



# **TYNDP 2011-2020**

**There is no such thing as a crystal ball**

***Stephan Kamphues, ENTSOG President***

*EEP Dinner – Brussels -- 12 October 2011*



**39** Transmission System Operators  
**23** countries  
**New** applications

# TYNDP 2011-2020 -- Factsheet 1

## ***Legal framework***

- > Regulation (EC) 715/2009 of the European Parliament and of the Council on conditions for access to natural gas transmission networks

## ***Geographical scope***

- > EU plus Balkan countries of Energy Community

## ***Data Collection***

- > Infrastructure projects: Through TSOs and other infrastructure developers through public call for information
- > Demand outlooks: Through TSOs and from respected public sources (Commission, Eurogas, IEA)
- > Supply outlooks: From different public, in particular governmental, sources and studies

# TYNDP 2011-2020 -- Factsheet 2

## ***Infrastructure Projects (FID + Non-FID)***

- > Transmission: 159 (62 + 97)
- > Storage: 48 (26 + 22)
- > LNG: 31 (11 + 20)

## ***Scenarios***

- > 67 scenarios based on combination of multiple parameters settings (Year, Project Status, Climatic conditions, Disruption, UGS deliverability, Supply source mix) along three axes (Reference, SoS, Market integration)

## ***5 Report Annexes***

- > Infrastructure Projects (Detailed information)
- > Country Profiles (Current gas infrastructure + historical demand)
- > Supply & Demand data
- > Capacity data
- > Modelling results

# TYNDP 2011-2020 -- Factsheet 3

## ***Duration of development***

- > February 2010 - February 2011 (incl. approval process)

## ***Release process***

- > Publication: 17 February 2011
- > TYNDP Workshop: 17 March 2011

## ***Public consultation***

- > 25 March - 25 June 2011
- > 9 responses (EFET, Eurogas, EDF, Edison, Elengy, SMTFC, TAP, TGL, Wärtsilä)

## ***ACER -related process***

- > Submission to ACER for opinion: 18 July 2011 (incl. the issue of Corrigendum)
- > ACER opinion: 16 September 2011

## ***Presentation to MEPs (via EEF)***

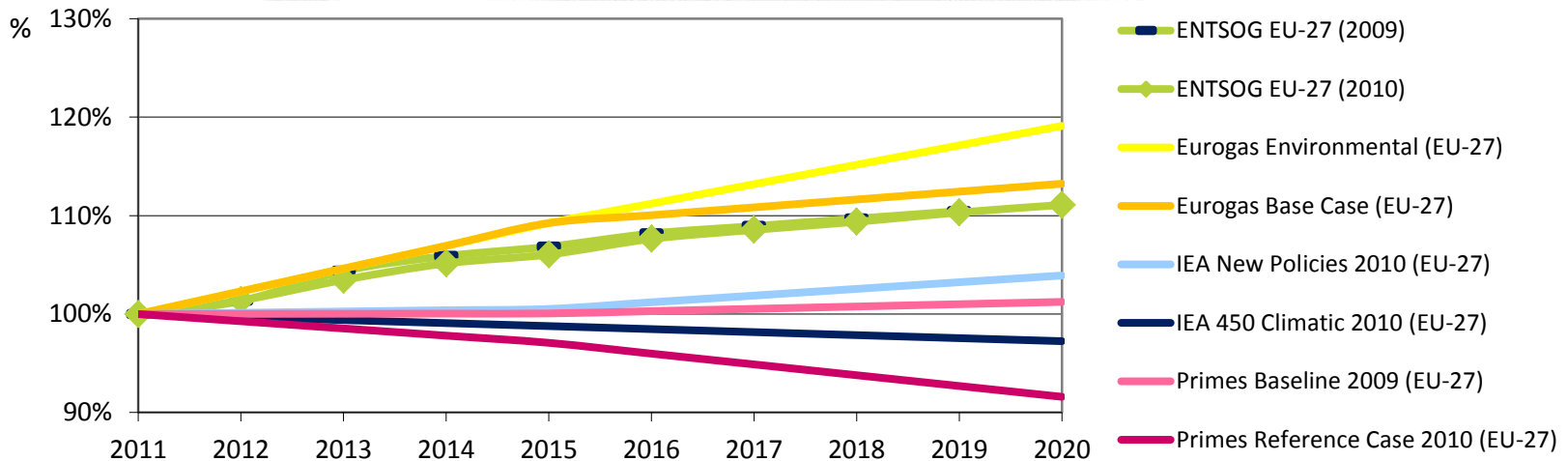
- > 12 October 2011

# Demand Outlook 2011-2020

(Growth trends (%), 2011 start)

