

# Annual Work 2016 Programme

**implementing the internal  
market for gas**

**ENTSOLOG – A FAIR  
PARTNER TO ALL!**



Image courtesy of National Grid



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# 1

# Introduction

**Executive Summary**

**ENTSOG's Primary Objectives for 2016**



# Executive Summary

ENTSOG was created in December 2009 and entrusted with preparatory work prior to the implementation of the European Union's Third Energy Package.

On 3 March 2011 ENTSOG formally submitted its Articles, Rules and list of members to the European Commission (EC) and Agency for the Cooperation of Energy Regulators (ACER). The final Article of Association and Rules of Procedure were approved by the General Assembly on 6 March 2012 and submitted to ACER and EC.

This document represents the 2016 edition of the Annual Work Programme (AWP) as a part of the EU's Three-Year Plan as agreed upon by EC, ACER and ENTSOG and based on consultation between stakeholders.

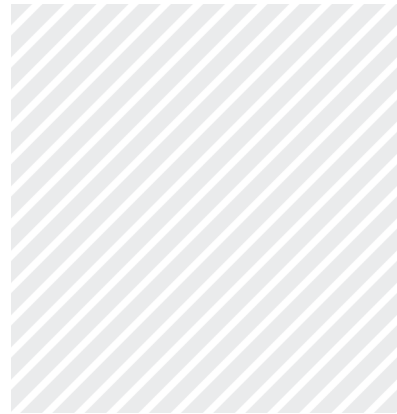
The Three-Year Plan will be continuously developed in the future to deliver a plan of activity for the following years to stakeholders in order to allow all the interested parties to find the necessary resources needed for the development of the plan and the finalisation of the internal market.

AWP 2016 is oriented towards the finalisation of network codes (Tariff and INC) and, in particular, the implementation of three network codes: Capacity Allocation Methodologies (CAM NC), Balancing (BAL NC) and, as of May 2016, Interoperability (INT NC). AWP 2016 also focusses on other key activities such as the development and publication of Ten-Year Network Development Plan (TYNDP 2017–2037), Gas Regional Investment Plans, Summer Supply Outlook and Winter Supply Outlook.

ENTSOG has found a good balance with regard to the need for internal resources and member contributions to meet the challenges ahead, particularly those discussed in this edition of AWP.

Close attention is being given to the development of the energy infrastructure to facilitate the integration of renewables and strategies for replacing nuclear power in the near future in cooperation with ACER, EC and ENTSO-E.

Feedback is sought from stakeholders to assist in finalising this 2016 edition of AWP.



# ENTSOG's primary objectives for 2016

ENTSOG now has all of the EU Member States with unbundled gas transmission networks in its membership, but it is still growing in terms of the attendance of Third Countries as observers to the association. This in line with ENTSOG continuous process of discussions and cooperation with all of the neighbouring Third Countries and is in the spirit of cooperation with all of the neighbouring countries.

ENTSOG will closely follow the development of renewable energy sources and the implications for natural gas in terms of positioning gas as the preferred back-up fuel thus also supporting the EU environmental targets.

ENTSOG will also cooperate with ENTSO-E, EC and ACER to prepare possible scenarios for the replacement of nuclear power plants and for the integration of renewables as well as the use of gas in power generation. ENTSOG will contribute to industry-fora (e.g. Madrid, Copenhagen) and will follow up on related activities.

During 2016, the Brussels-based staff will work together with the Members in order to ensure ENTSOG can deliver all of its obligations as defined in the Third Package as well as from the growing expectations of further inputs to other processes and activities



Image courtesy of bayernets

## ENTSOG's work will focus on the following areas:

### ▲ **Trialling ENTSOG processes and procedures**

ENTSOG's Article of Association and Rules of Procedure will always be under review in order to maximise any opportunity for streamlining the current processes in line with the experience of activity carried out in the past years. A possible enlargement of the number of members in ENTSOG could be foreseen and the number of observers will presumably also increase.

### ▲ **Trialling Third Package code development process**

During 2015, ENTSOG worked on the network code on Harmonised Transmission Tariff Structures for Gas and amendment of CAM NC on incremental capacity in order to deliver an updated draft of the network code on Tariff and the Incremental Proposal for the Gas Committee evaluation through ACER. The final version of the TAR NC proposal was delivered to ACER in August 2015.

ENTSOG has continuously proven to have well organised work with regard to all its network codes. The Project Plans have been successful both in timing and in the organisation of the Stakeholders Joint Working Sessions which provide opportunities for discussion and debate on all aspects of the network codes.

This approach is therefore a cornerstone of the organisation of ENTSOG's Activities.

In 2016 the Functionality process will focus on facilitating that the network codes will be working properly across the borders. This process will be conducted in close cooperation with ACER and of course still with a broad stakeholder involvement.

For 2016 the second TYNDP will be integrated with the Cost Benefit Assessment methodologies will be available at the end of 2016 for the definition of the third PCI list in 2017.

### ▲ **Third package code implementation and monitoring projects**

Activity in CAM, Balancing and Interoperability Network Codes:

- Early implementation of these network codes has simplified the final implementation.
- Following the early implementation, the monitoring of the final implementation of these three network codes will be in the focus of ENTSOG in 2016 in order to analyse the market with the application of the network codes.
- The strict cooperation with ACER, in order to avoid duplication of tasks and overlapping of activities, will be essential for the preparation of this activity.
- Early implementation of the Network Code for Interoperability, presumably done by the end 2015 and at the beginning of 2016, will also become part of the monitoring activities from May 2016 onwards.
- Also for this network code, cooperation and coordination with ACER is necessary to streamline the processes.
- Third edition of the Gas Regional Investment Plans and the report on the Transparency guidelines will produce new documents which will increase cooperation between stakeholders and provide better results for the internal market.



