



Regulatory Experience and Requirements

Case Study-Spain

Vienna, 16 November 2011

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Spanish Gas System

Access Regime

Fostering Competition

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LNG terminals



- Barcelona: 1,950,000 m³(n)/h ; (8 tanks: 840,000 m³ LNG)
- Cartagena: 1,350,000 m³(n)/h ; (5 tanks: 587,000 m³ LNG)
- Huelva : 1,350,000 m³(n)/h ; (5 tanks: 610,000 m³ LNG)
- 40% of Bilbao: 800,000 m³(n)/h ; (2 tanks: 300,000m³ LNG)

Transmission network



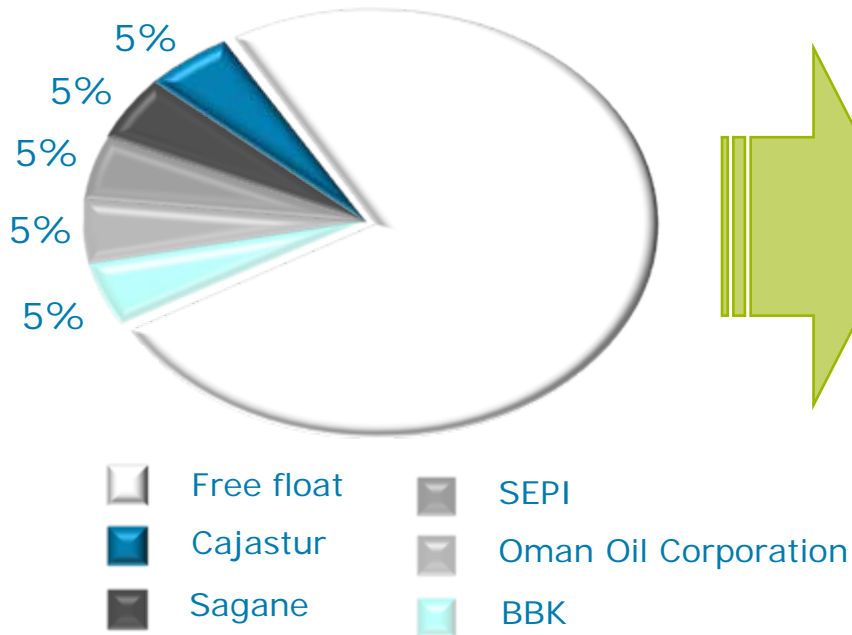
- >9,000 km of high pressure pipelines (36-220 bar) (>90% of total)
- International links to Morocco, Algeria, France & Portugal (x2)

Underground storages

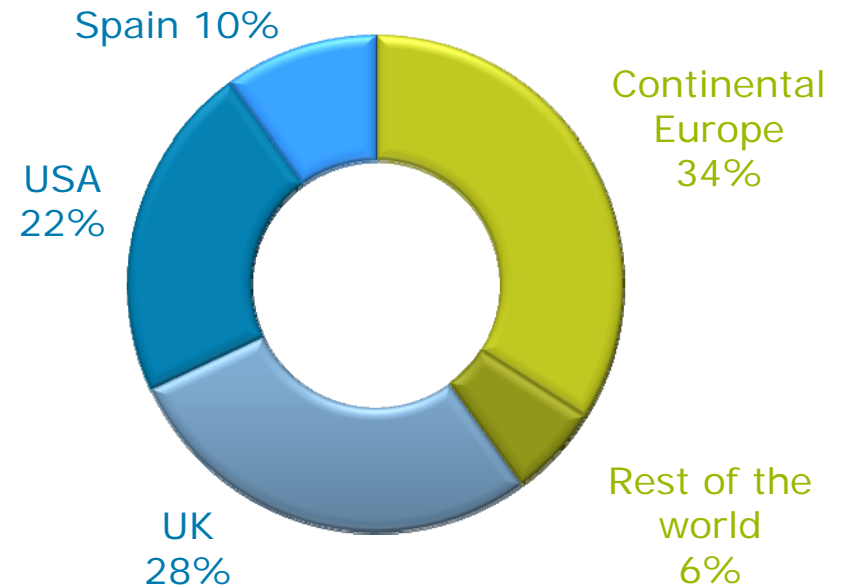


- Serrablo (Total capacity: 1.100 million m³ (n))
- Gaviota (Total capacity: 2.481 million m³ (n))
- *Yela – under construction - (2012)*

