


ACER

 Agency for the Cooperation
of Energy Regulators

Outline of the European Roadmap for CAM

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- Madrid Forum XXI (March 2012) => called for the **early implementation of CAM NC** through **pilot projects**
- Madrid Forum XXII (October 2012) => endorsed the first draft of the **Roadmap jointly presented by ACER and ENTSOG**
- NRAs, TSOs, ACER and ENTSOG are closely working to reach the **common objective** of the early implementation of CAM NC

- Progress towards the implementation of the CAM NC by 2014 will rely on **voluntary action** at national, regional and EU level
- Mandatory implementation deadline likely to fall in 2015 or 2016, depending on Comitology

- Early implementation is **voluntary** and can only happen if certain conditions are in place:
 - » Sufficient **flexibility of national legislation and regulatory requirements** to allow moving from national systems to approaches in line with CAM NC within a reasonable period of time
 - » **Stability of CAM network code provisions**, especially auction algorithms, which have a particular impact on the design of IT projects

- » Ability of TSOs to devote **resources** to developing new solutions
- » Willingness of NRAs to provide necessary approvals and assurances regarding the full **recovery of costs as long as they are efficiently incurred**

Strong support is needed from all parties if early implementation is to be successful

- The Roadmap is a tool **to facilitate** the early implementation of CAM NC by:
 - promoting the exchange of lessons learned between existing and future pilot projects
 - facilitating the consistent development of pilot projects launched by TSOs and NRAs
 - allowing for a cross regional perspective
 - adequately involving all EU interested stakeholders
 - enabling ACER and ENTSOG to monitor the whole process....
 -and ensure the coherence of solutions adopted by the different projects

The Roadman is made up of **two parts**:

1) the **first one** describes the background, the general principles of the roadmap and the governance.

The governance is built **upon existing structures** such as RCC, SG, IG, in order not to add unnecessary bureaucracy and it shall allow:

- the involvement of all interested EU stakeholders in the process
- the coordination between NRAs and TSOs that are implementing CAM pilot projects
- the monitoring and reporting on the whole process by ACER and ENTSOG

- 2) the **second one** is focused on the details of CAM implementation and it:
- identifies which parts of the CAM NC are being implemented by each pilot project
 - describes a timeline for projects implementation and (where appropriate) convergence, meaning the coherent implementation of the CAM NC provisions with the same understanding across the different projects throughout Europe

A sort of “monitoring table” could be defined to monitor if the milestones and roadmaps’ aims are met

Project milestones	2011		2012				2013				2014			
	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Procedural steps	1	1	1	1	1 2 3	4	5	5	5	5	5	5	5	5

- ➊ Pilot projects identified within GRIs or initiated independently by TSOs
- ➋ First meeting on Roadmap: candidate projects presented by TSOs and NRAs to ACER, ENTSOG, EC
- ➌ Preparation of draft Roadmap: ENTSOG information gathering on projects and discussions regarding roles of participants
- ➍ Finalisation of Roadmap: second meeting on Roadmap focused on governance and monitoring process
- ➎ Roadmap kept under review and updated if appropriate

Draft Roadmap - first part: The Governance



STAKEHOLDERS GROUP



COORDINATION GROUP EC/ACER/ENTSOG/NRAs/TSOs



GRI CG

PLATFORM CAPACITY TF

REASONED INFORMATION

REASONED INFORMATION

Core Group Project 1

Core Group Project 2

Core Group Project 3



Participants

- **NRA and TSOs** implementing the projects
- Applicants admitted as observers

Core duties

- pilot **project implementation** at national/regional level
- identification of national requirements, technical and legal questions related to the project

Other duties

- appointment of two representatives (one NRA and one TSO) to report to the **Coordination Group** on progress, obstacles, solutions, **issues of general interest**
- collaboration with **stakeholders at national/regional level**

Participants

- European Commission
- ACER
- ENTSOG
- NRAs and TSOs representing the pilot projects

Core duties

- Build a common understanding on how to apply NC provisions
- Monitor projects implementation
- Tackle possible problems arising from projects
- **Discuss issues of general interest**

