would lead to the creation of an EE zone consisting of several member states (or parts thereof). (For example, if Austrian, Slovakian, Czech, and potentially Hungarian, TSOs form a trading region which would cover eastern Austria, Slovakia, the Czech Republic, and Hungary, see Section 1). This is potentially problematic as it would create an artificial barrier for gas trade within the same EE zone and hence run contrary to GTM objectives.

The draft CAM NC does *not* apply to:

- exit points to end consumers and distribution networks,
- entry points to supply only networks,<sup>40</sup>
- entry points from LNG terminals and production facilities,
- entry-exit points to or from storage facilities’.<sup>41</sup>

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<sup>39</sup> The draft CAM NC defines an Interconnection Point as a cross-border IP, whether it is physical or virtual, between two or more member states as well as interconnection between adjacent entry-exit systems within the same member state, in so far as these points are subject to booking procedures by Registered Network users. The definition of an IP is identical in both the March and September 2012 drafts of the CAM NC; the scope is also outlined identically.

<sup>40</sup> It is not clear what the term ‘supply only networks’ refers to as its definition is absent both from the draft CAM NC, the Third Gas Directive, and Gas Regulation 715.

<sup>41</sup> ENTSO (2012a), ENTSO (2012d).

Given that the CAM NC is silent on entry points from and exit points to third countries, it can be assumed that it does not apply to these points. However, given that the Congestion Management Procedures (CMP) Guidelines (Annex 1 of the Gas Regulation 715) stipulate that CMPs *may* apply to ‘entry points from and exit points to third countries’ (i.e. non-EU countries sharing a border or a maritime zone with EU member states), subject to the decision of the relevant national regulatory authority (NRA),<sup>42</sup> it will not be surprising if the post-comitology draft of CAM NC has a similar provision.

This brief analysis suggests that the draft CAM NC is not fully consistent with the GTM, as it does not address all the developments in the markets that are envisaged by the GTM. Indeed, the aforementioned developments in north west Europe and in Austria go beyond what was envisaged by the CAM NC, which does not seem to be well-equipped for addressing the functioning of cross-border (as opposed to national) EE zones. Should these developments proceed, the CAM NC might need to be amended. Notably, despite the potential importance of these issues, neither of them has been addressed by ACER in its Reasoned Opinion.<sup>43</sup>

The GTM views the liberalised EU gas market as a limited number of large (20 bcm plus) interconnected EE zones between which gas would flow freely attracted by a higher price. This vision suggests that in the longer-run it is the interconnection points between the EE zones, rather than interconnection points between member states (i.e. those that are not at the same time the interconnection points between EE zones), that should take precedence. Although the GTM advocates the creation of a national (i.e. within member state borders) EE zone as a first step, it is possible that an EE zone that incorporates parts of adjacent member states will develop sooner than an EE zone within the borders of one member state. (Indeed, the aforementioned examples of Germany-Netherlands and Austria-Slovakia-Czech Republic are cases in point). As a result, the borders of (at least some) EE zones might cut across the territories of several member states, thus reducing the importance of the interconnection points between member states’ borders and increasing the importance of the interconnection points between EE zones’ borders. The definition of CAM NC’s scope does not provide an answer on how the issue of precedence between two types of interconnection points is to be reconciled in the future.

### ***New Capacity versus Existing Capacity***

The March 2012 draft CAM NC applies to all (existing) technical capacity at IPs, and also to additional capacity (where relevant), but excludes ‘new technical capacity allocated via open season procedures, or other procedures for allocating new technical capacity, apart from capacity which remains unsold after it has been initially offered via such processes’, from the majority of its provisions, including on capacity allocation, tariffs, booking platforms, and capacity bundling (art. 2.3, art. 5).<sup>44</sup>

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<sup>42</sup> EC (2012a).

<sup>43</sup> ACER’s Reasoned Opinion suggested that while defining a virtual IP, the code should refer to an interconnection point, which connects only two adjacent EE systems, rather than two adjacent TSOs within the same EE system, see ACER (2012a). For CAM NC and CAM FG’ definitions of a virtual IP, see the List of Regulatory Definitions Related to Gas Transportation and Infrastructure.

<sup>44</sup> The September 2012 draft CAM NC – ENSTOG (2012d) – made the capacity bundling requirement applicable to new technical capacity, see Section 2.1.2.

However, in its Opinion ACER stated that its CAM FG only excluded new capacity from capacity allocation provisions, whereas all other provisions (including on bundling, interruptible capacity, tariffs, and booking platforms) were to apply both to existing and new capacity,<sup>45</sup> and recommended amending the March 2012 draft CAM NC accordingly. ACER also noted the necessity of ensuring consistency between the CAM NC and the (then comitology draft) Congestion Management Procedures (CMP) Guidelines, which stipulated that ‘any additional capacity made available through the application of one of the CMP ... [oversubscription and buy-back, firm day ahead UIOLI, surrender of booked capacity, long-term UIOLI] ... shall be offered by the respective TSO(s) alongside the other capacity in the regular allocation process’.<sup>46</sup> Notably, the Guidelines’ definition of additional capacity clearly excludes any ‘new built’ capacity (new or incremental in the meaning of the CEER Consultation Paper<sup>47</sup>, see Section 2.3.1).<sup>48</sup> This is narrower than the CAM NC definition of the additional capacity as being ‘any capacity that TSOs may make available at their discretion in accordance with any relevant incentives to offer further capacity, including applicable overbooking procedures, beyond Technical Capacity’.<sup>49</sup>

### *Exemptions from CAM NC*

Importantly, the March 2012 draft CAM NC exempted new infrastructure (‘referred to’ in Art. 36 of the Third Gas Directive) from *all* of its provisions, including on capacity allocation and bundling (Art. 2.1).<sup>50</sup> Art. 36 stipulates that ‘major new infrastructure i.e. interconnectors, LNG and storage facilities’ (not completed by 4 August 2003) (‘new capacity’) as well as ‘significant increases of capacity in existing infrastructure and to modifications of such infrastructure which enable the development of new sources of gas supply’ (‘incremental capacity’) may, upon request be exempted for a defined period of time from various provisions of the Third Gas Directive, including on TPA, tariffs, and unbundling. Importantly, Art. 36 does not contain any quantitative financial or technical characteristics of infrastructure to be considered ‘major new infrastructure’ or infrastructure providing ‘significant increases of capacity’.<sup>51</sup> The distinction between new and expanded/modified existing infrastructure made in Art. 36 appears to be consistent with the CEER definition of new and incremental capacities, the former being capacity provided at a new IP and the latter – capacity provided on top of technical capacity at an existing IP (Section 2.3.1).<sup>52</sup>

This CAM NC provision can be understood in several ways, depending on one’s interpretation of which infrastructure is ‘referred to’ by Art. 36: is it infrastructure that has applied for and has been granted an exemption, or is it infrastructure that is

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<sup>45</sup> ACER (2012a).

<sup>46</sup> EC (2011a).

<sup>47</sup> CEER (2012a).

<sup>48</sup> ACER’s Reasoned Opinion, dated 5 June 2012 – ACER (2012a) – states that the definitions of ‘additional capacity’ and ‘capacity contract’ are not consistent with those of Gas Regulation 715 and the Third Gas Directive, despite the fact that neither of the latter appears to define these terms. It was only in August 2012, that Gas Regulation 715 began to contain the definition of ‘additional capacity’ as the latter was provided by the Congestion Management Procedures (CMP) annexed to the Regulation.

<sup>49</sup> ‘Technical capacity’ here is defined as in Gas Regulation 715.

<sup>50</sup> See Section 3.2 for a detailed analysis of the exemption procedure under Art. 36.

<sup>51</sup> In 2004 the EC issued a (non-binding) Interpretative Note – EC (2004a) – which outlined some of such characteristics.

<sup>52</sup> CEER (2012a).

eligible for an exemption (e.g. fits the list of criteria) but either has not applied for an exemption, or has applied but been refused? The major difficulty in constructing the argument in favour of either interpretation is the aforementioned lack of clarity in Art. 36 on financial or technical characteristics which the infrastructure in question needs to fit in order to be eligible for an exemption; therefore, as all gas infrastructure projects are very expensive they all can qualify as ‘major’ projects and as providing ‘significant increases’ in capacity.

There are arguments in support of each interpretation and it is not possible to conclude definitively that only one interpretation is correct. However, the very least that could be argued definitively is that the infrastructure that has applied for *and* has been granted an exemption is certainly excluded from all of the draft CAM NC provisions (including on bundling). The most that could be argued is that all new infrastructure and expanded/modified existing infrastructure are excluded from all of the draft CAM NC provisions. However, the fact that ENTSOG agreed to amend the March 2012 draft CAM NC (in line with ACER’s Reasoned Opinion<sup>53</sup>) so that to apply a bundling requirement to new capacity, suggests that an overly generous interpretation (e.g. that all new/incremental capacity is excluded) appears less plausible. Furthermore, it suggests that the intention is to limit the number of new/incremental capacity projects to which the CAM NC bundling provision would not apply. Also, excluding new/incremental capacity from the bundling requirement seems to go against the goals declared in the GTM, as progressive bundling is one of the major measures aimed at promoting hub-to-hub trade. Therefore, it would not be surprising if the post-comitology draft of the CAM NC clarified the definition of those new/incremental capacity projects to which its bundling requirement would not apply, and narrowed down the potential number of such projects.

### ***Auctions***

As far as existing capacity is concerned, the CAM NC prescribes auctions as the only means of capacity allocation. The CAM NC defines the following standard capacity products (SCP): yearly, quarterly, monthly, daily and within-day. SCPs of longest duration (e.g. yearly) shall be offered first, followed by the next shortest capacity duration for the respective period. Auctions (of identical design) are to be used for the allocation of up to 90% of the technical capacity at IPs. At the same time, at least 10% of the technical capacity at each IP shall be set aside for firm capacity services with a duration of less than or equal to one quarter.<sup>54</sup>

Capacity for each yearly SCP shall be auctioned through the annual yearly capacity auction, and the auction process shall offer capacity for the upcoming 15 years, that is, each yearly SCP up to 15 years. ENTSOG argued that a 15-year period strikes a ‘balance between the needs of users needing long-term capacity bookings and those concerned about the implications of long term contracts with respect to capacity

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<sup>53</sup> Although ACER stated that new capacity must be subject to all CAM NC provisions (including bundling) apart from capacity allocation, and suggested ENTSOG should amend the March 2012 draft CAM NC accordingly, it has not requested any changes to the CAM NC provision on the exemption of new capacity referred to in Art. 36 from all CAM NC provisions.

<sup>54</sup> Although the CAM FG stipulated that at least 10% of available – rather than technical – capacity must be set aside, ACER in its reasoning document has approved the CAM NC wording.

hoarding and market entry'.<sup>55</sup> However, ACER does not appear to agree with ENTSOG on this issue, and has raised a concern in its Reasoned Opinion that 'auctioning up to 90% of the capacity in just one instance for a period of 15 years... carries the risk of long-term contractual congestion and/or of creating barriers for potential new entrants over a significant (15-year) period'.

In order to alleviate this perceived problem, ACER suggested amending the CAM NC to stipulate that a 'significant proportion' of the capacity is allocated only over a shorter time horizon, e.g. 4 or 5 years. Although the Opinion does not specify a recommended percentage, another ACER document, which presents its reasoning behind the Opinion, suggests that such percentage could (should) be 10%.<sup>56</sup> ACER's Opinion also suggests that quarterly SCPs could be offered for more than one year (e.g. for the upcoming 16-20 quarters (4-5 years)) alongside the yearly SCPs, arguing that this would give shippers a second chance to acquire capacity. While advocating the categorisation of the existing capacity into products of different durations, ACER's Opinion also suggested that such categorisation needs to be applied to new capacity as well, stating that this would not pre-empt the current work on the allocation of incremental (new) capacity (see Section 2.3.1).

### ***Mandatory Bundling and the Sunset Clause***

One of the most important (and most controversial) elements of both the CAM FG and the draft CAM NC is the requirement of *mandatory capacity bundling* to be achieved within 5 years after the CAM NC coming into force (the so called 'sunset clause'). The CAM FG stipulates that 'the corresponding firm entry and exit capacity available on both sides of every point connecting adjacent EE systems'<sup>57</sup> is integrated 'in such a way that the transport of gas from one system to an adjacent system is provided on the basis of a single allocation procedure and a single nomination'.<sup>58</sup> The 'sunset clause' means that the existing system, as represented by legacy capacity contracts, has a finite life and must be phased out by a 'sunset' date.

The March 2012 draft CAM NC stipulates that 'on both sides of an IP all firm capacity shall be offered as bundled capacity [...]', this bundled capacity is to be contracted through a single allocation procedure, with adjacent TSOs providing the network users with the means to 'nominate the flows of their bundled capacity via a single nomination'. At each IP, the existing contracted capacity must be bundled by a date 'no later than 5 years' after the CAM NC coming into force – the 'sunset' date. Thus the capacity holders – parties to the existing capacity contracts – 'shall aim to reach an agreement on the bundling of the capacity... to be bundled via any suitable contractual arrangements' (and hence will have to amend the existing contracts accordingly). The TSOs – parties to such contracts – may participate at any time in the discussions on the bundling agreement. Once a bundling agreement is reached, the

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<sup>55</sup> ACER (2012b). According to Gas Regulation 715, 'long term' is a service with a duration longer or equal to 1 year, whereas 'short term' is defined as a service with a duration of (strictly) less than 1 year. ENTSOG suggests that any combination of products with a total duration of up to 12 months will be considered short-term, and any combinations of products with a total duration of more than 1 year – long term.

<sup>56</sup> ACER (2012b).

<sup>57</sup> The CAM FG referring to points connecting adjacent EE systems, rather than all IPs (both cross-border or not) creates an impression that the bundling requirement does not apply to cross-border IPs should they happen to be inside an EE zone.

<sup>58</sup> ACER (2011a).

capacity holders have to inform the TSOs and modify the relevant capacity contracts; once TSOs are notified of the bundling agreement they will have to check its feasibility.<sup>59</sup>

The portion of capacity on which no bundling agreement has been reached during the 5-year ‘sunset’ period, will be ‘deemed bundled’ and ‘distributed among the original holders as bundled capacity proportionally to their original rights according to the default rule’.<sup>60</sup> ‘After the split, each original capacity holder shall hold contracts for bundled capacity in a proportion which is equal to the proportion between his capacity rights held before the split and the total amount of contracted capacity for the respective period of time at the concerned IP’.<sup>61</sup> Thus, while deciding on the default rule, ENTSOG chose an option to respect partial agreements (i.e. to apply the default rule only to that portion of capacity for which no bundling agreement has been reached).<sup>62</sup>

The March 2012 draft CAM NC makes it necessary to amend existing capacity contracts, both in relation to capacity for which the bundling agreement has been reached, and to capacity to which the default rule has been applied, in order to bring them in line with the bundling arrangement and/or the default rule. The capacity holders in an existing capacity contract must adjust the original commitments, and the duration of the commitments regarding the capacity bundled under the amendment of the existing contracts must not exceed the duration of the original contracts. The March 2012 draft CAM NC also stipulated that its provisions on amendments of capacity contracts are not applicable to supply contracts, and that the implementation of these provisions does not constitute any right whatsoever for contracting parties to terminate or cancel a supply contract unilaterally. It also says that this may trigger ‘the separation of the provisions related to supply and amendment of the related contract accordingly, should the contract deal with both capacity and supply elements’.

### ***Mismatched Capacity***

Mismatched capacity (i.e. the difference between available firm capacities on each side of an IP) is to be offered as an unbundled product. However, in its opinion ACER stated that the CAM FG objective of ‘progressively bundling the entire technical capacity, including new capacity’ cannot be achieved if the mismatched capacity is to be offered and allocated as an unbundled product for up to 15 years ahead (as 15 years is the maximum period for which yearly SCPs can be auctioned, see above). ACER recommended that the March 2012 draft CAM NC should be amended to limit the duration of the offer of firm unbundled capacity, ‘for instance, up to the rolling monthly auction’.<sup>63</sup> ACER also suggested that the draft should be amended to stipulate that not only existing, but also new, capacity is subject to the mandatory bundling requirement; and ENTSOG agreed to change the CAM NC accordingly (see Section 2.1.2 below).

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<sup>59</sup> ENTSOG (2012b).

<sup>60</sup> ENTSOG (2012a).

<sup>61</sup> ENTSOG (2012a).

<sup>62</sup> ENTSOG (2012b).

<sup>63</sup> ACER (2012a).

Notably, a majority of stakeholders, canvassed by ENTSOG during public consultation, did not support the idea of mandatory capacity bundling, arguing that such bundling should be voluntary. Nonetheless, given that the requirement is present in the CAM FG (as it is seen as one of the necessary conditions for achieving a single liberalised market) ENTSOG had to include it in its draft CAM NC despite stakeholders' concerns, which ENTSOG also shared.

In ENTSOG's view, the major concerns related to the introduction of the 'sunset clause' are as follows: differences in volume and duration inevitably limit the scope for bundling; there is a diversity of possible scenarios showing how bundling might be accomplished causing legal uncertainty for the parties; there is a lack of compulsory monitoring by TSOs necessary for ensuring the technical and contractual feasibility of the bundling agreement.<sup>64</sup>

The ENTSOG legal group also prepared an opinion on the March 2012 draft CAM NC in respect of its 'sunset clause' provision which recommended 'not to include any sort of 'sunset clause' in the CAM NC, as this might be prejudicial (on a material level) to TSOs'.<sup>65</sup> The opinion stated that 'European legislation may not impose an obligation on one of the contracting parties to ultimately unilaterally amend the contract without the other contracting party being able to exercise its contractual rights resulting from a unilateral amendment of the contract', and argued that entrusting TSOs with the right (or the task) of unilaterally changing capacity contracts (between these TSOs and shippers) would amount to 'a breach of contract, with exposure to damage claims and/or a renegotiation or a termination of the contracts with subsequent losses of revenues'. The opinion suggested that an alternative course of action could be an 'obligation on both contracting parties to amend their agreement in a certain way within a reasonable period of time to ensure the bundle of existing capacity contracted'; monitoring and enforcement of this obligation could be carried out by the NRAs by means of administrative sanctions. It warns against NRAs intervening in any way in the capacity contracts 'to the extent that such intervention affects contractually stipulated or otherwise legally fixed terms, might be considered as a direct or indirect expropriation of contractual rights'. It is also worth noting that the 'sunset clause' has been opposed by nearly all stakeholders.

### ***2.1.2 The CAM Network Code: the September 2012 draft and the way forward to comitology***

There does not appear to be a clear procedure on how/whether the suggestions stated in ACER's opinion are to be reflected in the CAM NC. The suggested changes appear to be significant and their acceptance would change the draft CAM NC beyond what was agreed between stakeholders during the ENTSOG public consultation process.