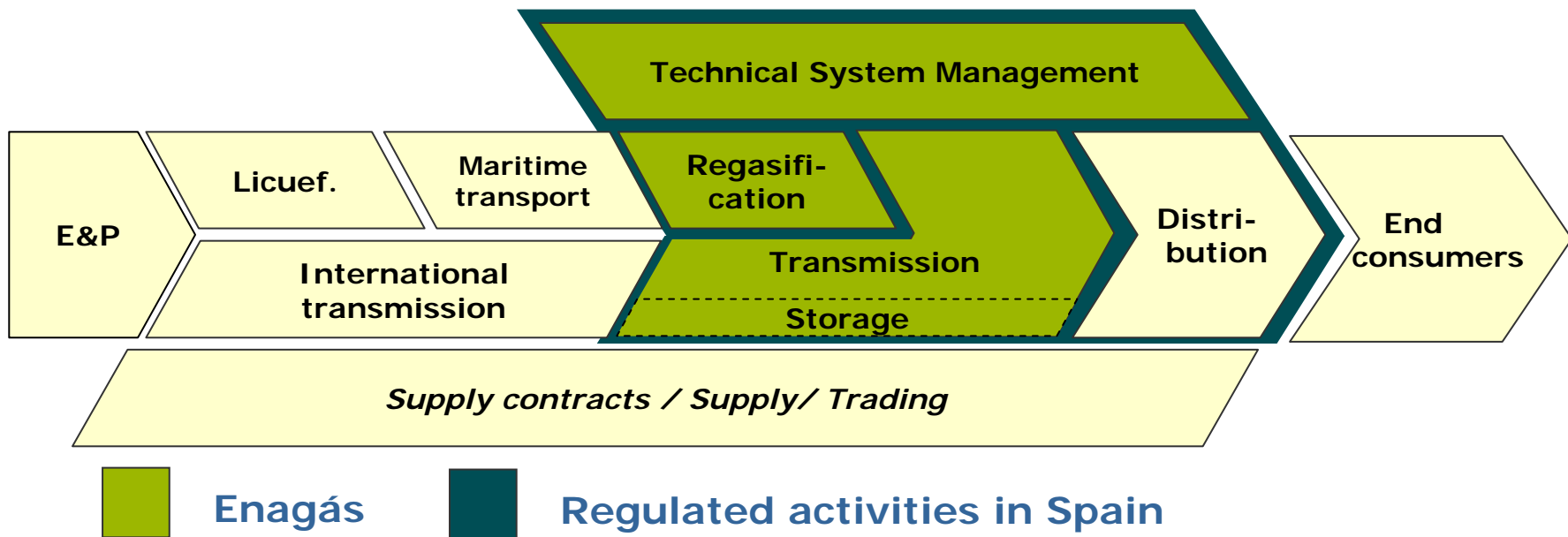
Shareholder structure



Free float



Enagás position in the gas value chain



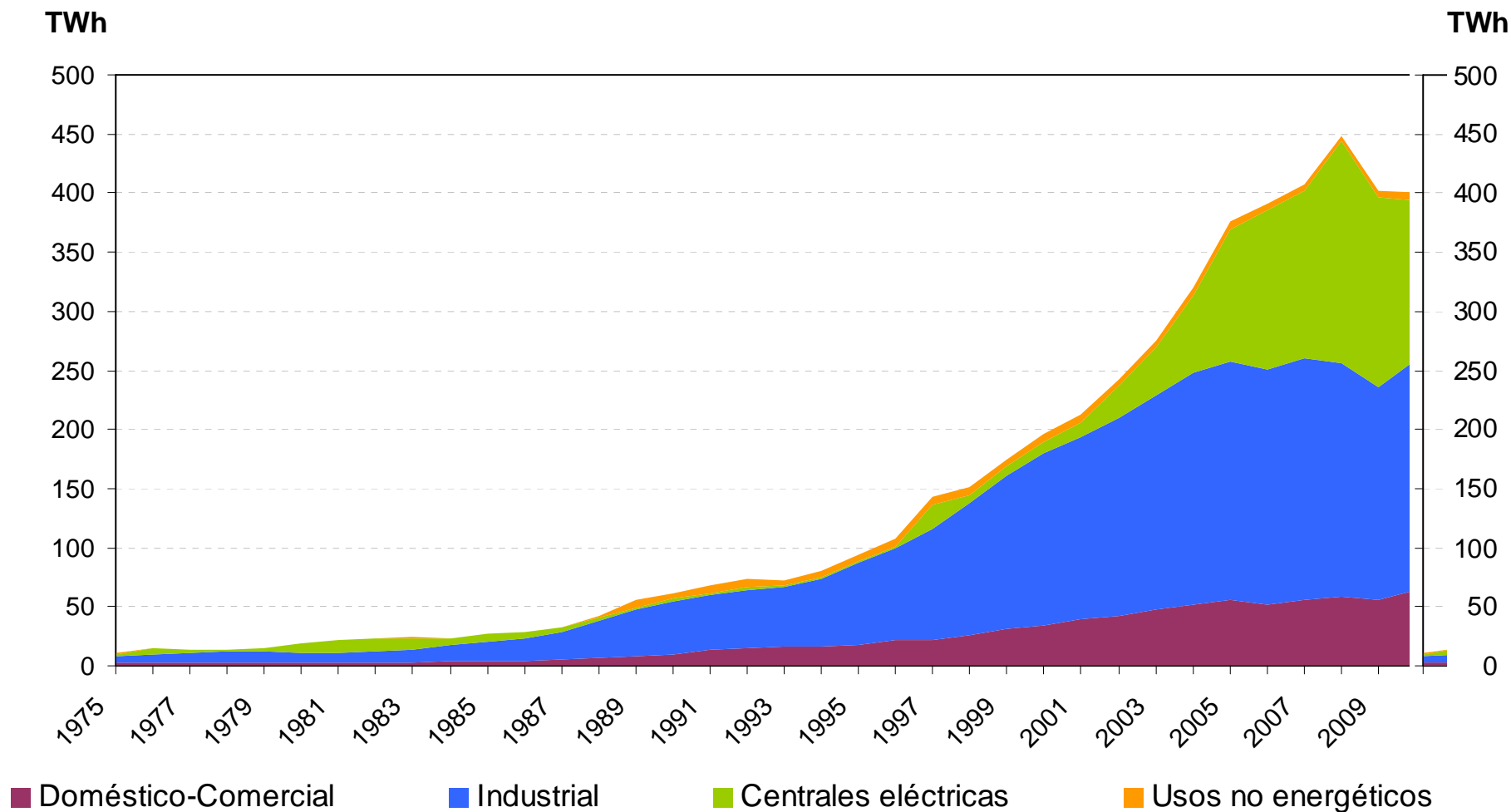
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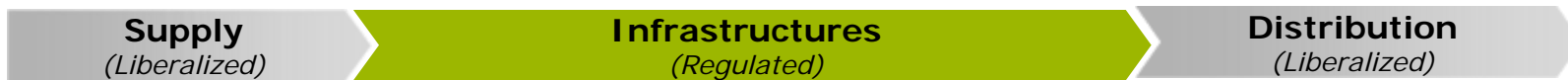
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Demand Evolution