Other duties

- collaboration with **ACER** and the **ENTSOG**
- collaboration with **stakeholders at European level** to exchange views on the projects features

Participants

- All Coordination Group's members
- European Gas Associations

Core duties

- Promote a high level of **transparency**
- Discuss the evolution of national regulation
- Discuss the main features of the projects to orient their implementation towards a market-based approach
- Involvement and engagement of stakeholders

Other duties

- collaboration with **ACER** and the **ENTSOG**

Draft Roadmap – second part: Pilot Projects implementation

CAM NC provision	Implementation challenges
Standardised capacity products	<ul style="list-style-type: none"> - Significant change for network users in some regions, e.g. Portugal currently has no standard capacity products.
Co-ordinated auctions (timing and methodology) at all affected interconnection points	<ul style="list-style-type: none"> - Significant practical and regulatory issues to be overcome, particularly for those countries with no prior experience of auctions or allocation platforms
Mandatory bundling of firm entry and exit capacity wherever possible	<p>Numerous challenges given e.g.</p> <ul style="list-style-type: none"> - Different conditions for capacity between transmission systems - Different regulatory requirements - Different systems e.g. balancing requirements, currencies
Supporting provisions on information sharing, interruptible capacity, tariffs and platforms	<ul style="list-style-type: none"> - Implementation of CAM NC compliant platform (major IT project) - Application of appropriate tariff provisions


	Project name	Countries involved	Auctions go live
1	Joint Capacity Platform Initiative	Belgium, Denmark, France, Germany, Netherlands (at present)	Q2 2013
1a	Germany/Netherlands bundling project	Germany, Netherlands	-
1b	Bundled product at Eynatten	Belgium, Germany	-
1c	Bundled product at Taisnières H	Belgium, France	-
1d	Bundled product at Obergailbach	France, Germany	-
2	Annual Transmission Capacity Auction at the VIP between Portugal and Spain	Portugal, Spain	Q3 2012
3	Bundling Product - Pilot at Lasów	Germany, Poland	Q2 2013
4	Bundled capacity allocation at Austria/Italy IP	Austria, Italy	Q2 2013
5	Hungary/Romania Capacity bundling project	Hungary, Romania	Q2 2013

Conclusions

- Early implementation of the CAM NC via pilot projects may lead to substantial benefits
 - » Significant progress towards the internal market by 2014
 - » Opportunities to learn from experience gained in pilots
- Early implementation may also pose significant legal, technical and regulatory challenges
- But a number of pilot projects are already starting to address these challenges
 - » Range of projects is geographically diverse
 - » Projects collectively cover all key aspects of CAM NC including co-ordinated auctions and bundling

- Duplication of efforts shall be minimised and inefficient costs avoided
- The coherent execution across Europe of voluntary CAM pilot projects is essential
- Continued progress relies on strong commitment and support from TSOs, NRAs, GRIs, ENTSOG, ACER, the EC, Member States, network users and other stakeholders

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**Thank you for
your attention !**

ANNEX

Pilot Projects description

*(information provided by TSOs for the
XXII Madrid Forum – OCT 2012)*

Name of project

Joint Capacity Platform Initiative (new name to be determined)

TSOs, countries and Interconnection Points involved

- 16 TSOs from Belgium, Denmark, France, Germany and the Netherlands have signed a Memorandum of Understanding to build a joint Capacity Platform. The partners are working hard towards an early implementation of the Network Code for Capacity Allocation Mechanisms - CAM.



- The current partners envisage that platform will be ready for main primary products by April 2013.
- The platform will be open to all TSOs from member states of the EU. **TSOs interested in the initiative are welcome to join the project.** Details on the participation process will be explained in two workshops on 4 and 5 October 2012.