ENTSOG Project Plan

# 2 General Area

General ENTSOG Activity

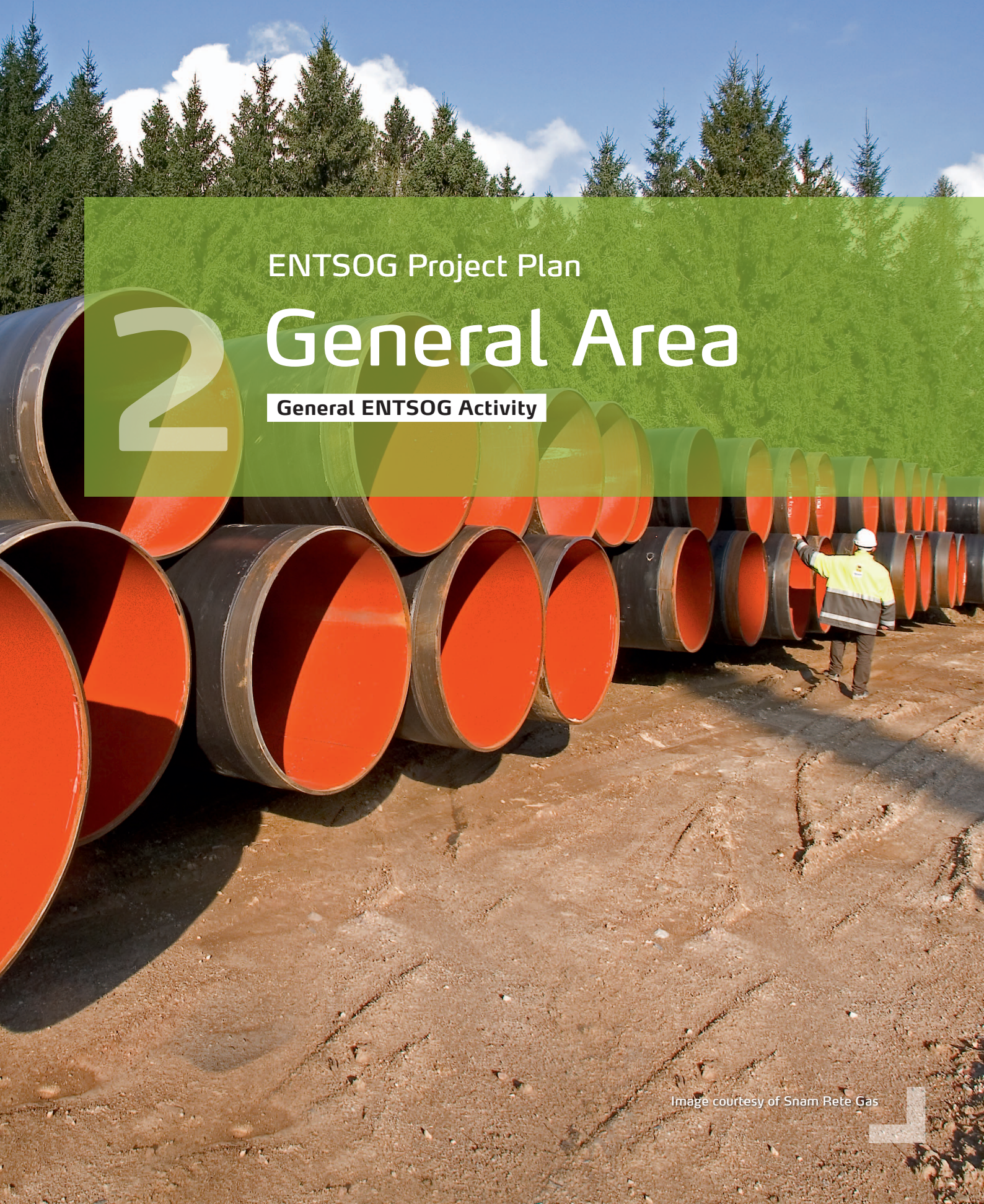


Image courtesy of Snam Rete Gas







# General ENTSG Activity

## BACKGROUND

One of the most important activities at ENTSG involves continuously fine-tuning our structure in light of the experiences we have made as well as looking into the future requirements to ENTSG. The implementation and operational phases of network codes are others of our essential services.

## OBJECTIVE

- ▲ To emphasise ENTSG's fulfilment of its role in promoting cooperation between TSOs with the eventual realisation of a single European energy market.
- ▲ To ensure that the ENTSG team has the necessary competences and is able to optimally allocate resources in performing its required tasks.

## ENTSG ACTIVITIES FOR 2016

Throughout 2016, ENTSG will continue to pursue the goals of the Three-Year Plan for gas and to work through the priority lists for the development of network codes and guidelines.

ENTSG will be deeply involved in the monitoring the implementation of network codes CAM, BAL and INT as well as CMP guidelines. It will also be heavily involved supporting the EC with regard to the preparation of the final documents for the Gas Committee process related to the network code on the Harmonised Transmission Tariff Structures for Gas and CAM NC amendment proposal on incremental capacity.

In mid-2015, work began on the Ten-Year Network Development Plan 2017 following workshops dedicated to gathering all the comments from the stakeholders held in autumn 2015.

A new TYNDP will be finalised in December 2016 and published immediately thereafter.

Certain elements of the Energy Union initiative might impact the work of ENTSG, such as Security of Supply, operational centers and governance.

**More detailed information can be found in the relevant sections of this document.**

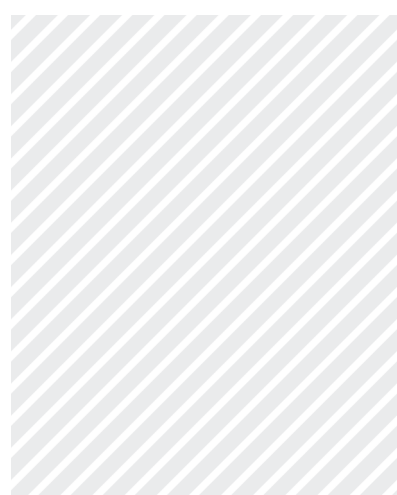
## MONITORING

NETWORK CODES / GUIDELINES	2015				2016												
	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	
CMP (Firm Day-Ahead Use-It-or-Lose-It) <sup>1)</sup>																	
CAM																	
BAL																	
INT																	

<sup>1)</sup> Implementation of most CMP-rules already since October 2013


Mandatory

Delayed implementation



## OTHER ACTIVITIES

OVERVIEW (SELECTION ONLY)	2016											
	J	F	M	A	M	J	J	A	S	O	N	D
Summer Supply Outlook												
Winter Supply Outlook												
TYNDP												
GRIPs												
CAM auction calendar												

 Key deliverables visible to external stakeholders

## ENTSOG RECRUITMENT PLAN FOR 2016

ENTSOG is committed to delivering the documents foreseen by the Three-Year Plan for gas and to actively promoting stakeholders to pursue the targets stipulated by the Third Energy Package. But this requires a well-prepared recruitment plan so that ENTSOG will be able to deliver the requested activities.

The ENTSOG Team in Brussels consisted by end of 2015 of thirty five persons and a replacement plan commenced the previous year to replace seconded persons whose contracts had expired.

During 2015, it became necessary to hold several ad hoc consultations and draft positions on a number of issues such as Bridge 2025 and Energy Union. Most of this work was done in the market area. Based on this experience, ENTSOG will retain the same staff size in 2016 but with an expanded skill set in order to best cope with upcoming activities.

ENTSOG STAFF	31 DEC 2015	31 DEC 2016
General Manager	1	1
Business Area Managers	3	3
Advisers	27	27
Senior Assistants	3	3
Junior Assistant	1	1
<b>Total</b>	<b>35</b>	<b>35</b>

## PUBLICATIONS OF GENERAL AREA IN 2016

- ▲ ENTSOG will publish an Annual Report on its 2015 activities in Q2 2016
- ▲ ENTSOG will deliver the Annual Work Programme (AWP) for 2017 by the end 2016

## ANNUAL REPORT

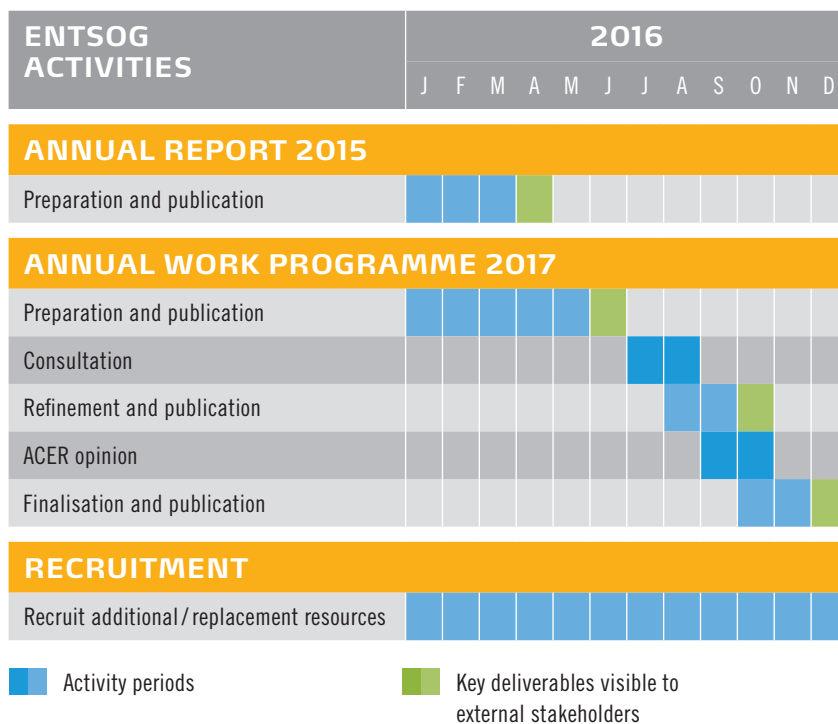
The annual report assesses ENTSOG's work and achievements for each given year. It also provides an opportunity for comparing the delivered results against the 2015 AWP.