Spanish Gas System



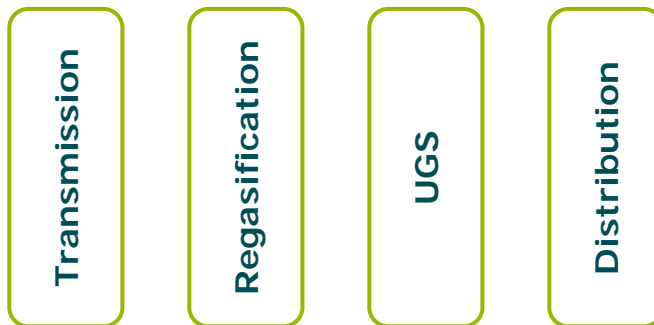
Value Chain

Type

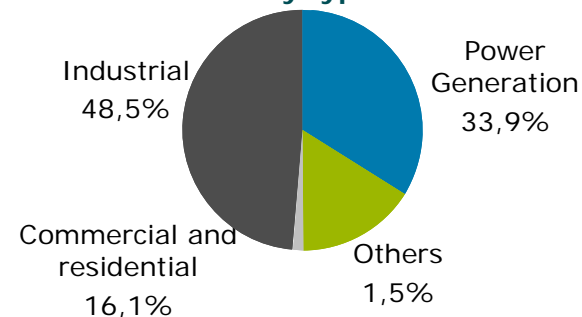
- 74% LNG
- 26% Pipelines

Main Origins

- Algeria (30%)
- Nigeria (22%)
- Qatar (15%)
- T&T (9%)

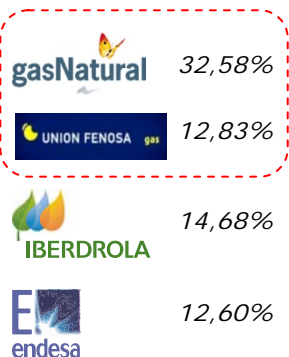


Demand by type of client



Total 2010 = 400,7 TWh

Main Companies



enagas Owner and operator of the majority of infrastructures and Technical manager of the system






90% Pipelines 3 regasification plants y 40% share in another of the 6 plants 2 UGS