## *Demand is a highly uncertain variable*

- > Forecasts range from a 9% decrease in demand to a 19% increase
  - in absolute numbers, the difference is equal to the combined consumption of Germany and Belgium
- > This reflects differing assumptions on the role of gas in the future energy mix and makes it difficult for the TSOs to define the High Daily Demand\* which is the basis for designing resilient networks



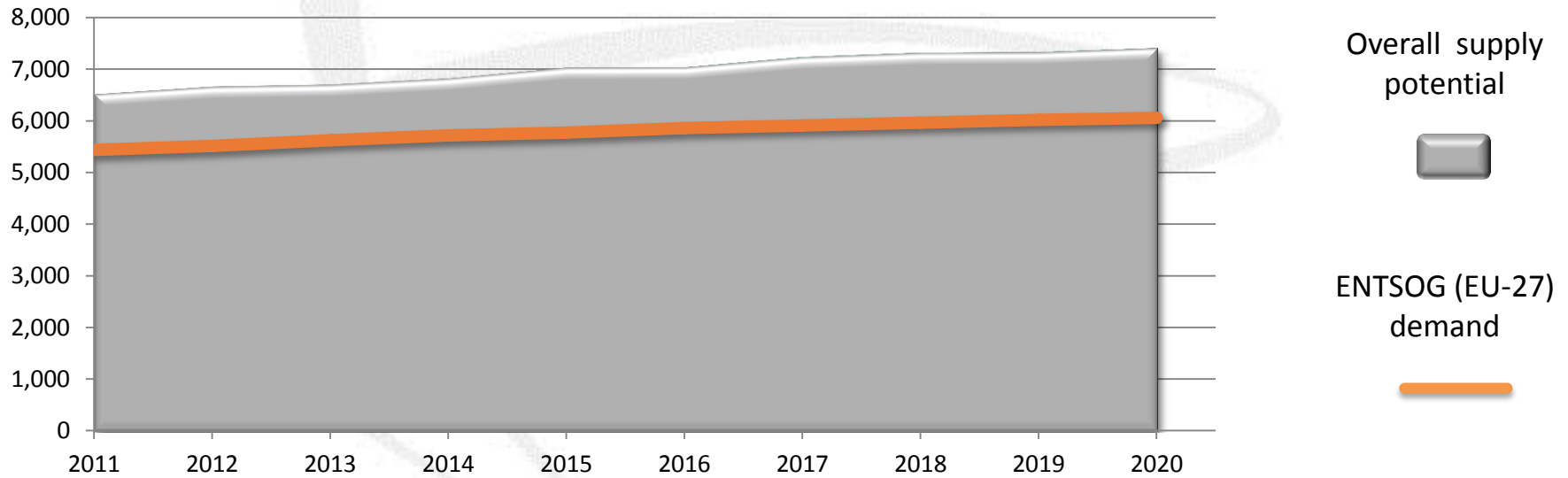
\*HDD is to be understood as demand outlook for extreme climatic conditions occurring statistically at low frequency

# Annual Supply Demand Balance

***The supply potential for Europe seems robust enough to meet all presented demand outlooks while allowing also for additional flexibility***

- > Geo-political developments as well as demand growth in producing countries to be continuously analysed to confirm this outlook