## ANNUAL WORK PROGRAMME

The Annual Work Programme is a requirement of the EU's Third Energy Package. It is aligned with the EC's Three-Year Plan for gas and helps interested stakeholders to prepare their activities for the following years. Thereby, ENTSOG also fulfils its requirements prescribed by the Third Energy Package.

This plan features a possible timeline which will need to be confirmed once the EC's timeline for the Three-Year Plan is finalized.

The following diagram shows the expected timeline and key activities for the projects:

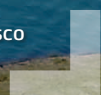




ENTSOE Project Plan

# 3 Market Business Area

**Capacity Activity**  
**Balancing Activity**  
**Tariff Activity**





# Capacity Activity

## OBJECTIVE

- ▲ To support the implementation and application of Capacity Allocation Mechanisms network code (CAM NC) and the Congestion Management Procedures (CMP)
- ▲ To support and assist during the process towards adopting of the Incremental Proposal (INC) and to provide support for the comitology process.
- ▲ To monitor and analyse the implementation of CAM NC and CMP and their effect on the harmonisation of applicable rules aimed at facilitating market integration
- ▲ To facilitate activities to promote the functionality of CAM NC and CMP in close dialogue with stakeholders
- ▲ To propose and assist the development of modification proposals that may be necessary on the implemented NC

## BACKGROUND

In October 2013, CMP came into effect and most of its rules were implemented, some however not until July 2016.

CAM NC came into effect in November 2013. The implementation deadline was November 2015.

The Incremental Proposal, consisting of an amendment to CAM NC and a new chapter for TAR NC, is expected to enter comitology in early 2016.

ENTSOG has been involved in creating legislation as well as providing support for (early) implementation and monitoring measures.

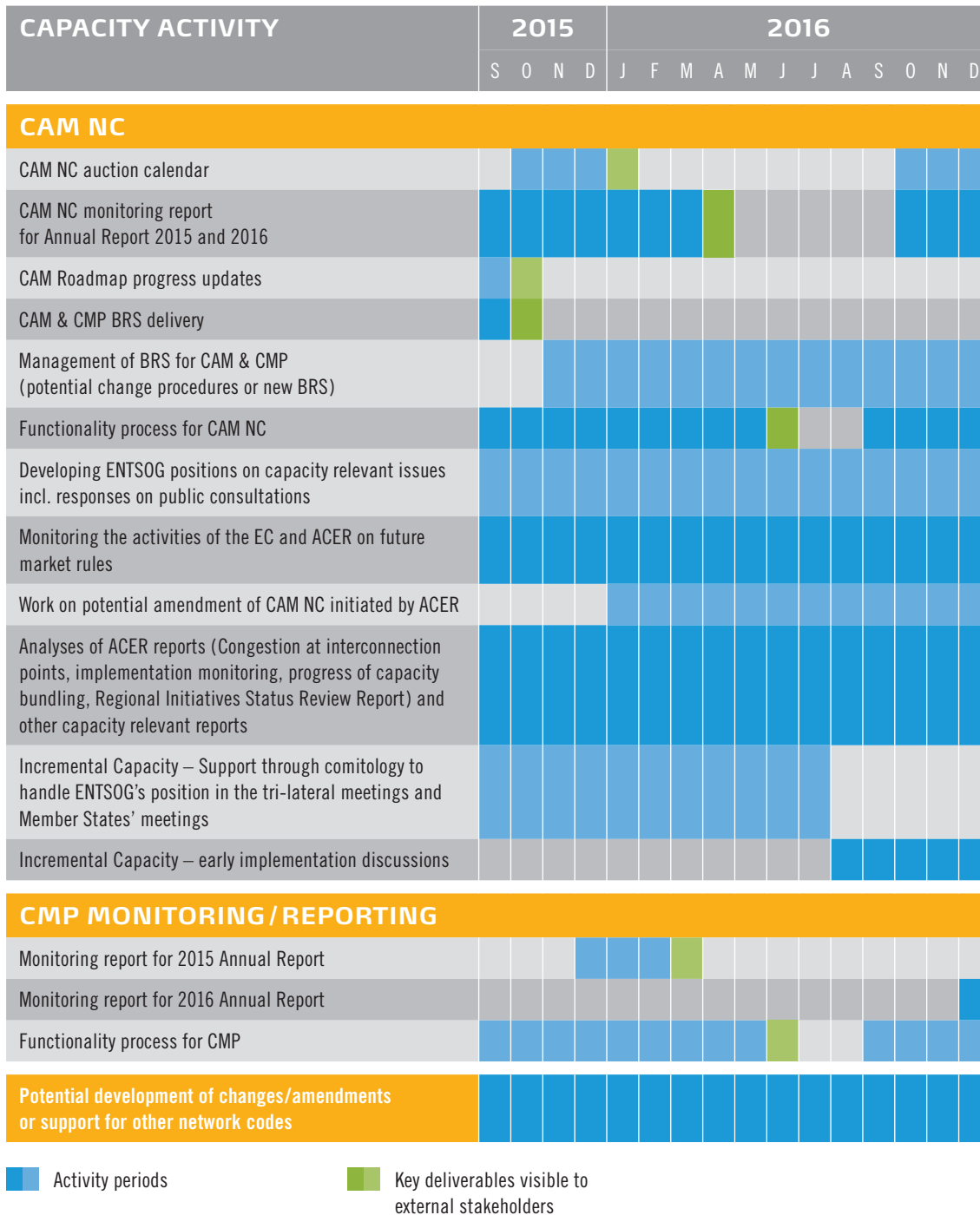
The Capacity workgroup will support these activities and will continue to provide assistance to other ENTSOG streams, in order to ensure a consistent approach regarding capacity issues when designing future network codes or amendment proposals covering different but interlinked areas.

## KEY DELIVERABLES FOR 2016

- ▲ CAM NC Monitoring/Reporting
- ▲ CMP Monitoring/Reporting
- ▲ CAM NC Auction Calendar
- ▲ INC adoption process
- ▲ Update of Business Requirements Specification (BRS) CAM/CMP, if requested by TSO/Stakeholders
- ▲ Joint ACER and ENTSOG functionality process involving stakeholders (CAM NC, CMP, BAL NC, TAR NC and Network Code on Interoperability and Data Exchange [INT NC] jointly)

## PLAN

The following diagram shows the expected timeline and key activities on Capacity-CMP related issues:





# Balancing Activity

## OBJECTIVE

- ▲ To monitor the implementation of the Balancing Network Code (BAL NC)
- ▲ To support and assist in the implementation of the BAL NC
- ▲ To propose or assist the development of any modification proposals or Business Requirement Specifications (BRS) to the BAL NC that may be necessary
- ▲ To facilitate activities to promote the functionality of BAL NC in close dialogue with stakeholders

## BACKGROUND

BAL NC was published in the Official Journal of the European Union on 26 March 2014. The code entered into force on 16 April 2014 and stipulates an implementation deadline of 1 October 2015.