On September 17, 2012, ENTSOG delivered a revised version of the CAM NC.<sup>66</sup> ENTSOG amended the CAM NC in line with ACER's Reasoned Opinion<sup>67</sup> in some areas, in particular in its revised draft CAM NC it made bundling and categorisation of standard products apply to new capacity allocated via Open Season procedures, or

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<sup>64</sup> ACER (2012a).

<sup>65</sup> ENTSOG (2012c). Also see Starlinger (2011).

<sup>66</sup> ENTSOG (2012d).

<sup>67</sup> ENTSOG (2012g).

other procedures for allocating new technical capacity. However, there are four areas that ENTSOG has refused to amend:<sup>68</sup>

- mandate the reservation of at least 10% of technical capacity for release in the medium term (so called ‘quota’) (in addition to the minimum 10% already reserved for short term release as envisaged in the March 2012 draft CAM NC), arguing that such an increase would create ‘artificial scarcity’, which would distort the formation of prices in capacity auctions;
- allow the rules on reservations to apply to new capacity that is offered through Open Seasons or other processes;
- mandate that unbundled capacity that arises from a difference in technical capacity at two sides of an IP be offered on a short-term basis (no more than one month ahead). Although as a compromise, ENTSOG amended the CAM NC to mandate the sale of unbundled capacity no more than five years ahead;
- remove the ‘revenue equivalence principle’, which specified that the average revenue from a flat yearly product should equal that from a profiled booking of shorter duration products, arguing that its removal would take away a means of ‘protecting network users from undue cross-subsidy and TSOs against high levels of under recovery of allowed revenue’.

Interestingly, Art. 5.1.5.(a) of the September 2012 draft CAM NC says that

‘... where there is more available firm capacity on one side of an IP than on the other side for any period considered, the TSO with the most available firm capacity may offer such extra capacity to the Registered Network Users as an unbundled firm product in accordance with the Auction Calendar... where there is an existing unbundled Capacity Contract at the other side of the IP, up to the equivalent amount of capacity may be offered on an unbundled basis for a period not exceeding the duration of such existing Capacity Contract’.

Therefore, it seems that the only period when an available unbundled Capacity Contract on one or the other side of the IP could exist is the period prior to the ‘sunset’ date (NC entry into force plus 5 years), e.g. the period during which the Capacity Contracts must be bundled in line with Art.5.2.1 (‘sunset’ clause article) (either in line with mutual agreement or else according to the default rule). The existence of an unbundled Capacity Contract on either side of the IP after the ‘sunset’ date would mean that the ‘sunset’ clause has been violated. It appears, however, that provision of the existing capacity on an unbundled basis for a period not exceeding the duration of the existing Capacity Contract (in line with Art.5.1.5.(a)) would not violate the ‘sunset’ clause only if that Contract expires prior to the ‘sunset’ date. Therefore, it is not clear what exactly the purpose and the value of Art.5.1.5(a) is, *unless the ‘sunset’ clause is somehow relaxed or abolished and/or the ‘sunset’ date is moved forward*, in the post-comitology CAM NC.

ACER, upon receiving the September 2012 draft CAM NC, which essentially rejected most of ACER’s recommendations, continued to insist on the application of

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<sup>68</sup> ENTSOG (2012e).

categorisation of standard products, bundling and quota for new capacity, arguing that this is necessary for ensuring a coherent system for existing and new capacity.<sup>69</sup> At the 22<sup>nd</sup> Madrid Forum in October 2012, the ACER representative mentioned the Agency's readiness to compromise on the "tariff provision" in exchange for ENTSOG adopting all other ACER's suggestions – but ENTSOG refused this offer. Thus at the end of 2012 ENTSOG and ACER reached an impasse, as new lengthy rounds of stakeholders' consultations would significantly delay the finalisation of the CAM NC. Given that the CAM NC is one of the major building blocks (alongside CMP, Balancing, Tariffs, and Interoperability NCs) that constitute a minimum requirement, as seen by the EC, to meet the 'IEM by 2014' objective, any delay in the finalisation of the CAM NC may jeopardise this timetable. Thus, ACER was presented with a choice of whether to return the September 2012 draft CAM NC to ENTSOG once again in an attempt to achieve a version that ACER would be more satisfied with, but with the risk of significantly delaying the process; or else accept ENTSOG's draft CAM NC, and press on with its finalisation and recommendation for comitology. ACER appears to have chosen a middle way by stating that, although it was not satisfied that the September 2012 draft NC CAM is fully in line with FG and Reasoned Opinion, it would make a *qualified* recommendation for adoption of the NC to the EC in October 2012.<sup>70</sup>

It is possible that the post-comitology draft CAM NC will include at least some of the suggestions made by ACER which ENTSOG refused to accept. Presumably, ACER has reiterated its Reasoned Opinion concerns in its qualified recommendation to the EC for the endorsement of the September 2012 draft CAM NC. If so, then the post-comitology draft may include ACER's suggestion that at least 20% of technical capacity (including new capacity) must be set aside at each IP, with 10% of it to be first offered no earlier than the annual yearly capacity auction held during the fifth gas year preceding the start of the relevant gas year, and another 10% to be offered no earlier than the annual quarterly capacity auction held during the gas year preceding the start of the relevant gas year.

At the same time, given fierce opposition to the 'sunset clause' (requiring capacity at relevant IPs to be bundled within 5 years) from virtually all stakeholders, and indeed significant legal concerns over whether this procedure might amount to expropriation of contractual rights exposing TSOs to potential damages, it would not be surprising if the post-comitology draft was to include a 'relaxed' version of the 'sunset clause'. For example, it might oblige the parties to capacity contracts to make every effort to accomplish capacity bundling. Indeed, unless the 'sunset clause' is relaxed, there appears to be a contradiction (as pointed out above) between Art. 5.1.5(a) and the 'sunset clause' in the September 2012 draft CAM NC.

Another important issue is whether the post-comitology draft will retain the provision expressed in the CAM NC (present in both March and September 2012 drafts) (and not objected to by ACER in its Reasoned Opinion) on exemption of infrastructure referred to Art. 36 of the Third Gas Directive from all provisions of the CAM NC. As argued earlier, this provision is open to various interpretations, and it is important that it is either defined more accurately, or removed.

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<sup>69</sup> Neveling (2012).

<sup>70</sup> Neveling (2012).

## 2.2 Congestion Management Procedures

As noted above, although it was initially envisaged that Congestion Management Procedures (CMP) were to be developed within the framework of the CAM NC, it was later decided to separate CMP and capacity allocation issues. Therefore the CMP were developed separately and annexed to Gas Regulation 715. In 2011 the EC made an initial draft comitology proposal for Guidelines on CMP,<sup>71</sup> and following a consultation process, in August 2012 it adopted a decision on amending Gas Regulation 715 to annex to it newly developed CMP Guidelines.<sup>72</sup> The final version of the CMP Guidelines annexed to the Regulation appears to be less strict than the draft proposal, both in relation to short- and long-term Use-It-Or-Lose-It mechanisms. Below we summarise these CMP, which by virtue of being part of the Regulation, are directly applicable in EU member states.

Gas Regulation 715 states that the CMP apply to ‘IPs between adjacent EE systems, irrespective of whether they are physical or virtual, between two or more member states or within the same member state, in so far as the points are subject to booking procedures by users’. This wording suggests that the CMP apply to *all* IPs, as defined by the CAM NC. However, in contrast with the CAM NC, which does not apply to entry points from and exit points to third countries, the Regulation states that the CMP *may* also apply to ‘entry points from and exit points to third countries’ (i.e. non-EU countries sharing a border or a maritime zone with EU member states), subject to the decision of the relevant NRA. This provision is important, as it potentially provides for application of the CMP in relation to contractual congestion occurring between EU member states and non-EU countries, some of them members of the Energy Community Treaty (EnCT)<sup>73</sup> (the Balkans, Ukraine, and Moldova) and some are not (Russia, Belarus, and Turkey). Gas Regulation 715 says its CMP mechanisms *may* apply to ‘outer’ EU entry and exit points – rather than ‘shall’ apply – this is because most contractual congestion occurs on intra-EU IPs, and these ‘outer’ points are not an issue as there is no congestion presently or envisaged.<sup>74</sup>

The Regulation tasks ACER to publish an annual monitoring report on congestion in respect of firm capacity sold at IPs in the preceding year, beginning from 2014. It also stipulates that any additional capacity made available through the application of the CMP must be offered by TSOs in the regular allocation process (specified in the CAM NC).

### ***‘Use-It-Or-Lose-It’ Mechanisms***

The Regulation spells out both short-term (firm day-ahead) and long-term UIOLI mechanisms. As far as short-term UIOLI mechanisms are concerned, the Regulation obliged TSOs to propose and (after approval by an NRA) implement oversubscription

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<sup>71</sup> EC (2011a).

<sup>72</sup> EC (2012a).

<sup>73</sup> In line with the EnCT, its member countries have to implement the Third Package by 2015, including the development and implementation of cross-border Network Codes. It is our understanding that the Network Codes will only apply to intra-EnCT Interconnection Points, but not to Interconnection Points between the EU and non-EU EnCT countries.

<sup>74</sup> Although a Turkey/Greece cross-border IP could be an exception.

and buy-back schemes in order to offer additional capacity<sup>75</sup> on a firm basis. Prior to implementation, an NRA is obliged to consult with the national regulators of adjacent EU member states. The Regulation also obliged NRAs to require TSOs to apply the following rule with respect to altering the initial nomination (if certain conditions are met) - firm renomination is permitted up to 90% and down to 10% of the contracted capacity, half of the non-nominated volume may be renominated upwards; if the nomination does not exceed 20% of the contracted capacity, half of the nominated volume may be renominated downwards.<sup>76</sup> This rule appears to be slightly more relaxed compared to the one initially suggested in the EC's comitology draft proposal.<sup>77</sup> It is worth noting that ENTSOG was against the introduction of firm day-ahead UIOLI mechanisms, supporting the latter to be applied only to interruptible capacity.<sup>78</sup>

As far as long-term UIOLI mechanisms are concerned, the Regulation obliges national regulators to require TSOs to '*partially or fully* withdraw systematically underutilised contracted capacity on an IP by a network user, where that user has not sold or offered under reasonable conditions its unused capacity and where other network users request firm capacity'. Just as is the case with short-term UIOLI provisions, the Regulation appears to be more relaxed compared to the initial Commission's proposal.<sup>79</sup> Another long-term UIOLI mechanism stipulated by the Regulation is surrender of booked capacity whereby TSOs are obliged to 'accept capacity offered for surrender insofar as contractual congestion exists'.

The Regulation spells out different deadlines for short- and long-term UIOLI mechanisms, with the former to apply only from 1 July 2016 and the latter – from 1 October 2013. The delay of short-term UIOLI mechanisms application until mid-2016, appears to have been a compromise solution, as it would have been more logical for them to apply from 1 October 2013, on par with long-term UIOLI mechanisms, particularly if the four major NCs are to be implemented by (the end of) 2014. However, the Regulation also has a provision, which essentially overrides the mid-2016 deadline, by saying that an NRA 'may decide' to implement a firm day-ahead UIOLI mechanism. As the Regulation does not specify any deadline for such decision, it is down to NRAs' discretion to exercise this right any time once the Regulation is in force.

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<sup>75</sup> Defined as 'the firm capacity offered in addition to the technical capacity of an IP calculated on the basis of the Regulation's art.16.1.

<sup>76</sup> The original holder of the contracted capacity may re-nominate the restricted part of its contracted firm capacity on an interruptible basis.

<sup>77</sup> Firm renominations upwards permissible up to 50% of the fraction of the initially not nominated booked capacity; re-nominating downwards permissible down to 50% of the initial nomination, where the initial nomination exceeds 90% of the total capacity booked no re-nomination downwards permitted.

<sup>78</sup> ENTSOG (2012f).

<sup>79</sup> Which read that network users 'shall lose systematically underutilised capacity' thus suggesting that such capacity would be *fully* (as opposed to partially) lost.

## 2.3 Investment Procedures for Incremental and New Capacity

### 2.3.1 The CEER paper ‘Market-based investment procedures for gas infrastructure (issues and approaches)’: an overview

Given the importance of the issue of allocation of incremental/new capacity and the fact that it has not been addressed in the CAM NC, which only applies to existing technical and additional capacity,<sup>80</sup> the 20<sup>th</sup> Madrid Forum of European gas regulators invited CEER to ‘elaborate concepts on the allocation of incremental capacity so that ‘new build’ capacity at existing interconnection points can be integrated into a market based approach.’<sup>81</sup> Empowered by this mandate, in June 2012 CEER issued a Consultation paper ‘Market-based investment procedures for gas infrastructure: issues and approaches’ (henceforth “the CEER paper”),<sup>82</sup> which aimed to ‘develop proposals on how to identify and integrate new capacity, based on market demand and coordinated market procedures’; in December 2012, CEER issued a follow-up paper evaluating the responses.<sup>83</sup> Below we outline the main provisions of the CEER initial public consultation paper.

The CEER Paper defined both incremental and new capacity as follows:

- *incremental capacity* is capacity provided on top of technical capacity<sup>84</sup> available at an existing Interconnection Point (IP) (i.e. new capacity in existing systems);<sup>85</sup>
- *new capacity* is capacity provided at a new IP (i.e. new capacity in new systems).

The CEER paper uses the term ‘incremental’ capacity throughout, but specifically states that ‘its intention is to cover both incremental and new capacity (as defined above)’; and that the proposals the paper seeks to develop could be applied to both. (It is worth noting, however, that the Madrid Forum appears to have tasked the CEER with the development of mechanisms for incremental capacity only.) The paper stresses that it considers options for an investment regime, which builds on the advantages of the merchant (mainly demand-driven) approach without the need of exemptions and which is fully fit for purpose for cross-border projects.

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<sup>80</sup> CAM NC also applies to ‘Additional Capacity’, which the NC defines as ‘any capacity that TSOs may make available at their discretion in accordance with any relevant incentives to offer further capacity, including applicable overbooking procedures, beyond Technical Capacity’. The CAM NC defines ‘Technical Capacity’ as ‘the maximum firm capacity that the TSO can offer to the network users, taking account of system integrity and the operational requirements of the transmission network’ (definition as in Gas Regulation 715).

<sup>81</sup> Madrid Forum (2011).

<sup>82</sup> CEER (2012a).

<sup>83</sup> CEER (2012c).

<sup>84</sup> ‘Technical capacity’ is not defined in the CEER paper, but is defined in Gas Regulation 715 as ‘the maximum firm capacity that the TSO can offer to the network users, taking account of system integrity and the operational requirements of the transmission network’. It is not clear whether the CEER definition of incremental capacity includes ‘additional capacity’, but given that its Madrid Forum mandate refers to ‘new build’ capacity, the inclusion of ‘additional capacity’ in the category of incremental capacity seems unlikely.

<sup>85</sup> Interconnection Point here is defined as in the March 2012 and September 2012 draft CAM NCs.

The CEER paper acknowledges that ‘there is the question of whether new pipeline projects spanning over several countries should be within the scope of this work’. The paper notes that ‘the CAM NC discussed the option of holding auctions over a ‘route of interconnection points’, but that this option was *dismissed as being too complicated to implement for the time being, as well as for being problematic in terms of non-discriminatory evaluation of different transport needs between two countries only or over a route of countries*’.<sup>86</sup> However the paper admits that ‘although these multi-country projects will be more complicated, their importance is crucial to the development of the internal market for gas and should be acknowledged’. The paper concluded that although its focus is ‘on increasing capacity to better connect adjacent entry-exit (EE) systems, in line with the GTM, its purpose is not to preclude investments spanning across several countries’.<sup>87</sup>

Thus although it appears that the CEER has left the issue of new multiple cross-border pipelines outside the scope of its paper, whatever new mechanism will be developed for addressing this issue of new (as opposed to incremental) capacity will have to be consistent with the mechanism for incremental capacity (under development by CEER), the CAM NC, the Ten-Year Network Development Plan (TYNDP), and the Energy Infrastructure Package (including a proposal for a Regulation on Guidelines for Projects of Common Interest (PCIs)). Also, until and unless a mechanism for new capacity is developed, new capacity would continue to fall under the regulatory framework provided by the mechanism for incremental capacity.<sup>88</sup>

However, the CEER paper notes that ‘infrastructure exempted’ according to Art. 36 of the Third Gas Directive – which could be both new and expanded/modified infrastructure – is outside the scope of its work on incremental capacity. At the same time, CEER notes that the part that is not exempted from TPA and possible future enhancements will be within this scope. Furthermore, (unlike the draft CAM NC), the CEER paper does not leave room for interpretation of the treatment of infrastructure under Art. 36 (see discussion in Section 2.1.1), and major new or expanded/modified infrastructure referred to in Art. 36 – which might have been liable for an exemption but either has not been applied for or has been refused – will also automatically fall under the scope of the CEER paper and the mechanism it seeks to develop for incremental/new capacity.

The CEER paper contains an overview of various market-based investment procedures, such as Open Seasons (OS) and Integrated Auctions (IA) for existing and incremental capacity (UK-style auctions),<sup>89</sup> and attempts to define whether, and if so how, these procedures need to be amended to provide an adequate regulatory

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<sup>86</sup> Author’s italics.

<sup>87</sup> The CEER admits that even if an investment is considered for one IP, ‘investments by more than two TSOs may be required, depending on the structure of the EE zones’. See the CEER paper, CEER (2012a).

<sup>88</sup> Particularly, as the CEER paper says that its intention is to cover both incremental and new capacity, and that that proposals it seeks to develop could apply to both, CEER (2012a).

<sup>89</sup> Strictly speaking, a price auction presupposes scarcity (of capacity) as the price offered by the highest bidder reflects a (perceived) degree of scarcity. Thus there is an important difference between the meaning of the word ‘auction’ when applied to auctions for existing capacity, and to auctions for incremental capacity, with the former being a true price (discovery) auction, and the latter – an ‘expression of interest’ auction. It has been noted by several stakeholders, including ENTSOG, that it is not entirely correct to apply the word ‘auction’ to methodology for allocating incremental capacity (as used in Great Britain), as there is no scarcity in the long term.

framework for new/incremental capacity investment, compatible with the CAM NC, the TYNDP, and the EIP.

The ‘classic’ OS approach, as suggested by the Guidelines of Good Practice for OS, envisages a two-step procedure: 1) non-binding bidding by shippers for new capacity in order to establish the level of interest for such capacity and hence decide on the new capacity offer; 2) binding subscriptions by shippers allowing for positive FID should these subscriptions cover the pre-agreed level of cost (i.e. passing the economic test).<sup>90</sup> The CEER paper argues that given the increased complexity of OS for incremental (new) capacity to be carried out alongside the auctions for existing capacity, and also given the fact that the ‘classic’ OS procedure has lacked transparency and coordination, a more elaborate OS procedure needs to be explored, characterised by adequate transparency and cross-border coordination.<sup>91</sup>

The CEER paper notes that an important challenge in relation to capacity allocation would be to ensure that users of existing capacity are not discriminated against compared to users of the incremental capacity, once the capacity is built, and suggests IA for existing and incremental capacity as one possible solution.