Aims and Background of the Project and the Need that the Project is Intended to Address

Aim of the Project

- The new platform will serve for the booking of primary capacity products on all IPs of adjacent Entry Exit Systems in accordance with CAM
- In addition the platform will be able to handle regional regulatory specifics of different countries
- Secondary market features are also part of the project

Initiative Fundamentals

- The service company will operate the platform, carry out auctions and distribute the products on behalf of the TSOs.
- The shares & costs of the new company are distributed over the 5 countries based on the ENTSOG voting rules.
- The platform will connect the different backend systems of the various TSOs using standard IT-communication interfaces.

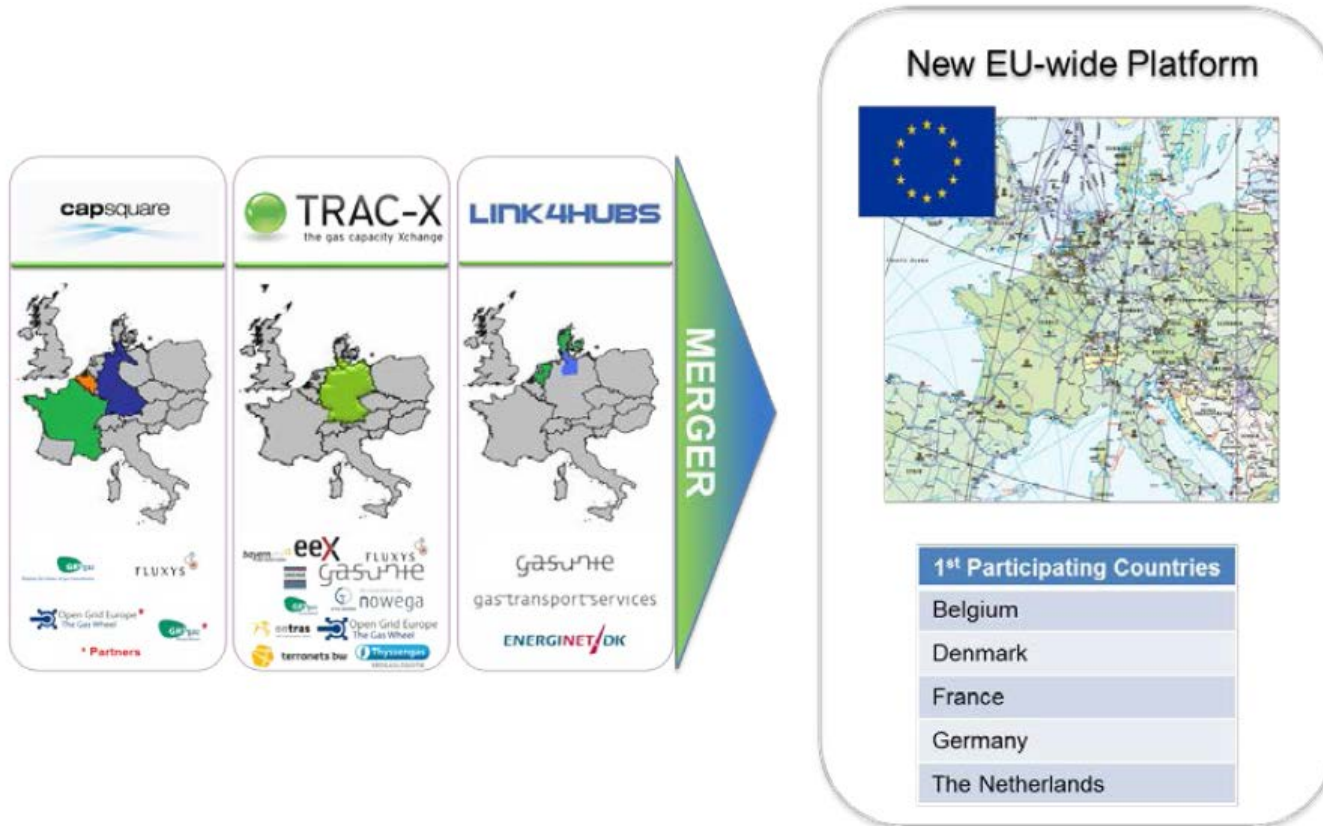
Aims and Background of the Project and the Need that the Project is Intended to Address (continued)

Since April 2012, 16 TSOs have been working on the self-driven initiative to create a joint Capacity Platform.

