



Regional Gas Markets – Recent Trends

Energy and Environment Division

Evening Lecture

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- Regional gas markets - a European context.
 - The Gas Target Model
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In energy – terminology is everything!

- Legend has it
- The word ‘gas’ originated when a heavily accented 17th century Dutch Chemist was misheard
 - he used the Greek word ‘chaos’ to describe the nature of air



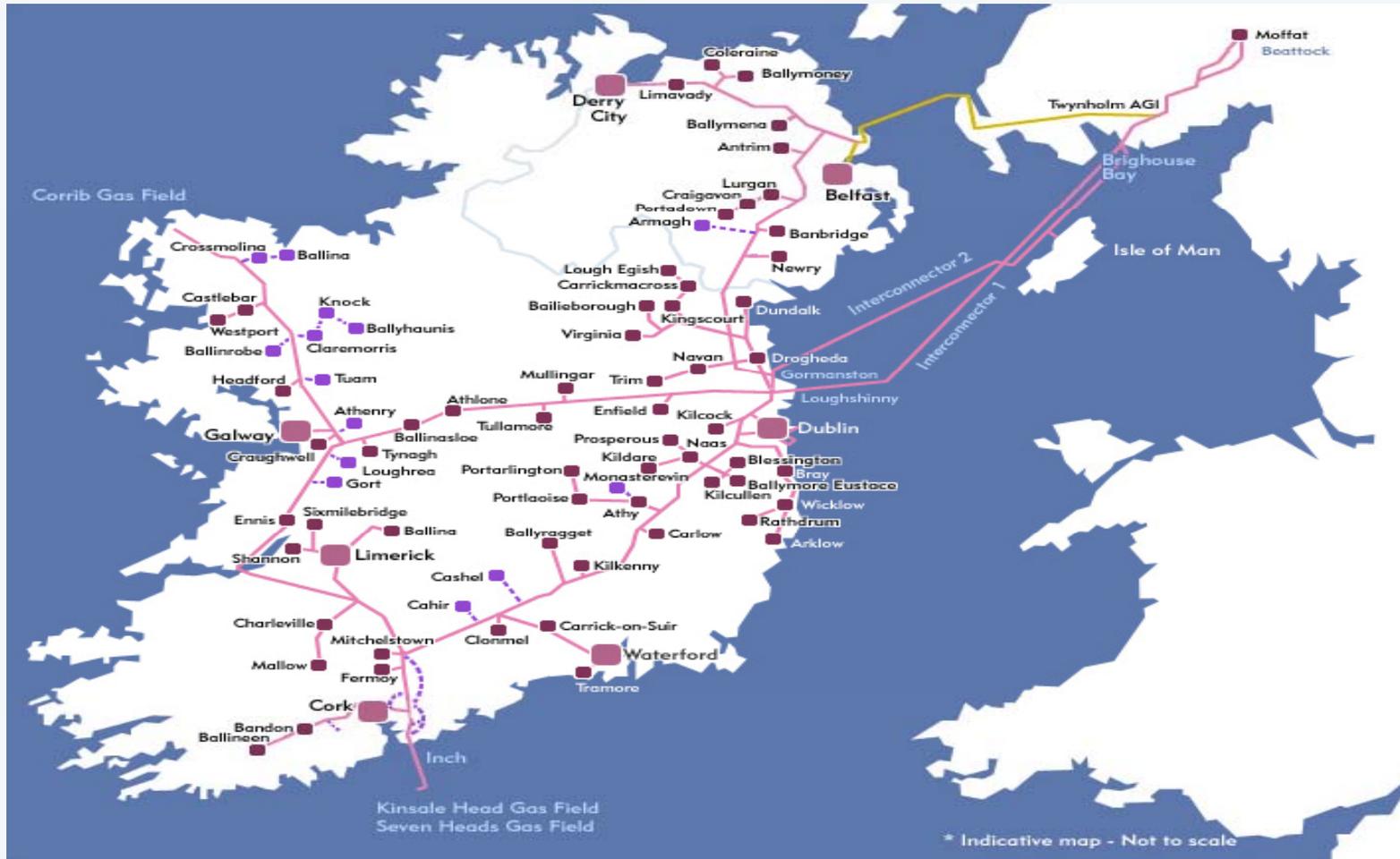
INTRODUCTION

Bord Gáis Networks - Overview

- Bord Gáis Established in 1976
- Bord Gáis Networks is the pipeline infrastructure part of the business
- 600 employees, headquartered in Cork – Large Office in Finglas
- Develops , designs, constructs, operates and maintains
 - 1800 km of gas transmission pipelines
 - 3000 km of distribution pipelines
- The Network services over 600,000 gas customers
 - Republic of Ireland,