Evolution of gas Infrastructures 1969-2011

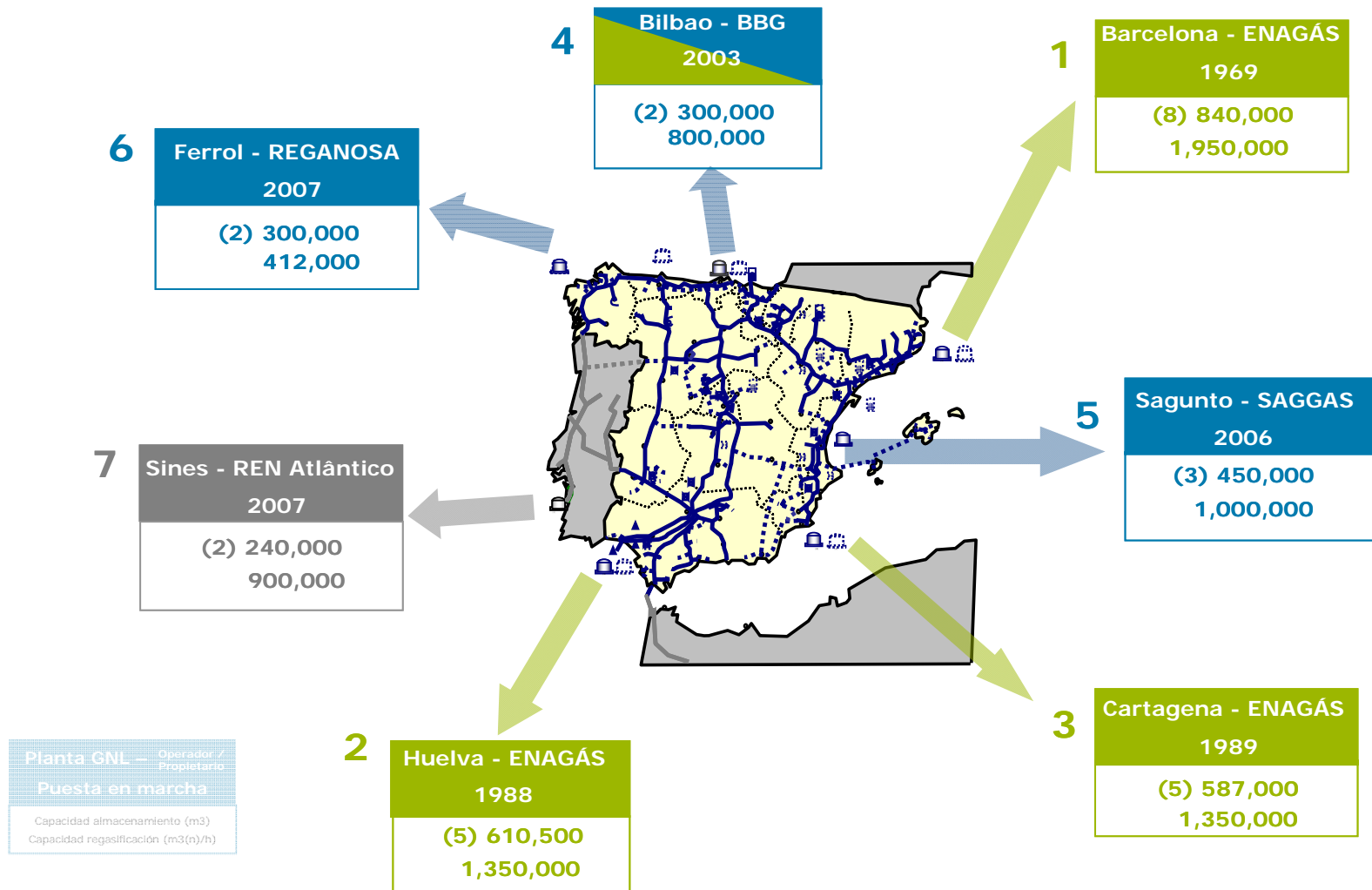
2011

Basic Infrastructures

-  Plantas de Regasificación (Número tanques de GNL)
-  Estaciones de compresión
-  Almacenamientos subterráneos
-  Yacimientos
-  En operación