TSOs can apply for a one-year extension until 1 October 2016. For those TSOs who apply for interim measures, the deadline for full implementation is April 2019.

In 2016, ENTSG will be involved in supporting the implementation and monitoring of BAL NC.

## KEY DELIVERABLES FOR 2016

- ▲ BAL NC Monitoring/Reporting (partly in cooperation with ACER)
- ▲ Joint ACER and ENTSG functionality process involving stakeholders (CAM NC, CMP, BAL NC, TAR NC and INT NC jointly)
- ▲ Update of Business Requirements Specification BAL if requested by TSO/stakeholders

## PLAN

The following diagram shows the expected timeline and key activities for the project:

BALANCING ACTIVITY	2015					2016												
	S	O	N	D		J	F	M	A	M	J	J	A	S	O	N	D	
BAL NC monitoring report for Annual Report 2015 and 2016	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Update on early implementation report	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Workshop on BAL early implementation	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Functionality process for BAL NC	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Management of BRS for Balancing (potential change procedures or new BRS)	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Follow-up of ACER reports – implementation monitoring, and other BAL related topics	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

■ Activity periods

■ Key deliverables visible to external stakeholders

# Tariff Activity

## OBJECTIVE

- ▲ To support and assist the comitology process for the network code on Tariffs (TAR NC)
- ▲ To discuss a possible amendment to TAR NC
- ▲ To discuss any implementation questions raised by members, including those related to economic tests for incremental capacity
- ▲ To work with members, ACER and other stakeholders on the possibility of early implementation and the scope of early implementation
- ▲ To prepare and establish a joint functionality process of facilitating and resolving early identification of issues/challenges

## BACKGROUND

The TAR NC proposal was submitted to ACER at the end of December 2014 and ACER published their reasoned opinion in March 2015. Intensive trilateral talks between the EC, ACER and ENTSOG resulted in a revised TAR NC proposal from ENTSOG in summer 2015. Further talks have taken place in autumn/winter 2015.

TAR NC is expected to enter comitology in early 2016. ENTSOG will provide support during the comitology process for TAR NC.





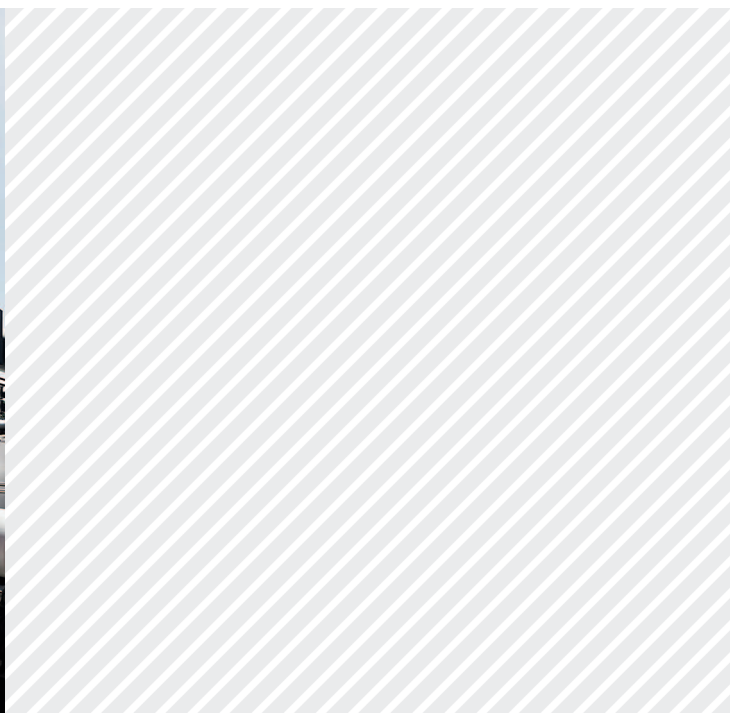
## KEY DELIVERABLES FOR 2016

- ▲ TAR NC is ready for implementation
- ▲ Implementation plan for TAR NC
- ▲ Joint functionality process co-chaired by ACER and ENTSOG involving stakeholders (CAM NC, CMP, BAL NC, TAR NC and INT NC jointly)
- ▲ Initiate work on the TAR Roadmap

## PLAN

TARIFF ACTIVITY	2016											
	J	F	M	A	M	J	J	A	S	O	N	D
Supporting for TAR NC comitology process (timing of comitology period is not yet defined)	■	■	■	■	■	■	■	■	■	■	■	■
Provide guidance and support for implementation of TAR NC	■	■	■	■	■	■	■	■	■	■	■	■
Develop initial TAR Roadmap / implementation monitoring									■	■	■	■
Early implementation discussion							■	■	■	■	■	■
Functionality process for TAR NC	■	■	■	■	■	■	■	■	■	■	■	■

■ Activity periods





# 4

ENTSOG Project Plan

# System Development Business Area

Investment Activity



Image courtesy of Gascade





# Investment Activity

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## OBJECTIVES

- ▲ To meet expectations of market participants regarding the assessment of infrastructure-related market integration and its fulfillment of the European Energy Policy pillars (competition, sustainability and security of supply), as well as assessing the European supply adequacy outlook by modelling the integrated network and development of supply and demand scenarios
- ▲ To support the investment process starting from gap identification through to the coming on-stream of the respective infrastructure remedies
- ▲ To support EC and Member States through the Gas Coordination Group in the assessment of European Security of Supply
- ▲ To support the regional groups, established by the Commission, in the process of selection of Projects of Common Interest by providing the technical background and methodologies
- ▲ To provide support to institutions and stakeholders in the understanding of gas infrastructure, and demand and supply development
- ▲ To develop ENTSOG skills and tools to sustain the achievement of the above objectives
- ▲ To continuously improve the quality of these activities and to provide much added value to all stakeholders
- ▲ To maintain the internal analysis tools, ENTSOG's Professional Data Warehouse System (PDWS), and to provide technical support for the evolution of the PDWS' Transparency Platform

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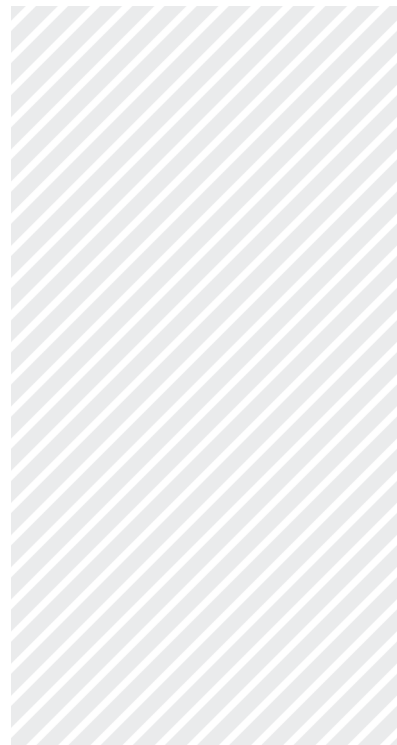
## KEY ENTSOG DELIVERABLES FOR 2016