Having outlined experience with OS and IA, the CEER paper seems to be suggesting IA as the only means of allocating incremental capacity – at least for relatively small projects requiring extra capacity at just one cross-border IP between adjacent systems, as the CEER paper is mainly focused on such projects. The major difference between the suggested IA procedure and the existing OS procedure appears to be that the IA procedure would place an obligation on TSOs to invest in new capacity when/if the auctions show that a certain level of capacity demand is reached, thus giving TSOs a leading role in initiating the investment. Under the OS procedure it would be the shippers (which could be buyers or sellers) that initiate the investment by asking TSOs to build extra capacity, with TSOs reviewing these requests and deciding on investment.

CEER also notes that IA would allow the avoidance of discrimination against users of existing capacity compared to users of incremental capacity, once the latter is built, and considers the following three options for coordinated allocation of existing and new capacity:

- 1) regular integrated auctions for incremental and existing capacity, whereby the investment procedure would be triggered, and incremental capacity would be offered on a regular basis, along with the yearly auction of existing long-term capacity;
- 2) an incremental capacity auction is initiated only if there is the evidence of scarcity of existing capacity (e.g. incremental capacity auctions would be limited to those IPs only where there is a known need for further capacity);

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<sup>90</sup> ERGEG (2007).

<sup>91</sup> The GGPOS are under revision by the CEER, and the public consultation publication date is likely to be postponed to 2013.

- 3) the yearly long-term auction of existing capacity would be held first, and – provided it resulted in high prices revealing congestion – an ad hoc integrated auction would be held and would ‘allocate incremental capacity and apply the outcome price to both incremental and existing capacity previously allocated’.

CEER notes that there are certain difficulties associated with each of the three abovementioned options, but argues that those could be solved.

The CEER paper suggests that the key question in deciding on investing in new capacity is who pays for the investment and who takes on the risk. Given that the draft CAM NC requires TSOs to set aside 10% of existing short-term capacity and (as ENTSOG refused to increase this number to 20% as asked by ACER in its Reasoned Opinion<sup>92</sup>) this might mean that TSOs will not be able to allocate 100% of incremental capacity on a long-term basis. Therefore, national regulators would need to agree in the future on how the investment costs are to be split between shippers (via long-term bookings) and TSOs. Regulators need to set a threshold (percentage of incremental capacity that TSOs will be able to sell out on a long-term basis) while designing an economic test which would show whether or not the investment should go ahead. In making this decision, the regulators’ objective should be both to secure shippers’ access to capacity and avoid stranded assets.<sup>93</sup>

CEER appears doubtful that a harmonised EU-wide economic test is appropriate, and suggests a harmonised regulatory approach instead, thus leaving specific thresholds to be agreed on an IP to IP basis. CEER also offers two criteria for assessing the result of the economic test: one is based on the percentage of long-term capacity to be booked on a binding basis, and the other on the level of revenues generated by long-term bookings. The CEER paper also contemplates further steps to be undertaken by NRAs once the economic test is met: one being an automatic approval by the regulator once the test is met, and the other – leaving the decision to invest at the regulator’s discretion even if the economic test is met.

### ***2.3.2 Stakeholders Responses to the CEER Paper: ENTSOG and Gazprom ENTSOG’s response***

The CEER paper attracted detailed responses from all major stakeholders.<sup>94</sup> The common concerns noted by the majority of stakeholders – both ENTSOG and shippers – were the lack of transparency and inadequate cross-border coordination, as well as uncertainty about making a final investment decision.

In its response, ENTSOG stressed that whatever methodology for allocation of incremental capacity will be chosen, it needs to ‘ensure that long-term commitments from network users cover infrastructure investment cost’. It noted that its experiences with OS points towards a gap between the regulatory return and the value of long-term commitments from users, and thus called for ‘upfront clarity’ on the level of commitments (currently missing in the CEER paper) required to underpin investment in incremental capacity. ENTSOG also noted that the key principle should be to invest only in incremental capacity for which the market signalled demand, to avoid the risk

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<sup>92</sup> See the September 2012 draft CAM NC, and Section 2.1.2.

<sup>93</sup> GAC (2012b).

<sup>94</sup> CEER (2012b).

of stranded assets. Importantly, the CEER paper considers only *market-based* investment procedures (of which both OS and IA are examples), and hence it does not include a central planning approach, when investment is made not because it is requested by the market but is driven by considerations of security of supply, environmental benefits, or internal market integration.

Commenting on the market (economic) test, ENTSOG stressed that the test needs to take place regularly and be capable of being easily triggered, and when the test is positive NRA approval should be automatic. Commenting on what needs to be harmonised at the EU level, ENTSOG suggested an assessment of all IPs based on the TYNDP (on EU and national levels) to ‘ascertain where the incremental process would be best applied’, while leaving concrete parameters on the specific economic conditions of the investment outside harmonisation; ‘the exact design and parameters of the economic test’ needs to be ‘tailored to the system setting and market structure’ as well as to the regulatory framework. ENTSOG also argued that bids must be binding as ‘only binding bids yield the commitment needed for triggering the investment decision’.

ENTSOG stressed that capacity allocation should be ‘based on network user commitments for capacity volumes against prices or a premium above a regulated price’, and that both OS and IA procedures can be appropriate for different situations. Thus ENTSOG argued that while IA might be an appropriate instrument when investment at just one cross-border IP is concerned (i.e. hub-to-hub investment), it might not be suitable where investment in two or more cross-border IPs is concerned (i.e. multiple cross-border long distance pipeline investment) and another framework (such as, for example, OS) might be needed.<sup>95</sup> ENTSOG stressed that OS would enable a shipper to develop a ‘European portfolio... without a risk of a missing capacity link’ (thus indirectly confirming that IA *might* result in a missing capacity link) as all points are allocated at the same time and it would also be possible to offer conditional capacity, meaning that a shipper would be able to accept capacity at one point so that capacity only if it also gets capacity at another point.

Commenting on comparative advantages of IA and OS, ENTSOG acknowledged transparency as being the main advantage of IA because it enables shippers to see the impact of incremental capacity on existing capacity. The major advantage of OS is minimisation of the shipper’s risk of being left without capacity at one IP while being successful at the others.

### ***Gazprom’s response***

Among the shippers, Russia’s Gazprom – which stands to be most affected by new regulatory framework for incremental/new capacity allocation (see Section 3) – submitted a detailed response to the CEER consultation, the major points of which are outlined below.

Interestingly, Gazprom agrees with many of ENTSOG’s comments and criticisms of the CEER paper. Like ENTSOG, Gazprom views IA and OS procedures as complementary (rather than competing) means of providing incremental capacity, also

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<sup>95</sup> ENTSOG provided its views in the ancillary document accompanying the CEER paper consultation response.

arguing that Open Seasons are ‘best suited for large new infrastructure projects which involve a number of TSOs and regulators’, whereas Integrated Auctions are more suitable for less complex projects. Gazprom argues that there could be a problem if IAs are used, when a shipper would be able to book the capacity it needed at all IPs apart from one, with this missing link breaking the chain of capacity. Commenting on the existing OS procedure as set out in the GGPOS and on CEER’s critique of it, Gazprom argues that many of CEER’s concerns about shortcomings of the existing OS procedure are no longer valid, as these have been addressed by the CAM NC and the CMP.<sup>96</sup> Gazprom agrees, however, that transparency of OS procedures – particularly in relation to tariffs and the investment decision making process – needs to be improved.

Like ENTSOG, Gazprom agrees that procedures can be harmonised at the EU level but stresses that it is not possible to standardise the economic test as the latter is necessarily ‘a part of the wider regulatory framework agreed between the relevant TSO and its regulator’. Like ENTSOG, Gazprom argues that for the sake of certainty, the regulator must approve the investment if the economic test is passed, (and that the test should be based on the expected revenues from capacity bookings rather than on the amount of capacity booked).

While commenting on the three IA options, Gazprom expressed a preference for the first option (i.e. regular IA for existing and incremental capacity), arguing that the two other options would create unnecessary uncertainty. Gazprom also suggested that should TSOs fail to deliver the new capacity on time, there needs to be a mechanism to compensate shippers.

Gazprom’s comments also address the issue of tariffs, stressing that different tariff structure options need to be considered when deciding on various investment and capacity allocation procedures, as there is a close interaction between tariff structures and the provision of new and existing capacity.<sup>97</sup>

Given that Gazprom is a party to many long-term supply contracts (LTSCs) with European buyers which are underpinned by long-term transportation (capacity) contracts (LTTCs)<sup>98</sup>, it is not surprising that the issue of securing sufficient capacity – both at a single cross-border IP, but also simultaneously at a number of cross-border IPs – meeting commitments in these LTSCs, is an important element in Gazprom’s response to the CEER paper. It is also not surprising that the issue of tariffs also received significant coverage in Gazprom’s comments, given that Gazprom wants to ensure that it will be able to fulfil commitments under the LTSCs at a cost not higher than is currently specified by the LTTCs (which will need to be adjusted in line with the CAM NC). On the other hand, it is worth noting that although some of these comments (such as on interaction between tariff structures and capacity allocation rules, as well as on capacity allocation along a route of IPs) are specific to Gazprom’s contractual and logistical situation, many of the latter’s concerns expressed in the response to the CEER paper are shared by other suppliers/shippers as well as by ENTSOG.

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<sup>96</sup> Such as the issues of compatibility of capacity products sold on either side of the border, overestimation of capacity needs, capacity hoarding.

<sup>97</sup> Tariffs structures are to be presented in the FG on Tariffs.

<sup>98</sup> The latter’s duration (2030-35) is longer than the former’s (2020-25), so called ‘contractual mismatch’ problem.

### 2.3.3 The CEER Paper: analysis

Two important considerations became evident in the course of the CEER work on the development of market-based investment procedures for incremental/new capacity.

The first is responsibility for deciding where the initiative on investing in capacity should originate. The CEER/ACER and ENTSOG view appears to be that it is TSOs that should be responsible for proposing new capacity to shippers (including on the basis of the projects identified in the TYNDP and potentially in the Energy Infrastructure Package), rather than shippers directly requesting additional capacity. Shippers could express their capacity needs which could feed into the TYNDP, though it is acknowledged that shippers requesting additional capacity is not incompatible with the current regulatory framework.<sup>99</sup> Gazprom's view appears to be that investment should be initiated by market players (including shippers) themselves (using the Third Gas Directive's Art.13.2 to support its view).<sup>100</sup>

The second important issue is whether the investment will be approved once it has been initiated. On this issue there is also a distinction between ENTSOG's and Gazprom's positions. ENTSOG suggests that investment is to be made if the market signals the need for new capacity, which should then be evaluated through the economic test and, if passed, will result in positive investment decision. Gazprom argues that investment should be made if market players (particularly, a supplier) signal the need for capacity and are willing to pay for it.

Should the final market-based investment procedure for incremental/new infrastructure be such that ACER and ENTSOG views prevail, it is entirely possible that:

- a shipper/supplier might not be able to ensure that new capacity which it is interested in booking, will be *offered* by TSOs (either under OS or IA procedures);
- should it be offered, a shipper/supplier might not be able to ensure that this new capacity (for which it is willing to pay) will be *constructed*, if the project fails the economic test (which could happen if the project is of limited interest to other shippers);
- should it be constructed, a shipper/supplier might not be able to ensure that this new capacity will be *allocated* to it, particularly if capacity is requested at several IPs (a route of IPs).

Under these scenarios, TSOs will be able to refuse investment in incremental/new capacity for which there might be demand on the part of some market players but not on the part of the market (as judged by the economic test). This is of significant concern for Gazprom as some of its projects, such as for example, onshore extensions of South Stream, might not pass the economic test and therefore European TSOs will not invest in them. In this case, new TSOs could be established by Gazprom in the countries where these extensions would be located, which could invest. However,

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<sup>99</sup> GAC (2012d).

<sup>100</sup> Art. 13.2 contains the following phrase: 'Each TSO shall build sufficient cross-border capacity to integrate European transmission infrastructure accommodating all economically reasonable and technically feasible demands for capacity and taking into account security of gas supply'.

these extensions would still be subject to the EU regulatory framework, including the entry-exit tariff model and regulated TPA (unless granted an exemption, both by NRAs and the EC, under Art. 36 of the Third Gas Directive).<sup>101</sup> Even if an exemption is granted, it is likely that not more than 50% of capacity would be exempt. Gazprom will not be able to control any specifically created TSOs due to the ‘TSO certification clause’ (‘Gazprom clause’),<sup>102</sup> which prevents any company from holding a controlling interest in transportation infrastructure, unless it meets the unbundling requirements of the Third Directive (ITO, ISO, or OU) – which Gazprom does not.

Overall, CEER views the IA procedure as its preferred regulatory framework for ‘simple’ incremental capacity projects (i.e. expansion of capacity at one IP). This suggests that a new regulatory framework based on IA procedure will be developed for application to such projects, and OS procedures will only apply to ‘complex’ cross border (expansion of capacities at several IPs) projects. This view is supported by a majority of stakeholders, including Gazprom, which agree that the IA procedure might be an adequate mechanism for relatively small projects requiring additions of capacity at just one IP, but arguing that another procedure (possibly OS) is needed for more complex cross-border projects.

It is important to stress that if the new regulatory framework, prescribing the IA procedure to be applied for new/incremental capacity, will not differentiate between ‘simple’ (incremental capacity) and ‘complex’ (new capacity) projects, it will make the IA procedure applicable for both, thus outlawing the OS procedure not only for ‘simple’ but also for ‘complex’ projects. If this new framework will differentiate between the two types of projects, and stipulate the IA procedure only for ‘simple’ projects, then the OS procedure could still be applied to ‘complex’ projects.

The issue of complex cross border projects was outside the scope of the CEER paper, and the latter does not contain any suggestions on possible procedures for such projects. However, the paper contains a brief analysis of the existing OS procedure, specifying its perceived shortcomings (see above), and concluding that ‘a more extensive elaborated’ OS procedure and its coordination (with IA) requirements need to be explored. It is expected that such a procedure will be developed in the course of 2013.

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<sup>101</sup> Although the possible size of a TPA exemption is not defined by the Third Package, 50% is the size of capacity exemptions granted to Nabucco, both by NRAs involved and the EC. Also, 50% is the amount of capacity released by several major European incumbents as a result of the 2007 DG COMP Energy Sector Inquiry. Nord Stream onshore extensions – NEL and OPAL – both applied for the exemption, with NEL being refused, and OPAL granted an exemption by the German regulator BNetzA for 100% capacity, but the EC, which has to approve all exemptions, reduced this to 50%. Thus, 50% is a fairly good estimate of what South Stream would be likely to receive, should it choose to apply for an exemption – which it has not yet done. However, it is unlikely that South Stream will apply for an exemption as it has already completed its FID and started construction, and thus would not comply with one of the criteria for an exemption, namely that the project would not be possible without an exemption, see Section 3.2. For the national exemption decision in the OPAL case see BNetzA (2009) and for the EC decision – EC (2009); for more information on the OPAL exemption case and on exemption policy more generally, see van der Vijver (2012).

<sup>102</sup> Applicable from March 2013.

### **3. The Third Package and non-EU Suppliers: the major Gazprom concerns**

Having analysed the Third Package and the GTM, we focus next on their major contentious issues, as seen by major suppliers of gas to the EU, notably Russia. While not being applicable to non-EU suppliers, the Third Package and the GTM will have an impact on Gazprom investment and trade relations with EU buyers. This section analyses Gazprom's concerns, including: 1) potential mismatch between supply (commodity) and transportation (capacity) contracts due to the latter's transition from a 'point-to-point' (PP) to an 'entry-exit' (EE) system; 2) regulatory treatment of new pipeline capacity.

#### **3.1 The Problems of Contractual Mismatch and a Missing Capacity Link**

##### ***3.1.1 Understanding the problems***

In order to fulfil its supply obligations, a supplier needs to have contracted sufficient transportation capacity which it is able to use for transporting gas to delivery points specified in its supply contracts. Should the transition from the PP, and the implementation of the EE system, result in a contractual mismatch between existing supply obligations and capacity bookings, either in terms of volume or duration, a supplier might be left with supply obligations but without sufficient transportation capacity to meet these obligations. A shortage of capacity can occur at one or more interconnection points (IPs) thus creating a "missing capacity link".

We argue that the problems of contractual mismatch and a missing capacity link are three-fold:

- *loss of capacity*: the implementation of the EE regime might result in a situation where there will be objectively less (firm) capacity on offer by TSOs at all or some IPs than has previously been the case under the PP system;
- *challenge of securing capacity*: even this (potentially reduced) capacity may be more difficult to obtain, as a shipper would need to be successful in winning all auctions at all IPs concerned;
- *cost of transportation*: even if these two problems are resolved positively, and sufficient capacity is acquired at all IPs concerned, it is possible that the resulting cost of transportation could be higher than under existing contractual arrangements.

In theory, the danger of not getting sufficient cross-border capacity is a concern for any gas supplier/shipper (EU and non-EU). In practice, however, this concern is mostly relevant for Gazprom as tens of billions of cubic metres of its gas need to cross multiple borders to reach delivery points (inside the EU and on EU borders) specified in its long-term supply contracts (LTSCs) (Map 1) – which is not the case for any other supplier of gas to Europe. Given that Gazprom needs to secure sufficient capacity for very significant volumes at several IPs, the risk of failing to deliver on its supply contracts due to a failure to get enough capacity at any particular IP, is significantly greater than for other suppliers.

In addition to the problem of securing sufficient capacity at IPs inside the EU, Gazprom also faces a specific potential difficulty of securing sufficient capacity at IPs in the non-EU Energy Community Treaty (EnCT) member countries (the Balkan countries, Ukraine, and Moldova) which, by virtue of their EnCT membership, have obligations to adopt and implement the Third Package, including all of the Network Codes (albeit with a delay).<sup>103</sup>

The concern about missing capacity links is less relevant for other EU/EEA (e.g. the Netherlands and Norway) and non-EU (e.g. Algeria) suppliers of gas to Europe, as their pipeline gas needs to cross fewer borders (or none at all) to reach its customers, and their cross-border volumes are significantly smaller. Not only are these concerns less acute for Norway and the Netherlands, these countries and their gas companies are much better positioned to resolve them since, by virtue of their EU/EEA membership, their TSOs and regulators are members of both ACER and ENTSOG and therefore can make their concerns heard within these agencies – and potentially in the documents drafted by these agencies, such as Framework Guidelines and Network Codes.<sup>104</sup> This explains why, starting in the late 2000s, while there has been an avalanche of statements made by both Gazprom and the Russian government on the potential adverse effects of the Third Package on Gazprom’s ability to perform its transportation and supply obligations, there have been few if any similar complaints from other suppliers or their governments. In the future, the issue of securing sufficient cross-border capacity could become more relevant for non-EU/non-EEA new pipeline gas suppliers, including producers in the Caspian region, which intend to start sending their gas to Europe across Turkey via the southern corridor in the late 2010s. However, this will involve much smaller volumes (not more than ten bcm/year by 2020), and the new regulatory regime will be established by then.

