



Roadmap for the early implementation of the Capacity Allocation Mechanisms Network Code

Update of October 2013

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1. Executive Summary

The XXI Madrid Forum of 22-23 March 2012 called upon *“TSOs, with the full involvement of relevant NRAs and Member States, to work towards setting up a number of regional pilot projects and regional pilot platforms”* for the early implementation of the Network Code on Capacity Allocation Mechanisms (hereafter the CAM NC). A draft Roadmap was presented at the XXII Madrid Forum of 2-3 October 2012. Participants invited ACER and ENTSOG *“to promote the convergence of the ongoing projects to avoid duplication of costs, as well as to report on progress of implementation at its next sessions”*.

The CAM Roadmap was published on 1 March 2013 on ACER and ENTSOG websites¹ and presented at the XXIII Madrid Forum of April 2013. The Forum welcomed the CAM Roadmap and encouraged ACER and ENTSOG to *“continue the work in close cooperation with the relevant stakeholders by e.g. collecting and documenting common problems and best practices to enable efficient solutions.”*

This updated version of the CAM Roadmap presents the state of play of pilot projects for the early implementation of the CAM NC, including the implementation of key provisions of the CAM NC at interconnection points. This updated Roadmap also contains information on the valuable experience gained from the solutions adopted and the open questions shared by the participants in the pilot projects during the first quarters of 2013. All parties involved – ACER, ENTSOG, European Commission, TSOs and NRAs – have cooperated closely in this update of the Roadmap, starting from the experience gained through the existing CAM pilot projects.

Early implementation of the CAM NC provisions can potentially promote, on the one hand, significant progress towards the internal market by 2014 and, on the other hand, opportunities to share knowledge about the experience gained from voluntary early implementation through pilot projects before the CAM NC provisions become binding on 1 November 2015.

The Roadmap aims to support this knowledge sharing by:

- Providing background information about the Roadmap elaboration process, by describing when and how it was decided to carry out such a Roadmap and the main steps of the process leading to its development;
- Outlining the organisational arrangements that can help to oversee and facilitate the implementation process during the implementation of pilot projects;

¹ http://www.acer.europa.eu/Gas/Regional_%20Initiatives/CAM_roadmap/Pages/default.aspx
[http://www.entsog.eu/public/uploads/files/publications/CAM%20Network%20Code/2013/a\)%20CAM%20Roadmap%20-%20Final%20version%20010313%20-%20v2.pdf](http://www.entsog.eu/public/uploads/files/publications/CAM%20Network%20Code/2013/a)%20CAM%20Roadmap%20-%20Final%20version%20010313%20-%20v2.pdf)

- Describing roles and responsibilities for all parties involved in developing and facilitating pilot projects;
- Providing an overview of this implementation process:
 - reporting on how current projects are implementing key provisions of the CAM NC;
 - reporting at the level of interconnection points which firm standard capacity products (where available) are being offered and how they are being offered in the course of early implementation (included in this updated version of the Roadmap);
- Mapping the geographical scope of the projects;
- Reporting the implementation challenges and issues identified by project participants;
- Listing key factors that have been identified as contributing to the success of early implementation efforts;
- Eventually enabling the convergence of current (or yet to be started) pilot projects towards integrated solutions.

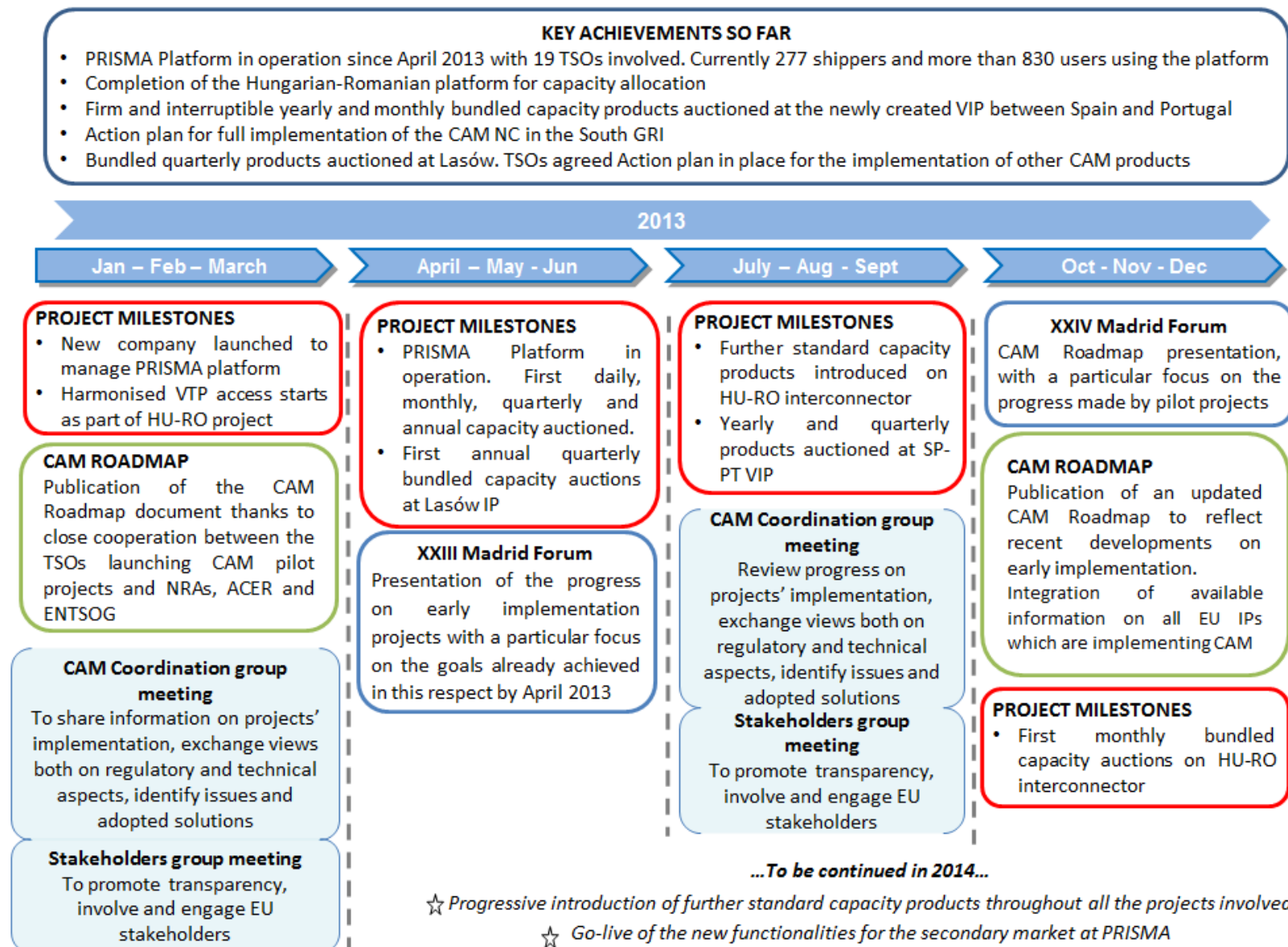
The CAM Roadmap is structured in two main parts. It first focuses on the governance of the pilot projects i.e. how all parties involved will relate and communicate in order to monitor and facilitate these projects, while in the second part details on the implementation of the pilot projects are provided.

As explained above, the first version of the CAM Roadmap was published in March 2013 and is now updated including information on recent developments of the projects. This document will be updated periodically to reflect progress in the early implementation of the CAM NC.

The diagram in Figure 1 is intended to give an overview of the main steps and targets to be reached until the end of 2013, as part of the early implementation of the CAM NC within the EU. These include:

- Key milestones in the pilot projects forming the building blocks for this Roadmap (more details in section 2); and
- Steps envisaged as part of the governance process, to support the projects in attaining their goals (more details in section 1).

Figure 1 – Key achievements in early implementation and planned targets until the end of 2013



2. Background

The Roadmap has the goal of fostering the early implementation of the provisions from the Network Code on capacity allocation mechanisms (CAM NC), before it becomes legally binding on 1 November 2015 after its adoption through the so-called *Comitology* process in 2013. For that purpose, the Roadmap identifies and monitors sequential steps of implementation through pilot projects at cross-border interconnection points in EU Member States, which will test the NC provisions, hence paving the way towards the timely implementation of the CAM NC across Europe. The early implementation is a voluntary process and relies on the commitment of TSOs and NRAs involved in the pilot projects, as well as on the support of ACER, ENTSOG, the European Commission and stakeholders.

Early implementation of CAM NC is offering the opportunity to draw lessons from the experience gained during pilot projects' implementation in order to support and encourage further work and therefore promote significant progress towards the creation of the gas internal market by 2014. To achieve this goal the Roadmap intends to: (i) provide an overview of projects currently under development, (ii) share information, in particular on best practices, and identify issues and solutions adopted throughout the development of the voluntary projects, (iii) set targets for future work within the scope of the Roadmap, (iv) describe roles and responsibilities for all the parties involved in the development of the pilot projects and (v) promote, to the extent possible, transparency in the process towards stakeholders and convergence of the pilot projects towards a coherent implementation of the CAM NC provisions with the same understanding across the different projects throughout Europe.

The CAM Roadmap, published on 1 March 2013, was presented at the XXIII Madrid Forum of April 2013. The Forum welcomed the CAM Roadmap and encouraged ACER and ENTSOG to *"continue the work in close cooperation with the relevant stakeholders by e.g. collecting and documenting common problems and best practices to enable efficient solutions."* The Forum also invited ACER and ENTSOG to *"promote the convergence of the on-going projects to avoid duplication of costs, as well as to report on progress of implementation at its next sessions."*

The Roadmap which will be described herein after is articulated in two parts. The first one describes the organisational and governing framework, namely how all parties involved in the Roadmap relate and communicate with each other in order to facilitate a smooth implementation of CAM pilot projects. The second part first illustrates the timeline for implementation of each pilot project, together with a description of the network code provisions which are contextually implemented by those projects, and secondly presents the timeline and milestones of each project.

3. Governing Arrangements

3.1. Need to update the current governing structure

The CAM Roadmap represents a novelty in the context of the Gas Regional initiative since it focuses on a cross-regional dimension, which is essential to increase consistency between and across the work of the regions and thus efficiently pave the way to the completion of the internal market by 2014. In 2012 the Gas Regional Initiative experienced a step-change in pace with the launch of the Implementation Roadmap of capacity allocation mechanisms (CAM Roadmap).

The introduction of this cross-regional approach is favoured if the parties involved in the projects' implementation build upon the work already done and share the results obtained across the three regions in order to identify best practices and efficient market-tested solutions.

The CAM Roadmap does not intend to add unnecessary bureaucracy; indeed it aims to build as much as possible upon existing structures and it takes into account the experience gained at regional level through structures such as the Regional Coordination Group (RCC), the Stakeholders Group (SG), the Implementation Group (IG) and others. However, it is time to add an additional EU-wide dimension, able to promote cross-regional coordination among projects, collaboration between ACER and ENTSOG and a framework for information and consultation to relevant stakeholders of the European gas sector.

Indeed, the Roadmap is a tool to facilitate the early implementation of CAM NC by:

- Promoting experience sharing and exchange of lessons learned between existing and future pilot projects voluntarily launched by TSOs and NRAs;
- Ensuring that lessons drawn from the implementation of pilot projects are carefully considered when the identification of solutions to problems related to the implementation of another project is required;
- Informing adequately all interested stakeholders about the ongoing process;
- Enabling ACER and ENTSOG to monitor the whole process, as requested by the Madrid Forum, ensuring the coherence of solutions adopted by the different projects, avoiding the duplication of costs and aiming to facilitate and enable the early implementation of the CAM NC.

3.2. Roles and responsibilities within the new framework

The main pillars of the CAM Roadmap are represented by pilot projects. Parties involved in each pilot project are the best placed to decide on the organisational structure that suits them best (i.e. using the current regional groups – RCC, SG, IG – if they wish, or setting up ad-hoc groups). For the sake of simplicity, the groups managing each pilot project are identified in this CAM Roadmap document as “Core Groups”.

Each **Core Group** is made up of TSOs implementing a pilot project and responsible NRAs. They may also collaborate with relevant stakeholders to exchange views on the project features. The Core Group oversees pilot project implementation and it mainly deals with the identification of national requirements and the resolution of technical and legal questions related to the project.

In order to favor coordination at cross-regional level, each Core Group is invited to appoint two (or more) representatives (at least one from the NRAs and one from the TSOs) which have the task to report on progress made, obstacles faced, solutions adopted and identified issues of general interest. The latter encompasses issues that need to be discussed at EU level because they may affect other projects.

The cross-regional coordination is ensured by two new groups, namely: an **EU Stakeholders Group** and a **CAM Coordination Group**. These groups work in close cooperation with ACER and ENTSOG which have the important role of promoting and facilitating a consistent implementation of the CAM projects across Europe concomitantly to the market developments of each gas region.