- ▲ Union-Wide Ten Year Network Development Plan 2017
- ▲ Summer Supply Outlook 2016
- ▲ Summer 2015 Review
- ▲ Winter Supply Outlook 2016–2017
- ▲ Winter 2015–2016 Review
- ▲ ENTSO-E/ENTSOG consistent and interlinked modelling approach

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## KEY TSO DELIVERABLES UNDER REGIONAL COOPERATION WITHIN ENTSOG

- ▲ Third edition of Gas Regional Investment Plans (GRIPs)



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## BACKGROUND

The above mentioned deliverables reflect ENTSOG's obligations under Regulations (EC) 715/2009 (Third Energy Package), (EU) 994/2010 (Security of Supply), (EU) 347/2013 (Energy Infrastructure Guidelines) and EU 2015/703 (Interoperability & Data Exchange Network Code). The seasonal reviews show ENTSOG commitment to transparency while providing market participants with an analysis of the actual situation and helping to identify European trends.

All these deliverables aim at developing an integrated vision of the European gas market and in particular its infrastructure component. This integration is of particular importance to ensure that short and long term is aligned and that the pillars of European Energy Policy are aligned with each other.

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## ASSUMPTIONS

Reports published by ENTSOG since 2010 have enjoyed continuous improvement and this has been recognized by the stakeholders. Stakeholders' expectations have nevertheless been rising together with new requirements coming from new legislation.

ENTSOG is committed to further improvement and will consult stakeholders on how to best address this.

ENTSOG notes that to be able to develop high-quality reports, it is essential to get an in-depth understanding of stakeholders' expectations and to have access to data beyond TSOs' remit. Thanks to stakeholders feedback on ENTSOG proposals, some acknowledged improvements were implemented such as assessment of the infrastructure role in market integration and the approach to gas imports.

The development of the CBA methodology and associated data set was largely based on stakeholders' support in order to provide a robust framework to the second PCI selection. It will be particularly important to evaluate to what extent the involved parties perceive that the methodology and data are in accordance with the purpose of the Regulation.



Image courtesy of Snam Rete Gas

## DELIVERABLES

### Deliverable 1: Union-Wide Ten Year Network Development Plan 2017

During the year 2016 ENTSOG will develop its fifth TYNDP covering the 2017–2037 time horizon.

In order to have a consensus-based shared approach to the development of TYNDP, the TYNDP concept will be defined:

- ▲ a Stakeholder Joint Working Session process to be held during the first months of 2016 which will include all relevant TYNDP topics, including scenarios
- ▲ After consideration of public consultation and ACER opinion on the 2015 edition
- ▲ According to European Commission Guidelines on the inclusion of projects in TYNDP, as foreseen in Annex III 2(5), provided these Guidelines are issued by European Commission in a timeframe consistent with the TYNDP 2017–2037 development process

The SJWSs timeline will be discussed with stakeholders during the autumn 2015 public workshop on TYNDP and CBA. A second public workshop will be organized during spring 2016 to present the following:

- ▲ Updated TYNDP concept
- ▲ Updated CBA methodology
- ▲ Identification of required data and their sources

The workshop will also be the kick-off for the data collection process.

The TYNDP report will assess how the level of gas infrastructure development contributes to infrastructure-related market integration, security of supply, competition and sustainability. It will also provide the most comprehensive catalogue of infrastructure projects including the identification and analysis of infrastructure barriers met by promoters.

The TYNDP report will include all infrastructure projects that will be candidate for the third selection of Projects of Common Interest.

In accordance with Regulation (EU) 2015/703, the TYNDP report will be published together with the first long-term monitoring on gas quality in transmission systems.

The report will be released in December 2016 so that it can be referred to while selecting the third list of Projects of Common Interest. ENTSOG will then launch a 3-month public consultation, followed by formal submission of the report together with the analysis of the public consultation to ACER for opinion.

### Deliverable 2: Elaboration of Summer Supply Outlook 2016

ENTSOG will build on the experience gathered since 2010 taking due account of ACER opinions and stakeholder feedback. The report will benefit from the latest development of IT/R&D activities in the fields of modelling, supply and demand approaches. It will assess the ability of the European gas infrastructures to provide flexibility while enabling shippers to fill storage in preparation of the winter. This report does not intend to forecast market behaviour but to assess the level of service provided by infrastructures considering the latest trends in supply and demand.

As for all Supply Outlooks since 2013, ENTSOG will be in dialogue with the Commission and Member States through the Gas Coordination Group in which specific scenarios they would require to be assessed.

### Deliverable 3: Elaboration of Winter Supply Outlook 2016–2017

ENTSOG will build on the experience gathered since 2010 taking due account of ACER opinions and stakeholder feedback. The report will benefit from the latest development of IT/R&D activities in the fields of modelling, supply and demand approaches. It will assess both the possible evolution of UGS inventory along different

winter cases as well as the resilience of the European gas infrastructures under peak conditions. This report does not intend to forecast market behaviour but to assess the level of service provided by infrastructures considering the latest trends in supply and demand.

As for all Supply Outlooks since 2013, ENTSOG will be in dialogue with the Commission and Member States through the Gas Coordination Group on which scenarios they would require to be assessed.

#### **Deliverable 4: Elaboration of Summer 2015 Review**

ENTSOG will deliver a description of the physical behaviour of the gas market during the summer months of 2015 on the basis of the observed daily gas flows and prices. It will provide an opportunity to investigate the short-term demand and supply trends and especially the dynamic of the gas demand for power generation. The analysis will cover any relevant event taking place during the period.

This analysis will then be factored into the R&D plan for further improvement of ENTSOG approach for future deliverables.

#### **Deliverable 5: Elaboration of Winter 2015–2016 Review**

ENTSOG will deliver a description of the physical behaviour of the gas market during the winter months of 2015–2016 on the basis of the observed daily gas flows and prices. It will provide the opportunity to investigate the short-term demand and supply trends and especially the dynamic of the gas demand for power generation. The analysis will cover any relevant event taking place during the period.

This analysis will then be factored in the R&D plan for further improvement of ENTSOG approach for future deliverables.

#### **Deliverable 6: ENTSO-E/ENTSOG “consistent and interlinked model”**

Regulation (EU) 347/2013 defines the obligation for both ENTSOs to deliver a “consistent and interlinked model” by 31 December 2016. ENTSOG and ENTSO-E have established a specific joint task force (Cogasel TF) in 2014. This task force will actively work on defining the most efficient approach to meet regulatory requirements. By 31 December 2016, both ENTSOs will jointly submit their proposition for a “consistent and interlinked model” to the European Commission and ACER.

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## **SUPPORTING ACTIVITIES**

### **Supporting activity 1: Gas Coordination Group (GCG)**

ENTSOG will keep the European Commission and Member States updated about all ENTSOG activities related to security of gas supplies. ENTSOG will also follow upon any tasks given to it by GCG.

Through this channel and when preparing Supply Outlooks, ENTSOG will continue to encourage Member States to engage in defining the particular scenarios to be considered.