### ***Gazprom’s supplies to Europe: contractual framework***

Gazprom’s supplies to Europe take place under the framework of long-term supply contracts (LTSCs) and long-term transportation contracts (LTTCs), which was established in the 1970s. Gazprom holds a number of LTSCs with average annual volumes close to 180 bcm and expiry dates during 2025-35. For reputational and financial reasons (as these LTSCs contain arbitration clauses with liquidated damages in the event of non-performance), Gazprom needs to ensure that it will be able to secure sufficient transportation capacity under new EU regulations – some of which are still in draft form and will remain so at least until 2014 – sufficient to deliver on these LTSCs. Traditionally, these LTSCs have been underpinned by LTTCs, whereby Gazprom ensured that it had secured sufficient transportation capacity. However, the majority of these LTTCs expire during 2015-25, much earlier than the LTSCs. Thus Gazprom’s problem of securing sufficient capacity for delivery under its existing LTSCs is two-fold:

- ensuring that the existing capacity contracts (LTTCs) (e.g. those that have not expired) will result in capacity holdings sufficient for delivery under the LTSCs, after being amended in line with the CAM NC (both as a result of

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<sup>103</sup> It is our understanding that NCs will not apply to the IPs between EU and non-EU EnCT countries.

<sup>104</sup> EC (2011b).

implementation of the EE regime and renegotiation of contractual rights to comply with the requirement on capacity bundling, see Section 2.1.1);

- ensuring that sufficient capacity can be booked under the new capacity contracts (e.g. those that will be concluded once the existing LTTCs will have expired or in addition to existing LTTCs) in line with new regulations to ensure delivery under existing LTSCs.

Theoretically, Gazprom might run the risk that its capacity contracted under existing LTTCs becomes insufficient for delivery as a result of implementation of the EE regime, aggravated by the lack of coordination of various regulatory procedures during the implementation process. There is also a risk that additional capacity necessary for compensating Gazprom for the decrease of capacity resulting from the adjustment of its current LTTCs, might be difficult to secure. The reasons why such risks might arise, and whether they are likely to be significant, are explained in Section 3.1.2.

### ***Gazprom's supplies to Europe: volumes and borders***

Having acknowledged that the problem of a missing capacity link is mostly relevant – and potentially acute – for Gazprom, compared to other suppliers of gas to Europe, the Russian company being the only supplier that needs to transport huge volumes of gas across multiple borders in order to deliver gas to its customers, this section further demonstrates the scale of this problem by explaining the geography and the magnitude of its cross-border flows.

Nearly all Russian gas that arrives at the EU border has to travel via one of the following western Commonwealth of Independent States (CIS) transit corridors: the Ukrainian, the Northern, and the Balkan:<sup>105</sup>

*The Ukrainian corridor* remains the largest export corridor for Russian gas to Europe (with operational transit capacity of around 120 bcm/y) although its importance is set to decline as Gazprom is increasingly flowing gas via Nord Stream 1 and 2 (and in the future also South Stream).

*The Northern (Belarusian) corridor*, represented by the Yamal-Europe pipeline (with transit capacity of 33 bcm/y) and the Northern Lights pipeline (with transit capacity of around 20 bcm/y) is the second largest corridor.

*The Balkan corridor* (which is a part of the Ukrainian corridor) is the smallest, and is used for transporting Russian gas to southern European countries and western Turkey.

The total operational transit capacity of these corridors is around 200 bcm/y.<sup>106</sup> While a major share of Russian gas exports to Europe involves transit, there are also direct exports: to Finland via a direct pipeline across the Russian-Finnish border and to

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<sup>105</sup> The only exception is gas exports to Finland via a direct pipeline, and small (albeit increasing) volumes of gas have been delivered to Germany via Nord Stream beginning from 2011.

<sup>106</sup> See Yafimava (2011), pp. 76-8 for details on transit capacities and actual transit flows via these corridors.

Turkey via the Blue Stream offshore pipeline across the Black Sea (with capacity of 16 bcm/y).<sup>107</sup>

**Map 1: Russian Gas Supplies to Europe: borders and delivery points**



Source: OIES.

Russian gas only becomes the property of European buyers once it has reached its delivery point(s) at their national borders, as specified in their LTSCs concluded with Gazprom.<sup>108</sup> Geographical location of delivery points for Russian gas far beyond the Russian border reflects a cold war political division in Europe (Map 1). LTSCs concluded between the then USSR and its ‘west’ and ‘east’ European buyers specify three major delivery points located on the western border of the new member states:

- Baumgarten (the Austria-Slovakia border),
- Malnow (the Germany-Poland border),
- Waidhaus (the Germany-Czech Republic border),

<sup>107</sup> See Stern (2006).

<sup>108</sup> Different LTSCs, concluded with buyers in the same country, may specify different delivery point(s). For a detailed map of the European gas transmission system, see the ENTSOG website, [www.entsog.eu](http://www.entsog.eu)

Four other major delivery points are located on the previous western border of the former USSR:

- Velke Kapusany (the Slovakia-Ukraine border),
- Drozdovichi (the Poland-Ukraine border),
- Beregovo (the Hungary-Ukraine border),
- Isakcha (the Romania-Ukraine border).

This is a list of only the major delivery points for Russian gas, in terms of gas volumes, (but there are many others). Nearly all delivery points remained unchanged when Gazprom's European LTSCs were renegotiated in the 1990s in the aftermath of the break-up of the USSR, and when they were extended during 2004-06 for an average of a further 20 years, at the request of European buyers.<sup>109</sup> Russian gas exports travelling via the Ukrainian corridor still predominantly arrive at Baumgarten, Waidhaus, and Velke Kapusany, whereas those travelling via the Northern (Belarusian) corridor arrive at Mallnow.<sup>110</sup>

Importantly, before reaching its delivery points, Russian gas has to cross between one and four borders, at least one of those being a border between an EU and non-EU country, and others – intra-EU borders (i.e. borders between EU member states). Tables 1 and 2 show the volumes of gas and the number of borders these volumes need to cross before they reach their delivery points. This serves as a good illustration of the sheer magnitude of Russian gas flows across multiple borders (and hence multiple IPs), and contributes to a better appreciation of Gazprom's capacity requirements, and its concerns about its ability to secure sufficient capacity at all IPs concerned, during (and after) the transition period from the old to the new EU regulatory framework.

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<sup>109</sup> Delivery points for deliveries to French buyers were changed from Baumgarten and Waidhaus to Mendelshaim on the French-German border in 2006 when supply contracts were extended.

<sup>110</sup> Gazprom has agreements with buyers at Mallnow which envisage the possibility of switching deliveries between the Ukrainian and Northern corridors in order to optimize the use of the transportation system in relation to demand.

**Table 1: Russian Gas Deliveries to Europe: volumes and borders crossed, 2011**

EU member states (various buyers)	Delivery points at borders	Volumes, bcm/y	Intra-EU borders and EU borders with non-EU countries	Number of borders to be crossed before reaching a delivery point (including a border at which gas is delivered)*
Austria	Baumgarten	4.9	Ukraine/Slovakia Slovakia/Austria	2
Belgium	Eynatten	7.4	Belarus/Poland Poland/Germany Germany/Belgium	3
Czech Republic	Lanzhot	6.9	Ukraine/Slovakia Slovakia/Czech	2
Finland	Imatra	3.8	Russia/Finland	1
France	Mendelsheim	8.6	Ukraine/Slovakia Slovakia/Austria Austria/Germany Germany/France or Belarus/Poland Poland/Germany Germany/France	4  or 3
Germany	Mallnow  Waidhaus  V. Kapusani	30.8	Belarus/Poland Poland/Germany and Ukraine/Slovakia Slovakia/Czech Czech/Germany or Ukraine/Slovakia	2  and 3  or 1
Greece	Sidirokastron	2.6	Moldova/Romania Romania/Bulgaria Bulgaria/Greece	3
Hungary	Beregovo	5.7	Ukraine/Hungary	1
Italy	Tarvisio	15.4	Ukraine/Slovakia Slovakia/Austria Austria/Italy	3
The Netherlands	Oude Statenzijl	4	Belarus/Poland Poland/Germany Germany/the Netherlands	3
Poland	Kondratki Drozdovichi	9.3	Belarus/Poland and Ukraine/Poland	1  1
Slovakia	Velke Kapusani	5.3	Ukraine/Slovakia	1
Bulgaria	Negru Voda	2.5	Moldova/Romania Romania/Bulgaria	2
Romania	Isakcha	2.2	Moldova/Romania	1
Slovenia	Cersak	0.5	Ukraine/Slovakia Slovakia/Austria Austria/Slovenia	3
Other Europe		7.3		
EUROPE		140.6		

Source: BP Statistical Review of World Energy, June 2012, Gazprom Export website, ENTSOG website, author's estimates

**Table 2: Russian Gas Deliveries to Europe: volumes and borders crossed (estimates), 2011**

Number of borders crossed to reach a border delivery point	Volumes, bcm/y
1	26.1
2	29.7
3	43.3
4	8.6

Source: author's estimates based on Table 1.

\*note that in these tables we cannot be sure of the exact route which gas may take, only the minimum number of borders which it needs to cross

Although the majority of Russian gas exports to Europe is still transited via the western CIS transit corridors, their importance has been declining since the Nord Stream 1 and 2 system<sup>111</sup> – two pipelines directly linking Russia and Germany across the Baltic Sea (with total capacity of 55 bcm/y) – began transporting Russian gas to Europe, with German Greifswald becoming a new delivery point (Map 2). The importance of western CIS corridors is set to decline further once the South Stream pipeline system becomes operational in 2015-20, and potentially Nord Stream 3 and 4. The South Stream pipeline system – potentially four direct pipelines linking Russia and Bulgaria across the Black Sea (with maximum total capacity of 63 bcm/y)<sup>112</sup> is envisaged to take the following routes – northern (Bulgaria–Serbia–Hungary, with a branch to Italy via Slovenia<sup>113</sup>; and southern (Bulgaria–Greece–Italy) (Map 3). As South Stream targets exactly the same region as the southern part of the Ukrainian/Balkan corridors, Gazprom will be able to re-route some of its flows via South Stream, thus reducing its transit dependence on Ukraine and on Moldova. With the new transit-avoidance capacity in place, Gazprom will have the possibility of the arbitrage between Nord Stream, South Stream, the Ukrainian, the Northern, and the Balkan corridors, thus significantly increasing its optionality as to which export routes to use for sending its gas to Europe.

As Gazprom will be increasingly using its new transit-avoidance export corridors, while its LTSC delivery points remain largely unchanged, its capacity requirements inside Europe might change, both in relation to IPs and volumes. However, securing sufficient capacity across Europe to deliver gas via new transit-avoidance corridors to existing delivery points has become problematic under EU competition law. Gazprom has already witnessed this while trying – and failing – to get 100% of capacity in the OPAL pipeline to transport Nord Stream gas, arriving at Greifswald, across Germany and the Czech Republic to the delivery point at Waidhaus.<sup>114</sup> Gazprom can expect to

<sup>111</sup> The Northern (Belarusian) corridor might have been an exception as Gazprom, having purchased 100% of the Belarusian transportation network in 2011, is interested in high utilisation of its capacity.

<sup>112</sup> The South Stream FID was taken in November 2012. See Gazprom (2012).

<sup>113</sup> Apart from a branch to Italy, the original project also envisaged a branch to Austria (for delivery at Baumgarten), but this was cancelled, reportedly due to Gazprom's failure to acquire a significant stake at the Austrian hub (CEGH) and also possibly due to regulatory difficulties when the new Austrian Gas Law was introduced in January 2013; it is possible, however, that the Austrian branch will be re-introduced at a later stage. See EGM (2012).

<sup>114</sup> It is our understanding that gas rerouted away from Ukraine and transported via Nord Stream is still being delivered at Waidhaus, where it was previously delivered when it was transited across Ukraine.

face similar problems with respect to onshore extensions of South Stream and Nord Stream 3 and 4 on the territories of EU and EnCT member states, should these pipelines proceed. Securing sufficient transportation capacity, particularly across a route of several IPs, could become even more problematic under the new EU capacity allocation regime, as stipulated by the draft CAM NC (Section 2.1). This problem could potentially be alleviated by means of a regulatory framework which could be developed specifically for incremental and new capacity; such a framework has been under consideration by European regulators since 2011 (Section 2.3).

**Map 2: The Nord Stream Pipelines**



Source: Honoré (2010).

**Map 3: The South Stream Pipelines**



Source: Honoré (2010).

### ***3.1.2 Transition from Point to Point to an Entry Exit System: changes in contracts and potential loss of capacity***

This section explains the potential implications of implementing the EE system on Gazprom's existing capacity contracts and capacity holdings. Existing capacity contracts (including Gazprom's LTTCs) are based on a PP system, whereas the Third Package prescribes an EE system, and European TSOs have moved, or are moving, towards the latter. Under an EE system, TSOs only sell capacity rights that they can guarantee (even for some EE combinations that are so unlikely as to not be credible). Therefore, when TSOs reassess capacities as a result of implementing an EE system, there might be some losses of capacity when compared with existing rights.<sup>115</sup> Furthermore, the CAM NC requires capacity holders to conclude bundling agreements (see Section 2.1.1) which also might impact the level of their capacity holdings.

#### ***Implications of the Implementation of Entry-Exit Regime: potential loss of existing capacity rights***

The implementation of an EE system will lead to changes in shippers' capacity requirements to deliver and accept gas. The system envisages the possibility of trading gas at a virtual trading point (VTP) (which can be a title transfer point for gas) with trading contracts executed there. Execution of trades at the VTP makes it necessary for suppliers/'upstream' shippers to have entry capacity, as after an entry tariff has been paid the gas is considered to be delivered at the VTP. Thus the changes in capacity requirements will necessitate the transformation of shippers' existing point to point (PP) capacity contracts into entry exit capacity (EE) contracts.

Under a *PP system* a seller or 'upstream' shipper (which has capacity up to the delivery point) delivers gas to the delivery point at the border flange (majority of delivery points in Gazprom's LTSCs are border flanges, see above) where it is bought by a trader(s) (who does not need capacity), this gas is then injected into a hub where it can be traded (either OTC or via exchange), and eventually bought by a 'downstream' shipper, who ships it across the transmission system (to a customer) on the basis of its PP contract concluded with a corresponding TSO (this 'downstream' shipper has intake/offtake capacity).<sup>116</sup> Importantly, under a PP system all trading takes place before gas enters the transmission system.<sup>117</sup>

Under an *EE system* trading takes place after gas has entered the transmission system, and gas can only be delivered into the transmission system if its owner has entry capacity. Likewise, gas can only be taken out of the system if its holder ('downstream' shipper/buyer) has exit capacity. Under EE a shipper needs to pay an entry tariff, and once the entry tariff has been paid gas is considered to be delivered at the VTP where it can be sold (either OTC or via an exchange) to a trader(s). The trader(s) will resell it to 'downstream' 'exit' shippers, which could be the same

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<sup>115</sup> Also, with changes in the geography of flows, with systems becoming more meshed and the volume of unidirectional transit flows decreasing, the level of existing capacity between and within zones might change as well.

<sup>116</sup> GAC (2012a).

<sup>117</sup> This is only a narrow definition of PP systems, and it does not include all the different possible arrangements under PP.

company or an affiliate of the seller, who have entry and exit capacity and pay an exit tariff. Thus in the transition from the old to the new system, the existing point to point capacity contracts will have to be split into an entry capacity contract and an exit capacity contract: an ‘entry’ shipper will need entry capacity and an ‘exit’ shipper will need exit capacity.

The mechanism of transformation of contracts from a PP into EE system could be as follows. If a trading contract only involves a physical seller and a physical recipient, a downstream shipper/buyer can sublet its entry capacity (which it no longer needs) to the upstream shipper/seller who needs it. If a trading contract is more complex e.g. involves traders without capacity, an anonymous capacity transfer process could be organised by either the VTP operator or by TSOs.<sup>118</sup>

There appears to be general agreement within the TSO community that implementation of an EE system might result in capacity losses by TSOs (20% being the most often cited figure, although as far as this author is aware no simulation analysis has been accomplished that would confirm this, or any other, quantitative estimate). The reason for losses of capacity is that under an EE system TSOs will only offer capacity that they can guarantee, whereas in practice they will have more capacity but will not be able to guarantee it.<sup>119</sup> Loss of capacity might occur both between zones (i.e. the amount of capacity to be allocated at the IPs) and within an individual zone (i.e. the amount of capacity available for transporting gas inside the zone). Therefore, once the existing PP contracts are transformed into EE contracts, the resulting capacity holdings might become smaller than they were when capacity was initially contracted under PP contracts. As a result, a shipper might have less capacity for transporting its gas under its existing capacity contract once this contract has been transferred from a PP to an EE system.

The possibility of a reduction of capacity bookings under existing capacity contracts could result in a situation where resulting capacity holdings in the amended contracts will not be sufficient for guaranteeing delivery under existing LTSCs. Until the EE system is implemented, it will not be possible to know definitively the extent of losses (if any) at each IP and within each zone.<sup>120</sup> This creates significant uncertainty for market players, especially for Gazprom, due to the number and scale of its existing capacity contracts (LTTCs), which in turn underpin its LTSCs. Furthermore, many of these capacity contracts are ‘transit’ contracts under which capacity has been booked across multiple borders (IPs).<sup>121</sup> Should there indeed be loss of capacity on existing bookings, there is a risk of failing to deliver under LTSCs. Therefore the potential impact of existing capacity holdings due to the implementation of an EE system needs to be resolved.

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<sup>118</sup> GAC (2012e).

<sup>119</sup> However, it is our understanding that interpretation of this provision might differ between member states depending on the national implementation of the *acquis* – for example, some member states consider a category of ‘provisionally firm’ capacity which TSOs will be offering to network users alongside firm capacity.

<sup>120</sup> Notably, it is not known yet how many zones will be formed and what their borders will be.

<sup>121</sup> In September 2010, at the 18<sup>th</sup> Madrid Forum, the EC invited (the then) ERGEG to provide an overview of the transit contracts in all member states which are still in force, and to propose how to bring these contracts in line with the *acquis*.