The **EU Stakeholders group** comprises representatives of the European Commission, ACER, ENTSOG, Member States, NRAs and TSOs representing the pilot projects (as well as other NRAs and TSOs interested), the Lead Regulators of the three gas regions and stakeholder associations, and has the aim to:

- Involve and engage EU stakeholders;
- Promote a high level of transparency in each step of the implementation process.

The **CAM Coordination group** encompasses EC, ACER, ENTSOG and NRAs and TSOs representing the pilot projects. Member States have also the possibility to participate; other interested NRAs and TSOs may be invited as well. Its main aim is to facilitate the implementation process by:

- Building a common understanding on how to apply NC provisions;
- Identify and exchange best practices among participants and anticipate any issue or complexity arising from the implementation process, so as to promote the adoption of the most effective solution or solutions building upon the work already done;

- Monitor the developments of the projects' implementation according to the objectives and timeline set in the Roadmap;
- Discuss the evolution of national regulations aimed at ensuring consistency between the pilot projects;
- Support projects facing problems and/or delays which might arise in the course of the projects' implementation, by helping to identify and promote solutions. The aim will be to resolve problems swiftly and with a consensual approach.

This new framework and the interaction between the different groups can be represented as shown in the figure in the following page.

The first meetings of respectively the CAM Coordination Group and the EU Stakeholders Group took place on 6 March 2013 in Brussels and were well attended, including ACER, ENTSOE, EC, TSOs, NRAs and stakeholders representatives. At these meetings, the state of play of the pilot projects as well as the adaptation of national regulatory frameworks was presented followed by a constructive dialogue on the issues and difficulties encountered so far and suggestions to address them. Stakeholders also had the opportunity to be informed about the process, asking questions and clarifying their doubts. These first meetings were widely recognised as being useful by all participants.

The second meetings of the two respective groups took place on 18 September in Ljubljana, where a review of the progress on projects' implementation was carried out, and discussions were held on the issues of common interest arising on the implementation process.

Core Group Project 1



Core Group Project 2



Core Group Project 3



Reasoned information

CAM COORDINATION GROUP EC/ACER/ENTSOG/NRAs/TSOs

ACER
Agency for the Cooperation
of Energy Regulators



entsog
european network
of transmission system operators
for gas

EU Stakeholders Group

4. Implementation

This second part of the Roadmap illustrates the details of the implementation of the CAM NC provisions for each of the projects involved. For this purpose, the following sections have been included:

- Description of the network code provisions that are in place or are foreseen to be implemented
- The timeline and milestones of each project
- Geographical scope of the projects
- Review of issues, lessons learned, solutions adopted and open questions that arise during CAM NC early implementation
- Key factors for success in early implementation of CAM

A fuller description of each project can be found in Annex 1.

Finally, Annex 2 contains a table which provides information at the level of interconnection points (IP) on the firm standard capacity products (where available) being offered and how they are being offered in the course of early implementation.

4.1. Scope of projects related to CAM NC provisions

The table below summarises the pilot projects currently taking place in EU Member States.

As early implementation of the CAM NC is voluntary, it should be noted that the table does not represent an assessment of implementation compliance by ACER or ENTSOG but instead is intended to give an overview of the scope of projects in progress and the approaches taken.

	PROJECT NAME	Project description	Member States involved	TSOs involved
1*	PRISMA	Common platform for the allocation of capacity according to CAM NC rules. Implementation will be progressive starting in April 2013.	Austria, Belgium, Denmark, France, Germany, Italy, Netherlands (at present)	Bayernets, BOG, Energinet DK, Fluxys Belgium, FluxysTenp, Gascade, Gas Connect Austria, GRTgaz, GRTgaz Deutschland, GTS, GTG Nord, GUD, Nowega, Ontras, Open Grid Europe, Snam Rete Gas, TAG, Terranetsbw, Thyssengas (open to other TSOs)
2	Bundled Product at Lasów	1) Pilot: Allocation of bundled quarterly product according to CAM NC rules 2) Allocation of all bundled products according to CAM NC	Germany, Poland	Ontras, Gaz-System
3	Bundled Product and Capacity Platform -Hungary/ Romania	Allocation of firm rolling monthly bundled capacity on the HU-RO interconnector via the Regional Booking Platform according to the CAM NC, applying the 'product bundling' principle	Hungary, Romania	FGSZ, Transgaz (open to other TSOs)
4**	Coordinated implementation of CAM NC at all IPs between entry-exit systems in the South Region: France, Portugal and Spain	Allocation of standard products as a bundled product via auctions in virtual points	France, Portugal, Spain	GRTgaz, TIGF, REN, Enagas

* Some functionalities provided by the platform may not be adopted by all connected TSOs during the voluntary phase of CAM early implementation. The information below shows which of these elements are being implemented at which IPs.

** At this stage, it is envisaged that the progressive auctioning of standard bundled products at the IP between GRTgaz North-GRTgaz South and the IP between France and Spain will take place on the PRISMA platform.

CAM NC IMPLEMENTATION PER PROJECT

The below table reports on:

- Provisions already in place by the end of 2012 (marked with 2012)
- Key provisions of the CAM NC that current projects are already planning to implement by the end of 2013 (marked with 2013)
- Key provisions of the CAM NC that current projects are already planning to implement by the end of 2014 (marked with 2014).

CAM NC Provisions		Projects	PRISMA ²	Bundled Product at Lasów	Bundled Product and Capacity Platform - Hungary/Romania	Coordinated implementation of CAM NC at all IPs between entry-exit systems in the South Region
Platform	Joint, anonymous, web-based platform established		2013	2013	2012	
	Using already existing platforms		2012	2013		
	Web-based platform not yet used					2012
	Platform offers secondary capacity		2014		2014	
Standard Firm Bundled Capacity Products	Yearly		2013	2014	2013	2012
	Quarterly		2013	2013	2013	2012
	Monthly		2013	2014	2013	2012
	Day Ahead		2013	2014	2013	
	Within-day				2013	

1 Some functionalities provided by the platform may not be adopted by all connected TSOs during the voluntary phase of CAM implementation. The information below shows which of these elements are being implemented at which IPs.

	Auctions used	2013	2013	2013	2012
	Other allocation method currently used				2012
Auction timings	CAM timings	2013	2013	2013	2012
	Other auction timings			2013	2012
Auction algorithm	Ascending clock algorithm for yearly, monthly, quarterly products	2013	2013	2013	2013
	Uniform price algorithm for day-ahead, within-day products	2013	2014	2013	2013
Bundling	Bundled product offered	2013	2013	2013	2012
	All capacity offered as bundled to the extent it can be matched	2013	2013	2013	2012
	Follows CAM NC rules on offer of unbundled capacity	2013	Not applicable	2013	2012
	Virtual Interconnection Point established	Not applicable	Not applicable	Not applicable	2012
Nomination	CAM Centralised Approach (i.e. Single Nomination)			2013	
	Decentralised Approach (i.e. double nomination)				2012
Interruptible	Day-ahead product offered	2013		2013	
	Other interruptible products offered	2013			2012

	Default interruption lead time used	2013 (At discretion of TSOs)			
	Other interruption lead time used	2013 (At discretion of TSOs)			
	Timestamp + pro rata approach to interruption sequence	2013 (At discretion of TSOs)		At discretion of TSOs and NRAs involved	
	Other approach to interruption sequence	2013 (At discretion of TSOs)		At discretion of TSOs and NRAs involved	
Contract model	One contract with each TSO	2013	2013	2013	2012
	Single contract				
Principles of co-operation	Co-operation practices in line with CAM NC		2013	2013	
	Other co-operation practices currently used				
Tariffs	Reserve price = regulated tariff	National discretion of TSOs and NRAs involved	2013	2013	2012
	50:50 default rule applied for split of auction premium	National discretion of TSOs and NRAs involved	2013	2013	2012
	Other rule applied for split of auction premium	National discretion of TSOs and NRAs involved			
	Over and under recovery mechanisms approved by NRA	National discretion of TSOs and NRAs involved		National discretion of TSOs and NRAs involved	

4.2. Implementation timelines at project level

PRISMA

Main Milestones	2011		2012				2013				2014				2015			
	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
PRISMA				1 2 3 4	3 4 6	3 4 5 6 7 9	3 7 8 9	8 9	8 9	9 10	9 10	9 10	9 10					CAM in place

Joint platform

1. Announcement of initiative
2. Analysis of CAM NC requirements
3. Discussions with NRAs to ensure national regulatory context allows early implementation of CAM
4. Development of process and functional specifications
5. Development of ICT specifications
6. Foundation of new company
7. Implementation and testing
8. Prepare and implement go-live
9. Integration of new TSOs
10. Progressive implementation of new features (continues throughout 2014)

Bundled Product at Lasów

Main Milestones	2011		2012				2013				2014				2015			
	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Bundled Product at Lasów	1	1	2	2	2	3	3 4	4 5	6	6 7	7 8	7 8	7 8	7 8	8	8	8	CAM in place

1. Discussions between NRAs and TSOs on nature and arrangement of the project conducted
2. Concept paper developed and agreed for the Pilot project
3. Development of Cooperation Agreement and Terms and Conditions for both networks
4. Implementation of IT infrastructure with respective platform and TSO interfaces complete
5. Go live and first auctions – Pilot project (June 2013 auction for first three quarters of 2014)
6. Memorandum of Understanding for the inclusion of further CAM products concluded
7. Product implementation
8. Auction of the further CAM products foreseen

Bundling product and capacity platform – Hungary / Romania

Main Milestones	2011		2012				2013				2014				2015			
	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
HU-RO bundling and allocation					1 2	3	4	4	4	5 6			7					CAM in place

1. Transgaz and FGSZ signed MoU in order to co-operate on 3rd energy package issues
2. Joint working groups established.
3. Platform for CAM-NC compliant offer of capacity completed and ready for use
4. Harmonising access rules involving both TSOs and NRAs
5. First capacity offer (monthly bundled capacity; 3rd Monday of November 2013)
6. Target for availability of further platform functions: handling of daily nominations and renominations; secondary capacity trading.
7. Progressive introduction of further standard capacity products according to CAM NC auction calendar and optionally outside of the calendar if so agreed between the project partners.

Coordinated implementation of CAM NC at all IPs between entry-exit systems in the South Region: Spain, France and Portugal

Main Milestones	2012				2013				2014				2015			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Spain - Portugal VIP (*)	1	1 2	3 5 4 6			2 7	8 9		10	11	12	13				
Spain-France border									10	11	12	13				
IP between GRTgaz North and GRTgaz South (**)									10 12 13	11						

1. Discussions with NRAs and agreement to develop a bundled capacity auction process
2. Finalisation and publication of associated documentation and corresponding approval by NRA's
3. Open Information Sessions for Shippers (Madrid and Lisbon)
4. Firm yearly product auctions: pre-qualification and qualification phases for shippers; capacity bidding window (24 - 25 July)

5. Firm monthly product auctions: pre-qualification and qualification phases for shippers; capacity bidding window (10- 11 September)
 6. Interruptible firm and monthly products auctions: qualification phases for shippers; capacity bidding window (17-18 September)
 7. Firm yearly products auction: pre-qualification and qualification phases for shippers; capacity bidding window (27-28 June)
 8. Firm quarterly products auction: qualification phases for shippers; capacity bidding window (16-17 July)
 9. Interruptible year and quarterly products auction: capacity bidding window (22-23 July)
 10. Expected first annual yearly capacity auction in March 2014 using a common platform
 11. Expected first annual quarterly capacity auction in June 2014 using a common platform
 12. Expected first rolling monthly auction in September 2014
 13. First rolling day ahead auction, subject to development of TSOs IT systems (the latest in Nov 15)
- (*) 10, 11 and 12 will be possible if all interconnected TSOs develop their IT on time
- (**) The schedule for implementing auctions at the IP between GRTgaz North and South areas (via the PRISMA platform) is still under discussion in France.

4.3. Geographical scope of the projects

The map below summarises the products that will be offered in 2013 in each of the countries involved in pilot projects. As indicated in the previous section, several TSOs are envisaging the implementation of further capacity products during 2014. This list of products reflects the current status and it may be modified due to future internal evaluations by TSOs and discussions with the relevant NRAs where necessary.