### **Supporting activity 2: Regional Groups under the Energy Infrastructure Guidelines**

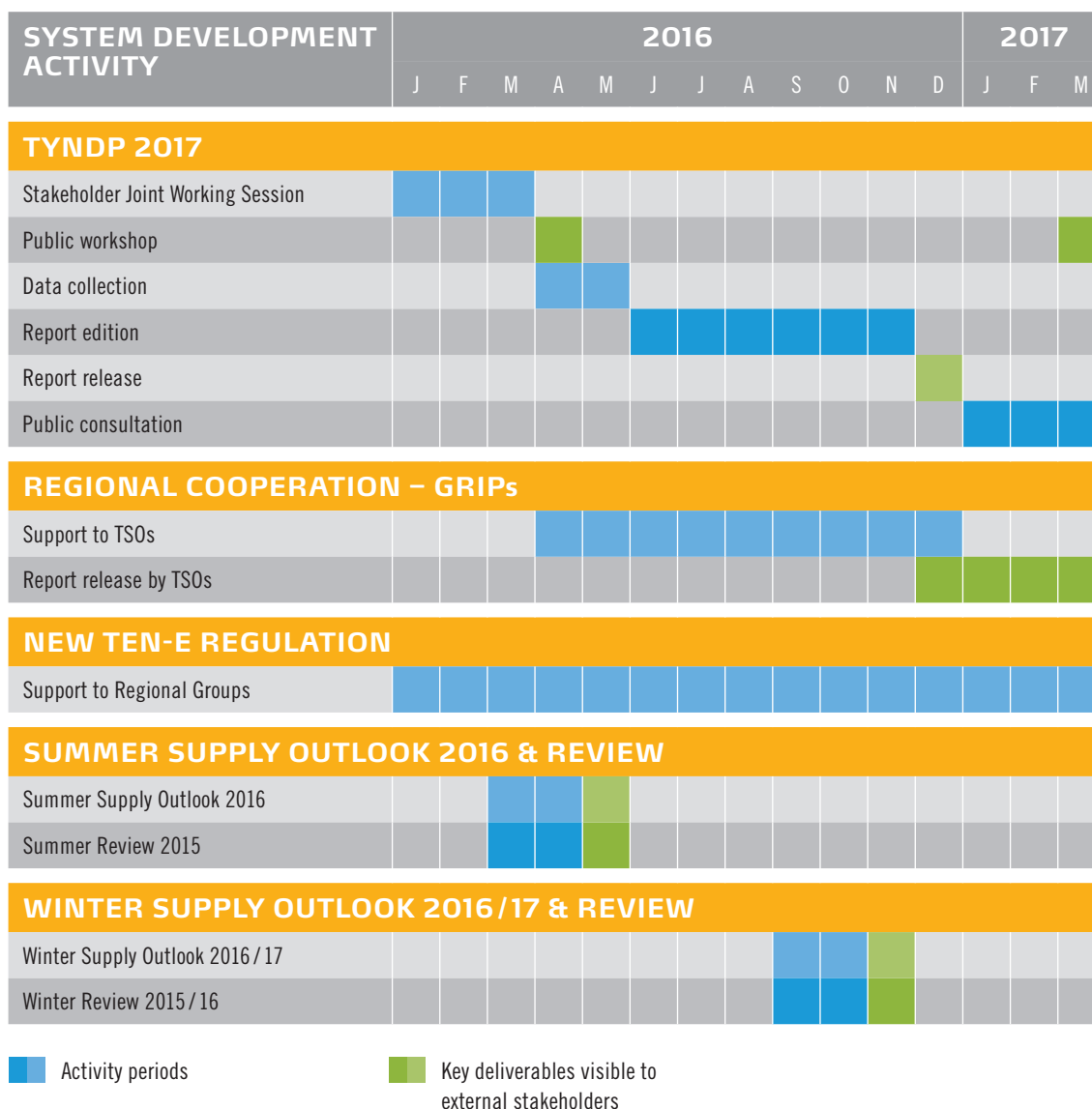
ENTSOG will participate in and support the work of the Regional Groups established by the Commission in the task of selecting and monitoring PCIs.

### Supporting activity 3: GRIPs: TSOs regional cooperation within ENTSOG

ENTSOG will continue to support TSOs in the drafting of third edition of Gas Regional Investment Plans (GRIPs) to be published at the end of 2016 or beginning of 2017. Third edition of GRIPs will be developed in a joint process with development of TYNDP 2017-2037. This joint process will ensure the use of a common dataset for GRIPs and TYNDP and complementarity between the reports. ENTSOG's support will cover the centralization of data processing, the modelling of the European gas system and the common layout of the reports.

## PLAN

The following diagram shows the expected timeline and key activities for the project:





# 5

ENTSOE Project Plan

# System Operation Business Area

**Transparency Activity**

**Interoperability Activity**

Image courtesy of National Grid





# Transparency Activity

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## OBJECTIVE

- ▲ To enhance the transparency of TSO activities in Europe

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## KEY DELIVERABLES FOR 2016

- ▲ To further enhance ENTSOG's New Transparency Platform with functionalities for providing and presenting data to market participants/stakeholders as requested by Reg. 715 as well as to further improve data quality provided by TSOs and the frequency of data uploads. To implement REMIT requirements for ENTSOG and support the process for TSOs

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## BACKGROUND

In line with AWP 2015, ENTSOG has introduced a new platform offering more flexibility for data uploading to TSOs and enhance user-friendliness to stakeholders. The Transparency Platform provides technical and commercial data on transmission points and their interconnection with storage, LNG, distribution, final consumers and production and it shows all the identified relevant points in a new map. The platform can be used is free of charge by market participants and all information is provided directly from the TSOs.

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## ACHIEVEMENTS AND ISSUES ARISING TO DATE

ENTSOG, together with its members, worked in order to increase the provision of information to market participants and to enhance the user-friendliness of the Transparency Platform.

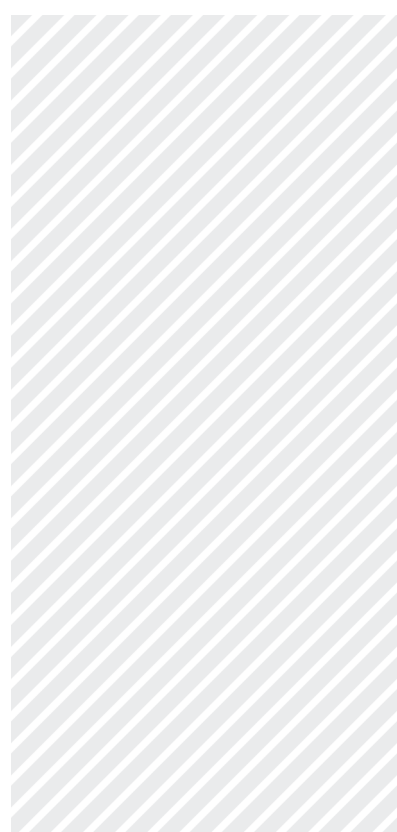
Furthermore, ENTSOG has been organising public and internal workshops on transparency. The workshops focus on the transparency guidelines and their implementation, further development of ENTSOG's Transparency Platform functionalities and REMIT implementation.

The Transparency Platform statistics for 2015, compared to these for 2014, show a remarkable increase of the use of the platform by market participants/stakeholders: there have been twice as many visitors in 2015 than in 2014.

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## ASSUMPTIONS

ENTSOG's Transparency Platform provides useful information to stakeholders and market participants. Since 1 October 2013 all TSOs are obliged to publish all data foreseen by the Transparency Guidelines to the platform. With its new Transparency Platform, ENTSOG has fulfilled ACER recommendations (ACER report: "Monitoring of Gas Transparency Requirements" from 9 April 2013) towards improving the transparency of TSO activities.