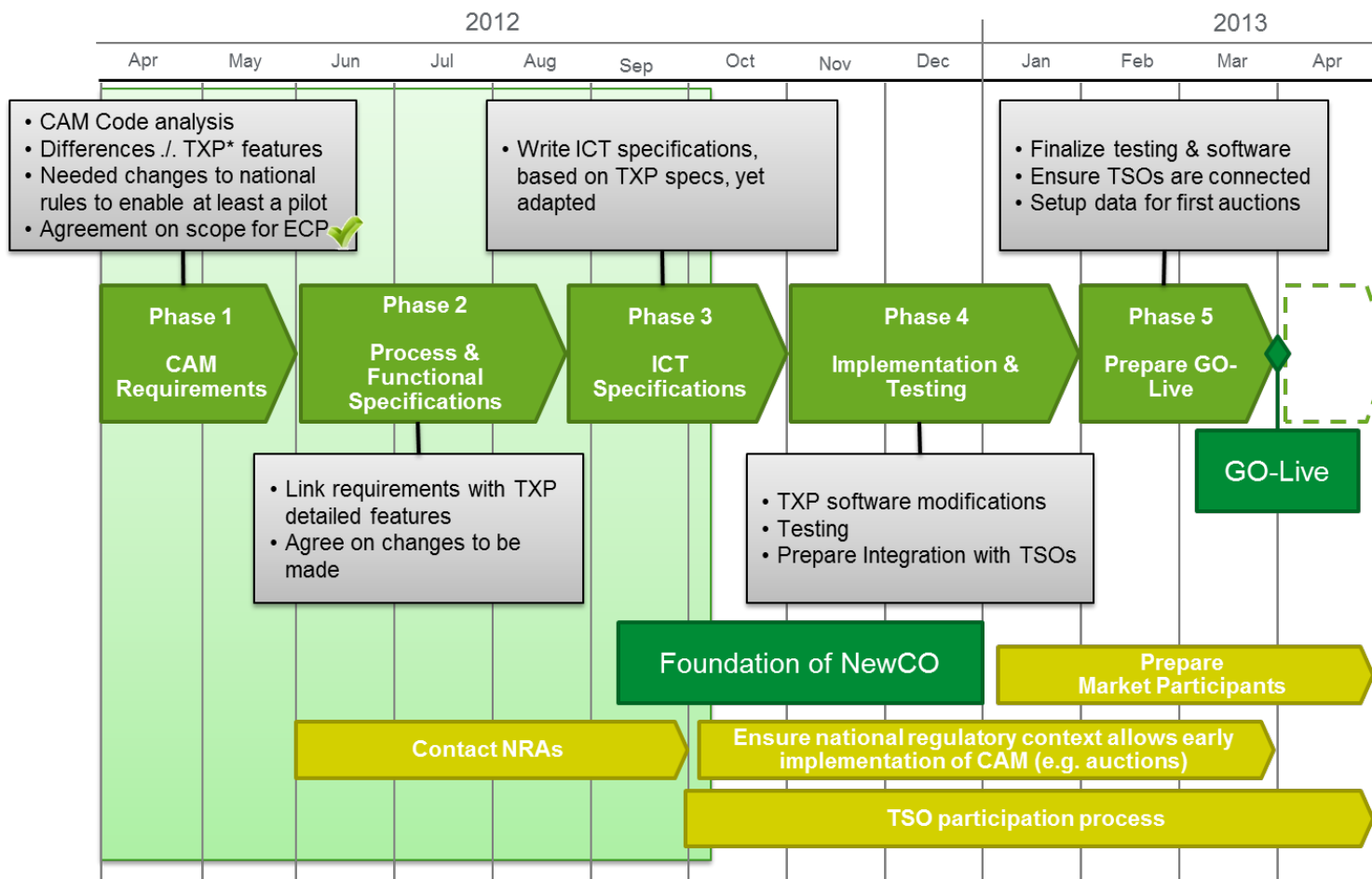
- Requirements have been developed by TSOs and platform operators; the requirements are currently being evaluated by and discussed with IT specialists. **Implementation is on track.**
- Existing infrastructures will be effectively used to ensure cost efficiency.
- The currently existing platforms (TRAC-X, Capsquare & Link4Hubs) will be replaced by the new joint platform which will use all the benefits and collective experience of the current platforms.
- With the joint platform shippers will be able to book capacities at European network points through one single tool.