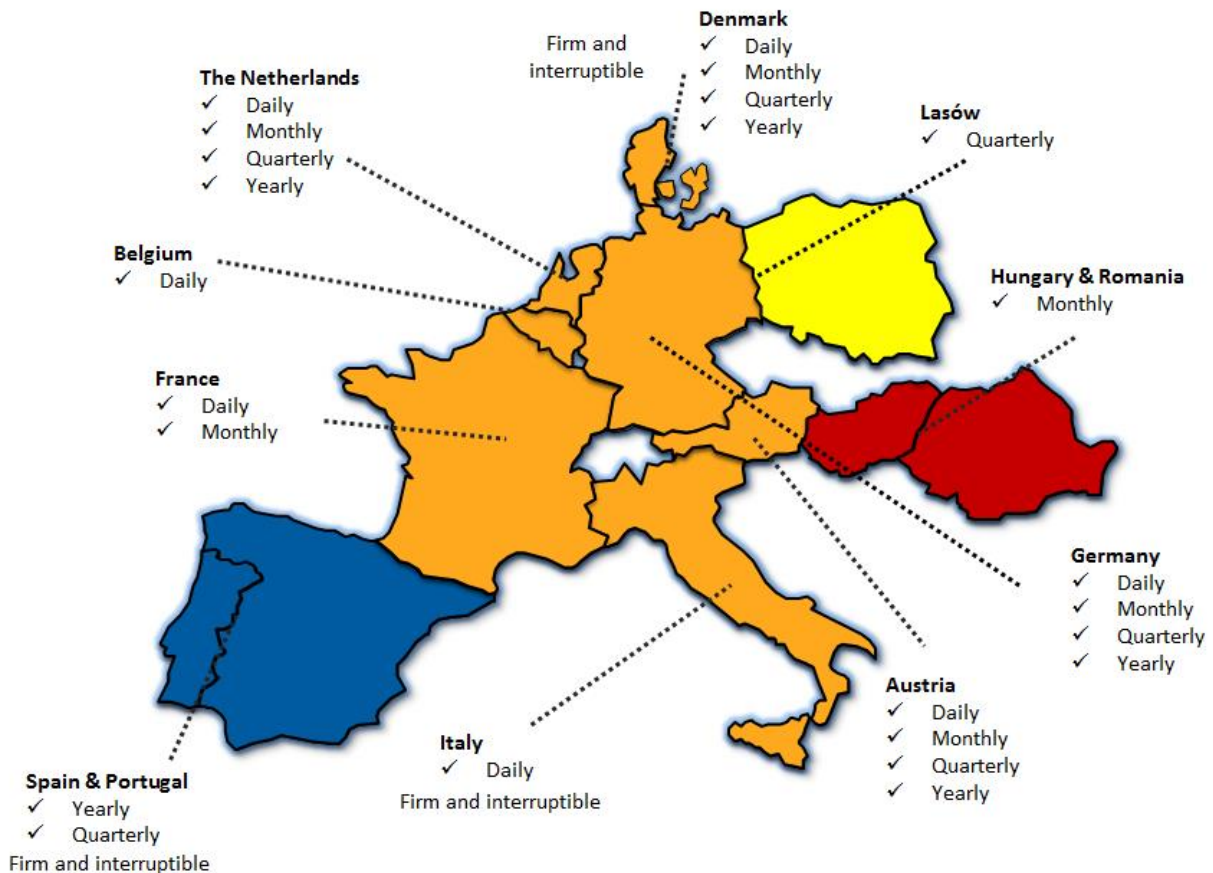


Fig 3. Products offered during 2013 by the pilot projects throughout the EU.

4.4. Review of issues related to CAM Implementation challenges

This section aims to analyse the issues with implementation that have been encountered in each of the projects in place or already planned and the barriers that may be faced by TSOs:

- **General issues (including those areas where pilot projects are not currently in progress)**

General issues and challenges

Stability of CAM NC	The likelihood that CAM NC will change somewhat during comitology leads to concerns that early implementation may result in wasteful expenditure, and hence a cautious approach by NRAs and TSOs in a number of countries.
Workload/ prioritisation	A large number of European and national initiatives are currently being developed and implemented. This means that some countries (e.g. some smaller countries and those with less experience of implementing European energy legislation) are fully occupied with cannot devote resources towards voluntary projects
Network user support necessary	Any change imposes costs on network users (e.g. costs of modifying their IT systems). Particularly in areas of zero or very rare contractual congestion, network users have sometimes been resistant to moves towards early implementation, as the current system in place may be easier and less costly for them.
Integration of back end systems	TSOs rely on a large number of complex, interconnected IT systems, the nature and structure of which differ considerably between countries. Integrating these systems with new front-end systems for the implementation of CAM is a costly and time consuming process and in some cases may be impossible to complete before the mandatory deadline for implementation of CAM.
Legality of CAM NC provisions	Early implementation requires that governments prioritise work on reviewing and granting requests for derogations or on amending legislation if needed.
Co-ordination with regulatory regime	There may be a reluctance in some cases to re-open regulatory settlements to allow early implementation of CAM
Co-ordination between neighbouring regimes	Due to the interconnected nature of their systems, TSOs generally have substantial experience in co-ordination with neighbouring companies. The development of similar co-operation between neighbouring NRAs is also essential for implementation; this is still under development in some cases.

- In those areas where pilot projects are already taking place:

Project	TSOs and NRAs involved	Review of issues
PRISMA	<p>19 TSOs involved</p> <p>Other TSOs interested are welcome to join the project</p>	<p>The early implementation of the CAM NC to such an extent in Europe requires a pragmatic and coordinated approach between the different NRAs and TSOs involved. Such a coordination is essential on e.g. the following points (not exhaustive list):</p> <ul style="list-style-type: none"> • Combined offer of bundled products at an IP • Definition of the big and small price steps at both sides of a border • Agreements on auction premium split <p>Also, experience has shown that the European NRAs wish to converge towards a limited amount of platforms. This requires a governance process that needs to be agreed upon between the involved TSOs.</p> <p>Finally, IT developments, both for the implementation of the auction algorithms and for the connection of the IT tools with the respective back-ends of the parties active on the platform represent a huge amount of time, effort and money. But as it is shared amongst many countries, these costs are optimised. These efforts will in the future lead to create more proximity between the TSO offers, for the benefit of gas sellers.</p>

Project	TSOs and NRAs involved	Review of issues
Bundled Product at Lasów	<p>Ontras and Gaz-System (TSOs)</p> <p>BNetzA and ERO (NRAs)</p>	<p>Alongside the development and the entering into force of the CAM NC the TSOs discussed an early implementation of the respective provisions to gather experience (Pilot Project). After a successful pilot the work is focusing on offering other CAM products prior to the implementation deadline in November 2015. The work done is separated into the following milestone:</p> <ul style="list-style-type: none"> • Agreement on concept and products to be offered during pilot (agreement on quarterly products – Pilot Project) • Definition of specific supplementary access conditions • Agreement on platform approach for the Pilot Project • Technical/practical connection to platform and backend definition • Agreement what future capacity should be offered as bundled • Memorandum of Understanding to implement the CAM products • IT-implementation to auction the residual products

Project	TSOs and NRAs involved	Review of issues
Bundled Product and Capacity Platform Hungary/Romania	<p>FGSZ and Transgaz (TSOs)</p> <p>HEO and ANRE (NRAs)</p> <p>TSOs that operate an IP may accede to the Regional Booking Platform (RBP) both on user-only or on equal shareholding basis, immediately or at any later time. TSOs that join before 2014 are given the opportunity to take part in shaping the terms of the Joint Venture.</p>	<p>In the CEE region, the general environment for the early implementation of the CAM NC, especially the introduction of bundled capacity allocation necessitates close cooperation between all TSOs and NRAs involved in the alignment of the below criteria:</p> <ul style="list-style-type: none"> • Network usage dimensions, • Licensing for genuine capacity bundling (i.e. any Network User should have sufficient access to both transmission systems concerned), • The issue of multi-currency environment should be addressed • access rules for bundled capacity products, • at least VTP should be accessible for Bundled Capacity owners. <p>The Regional Booking Platform concept and IT solution – due to special regional regulatory, but also practical and financial reasons – was created focusing on the following principles reflecting the expectations of a large number of various stakeholders:</p> <ul style="list-style-type: none"> • High reliability (in order to accommodate Member State, NRA and customers' S.o.S. concerns), • Scalability both in operations and offered services (on TSO request), • Easy usage (on TSO and Network Users' request), • Technical requirements for least cost/effort introduction, and short implementation time (on TSO and Network Users' request), • Fair business model based on real cost drivers (TSO and NRA concern). <p>The Booking Platform particularly aims at offering services beyond primary capacity sales:</p> <ul style="list-style-type: none"> • Secondary Capacity Market services <ul style="list-style-type: none"> ○ Title Tracking ○ Anonymous Market Place • Single nomination and allocation, • Client Risk Management • Comfort services.

Project	TSOs and NRAs involved	Review of issues
Coordinated implementation of CAM NC at all IPs between entry-exit systems in the South Region: France, Portugal and Spain	<p>GRTgaz, TIGF, Enagas and REN (TSOs)</p> <p>CRE, CNE and ERSE (NRAs)</p>	<ul style="list-style-type: none"> • The auction between Spain and Portugal in 2012 was very useful to identify which regulations had to be adapted, which documentation and processes had to be developed, and to raise awareness among shippers of the implications of the NC (“bundled capacity”, standard capacity products,...). • The 2013 auction has followed the same pattern as 2012 edition but some issues have been improved: prequalification and qualification windows for shippers to participate in the allocation process have been extended; capacity products offered, minimum bids for product per price step. • In 2012, the SGRI made progress in the common definition to achieve early application of CAM in the cross-border interconnections in the Region and among the French Balancing zones. • The IT systems implementation plans for the TSOs in the Region is of utmost importance to develop the auctions, so efforts are being made to progress in this issue.

4.5. Review of lessons learned, solutions adopted and open questions arising during CAM NC early implementation

The following tables present a number of issues which are not explicitly referenced in the CAM NC but which often must be addressed during the implementation of the NC provisions. Each of the tables gives a brief description of the issue and collects examples of solutions adopted.

Definition of price steps	
<p>Brief description</p> <p>The CAM NC does not specify the ratio between the large price steps and the small price steps, i.e. how many small price steps would be included in a large price step.</p> <p>Operational discretion is left to TSOs and booking platform operators.</p>	<p>Example/s of solutions adopted</p> <p>The PRISMA platform allows any whole-number ratio between small/large price steps. The number of price steps is not limited.</p> <p>At the Spain-Portugal VIP, price steps are defined on the basis of a proportional incremental premium equal to 3% (arithmetic progression) of the tariff in each country with 30 price steps per Member State.</p>

Auction premium from bundled capacity and split and destination of auction revenues	
<p>Brief description</p> <p>In article 26 of the CAM NC, the split of the revenues above the reserve price is left to the agreement between TSOs and to the approval by NRAs. In the absence of an agreement, a default rule of equal split (50:50) is applied. This implies that different alternatives are possible if TSOs agree on a different split (and NRAs approve it); different practices can be observed.</p> <p>Regarding the destination of congestion revenues, or auction premium, it has been noted that Chapter 4 of the Tariffs FG addresses this issue.</p>	<p>Example/s of solutions adopted</p> <p>At the IPs where capacity is allocated via PRISMA, the default rule (50:50 split of the auction premium) is applied, unless otherwise justified on a case-by-case basis and approved by the relevant national regulatory authority, if necessary.</p> <p>At the Spain-Portugal VIP, the default rule is also applied.</p>

Inter-relation between CAM and CMP	
<p>Brief description</p> <p>A number of provisions of the CAM NC have interactions with some of the requirements on CMP Guidelines. Examples are the provisions related to the offer of bundled capacity at both sides of an IP in combination with the implementation of the capacity surrender mechanism established by the CMP Guidelines. The application of these provisions from the CAM NC and the CMP Guidelines has to take place in a compatible and consistent way.</p>	<p>Current status</p> <p>The eventual concurrent implementation of the CMP Guidelines and CAM NC requirements and potential coordination issues are analysed in a document³ developed by ACER in spring 2013, with limited input from ENTSOG and selected industry associations⁴, which is now published on the ACER website⁵.</p>

Bundling of different firm capacity products	
<p>Brief description</p> <p>The amount of capacity that can be bundled at each IP is in some cases limited due to the existence of asymmetric available capacity at both sides of the IP. Moreover, different levels of capacity firmness at each side of the IP may require specific rules to allow for effective bundling.</p>	<p>Example/s of solutions adopted</p> <p>On PRISMA, two bundling approaches are possible:</p> <p>Classic bundling approach, where the bundling of capacity products is done “offline” by the TSO. TSOs submit bundled or unbundled products which cannot be changed by the platform. The coordination and matching implies “offline” coordination between TSOs especially regarding day-ahead products;</p> <p>Cross bundling approach, where the bundling of capacity products is done “online/automatically” by the platform. TSOs submit capacity raw data (currently booked and available capacity) to the platform. The matching and creation of the bundled and unbundled products is done by the platform in accordance with applicable legal/regulatory framework, in a sequential manner according to a priority order where products of different types or “flavors” exist at one side of the border.</p>

³ “Issue paper” on the need for coordinated decisions at EU level for the implementation of the CMP guidelines.

⁴ ACER half-day workshop held on 12 June 2013.