## ACTIVITIES

### Activity 1

Implementation of new functionalities for the Transparency Platform that can provide additional information to market participants/stakeholders as well as improve data quality and frequency of uploads.

### Activity 2

Follow-up of reporting provisions as well as the data collection processes for TSOs and ENTSOG under REMIT. ENTSOG will support TSOs during the implementation of further reporting obligations.

### Activity 3

Follow-up and implementation of transparency obligations arising from NC BAL, NC INT, NC CAM, NC TAR and liaison with relevant ENTSOG WG in order to identify synergies in fulfilling these obligations.

### Activity 4

Public Transparency Workshop to be organised in 2016 in order to receive feedback from stakeholders.

### Activity 5

Support for Interoperability Team for the development of a collaboration tool for information provision.

## PLAN

TRANSPARENCY ACTIVITY	2016											
	J	F	M	A	M	J	J	A	S	O	N	D
Additional tools for Transparency Platform	■	■	■	■	■	■	■	■	■	■	■	■
Transparency workshop: preparation and organisation										■	■	■
Improvement of TP data quality	■	■	■	■	■	■	■	■	■	■	■	■
Improvement of TP data frequency uploads	■	■	■	■	■	■	■	■	■	■	■	■
Follow-up to REMIT	■	■	■	■	■							
Follow-up to NC transparency obligation	■	■	■	■	■	■	■	■	■	■	■	■
TP collaboration tool for information provision	■	■	■	■	■	■	■	■	■	■	■	■

■ Activity periods

■ Key deliverables visible to external stakeholders



# Interoperability Activity

## OBJECTIVE

The main objectives of ENTSOG Interoperability Working Group (INT WG) for 2015 are:

- ▲ To support the Members in the implementation of the Network Code on Interoperability and Data Exchange rules (INT NC)
- ▲ To follow-up of processes related to gas quality standardization and their potential incorporation into the INT NC
- ▲ To develop and maintain existing common network operation tools (CNOTs) to support the implementation of the Data Exchange rules developed in the network codes
- ▲ To facilitate regional cooperation by providing technical and operational support to the EC and to TSOs of Member States, Energy Community and Third Countries
- ▲ To operate the Local Issuing Office for Energy Identification Coding scheme

The Interoperability Working Group also provides assistance to other ENTSOG Working Groups, in order to ensure a consistent approach regarding interoperability and data exchange issues when designing, implementing and monitoring the functioning of network codes covering different but interlinked areas.

## KEY DELIVERABLES FOR 2016

The following deliverables will be provided during 2016:

- ▲ Report on the implementation monitoring of INT NC (see activity 1)
- ▲ Complement the guidance document for Interconnection Agreements with extracts taken from the mandatory terms of existing agreements identified as best practices in Member States.
- ▲ Support the System Development Area to include the first Long-Term Gas Quality Outlook in TYNDP 2017 (see activity 2)
- ▲ If required, amendment proposal for the INT NC in connection with the CEN gas quality standard (see activity 2)
- ▲ Support for TRA WG during update of Transparency Platform regarding gas quality information publication. (see activity 2)
- ▲ Logistical support for the Regional Coordination System for Gas including an operational map.
- ▲ Workshops for supporting the implementation of INT NC rules and expanding regional cooperation with Energy Community and third-country TSOs (see activity 3)
- ▲ Any necessary updates of business requirement specifications and implementation Guidelines for data exchange related to the implementation of CAM NC and the congestion management procedure guidelines. (see activity 4)
- ▲ Workshop(s) related to the implementation of common data exchange solutions
- ▲ Management of EIC codes by weekly updates to CIO and ENTSOG website and by delivering final responses to requests within max. 10 days (see activity 5)

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## BACKGROUND

Operational, technical, communication and business interoperability is a prerequisite for the proper functioning and integration of the gas market and also for an enhanced regional cooperation. In gas transmission services, interoperability can be seen as a set of technical and operational rules that enhance cooperation between system operators and network users, thus facilitating the exchange of gas across networks. Network codes define new business processes. Interoperability and data exchange rules establish seamless interfaces between TSOs to make this a success.

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## ACHIEVEMENTS AND ISSUES ARISING TO DATE

ENTSOG was invited by EC to develop a Network Code on Interoperability and Data Exchange rules (INT NC) on 11 September 2012. Following an open process, ENTSOG developed and proposed a draft INT NC. This draft was then revised taking into account ACER's reasoned opinion and was sent to EC and ACER on 18 December 2013. The revised draft was also recommended by ACER for adoption and it passed successfully through the comitology process in November 2014. The network code was finally adopted and published on 30 April 2015 and shall apply as of 1 May 2016.

The necessary Congestion Management Procedures (CNOTs) for the implementation of CAM and BAL NC were published in 2015 comprising business requirement specifications as well as message implementation guidelines for the selected data exchange solutions.

In relation to regional cooperation, the Early Warning System was further developed to the Regional Coordination System for Gas facilitating a coordinated reaction to potential supply crisis on very short notice. By EC request, a monitoring report for gas transit flows in Ukraine was developed and established in 2014 and 2015.

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## ACTIVITIES

### **Activity 1: Support for and monitoring of implementation of network code for Interoperability and Data Exchange Rules**

- ▲ Monitor and analyse how transmission system operators have implemented the INT NC
- ▲ Support the TSOs of Member States, Energy Community and Third Countries in the implementation of the NC

### **Activity 2: Gas quality**

- ▲ Collaborate with System Development Area in preparing of TYNDP 2017 in order to include the first Long-Term Gas Quality Outlook
- ▲ Support for TRA WG updating of the Transparency Platform to include a link to the relevant information on the websites of the transmission system operators regarding short-term monitoring on gas quality
- ▲ If requested, assistance in preparing an amendment to INT NC in relation to CEN Gas Quality Standard in the framework of the ENTSOG–CEN MoU
- ▲ Collaboration with CEN within the pilot project for harmonisation of Wobbe Index

### Activity 3: Facilitation of regional cooperation

- ▲ Support for the Regional Coordination System for Gas with Regional Coordination Team East and North West and a possible establishment of a Regional Coordination Team South. This activity also includes the development of an operational map and support of the implementation of the revised SoS regulation in terms of the interface with the Gas Coordination Group
- ▲ Support for Energy Community Contracting Parties and TSOs in Third Countries concerning security of supply
- ▲ Further support for EC in their gas flow monitoring activities for Ukraine