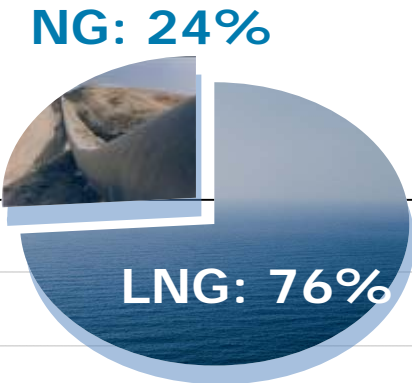
LNG Plants in the Iberian Peninsula



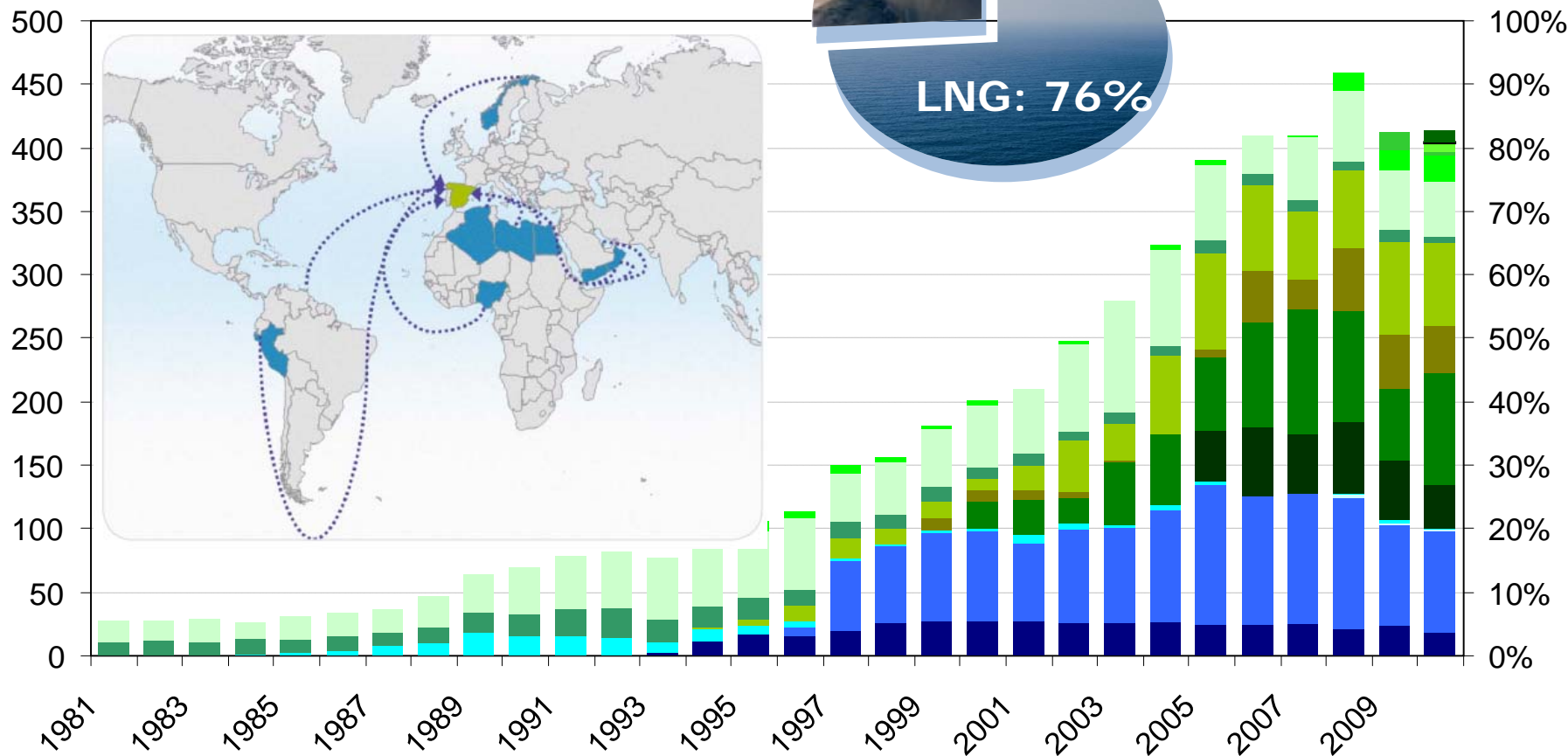
25 LNG tanks and 2,937 Mm³ LNG capacity

Evolution of the gas supplies

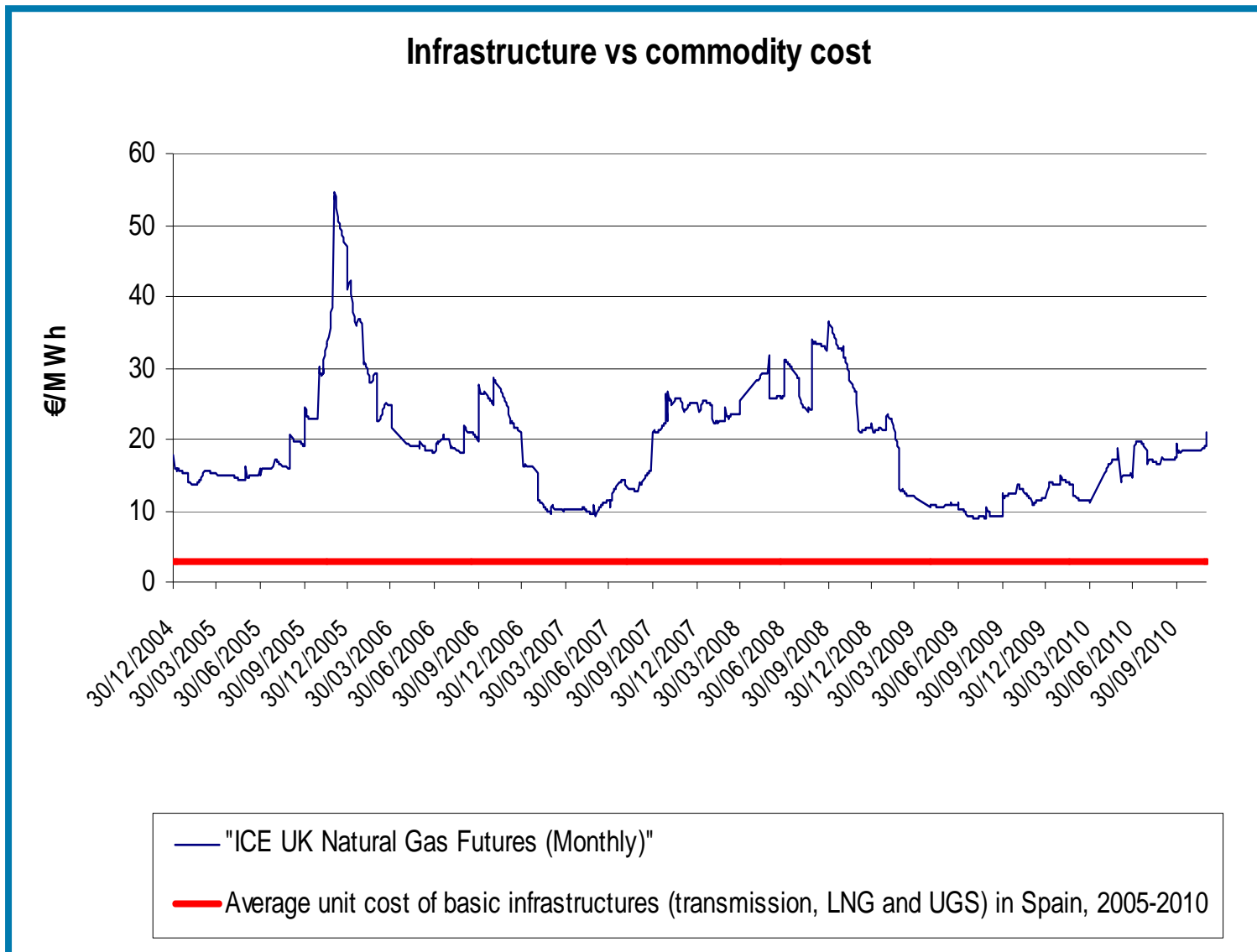
2010 supplies to Spain 413 TWh



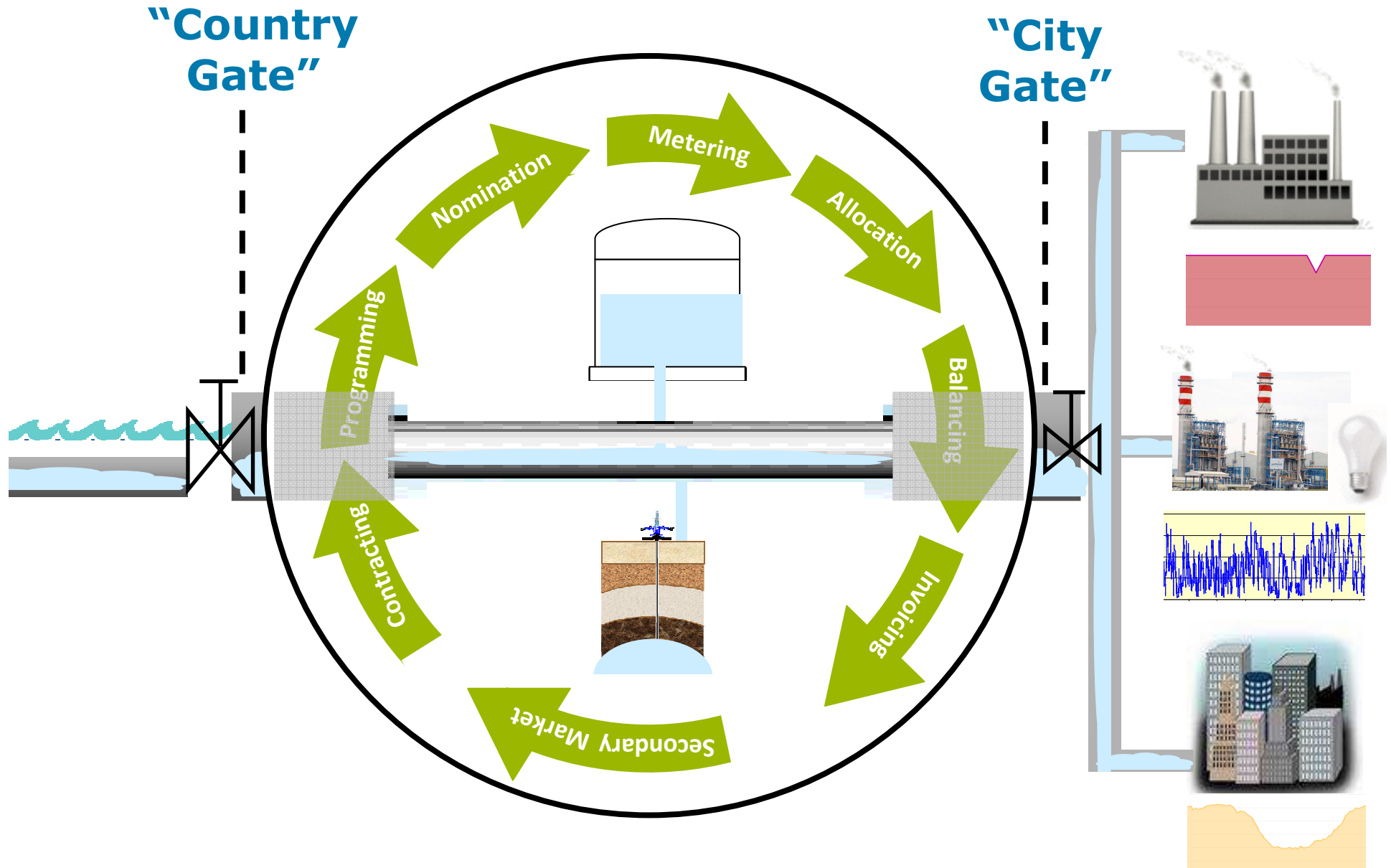
TWh



- Norway
- Algeria
- Portugal
- National
- Egypt LNG
- Nigeria GNL