***Implications of Mandatory Capacity Bundling: potential changes to the delivery points specified in the existing LTSCs***

The CAM NC introduced a bundling requirement: future cross-border capacities (exit capacity from one zone and entry capacity to another zone) should be bundled and allocated as a single product ‘bundled EE capacity’. The rationale for this is to reduce bottlenecks resulting from overbookings on one side of the border (set out in the Energy Sector Inquiry<sup>122</sup>). In the existing capacity contracts (once they have been adjusted to meet new capacity requirements, see above) shippers need to conclude ‘bundling agreements’ so that their respective exit and entry capacities become bundled by a ‘sunset date’, e.g. capacity bookings will need to be transferred to bundled bookings. Accomplishing this transfer will require four parties (two adjacent TSOs as well as seller and buyer) to amend their capacity contracts (to adjust and realign their capacity bookings) and potentially also amend their supply contracts (for example, to change delivery points) by the ‘sunset date’.

It is argued by many stakeholders that mandatory bundling of existing bookings is only possible when capacity contracts on both side of the cross-border point are matched both in respect to volume and duration, and that even then renegotiations of capacity and supply contracts (including changes of delivery points and reallocation of incurred costs etc) will not be easy to accomplish. This task becomes even more difficult when a supplier has one contract to accommodate several buyers with different contract terms.

Importantly, bundling will also mean that it will not be possible to book exit and entry capacity as two separate products at the cross-border IP (flange) between two zones; it will only be possible to book a bundled product. This means that it will not be possible to maintain the delivery point at the flange as, once an entry tariff is paid, gas is considered to be delivered at the VTP. Therefore, although nothing in EU existing gas regulation outlaws delivery to the cross-border (flange) delivery points in Gazprom’s LTSCs, the requirement of bundling of existing (by ‘sunset date’) and new (as it becomes available) capacity, will provide strong incentives for replacing the old delivery points at a cross-border flange by the VTP.

It is important to understand what happens to gas delivered to the VTP and where title transfer in respect of this gas will occur: title transfer can occur at the VTP, with gas offered for sale on a trading platform; or at the VTP with respect to supply contracts for delivery to final customers; or at entry or exit points with respect to supply contracts. This might differ depending on the national implementation of the entry exit system. For example, in Austria national regulation requires that title transfer is exclusively at the VTP (it is our understanding that in Austria all gas that enters the system needs to be delivered at the VTP first, following which it can be re-delivered to a final customer, i.e. the VTP cannot be ‘bypassed’ with delivery being made directly to the final customer), whereas in Germany it can also occur at the entry and exit points. In is important (for a supplier and for a customer) to have certainty that, independent of which national implementation model is chosen, customers will not be ‘prevented from taking delivery of gas either via title transfer at the hub with an OTC (bilateral) contract, or physical delivery at entry or exit points’.<sup>123</sup>

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<sup>122</sup> EC (2006).

<sup>123</sup> GAC (2012f).

### ***3.1.3 The Implications of Implementation of an Entry Exit system and Capacity Bundling for Gazprom***

Due to potential losses of capacity as a result of implementation of the EE regime and meeting the requirement on bundling, it is possible that once Gazprom's existing capacity contracts (LTTCs) are amended, the resulting capacity holdings will be smaller than under the previous system, and become insufficient for deliveries under existing LTSCs. Therefore, additional capacity might need to be booked under new capacity contracts (in addition to capacity already booked under existing contracts); this additional capacity will have to be allocated by means of auctions and, in order to secure enough total capacity for deliveries under existing LTSCs, a supplier/shipper would have to be successful at all auctions at all IPs.

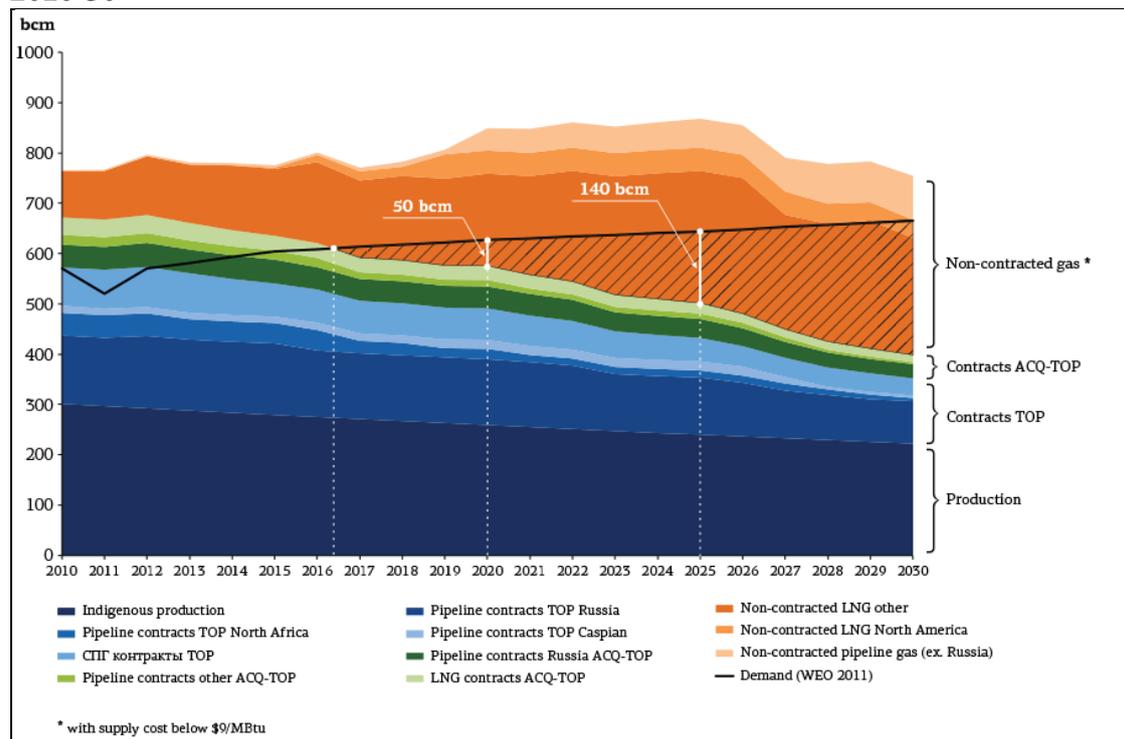
Although the risk of (objective) capacity loss and the risk of not securing additional capacity to compensate for this loss appear real, it is difficult to tell how significant these risks might be. On the one hand, given that most flows are transit flows, particularly in the eastern part of Europe, where they are effectively determined by Gazprom, even if some losses of capacity occur, the gas should still flow without difficulty. On the other hand, should the geography of flows in Europe change substantially<sup>124</sup> – both in terms of direction and volume (and indeed the GTM envisages such changes in the geography of flows) – the losses of capacity might become more significant thus making the issue of securing sufficient capacity under existing LTSCs potentially more problematic for Gazprom and potentially creating a need for incremental physical capacity to be built..

Overall, although it is impossible to argue definitively what the level of risk might be, there are good reasons to believe that this may not be high. While there is a clear mismatch between Gazprom's LTSCs and LTTCs in respect of time frame – as the former have expiry dates between 2027 and 2036, whereas the latter have expiry dates between 2020 and 2025, it is possible that a mismatch in respect of volumes is much less pronounced. Indeed, given that the volumes of gas contracted under LTSCs begin to decline around 2025 (i.e. just when the LTTCs begin to expire), with decline accelerating in the mid-2020s, resulting in contracted volumes reduced by one third in 2030 compared to 2012 (Figure 1), one could argue that the risk of Gazprom not being able to obtain sufficient transportation capacity for these (progressively declining) volumes may be quite low.

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<sup>124</sup> According to ACER 'any changes to volumes of capacity being released to the market can lead to changes in the flows throughout the system. Larger volumes of additional capacity including new projects coming on stream, might also lead to changes in the supply mix structure. Account needs to be taken on the impact of competition and the changed market dynamics which will exist as a result of this'. See ACER (2011b).

**Figure 1: The Changing Profile of Gazprom’s Export Volumes Under LTSC, 2010-30**



Source: Mitrova (2012).

The existence of LTSCs, which do not expire until 2025-35 provides Gazprom with a strong rationale and a legitimate reason to request the EC, ENTSOG and ACER for assurances that the transformation of the EU regulatory framework – in particular, in relation to the market for transportation capacity – will not result in a situation when Gazprom’s existing capacity holdings (contracted under existing capacity contracts, LTTCs) become insufficient for delivery under the existing LTSCs. However, should its LTSCs be terminated or renegotiated, this would significantly weaken Gazprom’s argument. Although in the future Gazprom might face the same problem of securing sufficient transportation capacity in respect of gas delivered under new supply contracts (which are likely to be of shorter duration than traditional LTSCs), which might be concluded either in parallel with existing LTSCs or upon their expiry, Gazprom’s justification for requesting assurances that it will be able to get sufficient transportation capacity for delivering volumes specified in these contracts, would be weaker.

As new supply contracts will be concluded under the new regulatory environment, if Gazprom will not be able to secure enough transportation capacity to supply/sell as much gas as it wants (in addition to gas already contracted under existing LTSCs), then it will only conclude new supply contracts for those volumes for which it can be sure it can get sufficient transportation capacity. Other suppliers of gas to the EU will be in the same situation as they will have to conclude their supply contracts in the same regulatory framework.

The only (but important) difference is that gas which would be supplied by Gazprom under new contracts will still have to cross more borders than any other suppliers’ gas, due to pipeline geography. However, as the CAM approach is exclusively based on auctioning of hub-to-hub capacity, should demand for capacity be higher than

supply, there is a risk that capacity will not be secured on all IPs. This problem, however, would only arise in the event of a series of constrained auctions, and the ascending clock nature of the auctions would mean that Gazprom would have the option of bidding high enough to secure the capacity.<sup>125</sup>

Furthermore, the necessity of crossing multiple borders might not necessarily be the case in the future, as the delivery points in Gazprom's new supply contracts might be different from the delivery points in its existing LTSCs (at border flanges, see Section 3.1.1). Should delivery points change to hubs in Gazprom's new LTSCs, the number of borders Gazprom's gas would have to cross before reaching a certain hub might be fewer than it is now, and therefore justification for a special procedure of coordinated allocation of capacity at a route of IPs specifically for Gazprom might be weaker than is the case for deliveries under Gazprom's existing LTSCs. It is also possible that the old delivery points might not survive in Gazprom's *existing* contracts as, although the EU regulation does not outlaw the old delivery points (e.g. delivery at a flange), mandatory bundling of existing capacity (by 'sunset date') and new capacity, as stipulated by the CAM NC, provide strong incentives for moving to hubs (see above).

This analysis suggests that the issue of securing enough capacity for delivery under new supply contracts appears to be less crucial for Gazprom. Furthermore, in relation to new supply contracts, the problem of sufficient transportation capacity may or may not arise, and there is enough time to see whether CMP (both short- and long-term UIOLI) will work well and prevent that problem from occurring; also, even if there will be a problem, there is sufficient time to develop a mechanism, which would address it. However, this does not apply to South Stream; if Gazprom builds the offshore section before achieving clarity and confirmation of the availability of sufficient downstream capacity it risks at best delays in the start-up of South Stream and at worst an expensive stranded asset.

Thus the problem of securing sufficient transportation capacity under new EU regulation for deliveries under Gazprom's existing LTSCs is the most crucial and urgent issue for Gazprom – and for European buyers (as potential capacity deficits at certain IPs might prevent their contracted Russian gas from being delivered) – and hence needs to be resolved.<sup>126</sup>

Overall, our conclusion is that as a result of implementation of the EE system and the bundling requirement, Gazprom (and other suppliers/shippers) might suffer losses of capacity under their existing capacity contracts, which might amount to expropriation of contractual rights<sup>127</sup> and impact negatively on its ability to deliver on its LTSCs.

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<sup>125</sup>“Ascending clock” auction means an auction in which a registered network user places requested quantities against defined price steps, which are announced sequentially.

<sup>126</sup> It is worth noting that if the delivery points, as specified in Gazprom's existing LTSCs, were located on the Russian western border, then Gazprom would no longer be responsible for ensuring that its gas will reach its customers in Europe, and hence would not have the problems of capacity mismatch and missing capacity links. The suggestion that delivery points should be moved to the Russian western border was afloat in the aftermath of western CIS transit disputes (particularly the January 2009 Russia-Ukraine transit crisis). However, both Gazprom and its European counterparts have rejected it, as Gazprom wanted to have direct access to European markets whereas European buyers did not want to have the responsibility for making transportation arrangements, particularly across the territories of western CIS countries.

<sup>127</sup> See the ENTSOG legal group opinion on capacity bundling – ENTSOG (2012c) – discussed in Section 2.1.

Importantly, the Third Package does not guarantee (explicitly or implicitly) continuation of these contractual rights. Irrespective of whether this risk is significant, a legally-binding assurance from appropriate EU institutions that such expropriation will not occur or, if such assurance is not possible, a mechanism whereby Gazprom will be compensated in the event of its inability to deliver under its LTSCs due to shortage of capacity incurred as a result of adjustment of its existing capacity contracts in line with the new EU regulation, is necessary.

### ***3.1.4 Coordinated Open Seasons Proposal and the Way Forward***

Given that the IA procedure might result in a missing capacity link i.e. where a shipper could get capacity at all IPs apart from one (see Section 2.3.2), thus putting its ability to deliver gas in line with its supply contracts in jeopardy, Russia/Gazprom suggested developing a ‘coordinated Open Seasons’ (COS) procedure.<sup>128</sup>

The COS procedure proposes that European TSOs should hold Open Seasons on a regular basis, in order to evaluate market demand for transportation capacity – both existing and new – at all IPs across the EU.<sup>129</sup> Two layers of coordination are involved here: between TSOs, and across several EE zones. Evaluation of market demand for both existing and new capacity (‘coordinated capacity’) – rather than only for new capacity as traditionally accomplished by means of a classic OS procedure (Section 2.3.2), and conducting this procedure at all IPs simultaneously, is the main novelty that distinguishes the COS procedure from the classic OS procedure. If this exercise reveals a level of market demand exceeding available capacity<sup>130</sup> (i.e. capacity bookings exceed available capacity), TSOs will have to invest in new capacity necessary to meet the demand indicated by capacity bookings. These capacity bookings are to be binding on both TSOs and shippers, independently of whether these bookings are supported by a supply (commodity) contract and/or a financial guarantee. If this exercise reveals that demand does not exceed available capacity, non-discriminatory procedures (for example, auctions) would be implemented.

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<sup>128</sup> The COC proposal – GAC (2012g) – was also made by the Russian side within the EU-Russia Gas Advisory Council format, and is under discussion. The title ‘Coordinated Open Seasons’ appears to be somewhat of a misnomer, as the COS procedure is suggested to be used for accessing demand and possible investment in existing *and* new capacity, whereas traditionally the classic Open Seasons procedure applies only for accessing demand and possible investment in new capacity (Section 2.3.3).

<sup>129</sup> GAC (2012g).

<sup>130</sup> The COS paper suggests defining ‘available’ capacity as in the draft Transit Protocol of the Energy Charter Treaty (ECT): the total physical operating capacity of the Energy Transport Facilities, less the physical operating capacity: (a) necessary for the fulfilment of obligations by the owner or operator of the Energy Transport Facilities under any valid and legally binding agreements relating to the transportation of Energy Materials and Products; (b) necessary for the fulfilment of any other binding obligations pursuant to laws and regulations to the extent those laws and regulations are intended to ensure the supply of Energy Materials and Products within the territory of a Contracting Party; (c) regarding hydrocarbons, and subject to requirements for open access to Energy Transport Facilities applicable within a Contracting Party necessary to account for the reasonable requirements, including forecasted requirements, for the transportation of Energy Materials and Products which are owned by the owners or operators of the Energy Transport Facilities or their Affiliates; and (d) necessary for the efficient operation of the Energy Transport Facilities, including any operating margin necessary to ensure the security and reliability of the system, see ECS (2010). However, Gas Regulation 715 has a much more succinct definition of available capacity: ‘the part of the technical capacity that is not allocated and is still available to the system at that moment’, see Gas Regulation 715.

The authors of the COS proposal suggest that, due to the high degree of coordination between TSOs, the COS procedure would provide adequate guarantees to shippers that there will be no mismatches of entry and exit capacities either within or between the EE zones. Also, it would assure shippers of having enough capacity to deliver on their supply contracts, eliminating the risk of any missing capacity links. Under the COS procedure, a shipper would be able to signal TSOs its demand for capacity on a route of IPs across the EU in one step – for example, by means of coordinated bidding at these IPs – and should it be revealed that requested capacity is missing at one or more IPs, TSOs will be obliged to invest. The idea of centralised dispatch has been suggested as a technical solution allowing implementation of the COS proposal in practice.<sup>131</sup>

The COS proposal essentially offers a centralised system for allocation of *combined* available (i.e. not yet allocated) and new capacity. Given that the COS proposal is silent on whether any action is to be taken in relation to capacity *already* allocated to parties of existing (legacy) contracts (historically, on the basis of ‘first come first served’ and distance-based tariffs under point-to-point systems), it tacitly assumes the continuation of these contracts intact. This, and the fact that the COS procedure envisages auctions for available capacity only if demand does not exceed available capacity, clearly runs contrary to the CAM NC provisions. Indeed, the CAM NC stipulates that auctions are the only means for allocation of existing capacity (i.e. technical and additional, not only available (not yet allocated) capacity). The main rationale for this is ensuring that all existing capacity is allocated on a competitive basis, reinforced by CMP for eliminating and preventing contractual congestion. Furthermore, in so doing the intention of the CAM NC is that not only while concluding new contracts that capacity at IPs should be allocated on the basis of auctions as a bundled product, but also existing contracts should be amended so that capacity already booked under them should be bundled (‘sunset clause’), and that all new capacity should be auctioned as a bundled product.

It appears that the COS procedure, suggested by the Russian side, aims at circumventing auctions altogether as the means of capacity allocation, which might reflect the Gazprom’s lack of trust in the results that such auctions might produce (given its negative past experience during the 2006 auction for capacity in the TAG pipeline<sup>132</sup>), as well as the lack of confidence that new CMPs (in particular, UIOLI) will work efficiently. While these concerns might be justified, by offering mechanisms clearly incompatible with the CAM NC (which is already within comitology at the time of writing and is expected to enter into force in 2013), the COS proposal fails to address Gazprom’s main immediate and more concrete problem, namely how to guarantee enough transportation capacity and hence ability to deliver on its *existing* (supply) contracts (LTSCs).