⁵ http://www.acer.europa.eu/Official_documents/Acts_of_the_Agency/Publication/ACER_CMP_Guidance_issue_paper_on_CMP_implementation_20130808.pdf

Costs of booking platforms	
<p>Brief description</p> <p>The establishment and use of 'joint web-based booking platforms', as required under the CAM NC, involves capital expenditure and operational expenditure to be incurred by TSOs.</p> <p>How such fixed and variable costs are shared across the TSOs using a given platform and whether they are recognised as 'efficiently incurred' by the relevant NRAs remains an open issue in some Member States.</p>	<p>Current status</p> <p>With the establishment of joint booking platforms, two issues arise:</p> <ul style="list-style-type: none"> (i) the split of fixed and variable costs across the TSOs which join the platform (which is an internal matter to be decided upon by those TSOs) (ii) recognition by relevant NRAs of the costs borne by TSOs in the allowed revenues (or equivalent in non-revenue cap regimes). <p>The establishment of joint booking platforms is required by CAM NC (article 27) and the related costs should be recovered. In a number of Member States, NRAs have already recognised the joint platform costs incurred by TSOs. However, in others, this recognition is still pending. Some NRAs have recalled that insurances must be given that all TSO costs, including any incurred for joint booking platforms, are efficiently incurred by TSOs and that the costs of setting up or joining an alternative platform should be considered. This is an outstanding issue in some projects where a decision in this respect will have to be taken by NRAs, defining practical solutions as soon as possible where recognition of costs has not yet taken place.</p> <p>In addition, the absolute and relative costs of joining some existing platform are a key concern especially for small and medium-sized TSOs (e.g., those in Ireland, Portugal and Slovenia).</p>

Activities of joint platforms and need for appropriate exchange of information	
<p>Brief description</p> <p>TSOs should ensure that CAM implementation activities which take place via joint platforms are transparent to the market and NRAs, allowing appropriate exchange of information.</p>	<p>Current status</p> <p>With the objective of transparency, a copy of the general terms and conditions (GTs&Cs) between PRISMA and network users is available on the 'Download' webpage, a public section of PRISMA's website. For a revision of the GTs&Cs planned for 1 January 2014, PRISMA conducted a public consultation, including a public workshop, to solicit any questions or concerns from network users.</p>

Harmonisation of capacity contracts at both sides of the border

Brief description	Current status
<p>The implementation of the CAM NC will result in the harmonisation of a number of aspects of capacity contracts (duration, units, etc.). The CAM NC, however, does not require standardisation of capacity products in terms of firmness. Further harmonisation of contractual terms will result eventually when other network codes are implemented (e.g. the balancing network code as regards nominations). Some stakeholders, however, are calling for yet additional harmonisation. The appropriate degree of harmonisation of capacity contracts is an open issue and requires analysis at EU-level.</p>	<p>Concerns have been expressed by some stakeholders, such as EFET, regarding existing differences among the contractual terms applied by TSOs at both sides of an IP (e.g. different degrees of firmness) which create inefficiencies or additional costs. In contrast, some other network users have asked that the rights underlying the existing contracts are maintained.</p> <p>The above concerns are expected to be treated as part of the scoping exercise for the proposed network code on Rules for Trading.</p>

Different currencies in use at each side of the border

Brief description	Example/s of solutions adopted
<p>When TSOs allocate capacity at IPs where the currency in use at each side of the border is different, operational challenges arise. In such situations, TSOs are working in order to solve the potential issue.</p>	<p>In the HU/RO project, it was decided to keep the reserve price in the corresponding currencies and then execute the bids in percentages of the reserve prices.</p> <p>In the project between PL/DE at Lasów IP, a different approach has been followed as one currency (€) was selected for the bids. The applicable exchange rate is the same as that applied at the moment of the completion of auctions.</p> <p>In PRISMA, only the currency for the Danish TSO, energinet.dk, is different from the euro used elsewhere. At the moment, no currency conversion mechanism has been implemented on the platform itself. Energinet.dk is responsible for converting Danish kroners into euros (and vice versa) when sending (receiving) data to (from) the platform.</p>

Harmonisation of the gas day between countries with different time zone

Brief description

Potential issues could also arise when TSOs allocate capacity at IPs where the time zones are different at both sides of the border. TSOs are working in order to tackle the potential issue.

Example/s of solutions adopted

This issue was addressed bilaterally in a successful way wherever it appeared. Given that the standard gas day is now defined (Article 3 “Definitions” of the CAM NC), this should not be an issue for CAM early implementation projects in the future.

Licensing issues

Brief description

The different requirements in terms of licenses for the users to operate in different countries might create in some cases a potential obstacle to take into account when accessing bundled capacity at certain IPs.

Example/s of solutions adopted

Energy shippers in Hungary and some other Central-Eastern European Member States are required to obtain a licence to trade gas at wholesale level; however, the licence criteria differ from Member State to Member State. A form of cross-border licensing is therefore needed. This is a key issue that is being addressed in discussion with NRAs.

In France, all network users are required to obtain a licence from the government, which then enables them to sign a transmission contract with GRTgaz and/or TIGF. It is not, however, the task of the TSO to check the validity of the licence, as it is a representation of the network user who commits on it and remain liable for any misrepresentation.

4.6. Key factors for success in early implementation of CAM

The following table lists identified key factors for success (KFSs) in early implementation of CAM NC based on observation of projects and interviewing project participants. The key factors have been identified in two separate groups: project specific factors and problematic issues of general interest. With regards to the first group, TSOs and NRAs have the role to identify and report on the steps needed in order to successfully implement the pilot project. For wider factors with European scope, these should be addressed within the structures described in the 'Governance' section.

Project specific factors

Legal and regulatory environment	National regulatory rules shall allow for the early implementation of CAM (*)
Degree of coverage of CAM NC	Coverage of CAM NC requirements shall be as wide as possible Currently key aspects such as the offer of bundled capacity and the implementation of Coordinated auctions is developed in several pilot projects
Strong support from all parties	Strong commitment and support from all parties involved is needed (TSOs, NRAs, GRIs, ENTSOG, ACER, the EC, Member States and Network Users)
Coverage of costs	NRAs shall guarantee that the costs efficiently incurred by TSOs are covered e.g. by tariffs

* With regards to regulatory requirements: other pieces of legislation at national level that have an impact on CAM implementation shall be identified by TSOs and NRAs. TSOs and NRAs will monitor draft legislation in development and will highlight the pieces that need to be changed to allow CAM Implementation.

European factors (wider scope)

Share experiences	<p>The share of experiences allows opportunities for other TSOs to learn from experience gained in pilots</p> <p>It minimises the duplication of efforts and the existence of inefficient costs</p>
Stability of provisions in CAM NC	<p>Stability is especially important with regards to auction algorithms, due to its impact on the design of IT projects</p>
Geographical diversity	<p>Geographical diversity of pilot projects allows wide implementation of CAM NC in Europe</p>
Resources	<p>Ability of TSOs to devote resources to develop new solutions is also a required condition</p>
Convergence	<p>Progressive convergence of projects is strongly recommended</p>

ANNEX 1: PILOT PROJECTS MAIN FEATURES

A. PRISMA and current participating bundling initiatives

TSOs involved	Member States Involved	Project description
19 TSOs involved: Bayernets, BOG, Energinet DK, Fluxys Belgium, FluxysTenp, Gascade, Gas Connect Austria, GRTgaz, GRTgaz Deutschland, GTS, GTG Nord, GUD, Nowega, Ontras, Open Grid Europe, Snam Rete Gas, TAG, Terranetsbw, Thyssengas	Austria, Belgium, Denmark, France, Germany, Italy, Netherlands (at present)	<ul style="list-style-type: none"> - Common platform for the allocation of capacity according to CAM NC rules - The common platform is operation since April 2013 - New functionalities, e.g. secondary market and within day, will be implemented - The platform is open to all TSOs interested in the project.

Project Features

- The service company is operating the platform, carry out auctions and distribute the products on behalf of the TSOs since April 2013.
- The shares & costs of the new company are distributed over the participating countries based on the ENTSOG voting rules.
- The platform connects the different backend systems of the various TSOs using standard IT-communication interfaces.
- Requirements have been developed by TSOs and platform operators; the requirements have been evaluated by and discussed with IT specialists.
- Existing infrastructures has been effectively used to ensure cost efficiency.
- The platforms TRAC-X, Capsquare & Link4Hubs, have been replaced by the new joint platform which uses all their benefits and collective experience.
- With the joint platform shippers are able to book capacities at European network points through one single tool.
- Currently 277 shippers and more than 830 users are using the platform
- In addition the platform is able to handle regional regulatory specifics of different countries
- Secondary market features will be implemented in 2014
- Within day will be implemented at latest by November 1st 2015

Bundled capacity allocation at Tarvisio-Arnoldstein

TSOs involved	Member States Involved	Project description
TAG, Snam Rete Gas	Austria, Italy	<p>Allocation of bundled capacity according to CAM Network Code rules via a proposal for day-ahead capacity allocation at Austria-Italy IP in order to better connect Baumgarten and PSV hubs.</p> <ul style="list-style-type: none">- Firm and interruptible bundled day-ahead capacity allocated in both flow directions.- IP involved: Arnoldstein/Tarvisio

Background

In July 2011 TAG and SRG have developed a joint procedure for the coordinated interruptible capacity allocation at both sides of the IP being assigned via auction on TAG system and with a corresponding nomination on SRG system. At the beginning of 2012 the concerned NRAs and TSOs have started to work on the early implementation of CAM NC for the allocation of day-ahead capacity.

Project Features

A joint task force has been established amongst NRAs and TSOs. Joint guidelines related to the adoption of the CAM NC provisions have been developed by the NRAs and shared for comments with the involved TSOs, which have been subsequently formally consulted in autumn 2012. The Joint guidelines are intended to provide the required regulatory background to TAG and SRG for the early implementation of the CAM NC provisions concerning day-ahead capacity.

The project has been presented in the SSE GRI and warmly welcomed by stakeholders.

SRG and TAG have taken part to the establishment of the Joint capacity platform (PRISMA) through which they are offering bundled day-ahead capacity products at Arnoldstein/Tarvisio.

Joint Guidelines (consulted with stakeholder during October 2012) have been published in early 2013. Network Code and Terms & Conditions resulted consequently updated in order to implement the new provisions.

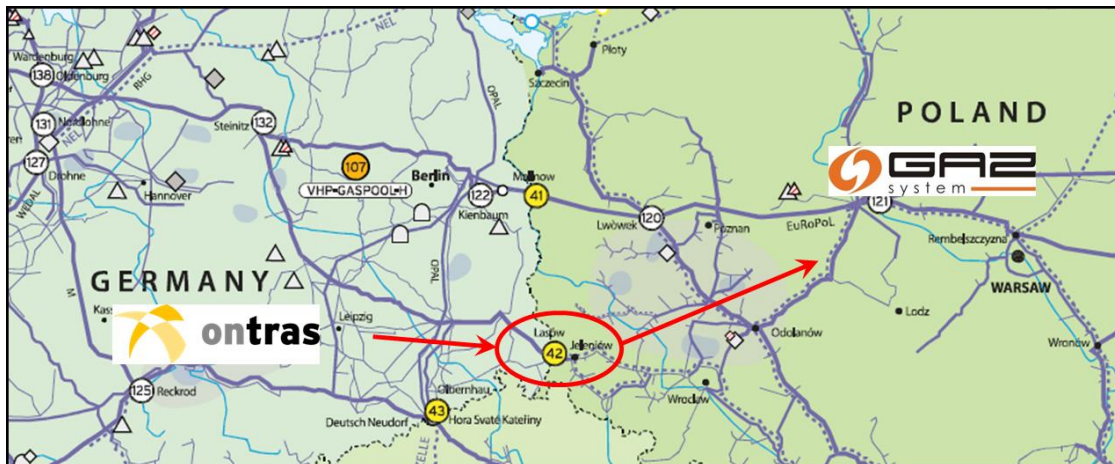
Allocation of daily bundled capacity products (firm and interruptible) according to the CAM NC provisions has started in April 2013.

Next steps

The introduction of other products is under evaluation by concerned parties and is foreseen during 2014.

B. Bundled Product at Lasów

TSOs involved	Member States Involved	Project description
Ontras, Gaz-System	Germany, Poland	Allocation of bundled capacity according to CAM NC rules. The aims of the project are: <ul style="list-style-type: none"> - Define how a bundled capacity product can be implemented between Germany and Poland. - Early implementation of CAM NC rules (for selected products during pilot phase and the residual CAM products afterwards). - Via a pilot phase, test if and how further bundled products can be offered. - Learn from experiences for future cooperation/development stages. - Work towards the integration of the European gas market.



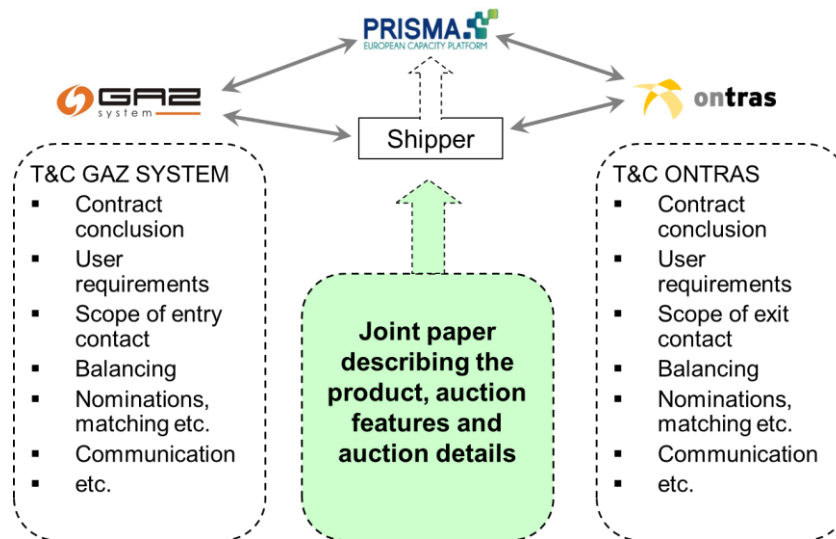
Project Features

- The auctions are carried out on the basis of the CAM NC
- During the pilot phase, the TSOs offered quarterly capacity products for the first three quarters of 2014.