 - Northern Ireland,
 - South West Scotland
 - Supply pipeline to the Isle of Man
- The network is used to provide gas transportation services to shippers under regulated contracts (codes) in these jurisdictions
- Turnover €1.4 billion
- 5 awards for customer service recently including excellence award for 'Best Customer Experience in UK and Ireland'.



Transporting Natural Gas - The BGN network



The Gas Network consists of...



High pressure
sub-sea pipelines



On-shore
cross-country
transmission pipelines



PE
distribution
networks

Regional Markets - where are we going?

- A lot happening in this space in both gas and electricity

- At a European level
 - More co-operation and co-ordination between adjacent markets mandated by recent European legislation
 - Third Package

 - The Gas Regional Initiative

 - The Gas Target Model

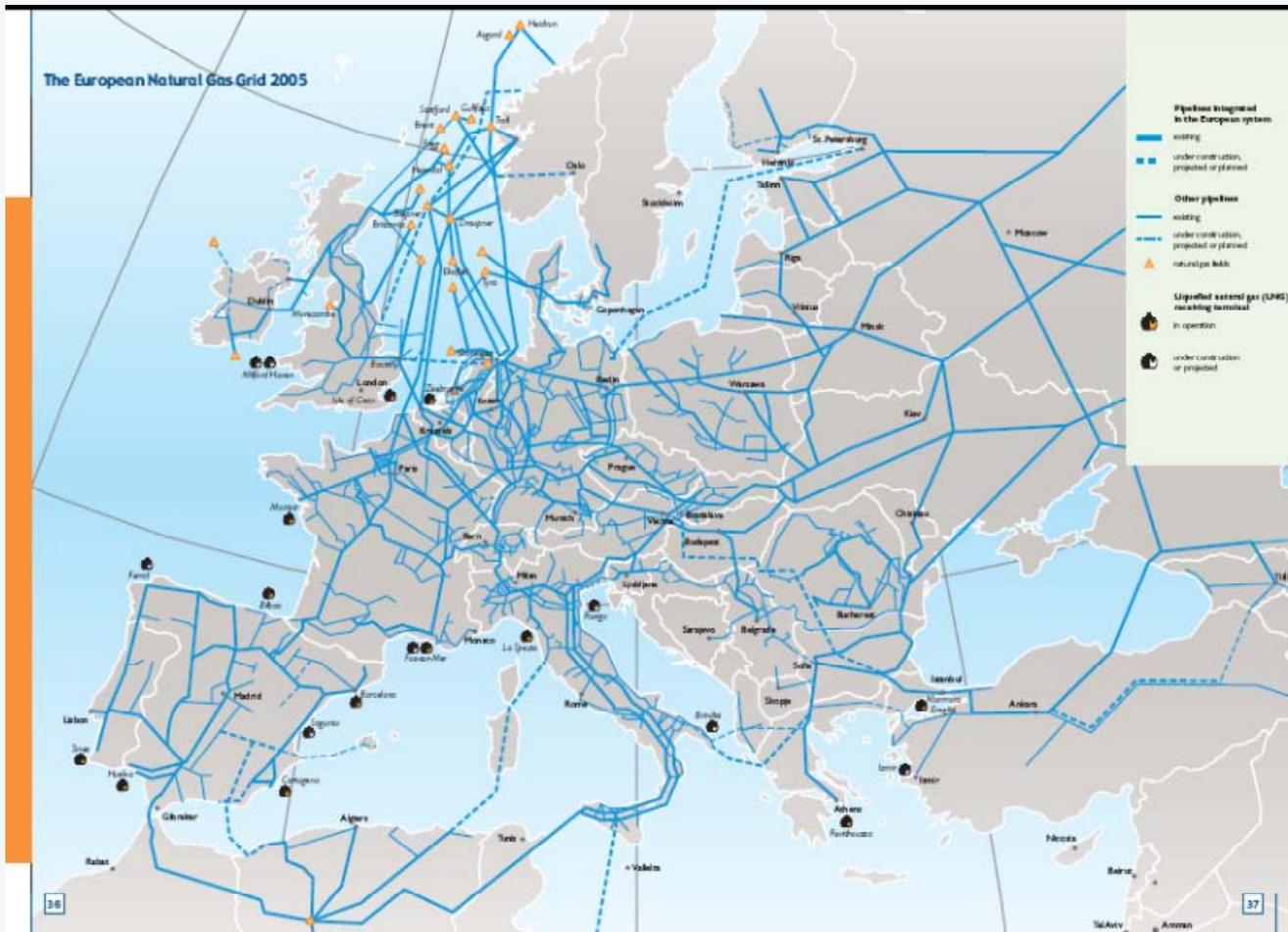
- At a national level
 - Common Arrangements for Gas (CAG)