1. Joint Capacity Platform Initiative

The new platform merges three existing initiatives



Progress so far, Key Milestones and Dates (as of August 2012) Roadmap of the Project towards first Auctions in April 2013



*TXP = TRAC-X primary

Name of project

Pilot Project Bundled Capacity Auction Germany/Netherlands

Countries / TSOs involved

- Germany / GUD
- Netherlands / GTS

Interconnection Points involved

- GTS: Oude Statenzijl GUD H-gas (exit & entry= 300146)
- GUD: Oude Statenzijl H (Exit= H095) & (Entry= H104)

Platform

TRAC-X Primary

Background

- First cross border auctioning and bundling of day ahead capacity
- Relevant interconnection point for coupling TTF and GasPool
- Gain experience with auctioning and bundling
- Get acquainted with all relevant (IT) processes
- First step towards full implementation of CAM
- Possibly to extended to other points

Project Features

Start date	22nd of May 2012
Products	Firm day-ahead bundled capacity Exit (GTS) <-> Entry (GUD) and vv.
Platform	TRAC-X Primary
Capacity	Estimated day ahead, based on mutually agreed availability
Auction window	Bid(s) to be offered between 3.30 until 4.30 p.m. (LET)
Auction frequency	Each working day for the following day.
Capacity allocation	Uniform price algorithm (KARLA)
Market clearing price	Sum of reserve price and clearing bid price

Name of project: Bundled Hub-to-Hub Product Eynatten

Countries / TSOs involved:

Fluxys (Belgium); Open Grid Europe (Germany)

Interconnection Points involved: Eynatten

Product features:

- Firm bundled day-ahead capacity at Eynatten in both flow directions
- First committed, first served principle (12:00-16:00 CET)
- Capacity amount varies daily, depending on physical situation in systems
- Marketing via capsquare, Belgian-French platform

NB. This project does not have specific associated milestones as further developments will be made in the context of the Joint Capacity Platform Initiative (project number 1). It is included here as an example of a successful pilot that may provide useful lessons for future initiatives.

Progress and lessons learned

- Product available since 15 Sep 2011
- First H2H day-ahead product in Europe with high acceptance by traders due to:
 - Connection of liquid markets (Eynatten connects UK via Zeebrugge with NCG market area)
 - Price spread between Zeebrugge Hub and NCG VTP: some correspondence between price spread and day-ahead product bookings can be observed
 - Long-term capacity nearly fully booked
- 1 Apr 2012: OGE increases amount of bundled day-ahead capacity by additional offer of unsold long-term capacity

	15 Sep 2011 – 31 Mar 2012	From 01 Apr 2012	Average offer of bundled capacity
Zee→NCG	300 MWh/h	1.500 MWh/h	
NCG→Zee	55 MWh/h	1.200 MWh/h	

- Currently 13 shippers registered

Name of project: Bundled Hub-to-Hub Product Blaregnies/Taisnieres H

Countries / TSOs involved:

Fluxys (Belgium); GRTgaz (France)

Interconnection Points involved: Blaregnies/Taisnieres H

Product features:

- Firm bundled day-ahead capacity in both flow directions
- Firm bundled month-ahead capacity in both flow directions
- First committed, first served principle (12:00-16:00 CET)
- Marketing via capsquare, Belgian-French platform

NB. This project does not have specific associated milestones as further developments will be made in the context of the Joint Capacity Platform Initiative (project number 1). It is included here as an example of a successful pilot that may provide useful lessons for future initiatives.