Both TSOs intend to implement:

- Yearly products according to CAM as of March 2014 (and in the following years)
- Subsequent quarterly products as of June 2014 (and in the following years)
- Monthly and daily CAM products and intend to offer these products as of end 2014

Contract set up



Achievements

- Concept paper agreed with NRAs in summer 2012
- Capacity to be bundled in the future agreed
- Cooperation Agreement finalized
- Specific Terms & Conditions developed
- Joint Product Description Paper published
- Service Agreement with PRISMA finalized
- Market consultation held from 5th until 23rd of November 2012 including a Shipper Workshop on 15th November
- Terms & Conditions of both TSOs published
- Shipper Manual how to register with the TSOs/platform and how to auction the capacity developed and published
- Shipper registration in April and May 2013 completed

On the 3rd and 4th of June 2013, the Transmission System Operators (TSO) GAZ-SYSTEM S.A., Poland and ONTRAS Gastransport GmbH, Germany (ONTRAS) for the very first time offered the bundled capacity products at the interconnection point Lasów.

Results

The three auctions have been carried out properly. Resulting of the shipper bids the following bundled capacities were allocated:

- 2nd quarter of Gas Year 2013/2014 [January 2014 – March 2014] auctioning 57,980 kWh/h (5,200 nm³/h):

- Allocated capacity: 57 000 kWh/h
- Free capacity: 980 kWh/h
- 3rd quarter of Gas Year 2013/2014 [April 2014 – June 2014] auctioning 57,980 kWh/h (5 200 nm³/h):
 - Allocated capacity: 20,100 kWh/h
 - Free capacity: 37,880 kWh/h
- 4rd quarter of Gas Year 2013/2014 [July 2014 – September 2014] auctioning 57,980 kWh/h (5,200 nm³/h):
 - Allocated capacity: 21,115 kWh/h
 - Free capacity: 36,865 kWh/h

Next steps

- In May 2013 ONTRAS and GAZ-SYSTEM signed a Memorandum of Understanding for better cooperation and further works on bundling the capacity in future.
- Both TSOs committed to implement the provisions of the European Network Code on Capacity Allocation Methodologies ahead of its official entering into force.

C. Hungary-Romania capacity bundling and allocation project

TSOs involved	Member States Involved	Project description
FGSZ,	Hungary,	Allocation of bundled capacity on the HU-RO interconnector via Booking Platform according to the CAM NC.
Transgaz	Romania	The HU/RO interconnector went operational in fall 2010. The project was eligible for EEPR funding. It serves the purposes of both security of supply and market facilitation.

Background

- Transgaz and FGSZ signed a MoU in July 2012 in order to cooperate on 3rd Energy Package issues as well, establishing five joint working groups for:
 - Capacity bundling and booking platform (pilot project)
 - Alignment of network usage dimensions
 - Alignment of operational balancing
 - Alignment of commercial balancing
 - Enabling bidirectional gas flow

Project Features

Phase I of the pilot project – lifting barriers and introducing short term bundled products that are allocated via the Regional Booking Platform

- Development of the Romanian VTP under discussion
- Harmonized VTP-VTP access rules involving NRAs (HEO and ANRE) in order to enable genuine capacity bundling ('product bundling'),
- Simplified licensing process
- Harmonization of gas day (according to CAM NC)
- Bundling of the following products according to CAM NC auction calendar
 - Monthly capacity and Day-ahead capacity
 - Allocation of bundled capacities via the Regional Booking Platform
 - Synchronised and simplified nomination rules

Phase II of the pilot project – introducing all standardised products

- Bundling of Within-Day capacity, Quarterly capacity and Yearly capacity
- Introducing additional services e.g. secondary capacity transactions, all nominations via the

“RBP” Regional Booking Platform

- The Regional Booking Platform (RBP) was especially developed in order to comply with the CAM NC requirements. The RBP is a stand-alone software, a ready-to-implement, fully CAM NC compliant solution.
- The RBP has a web-based functioning as a thin client, i.e. TSOs and Network Users can continue using their existing back-end systems, there is no or almost no back-end development requirement due to the RBP software design. This solution ensures the most overall costs efficiency considering the vast variety of existing TSO and Network User back-end systems.
- High-performance scalable design that can accommodate in theory all simultaneously running auctions of all the European IPs at the same time.
- High reliability criteria are defined
 - permanently available test environment for new releases,
 - at least 99.95% availability,
 - continuously running backup service at a different physical site,
 - security is ensured through https connection and user authentication issued by trusted provider,
- Open-end development, i.e. new European or national regulatory requirements or TSO business ideas can be added in a flexible way.
- From a technical point of view, it is ready to be used, however the actual start of the platform depends on when harmonized national rules enable its usage (see the Main Milestones section).
- Available functions as of 6th September 2013:
 - All Phase I & II capacity products are available for booking,
 - CAM NC auction algorithms (uniform price and ascending clock),
 - Auction calendar (automatic and manual),
 - System and business entity setup
 - TSO setup,
 - Capacity available for bundling,
 - Network User credit limit.
 - IP setup,
 - Network User setup,
 - Indication of active IPs,
 - Licensed shippers checked by TSOs,
 - Network User representative authentication.
 - Capacity bundling and capacity roll-over,

- Credit risk management.
- Public portal with aggregated results of the auctions
- Specific Network User and TSO reports
- Further functions to become available in H1 2014
 - Handling of daily nominations and renominations,
 - Secondary capacity trade
 - OTC
 - Anonymous, exchange-like capacity trading
- Other functions under development:
 - Customizable xml SOAP interfaces for different functions and front-end solutions, as required by Network Users and TSOs

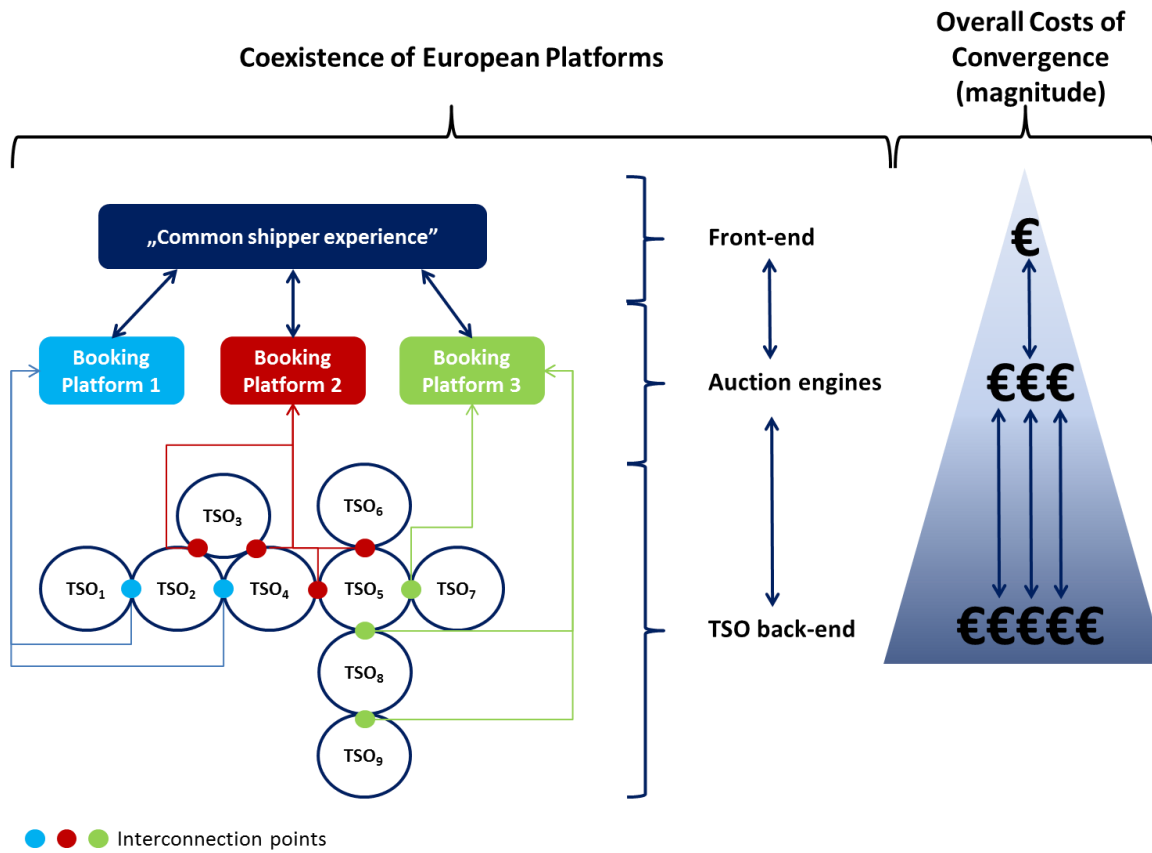
Concept of Platform Convergence

TSO back-end IT solutions widely vary in depth and complexity in the CEE region. An approach that envisages the full uniformisation (i.e. a unified solution for front-end, auction engine and back-end) would require much longer implementation time and considerably more resources where differences are large among individual TSOs. We find it crucial to develop answers tailored to the specific needs of market participants, including network users and TSOs. Such typical issues include licensing in the region, multi-currency and multi-regulatory environment or the handling of credit risk.

In other commodity markets, it is a common practice to use one or more front-end systems that are compatible with a number of back-end systems. The reason for such network architecture is not only to save IT development and IT operation costs but also to serve as a risk minimisation strategy in case of unforeseen events that prevent the usage of one or more solution. In addition, the usages of some specific TSO back-end systems are critical from security of supply point of view, therefore any modification of such systems should be handled with utmost care.

We understand that it is important to offer a “common shipper experience.” In our view, this can be sufficiently and most cost-efficiently achieved by opting for the convergence of the capacity booking front-end solutions only, i.e. a common website or mask that offers as many bookable IPs as possible but enables different platforms to run the respective auction behind it. From a Network User point of view, there is no difference between the reduction of the number of the booking platforms (meaning BP solutions from front-end to back-end) or the usage of a common front-end (mask).

Based on the above mentioned, please see the following illustration of how booking platforms can co-exist in Europe and where convergence could take place in the most cost-efficient way, in our assessment.



D. Allocation of capacity in all IPs between entry-exit systems in the South Region: France, Spain and Portugal

TSOs involved	Member States Involved	Project description
GRTgaz, TIGF, REN, Enagas	Portugal, France, Spain	<p>The standardized capacity allocation mechanism is an auction procedure for all interconnection points between entry-exit systems, establishing standard capacity products to be offered for the cross-border and cross-market area capacity.</p> <p>Regulatory needs at national level for implement CAM have been identified: harmonization of gas day, temperature to measure gas, VIP creation.</p> <p>Main are: bundled products to be offered, standard capacity products, capacity set aside for products with shorter term duration, allocation calendar for 2014 and onwards, process to move from physical points to VIP, IT systems implementation for TSOs to use and integrate the information from auctions and its interaction with nomination, renomination and CMPs schemes.</p> <p>I) ES-FR: Monthly capacity products available for the period April 2014 to September 2014 will be offered using an Open Subscription Period.</p> <p>II) FR-ES-PT: Allocation of yearly, quarterly capacity through auctions in March 2014 and June 2014, respectively, using a common platform.</p> <ul style="list-style-type: none"> - Monthly capacity products will be offered through rolling monthly auctions from the 3rd Monday of September 2014. - Day ahead will be offered when TSOs IT systems will be in place (the latest on November 2015) <p>The following IPs will be integrated into one VIP in the FR-ES border.</p> <ul style="list-style-type: none"> • Larrau (ES) / Alçay (FR) • Irún (ES) / Biriattou (FR) <p>The following IPs are integrated into one VIP in the ES-PT border.</p> <ul style="list-style-type: none"> • Valença do Minho (PT) / Tuy (ES) • Badajoz (ES) / Campo Maior (PT) <p>III) FRENCH BALANCING ZONES:</p> <p>i) IP between GRTGaz North and South</p> <ul style="list-style-type: none"> - GRTgaz North-GRTgaz South: same methodology as Nov 2012 for Apr 2014 to Sept 2014 (guaranteed allocation+prorata taking into account delivery commitments in North to South direction, OSP with pro rata in the South to North direction) and first auctioning of yearly capacity in March 2014 (for capacity between October 2014 and 2018). As of March 2014, progressive auctioning of all standard capacity products according to CAM calendar. - Objective to create a single PEG France in 2018 <p>ii) IP between GRTGaz South and TIGF</p> <ul style="list-style-type: none"> - Single PEG GRTgaz Sud-TIGF in April 2015 - OSP with prorata to allocate April 2014-Sept 2014 and Oct 2014-Mar 2015 - Daily and within-day auctions is subject to the availability of the TSOs IT systems

Project Features

- Products offered in 2012 and 2013 auctions at Spanish-Portuguese VIP were:
 - Yearly and monthly firm capacity products offered for the gas year 1st Oct. 2012 to 30th Sep. 2013
- Yearly and quarterly firm capacity products offered for the period 1st Oct 2013 to 30th Sep 2014.
 - Existing entry and exit capacity between Spain and Portugal as a bundled product, in both flow directions in a virtual point;
 - Interruptible products offered if more than 95% of firm capacity for the firm product(s) for that period and flow direction has been allocated at the previous Firm Products Auctions.