 - Regional Co-operation on implementing Security of Supply Regulation (EC994)

REGIONAL GAS MARKETS

a European context

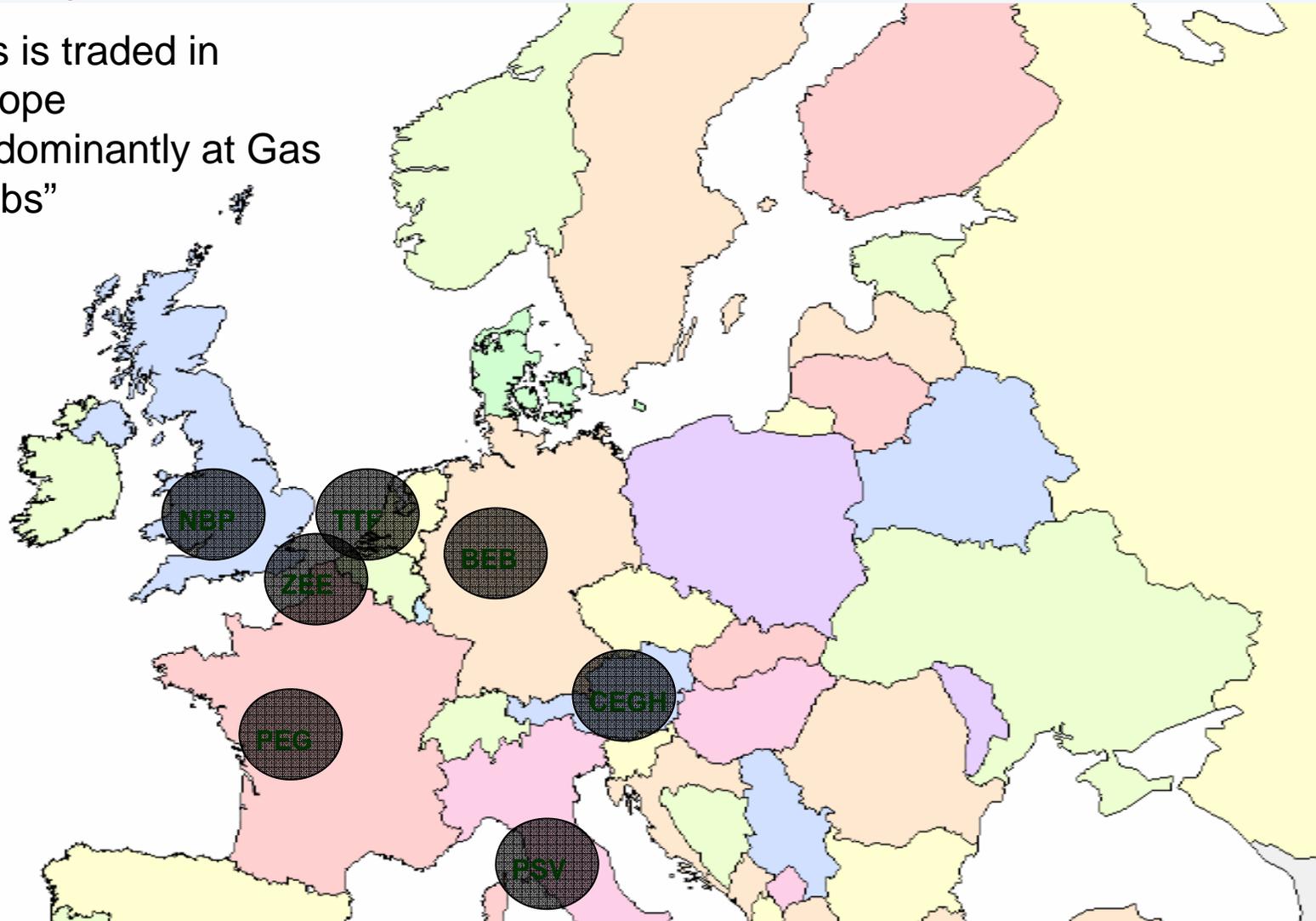
The European Gas Grid



- 1.8m km of gas pipelines
- 111m gas customers
- 25% of primary energy demand in the EU