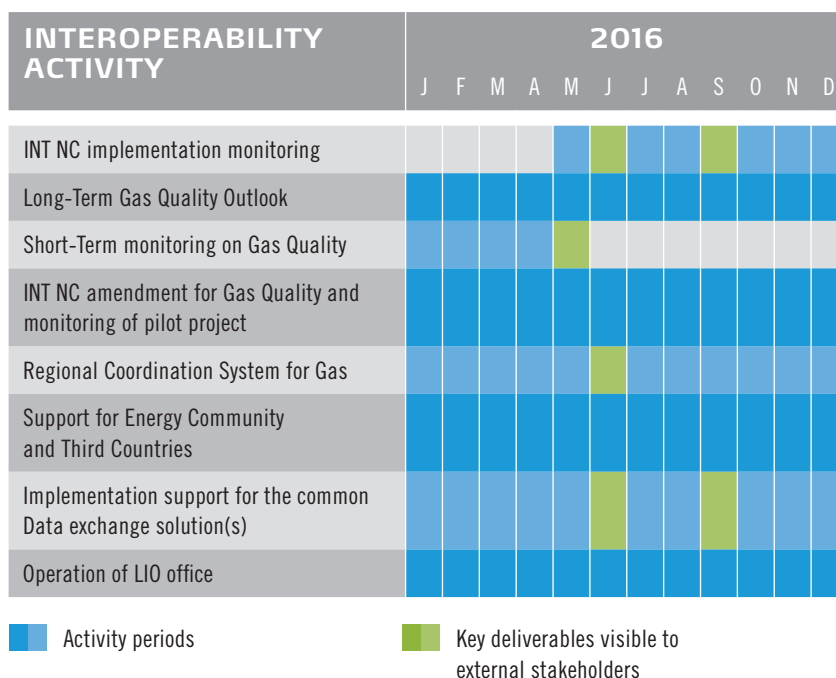
### Activity 4: Development, support and maintenance of CNOTs

- ▲ Support for the implementation of published CNOTs for CAM/CMP and nominations and matching procedures, assistance to members for the implementation of related business requirement specifications (BRS) and selected common solutions for data exchange, in particular AS4 and WebService.
- ▲ Cooperation with EASEE-gas in the developing and releasing the Message Implementation Guideline in the framework of the common agreement.

### Activity 5: Operation of local issuing office for energy identification code scheme

## PLAN

The diagram shows the expected timeline and key activities for the project:





ENTSOG Project Plan

# 6 IT and Research & Development Activity

IT and Research & Development Activity



# IT and Research & Development Activity

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## **IT/R&D 1: FURTHER ANALYSIS OF GAS DEMAND**

Since TYNDP 2013–2022, ENTSOG has introduced new climate models that better describe the various correlations between gas demand and weather conditions.

The development of the CBA methodology has resulted in the development of an approach to model gas demand for power generation in relation with gas, coal and CO<sub>2</sub> emission prices. This method accounts for various elements of ENTSO-E's vision particularly for increases in RES capacity and intermittency in RES loads.

ENTSOG will continue to develop its approach to gas demand and especially drawing the link between high-level political orientations and daily gas demand figures that form the basis of assessing the European gas infrastructures.

ENTSOG will continue evaluating the impact of demand-side measures in assessing European gas infrastructures.

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## **IT/R&D 2: FURTHER ANALYSIS OF SUPPLY FLEXIBILITY**

The flexibility required by intermittent power generation is mainly provided daily or intra-daily by fast-reacting sources, while longer term fluctuations are covered by a wider range of supply sources.

Therefore, a better understanding of the daily modulation from energy in relation with their specific features – particularly the storage component – will facilitate the ability to evaluate how gas infrastructures can adapt to supply patterns with the changing demand requirements in the future.

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## **IT/R&D 3: FURTHER IMPROVEMENT OF ENTSOG MODELLING TOOL**

Since 2010, ENTSOG has developed expertise in linear modelling of the European gas system that complies with Supply Outlooks and the EU-wide TYNDP. This approach has been improved on a continuous basis in order to meet stakeholders' expectations.

Since 2013, ENTSOG's experience in modelling of the gas market and network has developed strongly largely due to the improvements implemented through the CBA methodology stipulated by Regulation (EU) 347/2013. The data warehouse is an interface that allows for a more robust and agile modelling approach that can be very valuable in providing results consistent with market structure.

Additional improvements will be considered in the light of the experiences gained through TYNDP 2015.

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#### **IT/R&D 4: LONG-TERM MONITORING ON GAS QUALITY IN TRANSMISSION SYSTEMS**

In accordance with Regulation (EU) 2015/703, ENTSOG will publish the first long-term monitoring on gas quality in transmission systems together with TYNDP 2017–2037. During 2016, ENTSOG will work on to define the most efficient approach of fulfilling this new requirement.

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#### **IT/R&D 5: EVOLUTIVE MAINTENANCE OF THE PDWS AND TP**

ENTSOG now owns and operates a PDWS (Professional Data Warehouse System). This PDWS facilitates system development activities and this may extend to other areas of ENTSOG. The system will be gradually adapted to cover the needs of its users, which will include development of reports and automated extracts.

The Transparency Platform (TP) is part of PDWS, and falls under the same administration rules. Enhancement requests originating from TP users will be analysed and potential improvements will be investigated.

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#### **IT/R&D 6: DATA COLLECTION PORTAL IMPROVEMENT**

ENTSOG inaugurated an online data collection portal during the TYNDP 2015 preparation process. The portal covers infrastructure projects but also demand data provided by TSOs. The portal will be upgraded in order to improve its user-friendliness and to cope with the evolution of the TYNDP's concept.

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#### **IT/R&D 7: STANDARDISATION AND AUTOMATION OF URGENT MARKET MESSAGES**

Urgent Market Messages (UMM) are foreseen under REMIT. ACER has undertaken to standardise the format of such messages across all platforms currently publishing them. The TP is one of such platforms. Two areas will be investigated: automation of UMM publication, so that ENTSOG members can automatically forward UMMs published in their internal systems to ENTSOG TP. The second area may consist in opening the TP's UMM Publication feature to external market participants.





Image courtesy of Fluxys Belgium



# Abbreviations

<b>ACER</b>	Agency for the Cooperation of Energy Regulators
<b>AWP</b>	Annual Work Programme
<b>BAL NC</b>	Network Code on Gas Balancing of Transmission Networks
<b>BOA</b>	ENTSOG Board
<b>BRS</b>	Business Requirements Specifications
<b>CAM</b>	Capacity Allocation Mechanisms
<b>CAM NC</b>	Network Code on Capacity Allocation Mechanisms in Gas Transmission Systems
<b>CBA</b>	Cost-Benefit Analysis
<b>CEN</b>	European Committee for Standardisation
<b>CMP</b>	Congestion Management Procedures
<b>CNOT</b>	Common Network Operations Tools
<b>EC</b>	European Commission
<b>ENTSO-E</b>	European Network of Transmission System Operators for Electricity
<b>ENTSOG</b>	European Network of Transmission System Operators for Gas
<b>EU</b>	European Union
<b>EWS</b>	Early Warning System
<b>FG</b>	Framework Guidelines
<b>GCG</b>	Gas Coordination Group
<b>GIE</b>	Gas Infrastructure Europe
<b>GRIP</b>	Gas Regional Investment Plan
<b>INT NC</b>	Network Code on Interoperability and Data Exchange Rules
<b>INT WG</b>	Interoperability Working Group
<b>LNG</b>	Liquefied Natural Gas
<b>MIG</b>	Message Implementation Guidelines
<b>PCI</b>	Projects of Common Interest
<b>R&amp;D</b>	Research and Development
<b>REMIT</b>	Regulation on Energy Market Integrity and Transparency
<b>RES</b>	Renewable Energy Sources
<b>TAR NC</b>	Network Code on Harmonised Transmission Tariff Structures for Gas
<b>TAR FG</b>	Framework Guidelines on Transmission Tariff Structures for Gas
<b>TEN-E</b>	Trans-European Energy Networks
<b>TSO</b>	Transmission System Operator
<b>TYNDP</b>	Ten-Year Network Development Plan
<b>UGS</b>	Underground Gas Storage

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