Progress and lessons learned

- Product available since Nov 2010 (month-ahead) & Dec 2011 (day-ahead)
- First H2H month-ahead product in Europe that enables:
 - Connection of liquid markets (Taisnières H connects Zeebrugge Hub with PEG Nord)
 - Price spread between Zeebrugge Hub and PEG Nord

	Available capacity
ZEEB <-> PEG N (for month-ahead et day-ahead)	30 GWh/j

Product will be re-shaped on Oct 1st in order to comply with Belgium new Entry-Exit model, and new ZTP market

- Currently around 20 shippers registered

Name of project: Bundled Hub-to-Hub Product Obergailbach

Countries / TSOs involved:

GRTgaz (France); GRTgaz Deutschland (Germany)

Interconnection Points involved: Obergailbach

Product features:

- Firm bundled day-ahead capacity at Obergailbach in both flow directions
- Firm bundled month-ahead capacity at Obergailbach from France to Germany
- First committed, first served principle (12:00-16:00 CET)
- Marketing via capsquare, Belgian-French platform

NB. This project does not have specific associated milestones as further developments will be made in the context of the Joint Capacity Platform Initiative (project number 1). It is included here as an example of a successful pilot that may provide useful lessons for future initiatives.

Progress and lessons learned

- Product available since Jan 2012 (month-ahead & day-ahead)
- Interest of the product
 - Connection of liquid markets (Obergailbach connects PEG Nord with ZEEB)
 - Price spread between PEG Nord and ZEEB

	Available capacity
ZEEB <-> PEG N (for month-ahead et day-ahead)	15 GWh/j

- Currently around 20 shippers registered

Name of project

Annual Transmission Capacity Auction at the VIP between Portugal and Spain – 2012-2013

Countries / TSOs involved

- Spain / Enagás
- Portugal / REN-Gasodutos

Interconnection Points involved

- IP37 – Valença do Minho (PT) / Tuy (ES)
- IP38 – Badajoz (ES) / Campo Maior (PT)

Background

- The South Gas Regional Initiative Work Plan 2011-2014 establishes that the final goal on CAM for 2014 would be having in place **joint coordinated capacity allocation mechanisms for the allocation of cross-border capacity in all the interconnections between the balancing zones in the region.**
- For reaching this goal, a **pilot testing of the NC on CAM** was developed in the interconnection points between **Spain and Portugal**. Within this context, **Enagás and REN** committed to develop a joint allocation procedure inspired by ENTSOG's Network Code (NC) on CAM to allocate bundled products on both sides of the border in a coordinated mechanism by **2012**.

Project Features

- Products offered:
 - Capacity to be offered for the gas year 1st Oct. 2012 to 30th Sep. 2013
 - Existing entry and exit capacity between Spain and Portugal;
 - Capacity available at the **Virtual Interconnection Point (VIP)**¹.

Products	Auctions
Firm Yearly Products*	Firm Yearly Products Auction
Firm Monthly Products*	Firm Monthly Products Auction
Interruptible Yearly Products	Interruptible Yearly Products Auction
Interruptible Monthly Products	Interruptible Monthly Products Auction

¹ **VIP:**

two physical interconnection points Badajoz/Campo Maior and Valença do Minho/Tuy → one commercial point (VIP) Spain/Portugal.

(*) Include the two flow directions: from Portugal to Spain (POR→ESP) and from Spain to Portugal (ESP→POR).

- Availability of interruptible products

At the Interruptible Products Auctions, for any given period, no interruptible Product will be offered if less than 95.00% of firm capacity for the firm Product(s) for that period and flow direction has been allocated at the previous Firm Products Auctions.