- Natural gas – a bridge to a sustainable energy mix

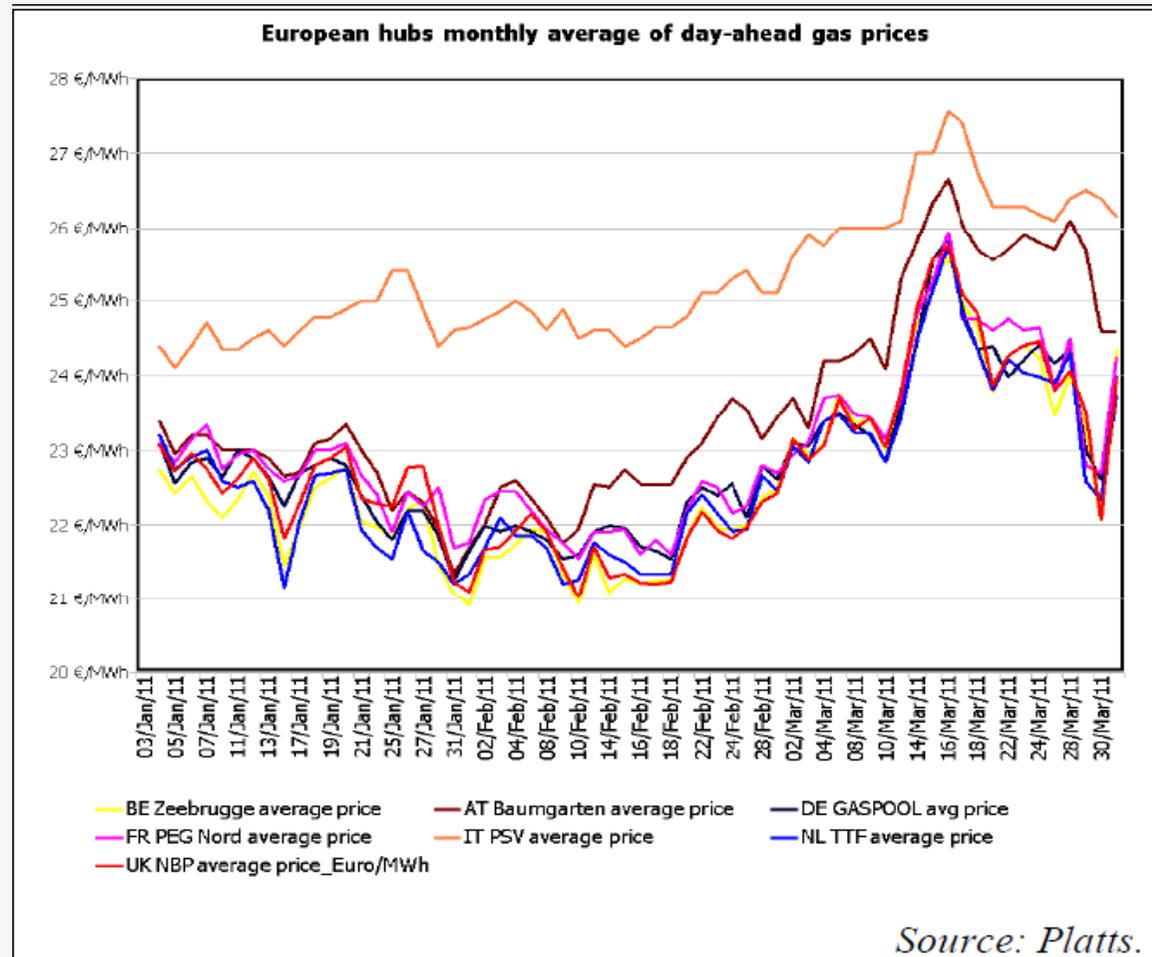
European Gas Hubs

Gas is traded in Europe predominantly at Gas “Hubs”



Wholesale gas markets in Europe

- Price convergence between hubs ?
- Still some anomalies?