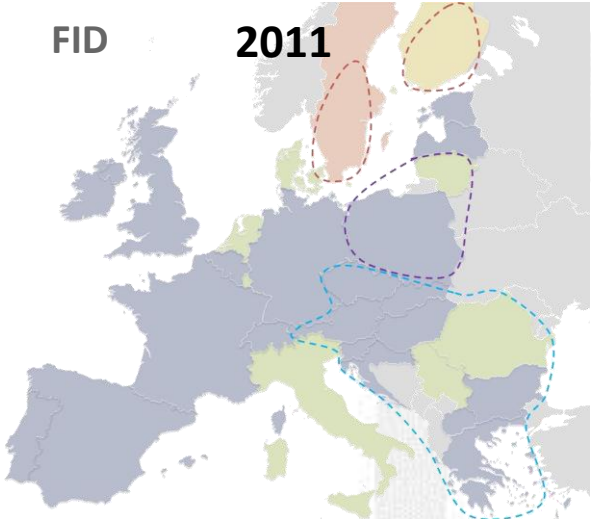
(in TWh/y)



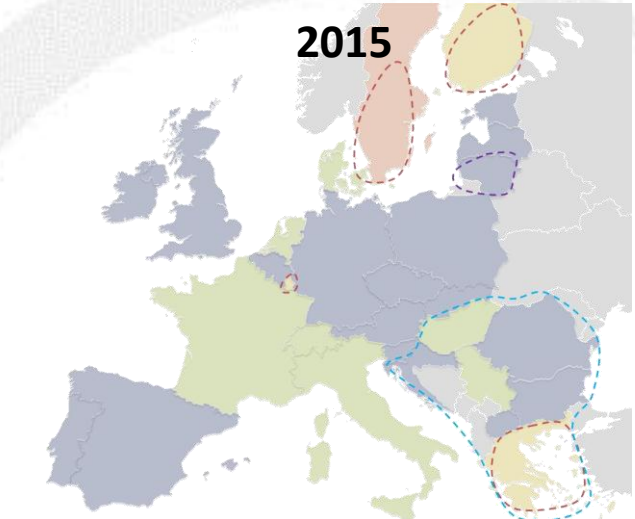
# Evolution of remaining flexibility (1-in-20 day)

