Role of gas infra in SoS

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Specific features of natural gas

Dominated by supply via pipelines for most regions (EU: 80% pipeline, 20% LNG)

- Interdependency producer/consumer

Gas market very different from power market: national resource, cross-border transport

<table>
<thead>
<tr>
<th>EU</th>
<th>Gas</th>
<th>Electricity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peak consumption</td>
<td>1477</td>
<td>560</td>
</tr>
<tr>
<td>Storage (out)</td>
<td>1267</td>
<td>38</td>
</tr>
<tr>
<td>Interconnection</td>
<td>2487</td>
<td>463</td>
</tr>
<tr>
<td>Import (average)</td>
<td>430</td>
<td>3</td>
</tr>
</tbody>
</table>

Source: TYNDP ENTSO-E/ENTSOG
Gas and SoS

• ‘2009 gas crisis’: was it a gas crisis or a gas infrastructure crisis?

• The importance of diversity
  • Supply sources
  • Supply routes
  • Fuels

• EU initiatives
  • Promote diversity
  • Minimum standards for interconnectivity
  • Financial support

• Role market versus centralised approach
  • Investment signals for SoS?
LNG terminals in Europe

EXISTING
21 LNG Terminals (190 bcm)

UNDER CONSTRUCTION / COMMITTED
7 LNG Terminals (35 bcm)

UNDER STUDY / PLANNED
32 LNG Terminals (>160 bcm)


Source: GLE LNG Map, July 2013
Global gas prices

Asia

EU

US

BAIF, Japan LNG, Henry Hub, NBP
Utilisation Rates of European LNG Terminals
(based on net import volumes)

- Italy
- Turkey
- France
- Spain
- Belgium
- Portugal
- Greece
- UK
- NL

Sources: GIIGNL, GLE, Poten & Partners
With respect to security of supply, gas infrastructure is the means to an end in the interplay between markets and governments.