- T&T LNG
- Persian Gulf LNG
- Lybia LNG
- Algeria LNG
- Norway LNG
- Yemen LNG
- Peru LNG
- EE.UU LNG
- Italy LNG



Integrated System Operation



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Third Party Access



Effective access in Spain



REGULATED			
NEGOTIATED			
EXEMPTED			

- Regulated TPA & Services without exemptions.
- Several hundred Contracts as from 1 day to 20 years.
- At least 25% of total Capacity must be booked on Short-term contracts (< 2 years).
- Broad Gas Quality Specifications (wider than EASEE-gas CBP proposal).
- Very active Secondary Gas-Exchange Market (MS-ATR).
- High transparency level.

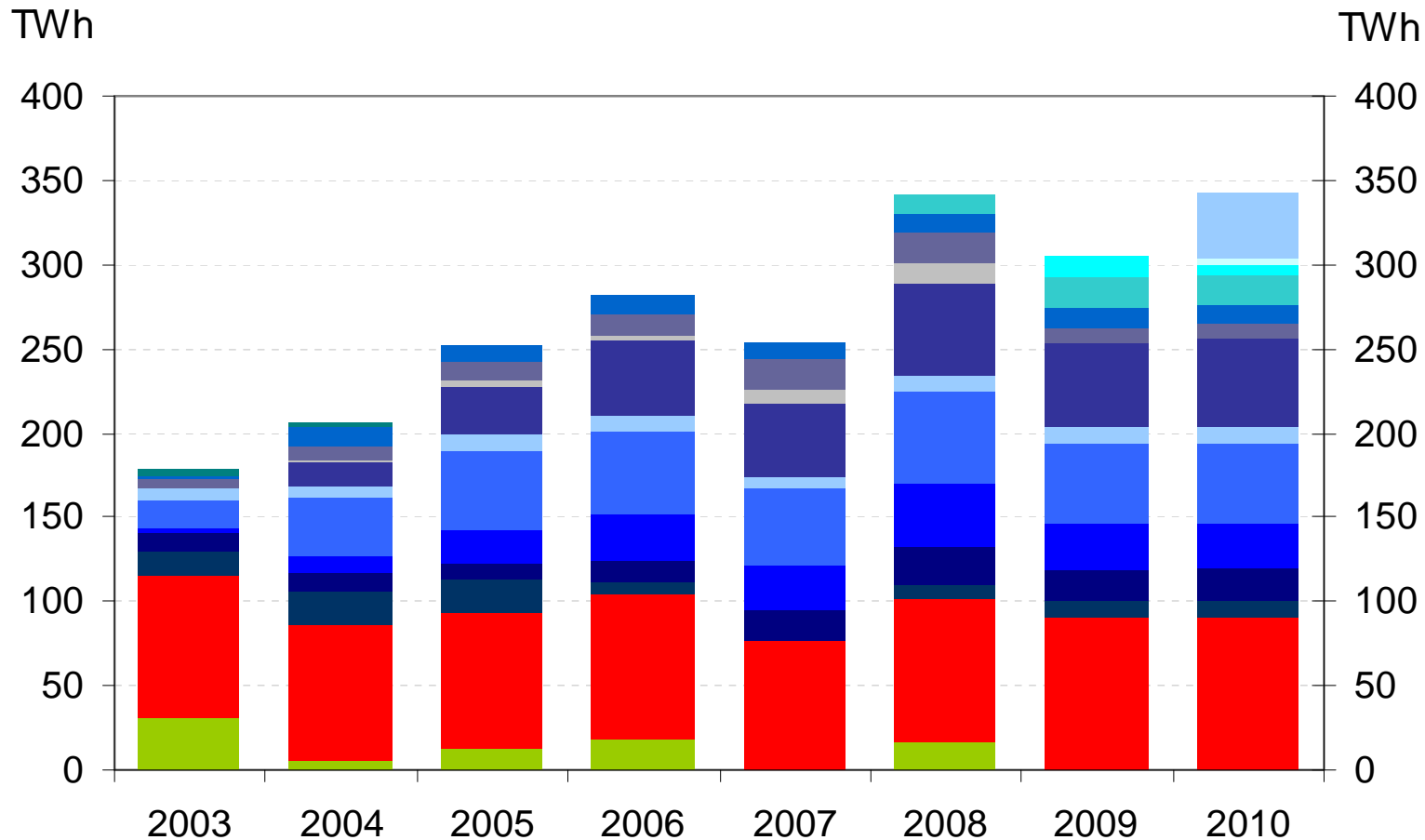
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LNG supplies to the LNG Market