By combining, and blurring, the distinction between the two propositions – capacity for delivery under existing LTSCs and capacity for delivery under new supply contracts – Russia’s COS proposal runs the risk of not getting an appropriate response from the EU on its real and urgent problem of securing access to sufficient (existing and new) capacity for delivery under existing LTSCs. On its part, the EU needs to

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<sup>131</sup> GAC (2012h).

<sup>132</sup> ICIS (2006).

suggest/clarify a set of mechanisms that would resolve this problem, as a failure to do so would be detrimental to EU transportation – and hence supply – security.

As noted in Section 2.3.2, CEER is exploring ‘a more extensive elaborated OS procedure’ for complex cross-border projects. It is not clear whether CEER will take the COS proposal into account while developing this new OS procedure. So far, however, the proposal has not been received with much enthusiasm and appears to have been dismissed both by ACER and ENTSOG at the stage of preparation of Framework Guidelines on CAM and the CAM NC. Indeed, ACER did not include the COS procedure in the Framework Guidelines (despite the request made by Russia), and subsequently ENTSOG was not enthusiastic about it as, according to CEER, the CAM Network Code ‘discussed the option of holding auctions over a "route of interconnection points" but that this option was dismissed...’<sup>133</sup>

The September 2012 draft CAM NC (see Section 2.1.2) stipulates that ‘each auction process... shall allocate capacity independently of every other auction process except where, subject to the agreement of the directly involved transmission system operators and the approval of relevant national regulatory authorities, competing capacity... is allocated’ (Art. 4.1.2).<sup>134</sup> Given that any new market based investment procedure for allocation of new capacity would have to be compatible with the CAM NC, the above CAM NC wording suggests that the potential option for coordinated capacity allocation auctions along a route of IPs is excluded. Under this wording, the only exception, when coordination between auctions at different IPs would be possible, is allocation of competing capacities, which exist ‘if and where there is a relationship between the availability of capacity in two or more concurrent auctions’. However, it might not necessarily be the case that there will be competing capacities at all the IPs where a shipper bids for capacity. Nonetheless, there appears to be an understanding shared by ACER/CEER, ENTSOG, and the EC, that some supply (commodity) contracts, with delivery points that necessitate transportation across multiple borders, might justify coordination of capacity allocation. It is not currently clear how this contradiction is to be resolved in the *acquis*.

### 3.2 Regulatory Treatment of New Capacity

In respect of capacity reservation and booking, it is important to distinguish between existing capacity, incremental capacity (added by expanding capacity at an existing IP), and new capacity (created by constructing new IPs). Having an adequate regulatory regime for both incremental and new capacity is extremely important for ensuring a smooth transition to the new model of the EU gas market, as set out in the Third Package and the GTM, particularly as the implementation of an EE system might result in the loss of existing capacity and hence might necessitate construction of incremental/new capacity.

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<sup>133</sup> CEER (2012a).

<sup>134</sup> ‘Competing capacities exist if and where there is a relationship between the availability of capacity in two or more concurrent auctions. In this case the available capacity in one of the concerned auctions cannot be allocated without fully or partly reducing the available capacity in the other concerned auctions. As a result, the final allocation of capacity in one auction depends on the market demand reflected in bids submitted during that auction, and in the other concerned auctions.’ The September 2012 draft CAM NC (Art. 4.1.3), ENTSOG (2012d).

The CAM NC has developed a regime governing existing capacity. CEER is developing an instrument that would govern incremental capacity.<sup>135</sup> However, in early 2013, there appeared to be no specific regulatory instrument that would be applicable to, and would govern, new capacity in all new pipeline systems, particularly multi-border long-distance pipelines across several IPs. European regulators, and CEER in particular, have acknowledged the importance of developing a regulatory instrument for new capacity, and have started work on this issue, particularly in the context of revising the existing OS procedure (stipulated by the 2007 GGPOS<sup>136</sup>); first results of this work are expected in 2013.

Until the new OS procedure is elaborated, there is no market-based procedure which could be applied to such complex projects, apart from the existing OS procedure. Given that the existing OS procedure was elaborated before the Third Package came into force, and before the CMP and CAM NC (and other NCs) were drafted, the projects carried out under this procedure will have to comply with all the requirements of the *acquis* which has since come in force, including on tariffs and TPA. Whatever new OS mechanism might be developed for addressing the issue of new capacity, it will have to be consistent with the CEER mechanism for incremental capacity based on integrated auctions (IA) (under development). The new OS mechanisms for new capacity will have to be consistent with the CAM NC, the TYNDP, and the Energy Infrastructure Package (including a proposal for a Regulation on Guidelines for Projects of Common Interest (PCIs)). The part of the Russian COS proposal (Section 3.1.4) on the issue of new capacity, particularly in respect of multi-border pipelines, can also feed into the EU work on the new regulatory instrument for new capacity. Importantly, until and unless a new OS mechanism for new capacity is developed, new capacity would continue to fall under the regulatory framework provided by the CEER mechanism for incremental capacity).<sup>137</sup>

Although the issues of multi-border pipelines and the regulatory treatment of new capacity are of interest for all market players, they are of prime concern for Russia, which is the only supplier that is currently making (and proposing to make) substantial investment in new pipelines to deliver gas to EU countries (the possible construction of Nord Stream 3 and 4, and the start of construction of South Stream). Should these supplies be required by EU buyers, it is important to ensure that they will not be prevented by obstacles created by an inadequate regulatory regime for new capacity, which would compromise EU gas transportation, and hence supply, security. Therefore, we conclude that it is important to ensure cooperation between the Commission, ACER and ENTSOG on one side, and Russia on the other, so that the EU instrument for new capacity would address Russian concerns.

Interestingly, although the EU has not yet developed a regulatory instrument applicable to new capacity in *all* new pipelines, it has actively pursued an alternative (narrower) approach of developing a fast-track procedure for selected new infrastructure projects. In October 2011, the EC developed a proposal for a new Regulation on Guidelines for trans-European energy infrastructure (Infrastructure

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<sup>135</sup> CEER (2012a).

<sup>136</sup> ERGEG (2007).

<sup>137</sup> Particularly, as the CEER paper says that its intention is to cover both incremental and new capacity, and that that proposals it seeks to develop could apply to both, CEER (2012a).

Regulation),<sup>138</sup> which stipulates the provisions for regulatory treatment, accelerated permitting procedures, rules for cross-border cost allocation, and eligibility for EU financial assistance. The Regulation is expected to enter into force in 2013, subject to approval of the Parliament (early 2013) and the Council (informal agreement of both the Parliament and the Council was reached in November 2011).<sup>139</sup>

### *Projects of Common Interest*

The draft Infrastructure Regulation advances the concept of ‘energy infrastructure priority corridors and areas’ and proposes that favourable regulatory treatment should be awarded to the ‘Projects of Common Interest’ (PCIs) necessary for implementing these corridors and areas (Art. 2).<sup>140</sup> A Regional Group established by the EC will identify such PCIs, and each proposal requires the approval of the member states of the territories to which it relates. Finally, the EC will establish the list of PCIs (to be reviewed and updated every two years), with the first list to be adopted by 1 July 2013. In respect of gas (and electricity) infrastructure PCIs, at least 6 months prior to its adoption date the list shall be submitted to ACER. The proposed PCIs also should be part of the latest available TYNDP (developed by ENTSOG). Within two months of receipt ACER is required to submit its opinion on the list to the EC, taking into account the results of ENTSOG work on the TYNDP.

The Infrastructure Regulation stipulates a certain set of *general* criteria with which the potential PCIs need to comply (Art.4.1): necessity of the project for the implementation of the priority corridors and areas; economic, social and environmental viability of the project; involvement of at least two member states in the project ‘either by directly crossing the border of one or more member states or by being located on the territory of one member state and having a significant cross-border impact’ (e.g. which ‘concerns investment in reverse flow capacities or changes the capability to transmit gas across the border(s) of the concerned member state by at least 10%’).

The Infrastructure Regulation also stipulates that the potential PCIs must ‘contribute significantly’ to at least one of the following specific criteria (Art. 4.2(b)): market integration, interoperability and system flexibility; security of supply (inter alia through diversification of supply sources), competition (inter alia through diversification of supply sources), supplying counterparts and routes; sustainability. The Regulation also contains instructions as to how each of these criteria is to be measured, including the impact of the potential PCI on the HHI and N-1,<sup>141</sup> although it does not quantify specific levels.<sup>142</sup>

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<sup>138</sup> EC (2011c).

<sup>139</sup> European Council (2012).

<sup>140</sup> As far as gas pipelines are concerned the ‘project’ is defined as pipelines aiming at building new infrastructure or reinforcing or refurbishing existing infrastructure – so it includes both incremental and new capacity (Art.2).

<sup>141</sup> For definition of the HHI index see footnote 20. The N–1 formula describes ‘the ability of the technical capacity of the gas infrastructure to satisfy total gas demand in the calculated area in the event of disruption of the single largest gas infrastructure during a day of exceptionally high gas demand occurring with a statistical probability of once in 20 years’ and is defined in Regulation (EU) 994/2010 concerning measures to safeguard security of gas supply and repealing Directive (EC) 2004/67 [2010] OJ L 295/1 (“Security of Supply Regulation 994”).

<sup>142</sup> Annex IV (a,b,c,d) of the Regulation.

The Regulation envisages a fast-track permitting procedure for PCIs, by giving responsibilities to one competent authority within each member state to ‘coordinate and oversee the permit-granting process, setting minimum standards for transparency and public participation’, and fixing its maximum allowed duration.

As far as regulatory treatment of PCIs is concerned, the Regulation envisages the following. ENTSOG is to develop methodology for a harmonised system-wide cost benefit analysis (CBA) at the EU level, ACER is to provide an opinion on this to the EC, and the EC is to provide its own opinion, in line with which ENTSOG will adapt its methodology and re-submit to the EC for approval; once approved the methodology is to be published by ENTSOG. This methodology is to be applied to all CBA under all subsequent TYNDPs. The Regulation stipulates that the investment costs related to a PCI are to be ‘borne by the TSO(s) of the member state(s) to which the project makes a net positive impact, and to be paid by network users through tariffs for network access’ (Art.13.1). NRAs are to take a joint decision on approval of the investment and the allocation of investment costs, as well as their inclusion in tariffs; should NRAs fail to do so the decision is to be taken by ACER. The Regulation stipulates that these provisions do not apply to PCIs, which will have received an exemption under Art.36 of the Third Gas Directive.<sup>143</sup>

The list of priority corridors and areas is annexed to the Regulation, and includes, as far as gas pipeline infrastructure is concerned, the following corridors: north-south gas interconnections in western Europe, north-south gas interconnections in central eastern and southern eastern Europe, the Baltic energy market interconnection plan for gas, and the southern gas corridor. The fact that the Regulation defines the southern gas corridor as ‘transmission of gas from the Caspian Basin, Central Asia (as well as the Middle East and the Eastern Mediterranean Basin) to the Union to enhance diversification of supply’ suggests that it was not the Regulation’s intention to consider the South Stream pipeline, which intends to carry (primarily) Russian gas to the EU, as one of the pipelines that might constitute the southern gas corridor.<sup>144</sup> This suggests that it is unlikely that South Stream will appear on the list of PCIs. Thus, despite the fact that Gazprom is the only market player currently making significant investment in new pipeline infrastructure for deliveries of gas to the EU, of which South Stream might become the major example<sup>145</sup>, it is unlikely that this project will be able to benefit from the favourable treatment provided by the Regulation.

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<sup>143</sup> It is possible that the same project might apply for – and get – both a PCI status and an exemption under Art. 36 of the Third Gas Directive. Given that the criteria for granting a project a PCI status or an exemption are overlapping, it would seem that if a project were to be granted an exemption, it would be difficult to refuse it a PCI status, and vice versa. Moreover, if a project were to be refused an exemption, it would be difficult to grant it a PCI status.

<sup>144</sup> Though, one could argue that if South Stream will carry some non-Russian gas as well, it could be considered as forming part of the priority southern gas corridor, as defined by the Infrastructure Regulation.

<sup>145</sup> It is unclear whether South Stream has started to invest in the offshore section as, although it took FID in November 2012, at the time of writing there was no evidence that steel pipe had been ordered for construction of the offshore section.

### *Exemptions under Art. 36 of the Third Gas Directive*

The analysis conducted above suggests that, in the absence of a generic regulatory framework for all new capacity, the only possibility to construct large multi-country pipeline infrastructure in Europe is via the exemption regime under Art.36 of the Third Gas Directive (which replaced Art. 22 of the Second Gas Directive). The exemption procedure under Art. 36 (briefly alluded to in Section 2.1.1) is reviewed below.

Art. 36 of the Third Gas Directive states that ‘major new gas infrastructure (new infrastructure refers to infrastructure not completed by 4 August 2003), i.e. interconnectors, LNG and storage facilities, may, upon request, be exempted, for defined period of time from certain provisions of the Directive, including from regulated TPA (Arts. 32, 33, 34) and unbundling of TSOs (Art. 9). Given that Art. 36, uses the abbreviation ‘i.e.’ – ‘that is’ – before listing the liable categories, it can be argued that the list of liable categories is exhaustive. In order to be exempted, this infrastructure would have to meet the following criteria: enhance competition in gas supply and security of supply, be too risky to be invested in unless exempted, be owned by an entity legally separate from the system operators in whose systems it will be built. This infrastructure would also charge its users, and its exemption should not be detrimental to competition, or the effective functioning of the internal market or of the regulated system to which it would be connected. The Directive stated that an exemption may be granted not only to new infrastructure, but also to ‘significant increases of in capacity in existing infrastructure’ and to ‘modifications of such infrastructure which enable the development of new sources of gas supply’ (thus both incremental and new capacity projects could be exempted).<sup>146</sup>

The Third Gas Directive stipulated the possibility for the NRAs to decide on exemption, but also provided for member states to make such decisions based on the opinion submitted by the NRAs or the Agency for the Cooperation of Energy Regulators (ACER) (Art. 36.3, 36.7).<sup>147</sup> Before granting an exemption, the regulatory authorities would have to decide upon the rules and mechanisms for management and capacity allocation, with these rules to include the obligation to offer unused capacity to the market, and to require users of the infrastructure to be entitled to trade their contracted capacities on the secondary market.<sup>148</sup>

Unlike the Second Gas Directive, the Third Gas Directive obliged the regulatory authorities to notify the EC not only about every exemption decision, but also about any exemption request (Art. 36.8). The Directive also provided the EC with more time for taking a decision on whether to require the regulatory authority to amend or withdraw the decision to grant an exemption; and also made the EC’s decision final and binding (Art. 36.9).

Importantly, the Third Gas Directive did not provide any quantitative criteria for granting an exemption. Like the Second Gas Directive, it is not specific on the financial or volumetric characteristics of projects, as it simply refers to ‘major’

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<sup>146</sup> The Directive also left in place the exemptions from TPA granted under art. 22 of the Second Gas Directive until their expiry.

<sup>147</sup> Established by Regulation (EC) No 713/2009.

<sup>148</sup> Congestion Management Procedures, see Gas Regulation 715.

infrastructure and ‘significant increases in capacity’. Given that *all* infrastructure projects in the gas sector *are* costly – and hence qualify for being called ‘major’ – one could argue that *any* infrastructure project could be exempted. Indeed, the lack of quantitative specifics on costs or technical characteristics in the Second Gas Directive, made it possible to award exemptions to projects of a relatively small magnitude, such as the Bacton–Balgzand pipeline (BBL)<sup>149</sup> (the first project that was granted an exemption under Art. 22 of the Second Gas Directive in 2005) – the cost of which was only €0.5 billion, which is a very small investment by gas industry standards. Granting an exemption to the BBL project sent a message that a relatively inexpensive project can get an exemption if it makes a good case for meeting the set criteria, and made it potentially very awkward to refuse an exemption to *any* project.

The high degree of EC discretion in these matters is illustrated by its decision to grant an exemption to the Nabucco pipeline. Nabucco, which was originally envisaged to bring gas from the Caspian littoral states to Europe across Turkey – and which does not fit into any category listed under Art. 22 (it is not an interconnector, as it originates outside the EU borders, nor is it an LNG or storage facility) – secured exemptions from all member states involved (Austria, Hungary, Romania, and Bulgaria), and their comfort letters were deposited with the EC, which approved them in 2008–9 (albeit restricting to 50% of capacity). The fact that Nabucco was granted an exemption despite the dubiousness of it fitting the list of liable categories of infrastructure, as well as the questionability of its added value for EU supply (and transit) security – as it would cross a number of countries belonging to different regulatory/legal regimes and having a history of transit problems – suggests that the EC believed that this pipeline to be in the best interest of the EU and hence made a political decision to support this project. It also suggests that the process of granting or refusing an exemption lacks transparency and objectivity (due to the Directive’s lack of financial and volume characteristics).

The exemption decisions on the original Nabucco pipeline were extended to the Nabucco West pipeline under Art. 36 of the Third Gas Directive (as the original exemption could not automatically be applied to the new pipeline) with some modifications.<sup>150</sup> Granting the Nabucco West pipeline a separate exemption would have made it very difficult for the EC to refuse an exemption to the South Stream pipeline, should the South Stream consortium apply for it.<sup>151</sup> (The latter indicated that it might apply for an exemption in 2011 but, by April 2013, it had not done so.) A refusal of an exemption to South Stream on the grounds that it is not an interconnector would be awkward, because Nabucco West is not an interconnector either. Refusal on the grounds that it is not a major project would also be awkward, as its costs are about ten times higher than those of the exempted BBL. However, South Stream has undermined its own case for an exemption by taking FID in November 2012, allowing European regulators and the EC to argue that South Stream does not fit one of the major exemption conditions under Art. 36, namely that investment would not take place without an exemption.

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<sup>149</sup> The UK–Netherlands Interconnector.

<sup>150</sup> Interfax (2012).

<sup>151</sup> The Nord Stream consortium did not apply for an exemption, while on 25 July 2008 Opal Nel Transport applied to the German Federal Network Agency (BNetzA) for an exemption for OPAL and the NEL – the two onshore pipeline links for the Nord Stream pipeline; on 25 February 2009 the request was (largely) granted in respect to OPAL but rejected in respect to NEL; the EC has reduced the OPAL exemption to 50% of capacity, see footnote 101.

This analysis suggests that unless a new OS procedure for multi-border long-distance pipeline projects is developed, which would provide an adequate and favourable regulatory framework for such projects, and would be consistent with other Third Package legislation, the exemption regime under Art. 36 appears to be the only possibility for a project such as South Stream to be commercially viable. In this respect, however, it is worth recalling the CEER position that ‘the exemption regime is not about guaranteeing against the risk of stranded assets’, and hence it is not ‘the default regime’.

## 4. Conclusions

The Third Package, the GTM, and the Network Codes (which are still in draft form) are set to change the architecture of the EU gas market – both in terms of structure of the market and the behaviour of stakeholders.