Gas Regulatory Forum (Madrid)

- The European Gas Regulatory Forum, or Madrid Forum,
 - set up to promote the creation of internal energy market in gas
- It is currently addressing cross-border trade of gas, in particular
 - the tariffing of cross-border gas transactions
 - the allocation and management of interconnection capacity
 - other technical and commercial issues related to a fully operational internal gas market in the EU
- participants include;
 - national regulatory authorities,
 - Member State governments,
 - the European Commission,
 - Representative bodies for
 - transmission system operators (ENTSOG)
 - gas suppliers and traders,
 - consumers, network users, and gas exchanges.
- Since 1999 the Forum meets once or twice a year in Madrid

The Gas Target Model (GTM)

- In Sept 2010 at Madrid Forum, European regulators agreed
 - to bring forward proposals for the Gas Target Model (GTM)
- The February 2011 European Council confirmed its commitment
 - and set 2014 as the target date for the completion of the internal energy market in gas
- European regulators published the draft vision for the GTM for public consultation in July 2011
 - This paper considers both what can be put in place by 2014 and;
 - issues for a longer term vision implemented by 2020.

Objectives of the Internal Energy Market - 3 Pillars

■ Pillar 1:

- Structuring network access to the European gas grid in a way that enables functioning wholesale markets
- every European final customer is easily accessible from such a market.

■ Pillar 2:

- Promote short and mid-term price convergence between the functioning wholesale markets
- tightly connecting the markets through facilitating cross-market trading
- potentially implementing market coupling as far as the infrastructure allows.

■ Pillar 3:

- Enabling the establishment of secure supply patterns for the functioning wholesale markets.

What is the GTM? Step 1

- **The GTM is the “roadmap” to deliver the IEM in the context of the European gas regulatory framework**
- **Step 1 - Common Network Codes**
 - Part of the third package
 - Common network Codes harmonise gas transportation within markets and at interfaces between markets
 - capacity between markets will be used as effectively as possible
 - improved price alignment between the markets
 - maximise efficiency and ensures gas assets are used in the most economic manner.

What is the GTM? - Step 2

Step 2 – Adopt agreed model for liquid wholesale market

- a number of potential models proposed at cross-border level to realise liquid wholesale markets
 - Models still being debated

- Business models for gas and electricity markets are different
 - Electricity and gas target models will therefore be different
- Electricity Target Model focusing on market “convergence” to a single regional market for electricity
- Gas Target Models - still under development/consideration
 - Focus on effective hub to hub trading and ease of gas transportation between hubs
 - Something similar to US gas market emerging?
 - Streamlined gas transportation arrangements will be a key element of the gas model

The GTM - “the vision in a nutshell”

- Functioning wholesale markets in all of Europe
- Connected functioning wholesale markets in all of Europe
- Secure supply patterns that ensure gas flowing to and throughout Europe
 - Economic new infrastructure investments to deliver this