Project Features (continued)

- Bundled capacity:
 - Each Product offered includes the **same amount of capacity**
 - Capacities allocated through a **common, single Auction Process**
 - Capacities will be allocated to the **same Shipper** (Company)
 - Capacities in the **secondary market must remain bundled**
- Auction algorithm:
 - Single-round auction
 - One clearing price to all Bidders
 - Process designed to maximize the allocation of capacity (pro-rata)
- Price:
 - Regulated tariff in each country plus
 - Auction Premium (50/50 split)
- It is important to clarify that:
 - Shippers will submit a nomination to each TSO
 - A contract with each TSO shall be signed

Key Milestones and Dates

Preparation

- . Beginning of July: Finalization and publication of associated documentation and corresponding approval by NRA's
- . 5th and 11th July: Open Information Sessions for Shippers (Madrid and Lisbon)

Auction Calendar

- . 9th – 18th July: Shippers Pre-Qualification Phase
- . 19th – 23th July: Shippers Qualification Phase for Firm Yearly Products Auction
- . 24th – 25th July: Firm Yearly Capacity Bidding Window
- . 3rd – 7th Sept: Shippers Qualification Phase for Firm Monthly Products Auction
- . 10th – 11th Sept: Firm Monthly Capacity Bidding Window
- . 17th – 18th Sept: Interruptible Products Capacity Bidding Window

Name of project

Bundling Product - Pilot at Lasów

TSOs and countries involved

- ONTRAS - VNG Gastransport GmbH, Germany (ONTRAS)
- Gas Transmission Operator GAZ-SYSTEM S.A., Poland (GAZ-SYSTEM)

Interconnection points involved

IP Lasów between Germany (ONTRAS) and Poland (GAZ-SYSTEM)

Background to the project and the need that the project is intended to address

Discussions were held between the National Regulatory Authorities and the TSOs in June 2011. The National Regulatory Authorities suggested for the TSOs to develop and implement a bundled capacity product by 2013.

Aims of the project

- Define how a bundled capacity product can be implemented between Germany and Poland.
- Early implementation of CAM NC rules (although for the pilot the project has to focus on selected products).
- 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.

Key milestones and dates

- **October 2012:** Development of Cooperation Agreement and Terms and Conditions for both networks
- **October 2012:** Agreement on IT solutions to implement the bundled product
- **April 2013:** Successful implementation of product (IT infrastructure with respective platform and TSO interfaces)
- **May 2013:** Testing and fine-tuning of the systems
- **June 2013:** Go live and first auctions

Evaluation of progress so far

- **End 2011:** Discussions to agree on nature and arrangement of the project
- **June 2012:** Development of joint Concept Paper and submission to National Regulatory Authorities
- **July 2012:** Approval of Concept Paper by National Regulatory Authorities
- **August 2012:** Reservation of capacities in the ONTRAS network (from current unbundled auction so they can be offered as bundled products in the future)

Name of project: Bundled capacity allocation at Austria/Italy IP

TSOs and countries involved: TAG (Austria) and Snam Rete Gas (Italy)

Interconnection point involved: Arnoldstein/Tarvisio

Background to the project and the need that the project is intended to address

Anticipated implementation of CAM Network Code via a proposal for day-ahead capacity allocation at Austria-Italy IP

Aims of the project

Development of a procedure to coordinate daily capacity allocation in order to connect Baumgarten and PSV hubs through the allocation of bundled capacity products by explicit auctions

Key milestones and dates

- **H2 2011**: TAG-SRG joint development of a procedure to offer day-ahead transportation capacity on interruptible basis at Austrian/Italian border
- **H1 2012**: implementation of a pilot project for the coordinated allocation of day-ahead interruptible capacity; establishment of a NRAs joint task force to design the main features of the evolution of the current mechanism towards CAM NC and CMP provisions. Presentation of the initiative in the SSE GRI.
- **H2 2012**: development of Joint guidelines by NRAs task force - shared for comments with the involved TSOs - to be formally consulted in autumn 2012. Key elements of the guidelines:
 - Joint booking platform solutions
 - Capacity to be offered and products
 - Auction elements
 - Transparency requirements

Key milestones and dates (continued)

- **H2 2012: Evaluation of consultation feedback**
 - Definition of implementation procedures to jointly offer capacity products
 - Start of the consistent modification of the contractual arrangements and regulatory framework adaptations required to allocate the capacity according to the expected CAM NC provisions
 - Application to join the “Joint Capacity Platform Initiative” and related operational steps
- **H1 2013: Allocation of a bundled capacity product (daily firm and interruptible) via auctions**