Integral Regulated Tariff Market

TPA market:

Incumbent

New entrants

Secondary market



Number of exchanges

Transmission: 7.8%
UGS: 0.6%

UGS: 0.4%

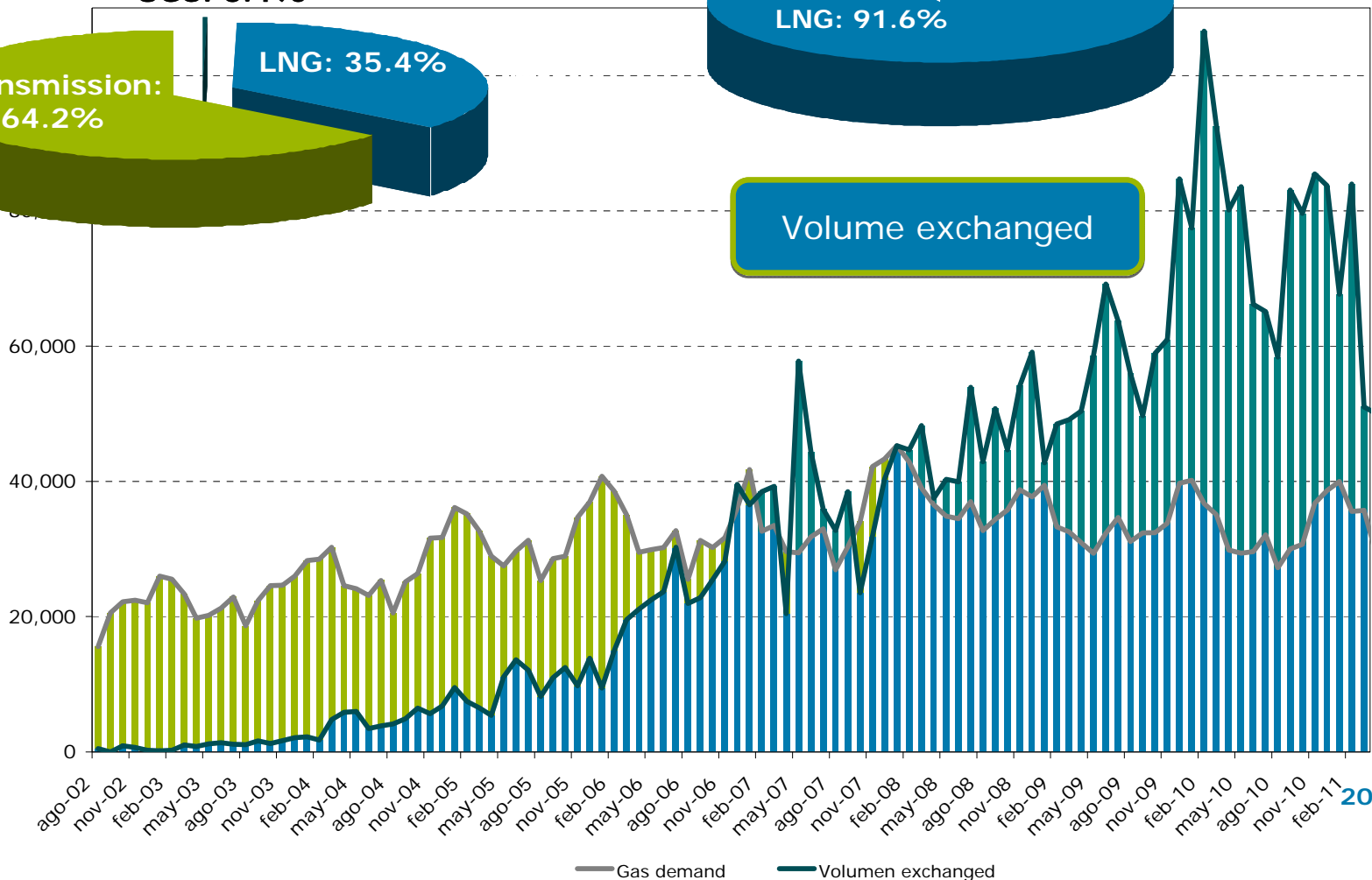
LNG: 91.6%

Transmission: 64.2%

LNG: 35.4%

Volume exchanged

GWh/month



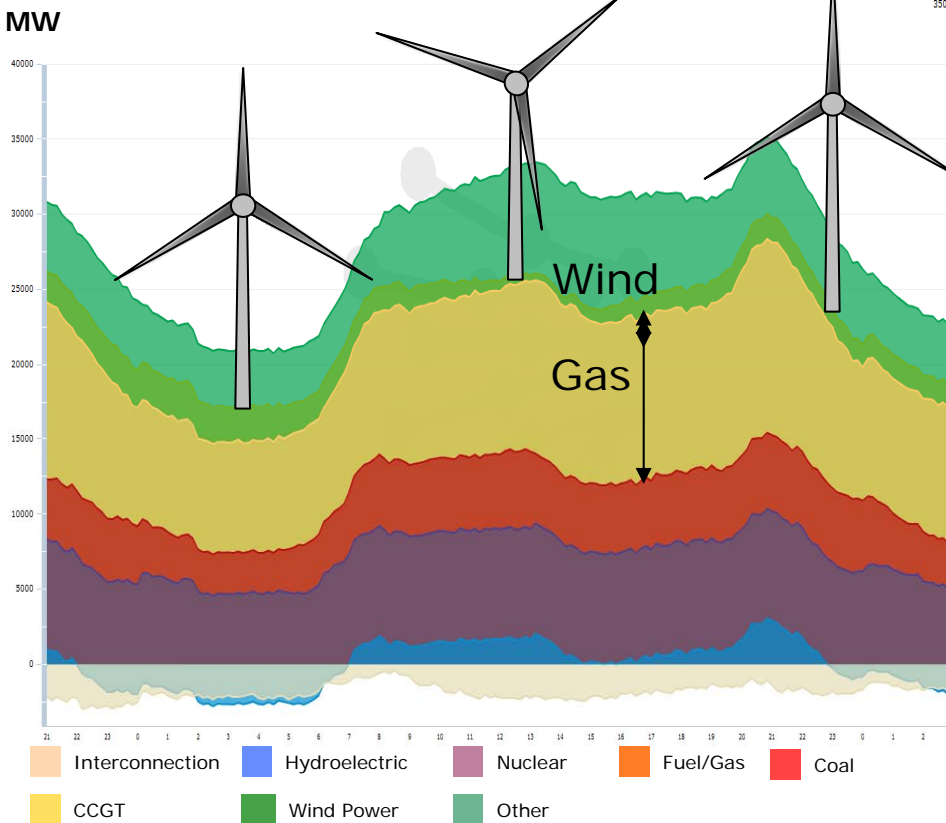
Active shippers



Electricity generation

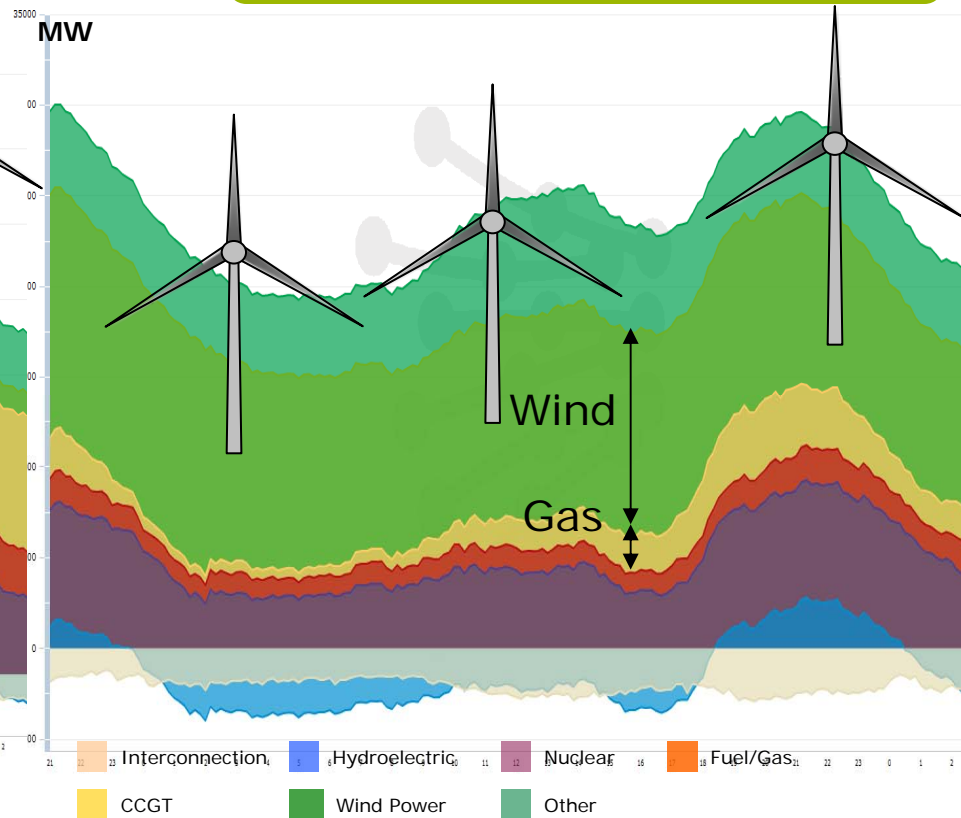
30-September-2010

Wind Power 1%



6-November-2011

Wind Power 59%





Thank you for your kind attention

www.enagas.es

Vienna, 16 November 2011