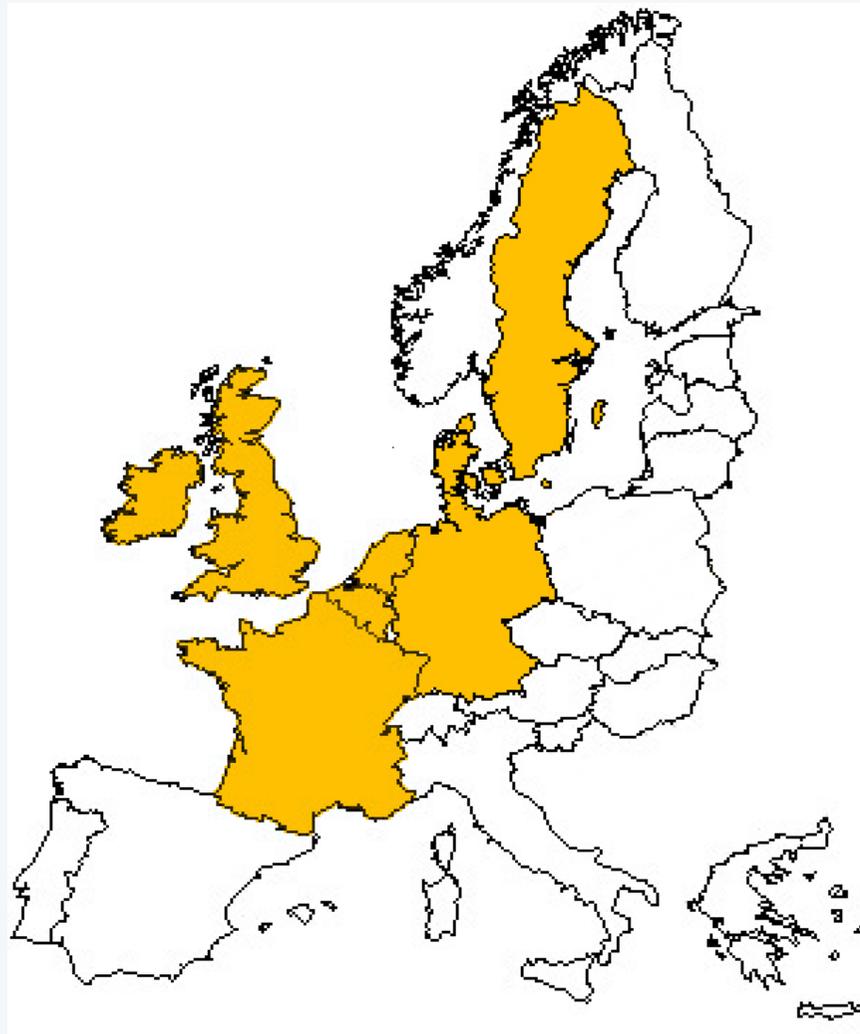
The Gas Regional Initiative

The Gas Regional initiative

- Agency for the Cooperation of Energy Regulators (ACER)
 - Set up under EU third package of energy legislation
- The forerunner to ACER was the European Regulators Group for Electricity and Gas (EREGG)
 - a formal advisory group to the European Commission and created by the Commission in 2003
- EREGG and subsequently ACER promote the development of regional gas markets
 - as an important and practical step towards a competitive, single-European gas market.
- EREGG launched the Gas Regional Initiative (GRI) in 2006
 - to speed up the integration of Europe's national gas markets
 - as an interim step to creating a single-EU gas market.
- The GRI created three regional gas markets in Europe
 - North-West
 - South South-East
 - South

GRI - North West Region

- Ireland is part of the GRI North-West Region
- The largest Gas Region
- Shippers /stakeholders participate in industry groups
- Currently GRI NW focus is on specific projects and assisting stakeholders in implementing 3rd Package



Common Arrangements for Gas Project (CAG)

CAG - origins

- Seen as the next logical step to the Single Electricity Market (SEM)
 - introduced in 2007
- A MOU was signed by the Regulators in February 2008
 - CER in the South
 - NIAUR in the North
- The vision
 - *“The primary objective of the CAG is to deliver single operation of the gas transmission system, ensure that all relevant stakeholders on the Island of Ireland can buy, sell and transport wholesale natural gas and that the market can be operated, developed and planned effectively on an all island basis for the mutual benefit of consumers in Northern Ireland and Ireland”*

CAG - Status

- CAG is not a requirement of EU legislation
 - It is a development consistent with regional gas market developments in Europe
- CAG has some similarities to SEM but there are key differences between gas and electricity markets
- Seen as a sensible development for an island such as Ireland with a relatively small market size
- Work has been progressing since 2008
 - There have been some issues to work through
 - This has led to some delays in the programme
 - This is inevitable with a project of this complexity

CAG – Key Elements

- Common all island gas transportation regime
- Single Code
 - Transmission and Distribution
- Single IT interface for shippers
- Harmonised network operation
-
- Common approach to emergencies
- Common retail arrangements
- Single security of supply standard
- Common approach to tariff structure

CAG – Benefits

- More Customer Choice/Cost Competition:
 - Larger market (still relatively small in European terms)
 - Lower barriers to Entry
- New products
- Lower customer costs
- Enhanced network operation
- Co-ordinated approach to system development
- Enhanced Security of Supply
- Co-ordinated Emergency Procedures
- Common approach to European Issues

CONCLUSION

- A lot happening on development of regional gas markets
 - Both on the island of Ireland and;
 - In Europe
- This trend is likely to continue and gather pace

Thank you

Questions?