Evaluation of the process (I)

- In the first round of auctions in autumn 2012, no capacity was allocated. In 2013 auction the participation level has been higher and yearly capacity products have been allocated.
- The transition from a continuous FCFS system to an auction system is accepted but not warmly welcomed by shippers, at least in environments where congestion and lack of competition are not the primary concerns.
- It implies higher costs for shippers: at least the provision of financial guarantees to participate in the auction and the risk of a premium charge.
- Auctions are less flexible for shippers in Spain, where until now under FCFS they could subscribe capacity for any period, from one day to several years, freely choosing the starting and finishing date.
- Shippers also miss the possibility of securing “flat” capacity for a given period (different than one year).
- On the Portuguese side, this project was the first time that capacity was offered on a firm yearly and monthly basis, while until then capacity could be freely booked up to day-ahead as an unbundled product, and no congestion was present.
- Also in Portugal, all booked capacity at the IP was charged as per use, while the new capacity sold through auction is due to be paid in advance through a contract arrangement. From October 2013, capacity booking at entry-exit points of the Portuguese transmission network as well as for LNG terminal and underground storage facilities is done through standard capacity products and allocated through a mechanism based on

the CAM Network Code. This change also applies to unbundled capacity at the IPs with Spain (not included in the VIP).

- When the project was launched the main physical point at Spain-Portugal border was congested. Due to market and/or regulatory changes, at the time of applying the process there was no congestion, so a significant level of demand was not expected (why booking through this procedure and not before, or after, since FCFS rules apply to VIP bundle capacity after the auctions for yearly and quarterly products?).
- Despite these difficulties, the pilot has been very useful to identify which regulations had to be adapted, which documentation and processes had to be developed, and to raise awareness among shippers of the implications of the NC ("bundled capacity", standard capacity products...).

ANNEX 2: Early implementation of CAM NC per interconnection point (IP)

APPLICATION ON BOTH SIDES OF IP						By when will firm capacity products (where available) be allocated via auctions?										When product(s) auctioned, by when...					COMMENTS
IP NAME/ LOCATION	TSO1	CC	Dir	TSO2	CC	Yearly		Quarterly		Monthly		Daily		Within-day		Web-based platform used?	URL/web link for booking platform	CAM NC timings used?	CAM NC auctions algorithms used?		
						Offered	Bundled	Offered	Bundled	Offered	Bundled	Offered	Bundled	Offered	Bundled						
Ahlten	Open Grid Europe Nowega	DE	>	Nowega	DE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	2015/TBD	2015/TBD	Yes	https://primary.prima-capacity.eu/	Yes	Yes		
		DE	>	Open Grid Europe	DE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	TBD/2015	TBD/2015	Yes	https://primary.prima-capacity.eu/	Yes	Yes		
Alveringem	GRTgaz	FR	>	Fluxys Belgium	BE	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	NA	ID	ID	CAM NC will apply to the available capacity when operational end-2015	
Bacton	NationalGrid	UK	>	Interconnector	UK	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	NA	ID	ID		
	Interconnector	UK	>	NationalGrid	UK	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	NA	ID	ID		
	SBL company	UK	>	NationalGrid	UK	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	NA	ID	ID		
Baumgarten	eustream	SK	>	BOG	AT	ID/Yes	ID/TBD	ID/Yes	ID/TBD	ID/Yes	ID/TBD	ID/Yes	ID/TBD	ID/Yes	ID/TBD	Yes	https://primary.prima-capacity.eu/	Yes	Yes		
	BOG	AT	>	eustream	SK	Yes/ID	TBD/ID	Yes/ID	TBD/ID	Yes/ID	TBD/ID	Yes/ID	TBD/ID	Yes/ID	TBD/ID	Yes	https://primary.prima-capacity.eu/	Yes	Yes		
	eustream	SK	>	Gas Connect Austria	AT	ID/Yes	ID/TBD	ID/Yes	ID/TBD	ID/Yes	ID/TBD	ID/Yes	ID/TBD	ID	ID	Yes	https://primary.prima-capacity.eu/	Yes	Yes		
	eustream	SK	>	TAG	AT	ID/Yes	ID/TBD	ID/Yes	ID/TBD	ID/Yes	ID/TBD	ID/Yes	ID/TBD	ID/No	ID/No	Yes	https://primary.prima-capacity.eu/	Yes	Yes		
Biriatou (FR) / Irún (ES)	TIGF	FR	>	Enagas	ES	2014	2014	2014	2014	2014	2014	2015	2015	2015	2015	Yes	https://primary.prima-capacity.eu/	Yes	Yes	Capacity at the two physical IPs (i.e. Larrau + Biriatou (FR) / Irún (ES)) will be offered through a VIP as from March 2014.	
	Enagas	ES	>	TIGF	FR	2014	2014	2014	2014	2014	2014	2015	2015	2015	2015	Yes	https://primary.prima-capacity.eu/	Yes	Yes		
Larrau (See comment to understand order in list)	TIGF	FR	>	Enagas	ES	2014	2014	2014	2014	2014	2014	2015	2015	2015	2015	Yes	https://primary.prima-capacity.eu/	Yes	Yes		
	Enagas	ES	>	TIGF	FR	2014	2014	2014	2014	2014	2014	2015	2015	2015	2015	Yes	https://primary.prima-capacity.eu/	Yes	Yes		
Blaregnies Segeo (BE) / Taisnières (H) (FR)	Fluxys Belgium	BE	>		FR	ID/Yes		ID		ID/Yes		ID/Yes	ID/Yes	ID	ID	Yes	https://primary.prima-capacity.eu/	Yes	Yes		
Blaregnies Troll (BE) / Taisnières (H) (FR)	Fluxys Belgium	BE	>	GRTgaz	FR	ID/Yes	TBD	ID	TBD	ID/Yes	TBD	Yes	Yes	ID	ID	Yes	https://primary.prima-capacity.eu/	Yes	Yes		
Blaregnies Segeo (BE) / Taisnières (H) (FR)	GRTgaz	FR	>	Fluxys Belgium	BE	Yes/ID	TBD	ID	TBD	Yes/ID	TBD	Yes/ID	Yes/ID	ID	ID	Yes	https://primary.prima-capacity.eu/	Yes	Yes		
Blaregnies-L (BE) / Taisnières-L (FR)	Fluxys Belgium	BE	>	GRTgaz	FR	ID/Yes	TBD	ID	TBD	ID/Yes	TBD	ID/Yes	TBD	ID	ID	Yes	https://primary.prima-capacity.eu/	Yes	Yes		
Bocholtz	Gasunie Transport Services	NL	>	Open Grid Europe	DE	2013/Yes	2013/2014	2013/Yes	2013/2014	2013/Yes	2013/2014	Yes	Yes	TBD	TBD	Yes	https://primary.prima-capacity.eu/	Yes	Yes		
	Open Grid Europe	DE	>	Gasunie Transport Services	NL	Yes/NA	2014/NA	Yes/NA	2014/NA	Yes/2013	2014/2013	Yes/2013	2014/2013	2015/TBD	2015/TBD	Yes	https://primary.prima-capacity.eu/	Yes	Yes		
Bocholtz	Gasunie Transport Services	NL	>	Fluxys TENP	DE	2013/Yes	2013/2014	2013/Yes	2013/2014	2013/Yes	2013/2014	2013/Yes	2013/2014	TBD/ID	TBD/ID	Yes	https://primary.prima-capacity.eu/	Yes	Yes		
	Fluxys TENP	DE	>	Gasunie Transport Services	NL	Yes/NA	2014/NA	2014/NA	2013/2014	Yes/TBD	2014/TBD	Yes/TBD	2014/TBD	ID/TBD	ID/TBD	Yes	https://primary.prima-capacity.eu/	Yes	Yes		
Bocholtz-Vetschau	Gasunie Transport Services	NL	>	Thyssengas	DE	2013/Yes	2013/2015	2013/Yes	2013/2015	2013/Yes	2013/2015	Yes	Yes	TBD/2015	TBD/2015	Yes	https://primary.prima-capacity.eu/	Yes	Yes		
	Thyssengas	DE	>	Gasunie Transport Services	NL	NA	NA	NA	NA	NA	NA/TBD	NA/TBD	NA/TBD	NA/TBD	NA/TBD	NA	NA	NA	NA	Thyssengas: interruptible capacity only; GTS: backhaul firm only day & month	
Brandov (CZ) / Brandov-STEGL (DE) Olbernhau 2 (DE) / Hora Sväté Kateřiny (CZ)	NET4GAS	CZ	>	Gascade	DE	ID/Yes	ID/TBD	ID/Yes	ID/TBD	ID/Yes	ID/TBD	ID/Yes	ID/TBD	ID/TBD	ID/TBD	Yes	https://primary.prima-capacity.eu/	Yes	Yes		
	Gascade	DE	>	NET4GAS	CZ	Yes/ID	TBD/ID	Yes/ID	TBD/ID	Yes/ID	TBD/ID	Yes/ID	TBD/ID	TBD/ID	TBD/ID	Yes	https://primary.prima-capacity.eu/	Yes	Yes		
Broichweiden Süd	Gascade	DE	>	Thyssengas	DE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	2015	2015	Yes	https://primary.prima-capacity.eu/	Yes	Yes		
	Thyssengas	DE	>	Gascade	DE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Currently interruptible capacity only	
Bunder-Tief	Gasunie Deutschland Transport Services	DE	>	Open Grid Europe	DE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	TBD/2015	TBD/2015	Yes	https://primary.prima-capacity.eu/	Yes	Yes		
	Open Grid Europe	DE	>	Gasunie Deutschland Transport Services	DE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	2015/TBD	2015/TBD	Yes	https://primary.prima-capacity.eu/	Yes	Yes		
Cieszyn	NET4GAS	CZ	>	GAZ-SYSTEM	PL	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	NA	ID	ID		
	GAZ-SYSTEM	PL	>	NET4GAS	CZ	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	NA	ID	ID		
Csanádpalota	FGSZ	HU	>	Transgaz	RO	Yes/2014	Yes	2014	Yes	Yes/2013	Yes	Yes/2014	Yes	Yes/2014	Yes	Yes	portal currently under construction	Yes	Yes		
	Transgaz	RO	>	FGSZ	HU	Yes/2014	Yes	2014	Yes	Yes/2013	Yes	Yes/2014	Yes	Yes/2014	Yes	Yes	portal currently under construction	Yes	Yes	Firm RO-HU capacity (reverse flow) to become available in Dec 2013	
Dravasserdahely	FGSZ	HU	>	Pinacro	HR	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	NA	ID	ID		
	Pinacro	HR	>	FGSZ	HU	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	NA	ID	ID		
Drohne	Gasunie Deutschland Transport Services	DE	>	Open Grid Europe	DE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	TBD/2015	TBD/2015	Yes	https://primary.prima-capacity.eu/	Yes	Yes		
	Open Grid Europe	DE	>	Gasunie Deutschland Transport Services	DE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	2015/TBD	2015/TBD	Yes	https://primary.prima-capacity.eu/	Yes	Yes		