FID

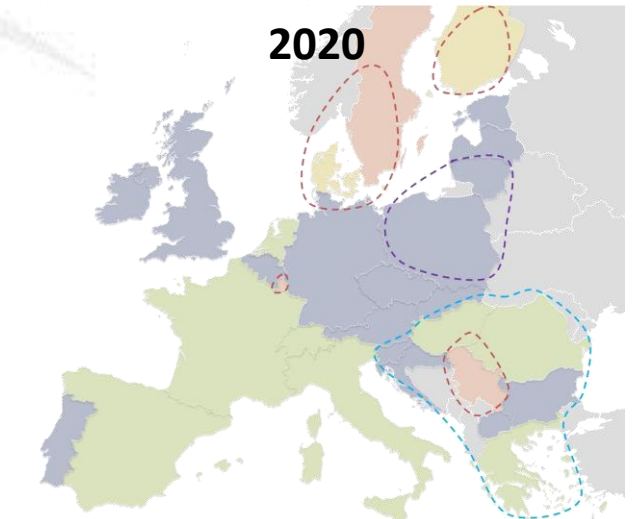
2011



2015



2020



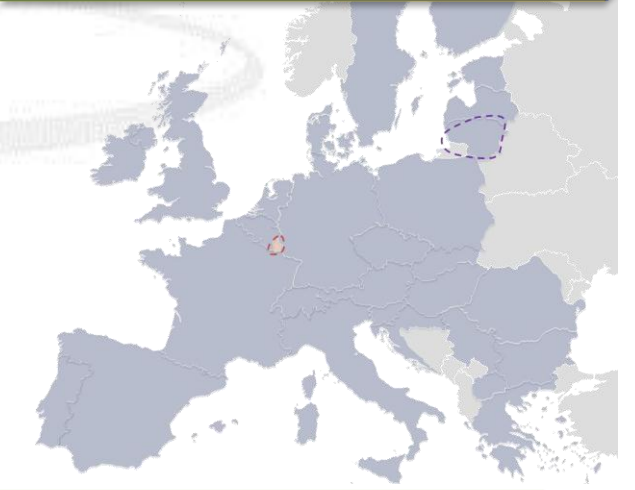
Non-FID

Remaining flexibility

- < 1%
- 1 - 5%
- 5 - 20%
- > 20%

Areas lacking of flexibility

- Under Reference Case
- Under Byelorussia disruption
- Under Ukraine disruption

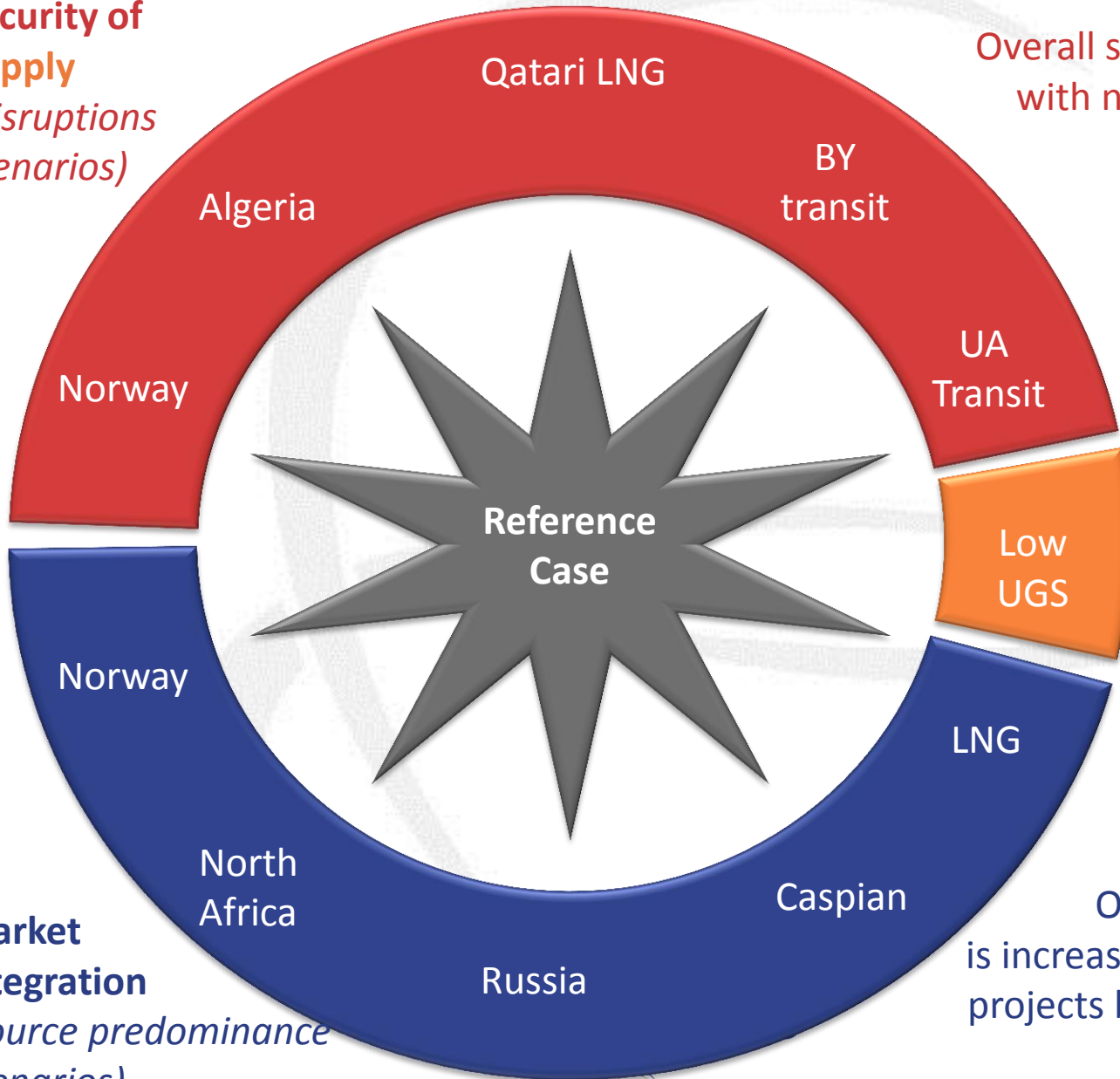


*New investment decisions are crucial in order not only to maintain but also to increase European security of supply (FID projects will not be sufficient)*



