Winter Supply Outlook 2012/13

A mature report?

Olivier Lebois
ENTSOE Senior Adviser

No major change in the concept

Winter movie and peak snapshots

- Potential evolution of UGS stock according to 3 winter demand scenarios
- 3 High demand situations (highest single day in January and March and highest 2-week period of the winter)
- The 2 approaches are linked as the decrease in UGS level impact their deliverability

Considered improvements

- Based on internal feedback and ACER’s opinion
- Methodological improvements derived from TYNDP process (network topology, potential supply, LNG tank management...)
- Disruption event defined by MSs through Gas Coordination Group:
  - Ukraine disruption during a 2-week period of High Daily Demand
  - Necessity to introduce a Reference Case (without disruption for comparison purpose)

Improvements aim at streamlining the report and ensure better consisience with ENTSOG TYNDP
Winter movie – Supply & Demand

Supply & demand approach

- Demand built on TSOs 1-in-2 estimation
- Imports based on last 3 years average level
- UGS to close the balance starting at 88% (source AGSI platform)

Winter movie in figures

- Reference Case demand is 3,343 TWh (3% lower than Winter 2010/11 and 7% higher than Winter 2011/12 actual demand)
Winter movie – Evolution of UGS level

Evolution of UGS stock level

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Reference Case</td>
<td>88%</td>
<td>92%</td>
<td>87%</td>
<td>76%</td>
<td>63%</td>
<td>53%</td>
<td>49%</td>
</tr>
</tbody>
</table>

> A sensitivity-study has been carried out based on level of demand (± 10%) and imports (± 5%), in order to check influence on stock level at the end of the winter.

> Which level when facing a high daily situation after 31 January:

> Reference Case 63%
> Cold Winter 38 – 46% depending the level of imports
> Warm Winter 81 – 88% depending the level of imports
> For comparison, before the February 2012 cold spell, UGS level was 67%
High daily demand snapshots - Methodology

3 pictures covering different kind of stress

> January and March Cases: single day which demand is defined according design methodology of each TSO
  > Objective: capture the influence of high transported quantities with different UGS levels

> 2-Week Case: 2-week period based on a common probability occurrence using the percentile 5% on the climatic parameter
  > Objective: capture the influence event duration on supply (mostly UGS and LNG)

UGS and LNG approaches

> January and March Cases:
  ▪ LNG is first use at annual average level +10% (seasonal swing)
  ▪ then with UGS to cover the balance

> 2-Week Cases:
  ▪ LNG send-out is defined by incoming ships plus maximum use of tank
  ▪ UGS to cover the balance
High daily demand snapshots – Single day cases

January Case

> Remaining Flexibility above 5% in most of the countries with the exception of:
  - Finland with very high ability to switch to alternative fuel
  - Denmark and Sweden where short term entry capacity exists on interruptible basis (29 GWh/d required)

> In both cases, ENTSOG TYNDP 2011-2020 shows some infrastructure projects mitigating the issue

March Case

> Flexibility increases showing that one day the lower UGS deliverability has a lower impact that the lower demand
High daily demand snapshots – 2-Week cases

Reference situation
> Level of stress comparable to January single day case
> Assuming a flat demand and supply on the period, a minimum stock level of 47% is required prior to the event

Ukraine disruption
> South-East Europe is not able to face whole gas demand (1,026 GWh missing representing 42% of the needs)
> Higher stock level is required prior to the event compared to the reference situation (58%)
> Results are consistent with the single day Ukraine disruption as shown in ENTSOG TYNDP 2011-2020
Way forward for next Supply Outlook

**Natural improvements**

> ENTSOG is working on a continuous basis to improve its supply and demand approaches as well as the modeling of the European gas system

> Gas and electricity interlink could be one of the main directions

**ACER opinion**

> Provide long term direction and should highlight priorities for next edition

**Stakeholders’ role**

> Low appetite from the market players for these seasonal outlooks as shown in previous workshop on the topic. Maybe today workshop will show more interest.

> Member States through the Gas Coordination Group seem to be the most interested public, the GCG could then be used as a channel for collecting MSs, COM, ACER and association feedback
Thank You for Your Attention

Olivier Lebois
ENTSOG Senior Adviser, System Development
ENTSOG -- European Network of Transmission System Operators for Gas
Avenue de Cortenbergh 100, B-1000 Brussels

EML: Olivier.Lebois@entsog.eu
WWW: www.entsog.eu