APPLICATION ON BOTH SIDES OF IP

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IP NAME/ LOCATION	TSO1	CC	Dir	TSO2	CC	Yearly		Quarterly		Monthly		Daily		Within-day		Web-based platform used?	URL/web link for booking platform	CAM NC timings used?	CAM NC auctions algorithms used?		
						Offered	Bundled	Offered	Bundled	Offered	Bundled	Offered	Bundled	Offered	Bundled						
Ellund	Energinet.dk	DK	>	Open Grid Europe	DE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	TBD	TBD	Yes	https://primary.prisma-capacity.eu/	Yes	Yes		
	Energinet.dk	DK	>	Gasunie Deutschland Transport Services	DE	Yes	2013/Yes	Yes	2013/Yes	Yes	2013/Yes	Yes	2013/Yes	2013/TBD	2015/TBD	Yes	https://primary.prisma-capacity.eu/	Yes	Yes		
	Open Grid Europe	DE	>	Energinet.dk	DK	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	TBD	TBD	Yes	https://primary.prisma-capacity.eu/	Yes	Yes		
	Gasunie Deutschland Transport Services	DE	>	Energinet.dk	DK	Yes	Yes/2014	Yes	Yes/2014	Yes	Yes/2014	Yes	Yes/2014	TBD/2013	TBD/2015	Yes	https://primary.prisma-capacity.eu/	Yes	Yes		
Emsbüren-Berge	Gasunie Deutschland Transport Services	DE	>	Thyssengas	DE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	TBD/2015	TBD/2015	Yes	https://primary.prisma-capacity.eu/	Yes	Yes		
	Thyssengas	DE	>	Gasunie Deutschland Transport Services	DE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	https://primary.prisma-capacity.eu/	NA	NA	interruptible capacity only	
Emsbüren RG (L-gas)	Gasunie Deutschland Transport Services	DE	>	Open Grid Europe	DE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	TBD	TBD	Yes	https://primary.prisma-capacity.eu/	Yes	Yes		
	Open Grid Europe	DE	>	Gasunie Deutschland Transport Services	DE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	TBD	TBD	Yes	https://primary.prisma-capacity.eu/	Yes	Yes		
Etzel	Open Grid Europe	DE	>	jordgasTransport	DE	Yes	No	Yes	No	Yes	No	Yes	No	2015	No	Yes	https://primary.prisma-capacity.eu/	Yes	Yes		
	jordgasTransport	DE	>	Open Grid Europe	DE	Yes	No	Yes	No	Yes	No	Yes	No	2015	No	Yes	https://primary.prisma-capacity.eu/	Yes	Yes		
Eynatten 1 (BE) / Eynatten (DE)	Fluxys Belgium	BE	>	Gascade	DE	ID/Yes	ID/TBD	ID/Yes	ID/TBD	ID/Yes	ID/TBD	Yes	Yes	ID/TBD	ID/TBD	Yes	https://primary.prisma-capacity.eu/	Yes	Yes		
	Gascade	DE	>	Fluxys Belgium	BE	Yes/ID	TBD/ID	Yes/ID	TBD/ID	Yes/ID	TBD/ID	Yes	Yes	TBD/ID	TBD/ID	Yes	https://primary.prisma-capacity.eu/	Yes	Yes		
Eynatten 2 (BE) // Lichtenbusch / Raeren (DE)	Fluxys Belgium	BE	>	Open Grid Europe	DE	ID/Yes	ID/2014	ID/Yes	ID/2014	ID/Yes	ID/2014	Yes	Yes	ID/TBD	ID/TBD	Yes	https://primary.prisma-capacity.eu/	Yes	Yes		
		BE	>	Fluxys TENP	DE	ID/Yes	ID	ID/Yes	ID	ID/Yes	ID	Yes	Yes	ID	ID	Yes	https://primary.prisma-capacity.eu/	Yes	Yes		
		BE	>	Thyssengas	DE	ID/Yes	ID/2015	ID/Yes	ID/2015	ID/Yes	ID/2015	Yes	Yes	ID/2015	ID/2015	Yes	https://primary.prisma-capacity.eu/	Yes	Yes		
Lichtenbusch / Raeren (DE) // Eynatten 2 (BE)	Fluxys TENP	DE	>	Fluxys Belgium	BE	Yes/ID	ID	Yes/ID	ID	Yes/ID	ID	Yes	Yes	ID	ID	Yes	https://primary.prisma-capacity.eu/	Yes	Yes		
		DE	>		BE	Yes/ID	2014/ID	Yes/ID	2014/ID	Yes/ID	2014/ID	Yes	Yes	TBD/ID	TBD/ID	Yes	https://primary.prisma-capacity.eu/	Yes	Yes		
		DE	>		BE	NA	NA	NA	NA	NA	NA	NA	NA	NA	ID	NA	ID	Currently only interruptible capacity from Thyssengas, while only Firm products bundled!			
Gorizia (IT) / Sempeter (SI)	Snam Rete Gas	IT	>	Plinovodi	SI	2014/ID	TBD	2014/ID	TBD	2014/ID	TBD	2014/ID	TBD	2015/ID	TBD	Yes/ID	https://primary.prisma-capacity.eu/	Yes/ID	Yes/ID		
	Plinovodi	SI	>	Snam Rete Gas	IT	ID/2014	TBD	ID/2014	TBD	ID/2014	TBD	ID/Yes	TBD	ID/2015	TBD	ID/Yes	https://primary.prisma-capacity.eu/	ID/Yes	ID/Yes		
's Gravenvoeren (NL) / 's Gravenvoeren (BE)	Gasunie Transport Services	NL	>	Fluxys Belgium	BE	2013/ID	ID	2013/ID	ID	2013/ID	ID	Yes	Yes	ID	ID	Yes	https://primary.prisma-capacity.eu/	Yes	Yes		
	Fluxys Belgium	BE	>	Gasunie Transport Services	NL	ID/NA	ID/NA	ID/NA	ID/NA	ID/TBD	ID/TBD	ID/TBD	ID/TBD	ID/TBD	ID/TBD	ID	NA	ID	ID	GT3: Backhaul firm only day & month.	
Gubin	Ontras	DE	>	GAZ-SYSTEM	PL	Yes	ID	Yes	ID	Yes	ID	Yes	ID	ID	ID	Yes	https://primary.prisma-capacity.eu/	Yes/ID	Yes/ID	Discussions on future booking procedures ongoing	
Haanrade	Gasunie Transport Services	NL	>	Thyssengas	DE	TBD/Yes	TBD	TBD/Yes	TBD	TBD/Yes	TBD	TBD/Yes	TBD	TBD/Yes	TBD	Yes	https://primary.prisma-capacity.eu/	Yes	Yes		
Horn Svaté Kateřiny (CZ) / Deutsch-Neudorf (DE)	Ontras	DE	>	NET4GAS	CZ	Yes/ID	ID	Yes/ID	ID	Yes/ID	ID	Yes/ID	ID	ID	ID	Yes/ID	https://primary.prisma-capacity.eu/	Yes/ID	Yes/ID		
	NET4GAS	CZ	>	Ontras	DE	ID/Yes	ID	ID/Yes	ID	ID/Yes	ID	ID/Yes	ID	ID/Yes	ID	ID/Yes	https://primary.prisma-capacity.eu/	ID/Yes	ID/Yes		
IZT	Interconnector	BE	>	Fluxys Belgium	BE	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	NA	ID	ID		
	Fluxys Belgium	BE	>	Interconnector	BE	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	NA	ID	ID		
Julianadorp (NL) / Balgzand (UK)	Gasunie Transport Services	NL	>	BBL company	UK	2013/ID	2013/ID	2013/ID	2013/ID	2013/ID	2013/ID	2013/ID	2013/ID	TBD/ID	TBD/ID	Yes	https://primary.prisma-capacity.eu/	Yes	Yes		
Kamminke	GAZ-SYSTEM	PL	>	Ontras	DE	Yes	ID	Yes	ID	Yes	ID	Yes	ID	ID	ID	Yes	https://primary.prisma-capacity.eu/	ID/Yes	ID/Yes	Discussions on future booking procedures ongoing	
Kienbaum	Gascade	DE	>	Open Grid Europe	DE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	TBD	TBD	Yes	https://primary.prisma-capacity.eu/	Yes	Yes		
	Open Grid Europe	DE	>	Gascade	DE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Yes	https://primary.prisma-capacity.eu/	NA	NA	Currently interruptible capacity only	
Kula (BG) / Sidirokastro (GR)	Bulgartransgaz	BG	>	DESFA	GR	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	NA	ID	ID		
Lampertheim I	Gascade	DE	>	Open Grid Europe	DE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	TBD	TBD	Yes	https://primary.prisma-capacity.eu/	Yes	Yes		
	Open Grid Europe	DE	>	Gascade	DE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Yes	https://primary.prisma-capacity.eu/	NA	NA	Currently interruptible capacity only	
Lampertheim IV	Gascade	DE	>	terraneis bw	DE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	2015/ID	2015/ID	Yes	https://primary.prisma-capacity.eu/	Yes	Yes		
	terraneis bw	DE	>	Gascade	DE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
Lanzhot	eustream	SK	>	NET4GAS	CZ	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	NA	ID	ID		
	NET4GAS	CZ	>	eustream	SK	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	NA	ID	ID		
Lesów	Ontras	DE	>	GAZ-SYSTEM	PL	Yes	Yes/2014	Yes	Yes/2014	Yes	2014	Yes	2014	ID	ID	Yes/ID	https://primary.prisma-capacity.eu/	Yes/ID	Yes/ID		
Liaison Nord Sud	GRTgaz	FR	>	GRTgaz	FR	Yes	Yes	ID	ID	Yes	Yes	Implicit allocation + UIOLI				ID	NA	ID	ID	Awaiting CRE decision re PRISMA bookings in March 2014	
Lwówek	Gas-System (ISO)	PL	>	GAZ-SYSTEM	PL	2015	2015	2015	2015	2015	2015	2015	2015	2015	2015	NA	NA	NA	NA	Eventual use of GAZ-SYSTEM platform	
Mallnow	Gas-System (ISO)	PL	>	Gascade	DE	Yes	TBD	Yes	TBD	Yes	TBD	Yes	TBD	TBD	TBD	Yes	https://primary.prisma-capacity.eu/	Yes	Yes	Discussions on future booking procedures ongoing	
	Gascade	DE	>	Gas-System (ISO)	PL	2014	TBD	2014	2014	2014	TBD	2014	TBD	TBD	TBD	Yes	https://primary.prisma-capacity.eu/	Yes	Yes		