Evaluation of progress so far and lessons learned:

- **On the Austrian side:** TAG started auctioning day-ahead interruptible capacity on 1 March 2012
- **On the Italian side:** the regulator modified the rules for using entry capacity at Tarvisio to allow shippers accessing an extra amount of capacity via nomination, consistently with the results of the TAG's day Ahead auction
- Evolution of the process and the proposal for joint guidelines development presented in Gas Regional Initiatives context:
 - Good acceptance by shippers of the interim measures adopted and great interest showed by market participants already in the first phase of the project
 - Some price convergence measured between Baumgarten and PSV hubs
 - Not all the provisions of the expected CAM NC are implementable in the short term. Intermediate development steps have been identified but the target is clear and based on the expected CAM NC

Name of project

Hungary/Romania Capacity Bundling project

Countries / TSOs involved

- Hungary / FGSZ
- Romania / Transgaz



NATURAL GAS TRANSMISSION
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Interconnection Points involved

- Csanádpalota (HU)

Aims of the Project

- Implement Capacity bundling according to the FGSZ-Transgaz MoU on Cooperation
- Booking Platform - customisable general solution

Background

- The HU/RO interconnector went operational in fall 2010
- The project was eligible for EPR funding
- It serves the purposes of both market facilitation and security of supply
- FGSZ and Transgaz signed a MoU in July 2012 in order to cooperate on 3rd Energy Package issues, establishing joint working groups for:
 - Capacity bundling (pilot project #1)
 - Alignment of network usage dimensions (pilot project #2)
 - Operational balancing
 - Commercial balancing (pilot project #3)
 - Bidirectional interconnection

Project Features

- **Capacity bundling (pilot project #1)**
 - Phase I – short term products
 - Creation of the Romanian VTP
 - Harmonized VTP-VTP access rules involving NRAs
 - Harmonization of gas day (according to CAM NC)
 - Bundling of monthly & day-ahead capacity
 - Phase II – mid and long term products
 - Bundling of quarterly and yearly capacity
 - Stepwise adoption of the proposed CAM NC auction calendar
 - Functional Booking Platform – general solution (15 September 2012)
 - Customisable solution that manages diverse TSO IT systems
 - Phase I & II. capacity products
 - CAM NC auction algorithms (uniform price and ascending clock)
 - Shipper authentication
 - Handling with nominations and renominations
 - Matching and allocation
 - Secondary capacity trade
 - Capacity check (under development)

Project Features (continued)

- **Alignment of the network usage dimensions (pilot project #2)**
 - Gas day and gas year harmonization according to CAM NC
 - Units of measurement: Csanádpalota border metering station has been prepared for kWh (25° C/0° C) measurement
 - Hungarian metering system: Transition from MJ (15° C/15° C) to kWh (25° C/0° C) required. HEO initiated a public consultation about a possible solution developed by FGSZ.
 - Romanian metering system: Transition from kWh (15° C/15° C) to kWh (25° C/0° C) required
- **Operational balancing**
 - OBA Agreement signed (end of August 2012)
- **Commercial balancing (pilot project #3)**
 - Alignment of commercial balancing rules across balancing zones
 - Enabling cross-border trade of balancing products via VTPs
- **Bidirectional interconnection**
 - At the moment, only HU → RO products are available
 - Phase I. – Introduction of backhaul capacities
 - Phase II. – Physical reverse flow

Key milestones and dates

1. Booking Platform with all functions (1 Nov 2012)
2. Romanian VTP (1 Dec 2012)
3. Harmonized VTP access (1 February 2013)
4. CAM NC auction calendar (1 March 2013)
5. Offer of day-ahead bundled capacity (1 March 2013)
6. Offer of monthly bundled capacity (1 March 2013)
7. Bundled day-ahead and monthly capacity booking via auctions from the 2013/2014 gas year on (1 June 2013)