### *The Gas Target Model (GTM)*

The GTM envisages a progressive reduction of the number of entry exit (EE) zones inside the EU and hence a reduction in the number of interconnection points (IPs) at which shippers would need to book capacity, thus potentially simplifying the process of (both existing and new/incremental) capacity allocation. The GTM vision suggests that it is the zones – rather than the countries – that should form a foundation of a single EU gas market, and therefore it is the IPs between the zones, rather than IPs between member states (i.e. those that are not at the same time the IPs between EE zones) that should take precedence over the latter in the longer run. However, the (draft) CAM NC does not appear to be well-equipped to implement this vision as its definition of scope (it applies to (cross-border) points even if they are located inside the same EE zone, and the lack of clarity as to whether it applies to IPs between adjacent EE zones that are located within the same member state) does not provide an answer on how the issue of precedence between two types of IPs is to be reconciled.

### *The Capacity Allocation Mechanism Network Code (CAM NC)*

The September 2012 draft of the CAM NC made auctions the only means for allocating existing capacity, and required that all firm capacity on both sides of an IP (between EE zones and between member states) should be offered as bundled capacity, stipulating that the existing contracted capacity must also be bundled within 5 years, after which a ‘sunset clause’ in the code would require the end of the traditional (point to point) contractual arrangements. This would make it necessary to amend the existing capacity contracts both in relation to capacity bundled ‘by agreement’ and capacity bundled ‘by default’. However, there has been fierce opposition to the ‘sunset clause’ from nearly all stakeholders and significant legal concerns over whether it might expose TSOs to financial damages under existing contracts. For this reason, it would not be surprising if the final CAM NC will see the ‘sunset date’ relaxed (i.e. set later) or the ‘sunset clause’ abolished.

The September 2012 draft CAM NC made the bundling requirement applicable to new capacity, but excluded the infrastructure that has applied for *and* has been granted an exemption under Art. 36 of the Third Gas Directive from all NC provisions, including on bundling. It is less clear whether the CAM NC excluded the infrastructure that is eligible for an exemption (e.g. fits the list of criteria) but either has not applied for an exemption, or has applied but been refused. But given that the EC/ACER intention is to limit the number of new/incremental capacity projects to which bundling provisions would not apply, the answer appears to be negative.

As ENTSOG only partly accepted ACER’s recommendations while preparing the September 2012 draft CAM NC, with significant differences of opinion remaining between the two, the decision was taken to bring the draft to comitology in order not to jeopardise the European Council’s ‘single market by 2014’ objective, which requires having the four main NCs, including CAM NC, in place before that date.

The congestion management procedures (CMP) set out in Gas Regulation 715, include both short- (firm day-ahead) and long-term “use it or lose it” (UIOLI) mechanisms, with the former to apply from 1 July 2016 and the latter – from 1 October 2013. A 3-year delay for implementation of the short-term UIOLI mechanisms appears to have been a compromise solution, which would give market participants themselves a chance to decrease contractual congestion. This was mostly made possible by the fact that contractual congestion appears to have decreased (compared to 2006 when the Energy Sector Inquiry uncovered high levels of congestion) due to reduced EU gas demand. Nonetheless, the Regulation has a provision which essentially overrides the mid-2016 deadline, by allowing an NRA to decide on the implementation of the short-term UIOLI mechanism. The Regulation also stipulated that the CMP may apply to entry points from, and exit points to, third countries, subject to the decision of the relevant NRA.

### ***Existing and New Capacity***

While the CAM NC established a new framework for existing capacity, a regulatory framework for incremental and new capacity is yet to be developed. In 2012, CEER issued a paper, the intention of which was to cover both incremental and new capacity (incremental capacity defined as capacity provided on top of technical capacity available at an existing IP, and new capacity defined as capacity provided at a new IP), apart from infrastructure exempted under Art. 36. The CEER paper mostly concentrated on incremental capacity, and appears to have suggested Integrated Auctions (IA) as the only means for its allocation. There is less clarity about what the approach will be to more complex projects, requiring investment in two or more cross-border IPs. The paper stated that the importance of multi-country projects is ‘crucial for the development of the internal market’, but failed to address this issue. It appears to have considered an Open Seasons (OS) procedure as a potential instrument for allocation of new capacity, but called for exploration of a more elaborate version of the existing OS procedure, which would be characterised by adequate transparency and cross-border coordination. This view was welcomed by many stakeholders, including ENTSOG and Gazprom. Notably, if the new IA-based regulatory framework will not differentiate between incremental and new capacity, and if no new framework will be developed specifically for new capacity, the IA-based procedure will be applicable to both incremental and new capacity, thus excluding the existing OS guidelines for good practice for open season (GGPOS) procedures.

### ***Gazprom Issues***

The Third Package and the GTM are set to impact significantly on the existing transportation and, potentially, supply contracts governing EU gas trade. This impact is potentially most significant for Russia’s Gazprom, because of:

- its need to transport huge volumes of gas across multiple borders to deliver gas under its existing long-term supply contracts;
- the number and scale of existing long-term transportation (capacity) contracts;
- and the development (and the intention to develop) new gas transportation systems (Nord Stream 3 and 4 and South Stream) to EU countries.

The magnitude of Russian problems in all of these areas is substantially greater than for any other supplier to Europe. Yet because Russia is not an EU/EEA country, its ability to express its concerns to ACER and ENTSOG, and ensure that these are reflected in both Framework Guidelines and Networks Codes, is limited. In this respect, the role of the EU-Russia Gas Advisory Council (itself part of the EU-Russia Energy Dialogue) in providing a platform for expression, and potentially resolution of these concerns, is especially important.

One of Gazprom's main concerns is that the implementation of an entry exit system (which necessitates changes in existing capacity contracts and might result in losses of capacity) will lead to a mismatch between its supply and capacity contracts, such that capacity under existing contracts will become insufficient for delivery under existing supply contracts (and their potential amendments), and that additional capacity necessary to compensate for a shortfall might be difficult (and more costly) to secure. Gazprom is also concerned about its ability to contract sufficient capacity for delivery under new (or potential extensions of existing) supply contracts. Given that Gazprom needs to secure sufficient capacity for very significant volumes at several IPs, the risk of failing to deliver on its supply contracts due to a failure to get enough capacity at any particular IP, is significantly greater than for other suppliers.

Although capacity contracts stand to be affected most significantly by the transition from a point to point to an entry exit system, supply contracts are also not immune. Given that the CAM NC will make it impossible to book exit and entry capacity as two separate products at an IP, and will prescribe booking a bundled 'entry-exit' capacity, maintaining the delivery point at a border flange (as is the case with all of Gazprom's supply contracts) will become impossible as, once an entry tariff is paid, gas is considered to be delivered at a hub. This suggests that although nothing in the existing EU regulation outlaws delivery to the flange, the requirement of bundling existing (possibly by a 'sunset date', if it survives in the post-comitology CAM NC) and new (as it becomes available) capacity, will provide strong incentives for replacing the existing delivery points at the flange by the hub – possibly in existing, and certainly in new, supply contracts. Importantly, changes in delivery points would result in changes in capacity requirements.

The existence of supply contracts which do not expire until 2025-35, provides Gazprom with a strong rationale and a legitimate reason to request the EC, ENTSOG and ACER for assurances that the transformation of the EU regulatory framework – particularly in relation to the market for transportation capacity – will not result in a situation where Gazprom's existing capacity holdings become insufficient for delivery under its existing (and potentially amended) supply contracts. Although there is some evidence to suggest that this risk may be quite low, a mechanism whereby Gazprom would receive legally-binding assurances that under an entry exit system it will be able to secure sufficient capacity for delivering under its existing supply contracts at a cost not higher than under a previous point to point system, needs to be established independently of the magnitude of risk. Development of a special procedure of coordinated allocation of capacity along a route of IPs, which could ensure against a missing capacity link at any individual IP could form part of such assurances.

Because there is no assurance that it will be able to secure sufficient capacity to deliver under existing long-term supply contracts, and a substantial likelihood that it will not be able to secure sufficient capacity to deliver under new supply contracts, Gazprom

is making (and proposing to make) substantial investment in new pipelines to deliver gas to European countries – South Stream and potentially Nord Stream 3 and 4. In turn, this makes it very concerned about the future EU regulatory regime governing new multi-border long-distance pipelines, and it has considerable doubt that it will be able to utilise the full capacity of these pipelines. As noted above, no such regime currently exists, and although European regulators have stated that it could be based on the Open Seasons principle, there is no clarity as to whether and when such an instrument will be developed.

### ***Projects of Common Interest (PCIs)***

While a generic regime for new capacity is absent, the EU has developed a specific procedure for selected new infrastructure projects (PCIs) to which favourable regulatory treatment will be awarded, with a list of criteria such that neither South Stream nor Nord Stream 3 and 4 are likely to be granted PCI status. Thus in the absence of a generic regime for new capacity, the only possibility for non-PCI new multi-cross-border pipelines to receive favourable regulatory treatment, is via the exemption regime under Art. 36 of the Third Gas Directive. However, South Stream has undermined its (otherwise strong) case for an exemption by taking FID in 2012, thus signalling that the project could go ahead without an exemption. The ‘tailored’ regulatory regime for South Stream which Russia has established by signing bilateral intergovernmental agreements (IGAs) with the governments of the countries its pipeline(s) will cross, might be part of a solution, but might also be a problem if these IGAs prove to be incompatible with whatever regime for new capacity might be developed by the EU by the time South Stream is built. Should Gazprom (and its partners) proceed with construction of South Stream, while in the absence of a generic framework for new capacity, it runs the risk that some part of this investment will be stranded.

Overall, the paper concludes that the transition period from the old to the new architecture of the EU gas market, heralded by the Third Package and the GTM, will be difficult and probably require the rest of the 2010s to complete. For this transition to be successful and result in the establishment of a single liberalised EU gas market, without jeopardising security of transportation and security of supply objectives, the major contentious issues set out and analysed in this paper must be resolved by the EU in close cooperation with Russia, especially in respect of safeguarding the existing contractual relationships with Gazprom.

## List of Acronyms

ACER – Agency for Cooperation of European Regulators  
BBL – Balgzand-Bacton pipeline  
BNetzA – Bundesnetzagentur (German regulatory authority)  
CAM – Capacity Allocation Mechanisms  
CBA – Cost-Benefit Analysis  
CEER – Council of European Energy Regulators  
CIS – Commonwealth of Independent States  
CMP – Congestion Management Procedures  
COS – Coordinated Open Season  
DG COMP – Directorate General for Competition  
EC – European Commission  
ECJ – European Court of Justice  
ECS – Energy Charter Secretariat  
ECT – Energy Charter Treaty  
EE – Entry-Exit  
EIP – European Infrastructure Package  
EnCT – Energy Community Treaty  
ENTSOG – European Network of Transmission System Operators for Gas  
ESI – Energy Sector Inquiry  
FG – Framework Guidelines  
FID – Final Investment Decision  
GAC – Gas Advisory Council  
GGPOS – Guidelines for Good Practice on Open Season procedures  
GTM – Gas Target Model  
HHI – Herfindahl-Hirschman Index  
IA – Integrated Auctions  
IEM – Internal Energy Market  
IGA – Intergovernmental Agreements  
IP – Interconnection Point  
ISO – Independent System Operator  
ITO – Independent Transmission Operator  
LTSC – Long-Term Supply Contract  
LTTC – Long-Term Transportation Contract  
NC – Network Code  
NRA – National Regulatory Authority  
OS – Open Season  
OU – Ownership Unbundling  
PCI – Project of Common Interest  
PP – Point-to-Point  
QMV – Qualified Majority Voting  
SCP – Standard Capacity Products  
SEM – Single European Market  
TPA – Third Party Access  
TSO – Transmission System Operator  
TYNDP – Ten-Year Network Development Plan  
UIOLI – “Use-It-or-Lose-It”  
VTP – Virtual Trading Point

## **Bibliography**

Directive (EC) 1998/30 concerning rules for the internal market in natural gas [1998] OJ L 204/1 (“First Gas Directive”).

Directive (EC) concerning common rules for the internal market in natural gas and repealing Directive (EC) 98/30 [2003] OJ L 176/57 (“Second Gas Directive”).

Directive (EEC) 1991/296 on the transit of natural gas through grids [1991] OJ L 147/37 (“Transit Directive”).

Regulation (EC) 1775/2005 on conditions for access to the natural gas transmission networks [2005] OJ L 289/1 (“Gas Regulation 1775”).

Regulation (EC) 2009/715 on conditions for access to the natural gas transmission networks and repealing Regulation (EC) 2005/1775, OJ L 211/36 (“Gas Regulation 715”).

European Council (2012) The Council and the European Parliament reach informal agreement on energy infrastructure regulation, Brussels, 30 November 2012, 17044/12, PRESSE 499.

European Council (2011) European Council 4 February 2011, Conclusions, Brussels, EUCO 2/1/11, REV 1, 8 March 2011.

EC (2012a) Decision of 24 August 2012 on amending Annex 1 to Regulation (EC) No 715/2009 of the European Parliament and of the Council on conditions for access to the natural gas transmission networks, OJ L 211, 28.8.2012.

EC (2012b) Communication ‘Making the internal market work’, COM(2012) 663 final, Brussels, 15.11. 2012.

EC (2011a) Draft EC proposal for Guidelines on Congestion Management Procedures replacing Chapter 2.2 and amending Chapter 3 of Annex 1 to Regulation (EC) No 715/2009 of the European Parliament and of the Council on conditions for access to the natural gas transmission networks.

EC (2011b) Commission Staff Working Paper on the possibility of neighbouring countries and their transmission system operators to participate in ACER and in the ENTSOs, Brussels, 20.6.2011, SEC(2011) 546 final/2.

EC (2011c) Proposal for a Regulation of the European Parliament and of the Council on Guidelines for trans-European energy infrastructure and repealing Decision No 1364/2006/EC, COM(2011) 658 final.

EU (2010) Regulation (EU) 994/2010 concerning measures to safeguard security of gas supply and repealing Directive (EC) 2004/67 [2010] OJ L 295/1 (“Security of Supply Regulation 994”).

EC (2009) Ausnahmegenehmigung der Bundesnetzagentur für die Opal-Gasleitung Gemäß Art.22 der Richtlinie 2003/55, 12 June 2009.

EC (2006) DG Competition Report on Energy Sector Inquiry, Brussels, 10 January 2007, SEC(2006) 1724.

EC (2004a), Exemptions from certain provisions of the third party access regime, 30.1.2004, Note of DG Energy & Transport on Directives 2003/54-55 and Regulation 1228/03 in the electricity and gas internal market.

EC (2004b) Guidelines on the assessment of horizontal mergers under the Council Regulation on the control of concentrations between undertakings, Communication (EC). OJC 31, 5 February 2004.

ACER (2012a) Opinion No 04-2012, Reasoned Opinion on the Network Code on Capacity Allocation Mechanisms for the European gas transmission network (“ACER Reasoned Opinion”), Opinion No 04-2012. Available at [http://www.acer.europa.eu/Official\\_documents/Acts\\_of\\_the\\_Agency/Opinions/Opinions/ACER%20Opinion%2004-2012.pdf](http://www.acer.europa.eu/Official_documents/Acts_of_the_Agency/Opinions/Opinions/ACER%20Opinion%2004-2012.pdf)

ACER (2012b) Reasoning behind the Opinion on the Network Code on Capacity Allocation Mechanisms for the European gas transmission network, 5 June 2012. Available at [http://www.acer.europa.eu/Gas/Framework%20guidelines\\_and\\_network%20codes/Documents/ACER%20Opinion%2004-2012%20Reasoning.pdf](http://www.acer.europa.eu/Gas/Framework%20guidelines_and_network%20codes/Documents/ACER%20Opinion%2004-2012%20Reasoning.pdf)

ACER (2011a) Framework Guidelines on Capacity Allocation Mechanisms for the European Gas Transmission Network, FG-2011-G-001, 3 August 2011, (“CAM FG”). Available at [http://acernet.acer.europa.eu/portal/page/portal/ACER\\_HOME/Public\\_Docs/Acts%20of%20the%20Agency/Framework%20Guideline/Framework\\_Guidelines\\_on\\_Capacity\\_Allocation\\_Mechanisms\\_for\\_t/FG-2011-G-001%20\(final\).pdf](http://acernet.acer.europa.eu/portal/page/portal/ACER_HOME/Public_Docs/Acts%20of%20the%20Agency/Framework%20Guideline/Framework_Guidelines_on_Capacity_Allocation_Mechanisms_for_t/FG-2011-G-001%20(final).pdf)

ACER (2011b) ACER opinion on the European TYNDP 2011-2020 published by ENTSOG, Ref: RO-2011-G-001, 26 August 2011. Available at [http://acernet.acer.europa.eu/portal/page/portal/ACER\\_HOME/Public\\_Docs/Acts%20of%20the%20Agency/Opinions/2011/Opinion%203/Opinion%203/BoR-11-16\\_ACER%20opinion-ENTSOG%20TYNDP\\_v110826.pdf](http://acernet.acer.europa.eu/portal/page/portal/ACER_HOME/Public_Docs/Acts%20of%20the%20Agency/Opinions/2011/Opinion%203/Opinion%203/BoR-11-16_ACER%20opinion-ENTSOG%20TYNDP_v110826.pdf)

CEER (2012a) Market-based investment procedures for gas infrastructure: issues and approaches, a CEER public consultation paper, Ref: C12-GWG-87-03, 18 June 2012 (“the CEER paper”). Available at [http://www.energy-regulators.eu/portal/page/portal/EER\\_HOME/EER\\_CONSULT/CLOSED%20PUBLIC%20CONSULTATIONS/GAS/Investment%20Procedures%20for%20Gas%20Infrastructure/CD/C12-GWG-87-03\\_%20Market\\_based\\_investment\\_procedures\\_final.pdf](http://www.energy-regulators.eu/portal/page/portal/EER_HOME/EER_CONSULT/CLOSED%20PUBLIC%20CONSULTATIONS/GAS/Investment%20Procedures%20for%20Gas%20Infrastructure/CD/C12-GWG-87-03_%20Market_based_investment_procedures_final.pdf)

CEER (2012b) CEER Market-based investment procedures for gas infrastructure: issues and approaches, Responses Received, Ref: C12-PC-68. Available at [http://www.energy-regulators.eu/portal/page/portal/EER\\_HOME/EER\\_CONSULT/CLOSED%20PUBLIC%20CONSULTATIONS/GAS/Investment%20Procedures%20for%20Gas%20Infrastructure/RR](http://www.energy-regulators.eu/portal/page/portal/EER_HOME/EER_CONSULT/CLOSED%20PUBLIC%20CONSULTATIONS/GAS/Investment%20Procedures%20for%20Gas%20Infrastructure/RR)