# Network Resilience Scenarios

**Security of Supply**  
*(disruptions scenarios)*



Overall security will only improve with non-FID projects with few exceptions

With only FID, storage deliverability in winter remains a key requirement

**Market Integration**  
*(source predominance scenarios)*

Overall market integration is increasing due to FID & non-FID projects but spread width will still differ

# TYNDP 2011-2020 -- Key Findings

## ***Security of Supply scenarios***

- > A quite high overall resilience
- > Some regions could still be negatively impacted by disruptions
- > Storage flexibility will depend on new project development (non-FID projects)

## ***Market Integration scenarios***

- > Heterogeneous situations
- > Availability of additional supply will have to be assessed
  - Additional supply may require additional and geographically diversified import routes and pipes to bring gas into the centre of European gas network

*TYNDP findings give a **European panoramic view**. They **need to be interpreted under the selected scenarios** and **further detailed analysis is necessary** to draw more concrete conclusions. It will also be necessary to assess the impact of new TPA arrangements on the need for new infrastructure investments, in particular for flexibility.*

# Next TYNDP will be even more challenging...

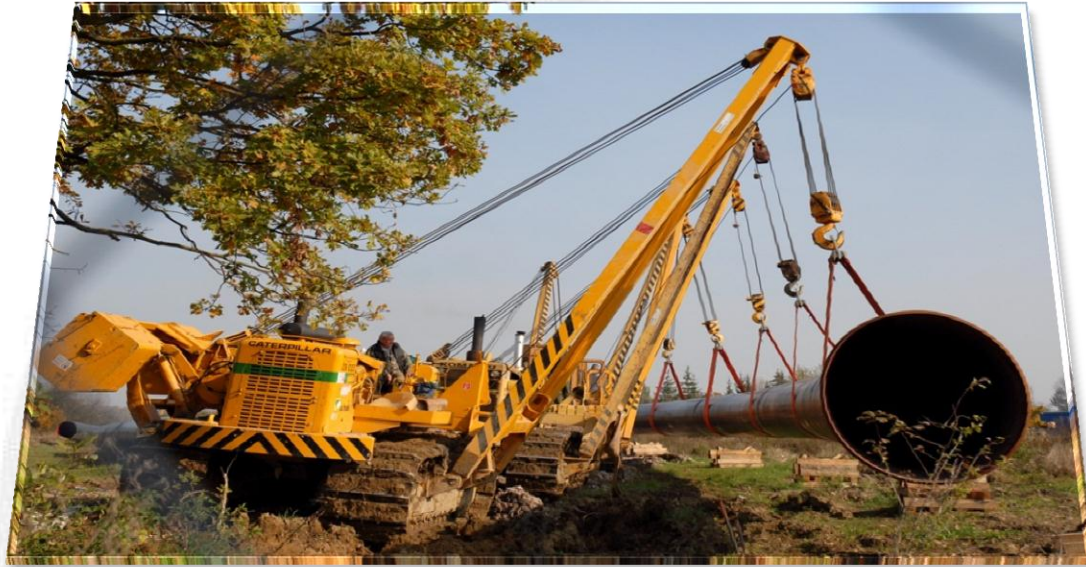
## ***Through TYNDP development process and public consultation ENTSOG has identified improvements to be achieved***

- > Shift from stakeholders' involvement into stakeholders' engagement through a dedicated process
- > Demand scenarios will have to be developed under both a qualitative perspective (e.g. more transparency on underlying assumptions) and a quantitative one (e.g. influence of different power production mixes)

## ***Consistency with other reports and new regulation***

- > New reports will be available (GRIPs, more national TYNDPs...) requiring both consistency between each other and complementarity (focus on different levels)
- > EIP proposals are likely to impact the role and contents of TYNDP, the link is however still unclear

*Development process of ENTSOG TYNDP 2013-2020 has started on 29 September 2011 through a public workshop.*



# Thank You for Your Attention

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