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IP NAME/ LOCATION	TSO1	CC	Dir	TSO2	CC	Yearly		Quarterly		Monthly		Daily		Within-day		Web-based platform used?	URL/web link for booking platform	CAM NC timings used?	CAM NC auctions algorithms used?		
						Offered	Bundled	Offered	Bundled	Offered	Bundled	Offered	Bundled	Offered	Bundled						
Medelsheim (DE) / Obergeilbach (FR)	Open Grid Europe	DE	>	GRTgaz	FR	Yes	2014	Yes/ID	2014	Yes	Yes	Yes	Yes	TBD/ID	ID	Yes	https://primary-prime-capacity.eu/	Yes/TSO2	Yes/TSO3		
	GRTgaz Deutschland	DE	>	GRTgaz	FR	2014/Yes	2014	2014/ID	2014	Yes	Yes	Yes	Yes	ID	ID	Yes	https://primary-prime-capacity.eu/	TSO1/Yes	TSO1/Yes		
Moffat	NationalGrid	UK	>	Gaslink	IE	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	NA	ID	ID		
Mosonmagyaróvár	Gas Connect Austria	AT	>	FGSZ	HU	Yes/ID	TBD/ID	Yes/ID	TBD/ID	Yes/ID	TBD/ID	Yes/ID	TBD/ID	ID	ID	Yes	https://primary-prime-capacity.eu/	Yes	Yes		
	FGSZ	HU	>	Gas Connect Austria	AT	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	NA	ID	ID		
Murfeld (AT) / Čeršak (SI)	Gas Connect Austria	AT	>	Plinovodi	SI	Yes/ID	TBD	Yes/ID	TBD	Yes/ID	TBD	Yes/ID	TBD	ID	ID	Yes/ID	https://primary-prime-capacity.eu/	Yes/ID	Yes/ID		
Negru Voda I	Transgaz	RO	>	Bulgartransgaz	BG	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	NA	ID	ID		
Negru Voda II-III	Transgaz	RO	>	Bulgartransgaz	BG	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	NA	ID	ID	CAM NC to be applied from January 2016 due to a pending intergovernmental agreement.	
Nordrhein	Gasunie Deutschland Transport Services	DE	>	Open Grid Europe	DE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	TBD	TBD	Yes	https://primary-prime-capacity.eu/	Yes	Yes		
	Open Grid Europe	DE	>	Gasunie Deutschland Transport Services	DE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	TBD	TBD	Yes	https://primary-prime-capacity.eu/	Yes	Yes		
Oberkappel	Open Grid Europe	DE	>	BOG	AT	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	TBD/ID	TBD/ID	Yes	https://primary-prime-capacity.eu/	Yes	Yes		
	BOG	AT	>	Open Grid Europe	DE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	ID/TBD	ID/TBD	Yes	https://primary-prime-capacity.eu/	Yes	Yes		
	GRTgaz Deutschland	DE	>	BOG	AT	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	ID	ID	Yes	https://primary-prime-capacity.eu/				
	BOG	AT	>	GRTgaz Deutschland	DE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	ID	ID	Yes	https://primary-prime-capacity.eu/				
Opal (DE) / Brandov (CZ)	OPAL (OGT, LBPG)	DE	>	NET4GAS	CZ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ID	NA	ID	ID	CAM NC will apply only to non-exempted capacity.	
	NET4GAS	CZ	>	OPAL (OGT, LBPG)	DE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ID	NA	ID	ID		
Oude Statenzijl (OGE) / Bunde (H) (DE)	Gasunie Transport Services	NL	>	Open Grid Europe	DE	2013/Yes	2013/2014	2013/Yes	2013/2014	2013/Yes	2013/2014	2013/Yes	2013/2014	TBD/2015	TBD/2015	Yes	https://primary-prime-capacity.eu/	Yes	Yes		
	Open Grid Europe	DE	>	Gasunie Transport Services	NL	Yes/2013	2014/2013	Yes/2013	2014/2013	Yes/2013	2014/2013	Yes	Yes	2015/TBD	2015/TBD	Yes	https://primary-prime-capacity.eu/	Yes	Yes		
Oude Statenzijl (Gascade-H) (Winger-H) / Bunde (DE)	Gasunie Transport Services	NL	>	Gascade	DE	2013/ID	2013/ID	2013/ID	2013/ID	2013/ID	2013/ID	Yes/ID	2013/ID	TBD/ID	TBD/ID	Yes	https://primary-prime-capacity.eu/	Yes	Yes	Gascade: Currently interruptible capacity only	
	Gascade	DE	>	Gasunie Transport Services	NL	Yes/2013	2014/2013	Yes/2013	2014/2013	Yes/2013	2014/2013	Yes	2014/2013	TBD	TBD	Yes	https://primary-prime-capacity.eu/	Yes	Yes		
Oude Statenzijl (GUD-H) (OBEBH) / Bunde (DE)	Gasunie Transport Services	NL	>	Gasunie Deutschland Transport Services	DE	2013/Yes	2013/TBD	2013/Yes	2013/TBD	2013/Yes	2013/TBD	Yes	Yes	TBD	TBD	Yes	https://primary-prime-capacity.eu/	Yes	Yes		
	Gasunie Deutschland Transport Services	DE	>	Gas Transport Services	NL	Yes/2013	TBD/2013	Yes/2013	TBD/2013	Yes/2013	TBD/2013	Yes	Yes	TBD	TBD	Yes	https://primary-prime-capacity.eu/	Yes	Yes		
Oude Statenzijl (GUD-G) (OBEBG) / Bunde (L) (DE)	Gasunie Transport Services	NL	>	Gasunie Deutschland Transport Services	DE	2013/Yes	2013/TBD	2013/Yes	2013/TBD	2013/Yes	2013/TBD	2013/TBD	2013/TBD	TBD	TBD	Yes	https://primary-prime-capacity.eu/	Yes	Yes		
	Gasunie Transport Services	NL	>	GTG Nord	DE	2013/TSO2	2013/TSO2	2013/TSO2	2013/TSO2	2013/TSO2	2013/TSO2	2013/TSO2	2013/TSO2	TBD/TSO2	TBD/TSO2	Yes	https://primary-prime-capacity.eu/	Yes	Yes		
Petrzalka	Gas Connect Austria	AT	>	eurostream	SK	Yes/ID	ID	Yes/ID	ID	Yes/ID	ID	Yes/ID	ID	Yes/ID	ID	Yes	https://primary-prime-capacity.eu/	Yes	Yes	currently interruptible capacity only	
Quarnstedt	Gasunie Deutschland Transport Services	DE	>	Open Grid Europe	DE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	TBD	TBD	Yes	https://primary-prime-capacity.eu/	Yes	Yes		
	Open Grid Europe	DE	>	Gasunie Deutschland Transport Services	DE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	TBD	TBD	Yes	https://primary-prime-capacity.eu/	Yes	Yes		
Redrod I	Open Grid Europe	DE	>	Gascade	DE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	TBD	TBD	Yes	https://primary-prime-capacity.eu/	Yes	Yes		
	Gascade	DE	>	Open Grid Europe	DE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	TBD	TBD	Yes	https://primary-prime-capacity.eu/	Yes	Yes		
Rogatec	Plinovodi	SI	>	Plinacro	HR	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	NA	ID	ID		
South-North Interconnection Point	Gaslink	IE	>	BGE (NL)	UK	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	NA	ID	ID		
Steinfz	Open Grid Europe	DE	>	Ontras	DE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	TBD/ID	TBD/ID	Yes	https://primary-prime-capacity.eu/	Yes	Yes		
	Ontras	DE	>	Open Grid Europe	DE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	ID/TBD	ID/TBD	Yes	https://primary-prime-capacity.eu/	Yes	Yes		
Tarvisio (IT) / Arnoldstein (AT)	TAG	AT	>	Snam Rete Gas	IT	Yes/2014	2014	Yes/2014	2014	Yes/2014	2014	Yes	Yes	2015	2015	Yes	https://primary-prime-capacity.eu/	Yes	Yes		
	Snam Rete Gas	IT	>	TAG	AT	2014/Yes	2014	2014/Yes	2014	2014/Yes	2014	Yes	Yes	2015	2015	Yes	https://primary-prime-capacity.eu/	Yes	Yes		
Tegelen	Open Grid Europe	DE	>	Gasunie Transport Services	NL	Yes/NA	2014/NA	Yes/NA	2014/2013	Yes/NA	2014/TBD	Yes/TBD	2014/TBD	TBD	TBD/2015	Yes	https://primary-prime-capacity.eu/	Yes	Yes		
	Gasunie Transport Services	NL	>	Open Grid Europe	DE	2013/Yes	2013/2014	2013/Yes	2013/2014	2013/Yes	2013/2014	2013/Yes	2013/2014	TBD/2015	TBD/2015	Yes	https://primary-prime-capacity.eu/	Yes	Yes		
Überacker	Gas Connect Austria	AT	>	bayernets	DE	Yes	2014	Yes	2014	Yes	2014	Yes	2014	ID	ID	Yes	https://primary-prime-capacity.eu/	Yes	Yes	GCA: DDK quality bayernets; F2K and B2K qualities	
	bayernets	DE	>	Gas Connect Austria	AT	Yes	2014	Yes	2014	Yes	2014	Yes	2014	ID	ID	Yes	https://primary-prime-capacity.eu/	Yes	Yes	GCA: DDK quality bayernets; B2K quality	
	Gas Connect Austria	AT	>	Open Grid Europe	DE	Yes	TBD	Yes	TBD	Yes	TBD	Yes	TBD	ID/TBD	TBD	Yes	https://primary-prime-capacity.eu/	Yes	Yes		
	Open Grid Europe	DE	>	Gas Connect Austria	AT	Yes	TBD	Yes	TBD	Yes	TBD	Yes	TBD	TBD/ID	TBD	Yes	https://primary-prime-capacity.eu/	Yes	Yes		
VIP ES-PT	Enagas	ES	>	REN Gasodutos	PT	Yes	Yes	Yes	Yes	2014	2014	2015	2015	2015	2015	Yes	https://primary-prime-capacity.eu/	2014	2014	Capacity at the two physical IPs (i.e. Valença do Minho (PT) / Tuy (ES) + Badajoz (ES) / Campo Maior (PT)) is offered through VIP.	
	REN Gasodutos	PT	>	Enagas	ES	Yes	Yes	Yes	Yes	2014	2014	2015	2015	2015	2015	Yes	https://primary-prime-capacity.eu/	2014	2014		

APPLICATION ON BOTH SIDES OF IP

APPLICATION ON BOTH SIDES OF IP						By when will firm capacity products (where available) be allocated via auctions?										When product(s) auctioned, by when...				COMMENTS
						Yearly		Quarterly		Monthly		Daily		Within-day		Web-based platform used?	URL/web link for booking platform	CAM NC timings used?	CAM NC auctions algorithms used?	
IP NAME/ LOCATION	TSO1	CC	Dir	TSO2	CC	Offered	Bundled	Offered	Bundled	Offered	Bundled	Offered	Bundled	Offered	Bundled					
Waidhaus	NET4GAS	CZ	>	Open Grid Europe	DE	ID/Yes	ID/TBD	ID/Yes	ID/TBD	ID/Yes	ID/TBD	ID/Yes	ID/TBD	ID/TBD	ID/TBD	Yes	https://primary.prisma-capacity.eu/	Yes	Yes	
	NET4GAS	CZ	>	GRTgaz Deutschland	DE	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	NA	ID	ID	
	Open Grid Europe	DE	>	NET4GAS	CZ	Yes/ID	TBD/ID	Yes/ID	TBD/ID	Yes/ID	TBD/ID	Yes/ID	TBD/ID	TBD/ID	TBD/ID	Yes	https://primary.prisma-capacity.eu/	Yes	Yes	
Wardenburg RG	Open Grid Europe	DE	>	Gasunie Deutschland Transport Services GmbH	DE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	TBD	TBD	Yes	https://primary.prisma-capacity.eu/	Yes	Yes	
	Gasunie Deutschland Transport Services GmbH	DE	>	Open Grid Europe	DE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	TBD	TBD	Yes	https://primary.prisma-capacity.eu/	Yes	Yes	
Winterswijk (NL) / Vreden (DE)	Gasunie Transport Services	NL	>	Open Grid Europe	DE	2013/Yes	2013/2014	2013/Yes	2013/2014	2013/Yes	2013/2014	2013/Yes	2013/2014	TBD	TBD	Yes	https://primary.prisma-capacity.eu/	Yes	Yes	
	Open Grid Europe	DE	>	Gasunie Transport Services	NL	Yes/NA	2014/NA	Yes/NA	2014/NA	Yes/TBD	2014/TBD	Yes/TBD	2014/TBD	TBD	TBD	Yes	https://primary.prisma-capacity.eu/	Yes	Yes	
Wloclawek	GAZ-SYSTEM (ISO)	PL	>	GAZ-SYSTEM	PL	2015	2015	2015	2015	2015	2015	2015	2015	2015	2015	NA	NA	NA	NA	Eventual use of GAZ-SYSTEM platform
Zandvliet H-gas	Gasunie Transport Services	NL	>	Fluxys Belgium	BE	2013/ID	ID	2013/ID	ID	2013/ID	ID	2013/ID	ID	TBD/ID	TBD/ID	Yes	https://primary.prisma-capacity.eu/	Yes	Yes	
Zandvliet-L (NL) / Poppel (BE)	Gasunie Transport Services	NL	>	Fluxys Belgium	BE	2013/ID	ID	2013/ID	ID	2013/ID	ID	2013/ID	ID	TBD/ID	TBD/ID	Yes	https://primary.prisma-capacity.eu/	Yes	Yes	
Hilvarenbeek (NL) / Poppel (BE)	Gasunie Transport Services	NL	>			2013/ID	ID	2013/ID	ID	2013/ID	ID	2013/ID	ID	TBD/ID	TBD/ID	Yes	https://primary.prisma-capacity.eu/	Yes	Yes	
Zandvliet-L (NL) / Hilvarenbeek (BE)	Gasunie Transport Services	NL	>	Fluxys Belgium	BE	2013/ID	ID	2013/ID	ID	2013/ID	ID	2013/ID	ID	TBD/ID	TBD/ID	Yes	https://primary.prisma-capacity.eu/	Yes	Yes	
Hilvarenbeek (NL) / Hilvarenbeek (BE)	Gasunie Transport Services	NL	>			2013/ID	ID	2013/ID	ID	2013/ID	ID	2013/ID	ID	TBD/ID	TBD/ID	Yes	https://primary.prisma-capacity.eu/	Yes	Yes	
Zelzate	Fluxys Belgium	BE	>	Gasunie Transport Services	NL	ID/2013	ID	ID/2013	ID	ID/2013	ID	Yes	Yes	ID/TBD	ID/TBD	Yes	https://primary.prisma-capacity.eu/	Yes	Yes	
	Gasunie Transport Services	NL	>	Fluxys Belgium	BE	2013/ID	ID	2013/ID	ID	2013/ID	ID	Yes	Yes	TBD/ID	TBD/ID	Yes	https://primary.prisma-capacity.eu/	Yes	Yes	
Zevenaar	Gasunie Transport Services	NL	>	Thyssengas	DE	2013/Yes	2014	2013/Yes	2014	2013/Yes	2014	2013/Yes	2014	TBD/2015	TBD/2015	Yes	https://primary.prisma-capacity.eu/	Yes	Yes	
	Thyssengas	DE	>	Gasunie Transport Services	NL	NA	NA	NA	NA	NA/TBD	NA/TBD	NA/TBD	NA/TBD	NA/TBD	NA/TBD	ID	NA	ID	ID	Thyssengas: interruptible capacity only; GT3: backhaul firm only day & month
Zevenaar (NL) / Elten (DE)	Gasunie Transport Services	NL	>	Open Grid Europe	DE	2013/Yes	2013/2014	2013/Yes	2013/2014	2013/Yes	2013/2014	2013/Yes	2013/2014	TBD	TBD	Yes	https://primary.prisma-capacity.eu/	Yes	Yes	
	Open Grid Europe	DE	>	Gasunie Transport Services	NL	Yes/NA	2014/NA	Yes/NA	2014/NA	Yes/TBD	2014/TBD	Yes/TBD	2014/TBD	TBD	TBD	Yes	https://primary.prisma-capacity.eu/	Yes/TSO2	Yes/TSO2	

A copy of the list in Excel format is available upon request. Please send your requests to: info@entsog.eu

Key:

Yes already implemented (as of 1 Sep. 2013)

2013 end-2013

2014 end-2014

2015 prior to 1 November 2015

TBD to be determined (i.e. early implementation decision pending)

ID Implementation on deadline of 1 November 2015

NA not applicable

Note: At a given IP for the same direction of flow, if the products do not match for TSO 1 and TSO 2, two entries per cell can be made (date TSO 1 / date TSO 2)

* This Annex includes only IPs where CAM NC to apply on both sides of an IP; other in-scope IPs may be added in updated versions