CEER (2012c) Market-based investment procedures for gas infrastructure: issues and approaches, a CEER public consultation paper. Evaluation of Responses, Ref: C12-GWG-87-03a, 3 December 2012. Available at [http://www.energy-regulators.eu/portal/page/portal/EER\\_HOME/EER\\_PUBLICATIONS/CEER\\_PAPERS/Gas/Tab1/C12-GWG-87-03a\\_Mkt-Based%20Investment%20Procedures\\_EoR\\_3-Dec-2012.pdf](http://www.energy-regulators.eu/portal/page/portal/EER_HOME/EER_PUBLICATIONS/CEER_PAPERS/Gas/Tab1/C12-GWG-87-03a_Mkt-Based%20Investment%20Procedures_EoR_3-Dec-2012.pdf)

CEER (2011a) Vision paper for a conceptual model for the European gas market. Call for evidence. Evaluation of comments, 2 March 2011. Available at [http://www.energy-regulators.eu/portal/page/portal/EER\\_HOME/EER\\_CONSULT/CLOSED%20PUBLIC%20CONSULTATIONS/GAS/GTM\\_CfE/CD/C11-GWG-74-03\\_GTM\\_EoC\\_2%20March%202011.pdf](http://www.energy-regulators.eu/portal/page/portal/EER_HOME/EER_CONSULT/CLOSED%20PUBLIC%20CONSULTATIONS/GAS/GTM_CfE/CD/C11-GWG-74-03_GTM_EoC_2%20March%202011.pdf)

CEER (2011b) Draft Vision for a European Gas Target Model. A CEER Public Consultation Paper, Ref: C11-GWG-77-03, 5 July 2011. Available at [http://www.energy-regulators.eu/portal/page/portal/EER\\_HOME/EER\\_CONSULT/CLOSED%20PUBLIC%20CONSULTATIONS/GAS/Gas\\_Target\\_Model/CD/C11-GWG-77-03%20GTM%20PC\\_5-July-2011.pdf](http://www.energy-regulators.eu/portal/page/portal/EER_HOME/EER_CONSULT/CLOSED%20PUBLIC%20CONSULTATIONS/GAS/Gas_Target_Model/CD/C11-GWG-77-03%20GTM%20PC_5-July-2011.pdf)

CEER (2011c): CEER Vision for a European Gas Target Model. Conclusions Paper, Ref: C11-GWG-82-03, 1 December 2011. Available at [http://www.energy-regulators.eu/portal/page/portal/EER\\_HOME/EER\\_PUBLICATIONS/CEER\\_PAPERS/Gas/Tab/C11-GWG-82-03\\_GTM%20vision\\_Final.pdf](http://www.energy-regulators.eu/portal/page/portal/EER_HOME/EER_PUBLICATIONS/CEER_PAPERS/Gas/Tab/C11-GWG-82-03_GTM%20vision_Final.pdf)

CEER (2010) Vision paper for a conceptual model for the European gas market. Call for evidence', 3 November 2010. Available at [http://www.energy-regulators.eu/portal/page/portal/EER\\_HOME/EER\\_CONSULT/CLOSED%20PUBLIC%20CONSULTATIONS/GAS/GTM\\_CfE/CD/C10-GWG-70-03\\_GasTargetModel\\_CfE\\_clean.pdf](http://www.energy-regulators.eu/portal/page/portal/EER_HOME/EER_CONSULT/CLOSED%20PUBLIC%20CONSULTATIONS/GAS/GTM_CfE/CD/C10-GWG-70-03_GasTargetModel_CfE_clean.pdf)

ECS (2010) Final Act of the Energy Charter Conference with respect to the Energy Charter Protocol on Transit (preliminary draft 22 January 2010), available at [http://www.encharter.org/fileadmin/user\\_upload/document/TTG\\_87\\_ENG.pdf](http://www.encharter.org/fileadmin/user_upload/document/TTG_87_ENG.pdf)

ENTSOG (2012a) CAM NC March 2012, Network Code on Capacity Allocation Mechanisms. An ENTSOG Network Code for ACER review and comitology procedure, 6 March 2012. Available at <http://www.entsog.eu/public/uploads/files/publications/CAM%20Network%20Code/2012/120306%20CAP0210-12%20CAM%20Network%20Code%20FINAL.pdf>

ENTSOG (2012b) Analysis of ENTSOG decisions for the Capacity Allocation Mechanisms (CAM) NC, CAM NC decision analysis, CAP0216-12, 6 March 2012. Available at <http://www.entsog.eu/public/uploads/files/publications/CAM%20Network%20Code/2012/120306%20CAP0216-12%20Analysis%20of%20ENTSOG%20decisions%20for%20the%20CAM%20NC%20FINAL.pdf>

ENTSOG (2012c) ENTSOG legal group opinion on the March 2012 CAM NC draft. Available at [http://www.entsog.eu/public/uploads/files/publications/CMP/2012/LGT030-11\\_Rev\\_1\\_LGT\\_opinion\\_on\\_ACER\\_CAM\\_%20FG\\_art\\_2%204%202\\_Final.pdf](http://www.entsog.eu/public/uploads/files/publications/CMP/2012/LGT030-11_Rev_1_LGT_opinion_on_ACER_CAM_%20FG_art_2%204%202_Final.pdf)

ENTSOG (2012d) CAM NC September 2012, Network Code on Capacity Allocation Mechanisms. An ENTSOG Network Code for further ACER review and Comitology procedure, 17 September 2012. Available at <http://www.entsog.eu/public/uploads/files/publications/CAM%20Network%20Code/2012/120917%20CAP0291-12%20CAM%20Network%20Code%20for%20resubmission%20-%20FINAL.pdf>

ENTSOG (2012e) CAM NC – supporting document for revised network code, CAP295-12, 17 September 2012. Available at [http://www.entsog.eu/public/uploads/files/publications/CAM%20Network%20Code/2012/CA295\\_120917\\_Supporting%20document%20for%20revised%20CAM%20NC%20final.pdf](http://www.entsog.eu/public/uploads/files/publications/CAM%20Network%20Code/2012/CA295_120917_Supporting%20document%20for%20revised%20CAM%20NC%20final.pdf)

ENTSOG (2012f) ENTSOG Position on Commission Proposal for Congestion Management Procedures – Guidelines to be adopted via a Comitology Procedure, Comitology Guideline on Congestion Management ENTSOG Proposal, CAP071-10, 19 November, Rev6 Final. Available at

<http://www.entsog.eu/public/uploads/files/publications/CMP/2012/101119%20CAP0071-10%20ENTSOG%20CMP%20Comitology%20proposal%20final.pdf>

ENTSOG (2012g) Network Code on Capacity Allocation Mechanisms. Resubmission of the documents to European Commission and ACER (letter from ENTSOG president), Ref: PRE082-12, 17 September 2012. Available at

[http://www.entsog.eu/public/uploads/files/publications/CAM%20Network%20Code/2012/PR082\\_12\\_Letter\\_ACER\\_accompanying\\_resubmitted\\_CAM\\_code.pdf](http://www.entsog.eu/public/uploads/files/publications/CAM%20Network%20Code/2012/PR082_12_Letter_ACER_accompanying_resubmitted_CAM_code.pdf)

ERGEG (2007) ERGEG Guidelines for Good Practice on Open Seasons Procedures (GGPOS), Ref: C06-GWG-29-05c, 21 May 2007. Available at [http://www.energy-regulators.eu/portal/page/portal/EER\\_HOME/EER\\_PUBLICATIONS/CEER\\_PAPERS/Gas/2007/ERGEG%20Guidelines%20of%20Good%20Practice%20-%20Open%20Season%20Procedures%20%28GGPOS%29](http://www.energy-regulators.eu/portal/page/portal/EER_HOME/EER_PUBLICATIONS/CEER_PAPERS/Gas/2007/ERGEG%20Guidelines%20of%20Good%20Practice%20-%20Open%20Season%20Procedures%20%28GGPOS%29)

GAC (2012a) Central European gas hub (CEGH) presentation, 16 March 2012.<sup>152</sup>

GAC (2012b) Incremental capacity development: comments on Coordinated Open Seasons and European regulators' approach, presentation, 26 June 2012.

GAC (2012c) Determining market demand for capacity: draft proposals based on CEER work on incremental capacity, presentation, 28 September 2012.

GAC (2012d) Determining market demand for capacity – issues at stake and potential solutions, October 2012.

GAC (2012e) Draft non-binding guidance on transition from point to point contractual relations to entry exit trading regimes, June 2012.

GAC (2012f) Gas Chapter of the GAC, 20 December 2012.

GAC (2012g) Coordinated Open Seasons proposal, April 2012.

GAC (2012h) Centralised gas dispatch proposal, November 2012.

Madrid Forum (2010) Conclusions of the 18<sup>th</sup> meeting of the European Gas Regulatory Forum, Madrid, 27-28 September 2010.

Madrid Forum (2012) Conclusions of the 21<sup>st</sup> meeting of the European Gas Regulatory Forum, Madrid, 22-23 March 2012.

Madrid Forum (2011) Conclusions of the 20<sup>th</sup> meeting of the European Gas Regulatory Forum, Madrid, 26-27 September 2011.

Ascari (2011): Ascari, S.: 'An American model for the EU gas market?', Florence School of Regulation, 2011.

---

<sup>152</sup> Information about the Gas Advisory Council (GAC), including official documents, is available on the EC website [http://ec.europa.eu/energy/international/russia/dialogue/dialogue\\_en.htm](http://ec.europa.eu/energy/international/russia/dialogue/dialogue_en.htm); presentations made at the GAC and its Workstreams' meetings can be found at <https://circabc.europa.eu/>

- Bartok (2010): Bartók, C.: ‘Third Package and other changes in gas regulation’, presentation at the 5<sup>th</sup> Gas Forum of the Energy Community, Brdo, 14 September 2010.
- BNetzA (2012): ‘Gas network operators against market area consolidation’ (in German), 2012.
- BNetzA (2009): Federal Network agency grants partial exemption for OPAL pipeline, BNetzA, press-release, 25 February 2009.
- Bolz (2012): Boltz, W.: ‘Gas Target Model’, presentation at the 21<sup>st</sup> Madrid Forum, 22 March 2012.
- Cedigaz (2012): Lecarpentier, A. and Hureau G.: *Natural Gas in the World*, 2012 edition.
- Clingendael International Energy Programme (2011): ‘CIEP vision on the Gas Target Model: ASCOS’ (Ample, Secure and Competitive Supply), August 2011.
- EGM (2012), ‘South Stream to end in Italy, exclude Austria’, *EGM*, 19 December 2012.
- Frontier Economics (2011): ‘Target model for the European natural gas market’, June 2011.
- Gazprom (2012) Final investment decision adopted for South Stream offshore section, press-release, published online 15 November 2012, <http://www.gazprom.com/press/news/2012/november/article148506/>
- Glachant (2011): Glachant, M.: ‘A vision for the EU Target Model: the Mecos-S model’, Florence School of Regulation, June 2011.
- Heather (2010): Heather, P.: ‘The Evolution and Functioning of the Traded Gas Market in Britain’, OIES Working Paper NG 44, OIES, August 2010, p. 6.
- Heather (2012): Heather, P.: ‘Continental European Hubs: are they fit for purpose?’ OIES Working Paper NG 63, OIES, June 2012, p. 59.
- Henderson and Heather (2012): Henderson, J. and Heather, P.: ‘Lessons from the February 2012 gas “crisis”’, OIES Oxford Energy Comment, published online April 2012 at: <http://www.oxfordenergy.org/wpcms/wp-content/uploads/2012/04/Lessons-from-the-February-2012-gas-crisis.pdf>.
- Honore (2010): Honore, A.: *European Natural Gas Demand, Supply, and Pricing*, OUP 2010.
- ICIS (2006): ‘TAG pipeline capacity auction highlights problem of regulating transit’, *ICIS*, 30 January 2006.
- Interfax (2012): ‘Shah Deniz consortium plans to choose between SEEP, Nabucco West projects by end-June’, *Interfax Russia & CIS Oil and Gas Weekly*, 26 April – 2 May 2012.
- Jepma and Katz (2012a): ‘Regulatory lag threatens to slow down the stormy growth of the European gas market’, *European Energy Review*, 1 March 2012.
- Jepma and Katz (2012b) ‘The European Gas Target Model: how it could be improved’, *European Energy Review*, 3 September 2012.

Jepma and Katz (2013) ‘Reassessing “market relevance”: why national boundaries are increasingly irrelevant in measuring competition in gas spot markets in northwest Europe’, *European Energy Review*, 21 January 2013.

LEGG (2011): LEGG Study ‘Market design for natural gas’, March 2011.

Mitrova (2012): Mitrova, T.: ‘Potential Russian responses to pessimistic European gas demand scenarios’, presentation made at the Gas Advisory Council meeting, 18 October 2012.

Neveling (2011): Neveling, S.: ‘Implicit auctions/market coupling as a possible element of a target model?’, presentation made at the Gas Target Model workshop, Bonn, 22 February 2011.

Neveling (2012): Neveling, S.: ‘Network Code on Capacity Allocation Mechanisms – ACER Reasoned Opinion’, 22<sup>nd</sup> Madrid Forum, 2-3 October 2012.

Starlinger (2011): Starlinger, T.: ‘Network Codes and compulsory contract modifications: some legal issues’, presentation made at the EU Energy Law and Policy workshop, Florence School of Regulation, 11 November 2011.

Stern (2006): Stern, J.: *The Future of Russian Gas and Gazprom*, OUP 2006.

van der Vijver (2012): van den Vijver, T.: ‘Third Party Access Exemption Policy in the EU Gas and Electricity Sector: finding the right balance between competition and investments’ in M. Roggenkamp et al (eds) *Energy Networks and the Law: innovative solutions in changing markets*, OUP 2012.

Yafimava (2011): Yafimava, K.: *The Transit Dimension of EU Energy Security: importance of Russian gas transit across Ukraine, Belarus, and Moldova*, OUP 2011.

## List of Regulatory Definitions Related to Gas Transportation and Infrastructure

### *'Capacity Contract'*

March 2012 CAM NC – ‘a gas transportation contract between a transmission system operator and a Registered Network User [...]’.

### *'Technical Capacity'*

Gas Regulation 715 – ‘the maximum firm capacity that the transmission system operator can offer to the network users, taking account of system integrity and the operational requirements of the transmission network’;

March 2012 CAM NC – as in Gas Regulation 715, above.

### *Additional Capacity*

March 2012 draft CAM NC – ‘any capacity that transmission system operators may make available at their discretion in accordance with any relevant incentives to offer further capacity, including applicable overbooking procedures, beyond Technical Capacity’ [‘Technical Capacity’ is defined as in Gas Regulation 715];

September 2012 draft CAM NC – ‘the firm capacity offered in addition to the Technical Capacity of an Interconnection Point that is calculated on the basis of Article 16.1 of the Regulation’ [Gas Regulation 715];

Gas Regulation 715 – not defined;

Third Gas Directive – not defined;

EC comitology draft proposal for Guidelines on CMP – does not define ‘Additional Capacity’ but says that ‘any additional capacity made available through the application of one of the CMP ... [oversubscription and buy-back, firm day ahead UIOLI, surrender of booked capacity, long-term UIOLI] ... shall be offered by the respective transmission system operator(s) alongside the other capacity in the regular allocation process’;

Congestion Management Procedure (Annex to Gas Regulation 715) – ‘the firm capacity offered in addition to the technical capacity of an interconnection point calculated on the basis of Article 16.1 of this Regulation’;

Congestion Management Procedures (Annex to Gas Regulation 715) – any additional capacity made available through the application of one of the congestion-management procedures as provided for in points 2.2.2, 2.2.3, 2.2.4 and 2.2.5 shall be offered by the respective transmission system operator(s) in the regular allocation process.

### *Available Capacity*

Gas Regulation 715 – ‘the part of the technical capacity that is not allocated and is still available to the system at that moment’.

### *Bundled Capacity*

March 2012 draft CAM NC – ‘a corresponding entry and exit capacity on a firm basis at both sides of every Interconnection Point’;

September 2012 draft CAM NC – as in the March 2012 draft CAM NC, above.

### *Interconnection Point*

March 2012 draft CAM NC – ‘a cross-border IP, whether it is physical or virtual, between two or more member states as well as interconnection between adjacent entry-exit systems within the same member state, in so far as these points are subject to booking procedures by Registered Network users’;

September 2012 draft CAN NC – as in the March 2012 draft CAM NC, above.

### *Interconnector*

Third Gas Directive – ‘a transmission line which crosses or spans a border between Member States for the sole purpose of connecting the national transmission systems of those Member States’.

### *New Infrastructure*

Third Gas Directive – ‘an infrastructure not completed by 4 August 2003’.

### *Incremental Capacity*

CEER paper on incremental/new capacity – ‘capacity that is provided on top of technical capacity available at an existing Interconnection Point’ [Interconnection Point is defined as in March and September 2012 draft CAM NC]

### *New Capacity*

CEER paper on incremental/new capacity – ‘capacity provided at a new Interconnection Point’;

March 2012 draft CAM NC – does not define ‘Technical Capacity’ but says that ‘new Technical Capacity allocated via OS procedures, or other procedures for allocating new Technical Capacity, apart from capacity which remains unsold after it has been initially offered via such processes’.

September 2012 draft CAM NC – as in the March 2012 draft CAM NC

### *Virtual IP*

March 2012 draft CAM NC – ‘the aggregation of two or more Interconnection Points between two adjacent transmission networks into one commercial point’;

September 2012 draft CAM NC – ‘a commercial point as detailed in art.5.1.9 [of the September 2012 CAM NC]; Art. 5.1.9 reads ‘where two or more Interconnection Points connect the same two adjacent entry-exit systems, the adjacent transmission system operators concerned shall offer the available capacities at the interconnection points at one Virtual Interconnection Point. In case more than two transmission system operators are involved because capacity in one or both entry-exit systems is marketed by more than one transmission

operator, the Virtual Interconnection Point should include all of these transmission system operators, to the extent possible. In all cases a Virtual Interconnection Point will be established only if the following criteria are met'... 'Virtual Interconnection Points shall only be established, if they facilitate the economic and efficient use of the system...';

CAM FG – 'capacity at two or more points connecting the same two adjacent entry-exit systems is integrated into one single capacity service representing one virtual interconnection point'.

*Registered network user*

March 2012 draft CAM NC – a network user that has acceded to and is compliant with all applicable legal and contractual requirements that enable him/her to book and use capacity on the relevant transmission system operators' network under a Capacity Contract';

September 2012 draft CAM NC – as in the March 2012 draft CAM NC.

*Standard Capacity Product*

March 2012 draft CAM NC – 'a certain amount of capacity over a given period of time, as a specified interconnection point';

September 2012 draft CAM NC – as in the March 2012 draft CAM NC.