ENTSOG Summer Supply Outlook 2010

Context

After the adoption of the Third Legislative Package for the EU internal energy market, ENTSOG (European Network of Transmission System Operators for Gas) was established on 1 December 2009. Among the tasks of ENTSOG is the adoption of annual summer and winter supply outlooks (Regulation (EC) 715/2009, Art. 8 (3)(f)).

In recent years, ENTSOG's predecessor organisation GTE+ has already published GTE+ winter outlooks. With this report, ENTSOG presents its first summer outlook, even before Regulation (EC) 715/2009 becomes applicable (3 March 2011). This will enable ENTSOG to start the dialogue with stakeholders, and to lay the foundation for continuous improvement of future summer outlooks. ENTSOG therefore welcomes feedback on this Summer Outlook 2010 to be able to better cater for the needs of the market in the future.

Objective

Gas transmission systems bring gas to the markets. Gas markets' demand patterns are influenced by different factors, among which seasonal temperature differences are important. In winter, demand in most Member States is high for heating purposes and gas is withdrawn from storage facilities. The European transmission systems are designed to cope with such peak demand, which has been shown in recent GTE+ winter outlooks. In summer, capacities are needed to transport volumes for both storage filling and current market demand.

Therefore, ENTSOG has decided to define the objective of this Summer Outlook 2010 as to provide an overview of the market demand and storage injection in each of the six months from April through to September, and to assess the capacity of the transmission system to transport these volumes.

Legal Notice

Data

The following data has been used for the development of the ENTSOG Summer Outlook 2010[1]:

- Capacity data at cross-border interconnection points as received from TSOs. Where no data was received, either data from the ENTSOG Ten Year Network Development Plan 2010-2019 or assumptions have been applied.
- TSOs were requested to indicate capacity reductions due to maintenance. Such reductions were then evenly distributed per point over the respective month of occurrence. Please note that the capacity reductions indicated in this Summer Outlook may often have no effect on the ability of shippers to nominate. In such cases, the reductions are only average measures for modelling purposes. TSOs will communicate whether maintenance measures will result in relevant capacity restrictions for shippers through the usual channels. In cases of doubt, shippers are advised to contact their TSOs.
- National production potential or forecast, or transmission capacity from the national production facilities as received from TSOs or respective Ministries.
- Market demand forecasts for April 2010 through to September 2010, consisting of the average demand of the respective months of 2008 and 2009.
- Storage working gas stock level at 1 April 2010 and forecasts of stock levels for each month through to September 2010 from Gas Storage Europe (GSE) and its members. Where no data was received, assumptions on storage stock levels were derived from the overall storage stock level of the respective hub area as defined by GSE for the Aggregated Storage Inventory database.

Target

For each of the summer months, the target is to fulfil complete the stock level forecast provided by GSE or storage operators. The injection forecast is based on the month-on-month delta in working gas stock level.

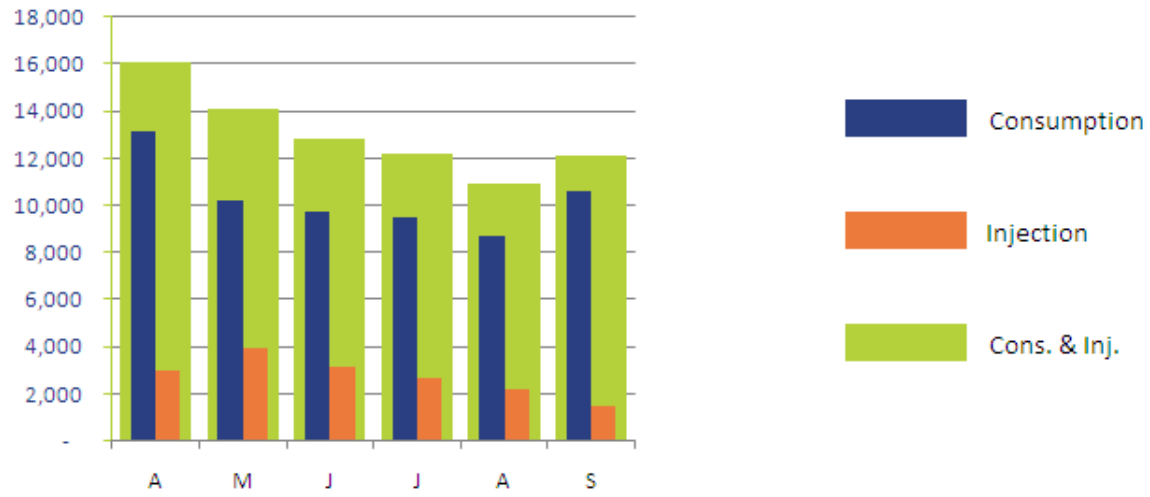
The targeted level of stock on 1 October is 90% of maximum working gas level or higher if so indicated by the respective SSO.

The following chart and diagram give an overview of the market demand and the volumes needed for storage filling for April 2010 through to September 2010.

[1] Collected data refer to the capacity situation and stock-level forecasts as at 1 April 2010.

- GSE area: Austria, Belgium, Bulgaria, Czech Republic, Germany, Denmark, Spain, France, Hungary, Italy, Poland, Slovakia, the Netherlands and the United-Kingdom

GSE area	Unit	A	M	J	J	A	S	O
Consumption	GWh/d	13,134	10,181	9,736	9,517	8,721	10,610	
Injection	GWh/d	2,951	3,926	3,115	2,642	2,176	1,491	
Cons. & Inj.	GWh/d	16,084	14,106	12,851	12,158	10,897	12,101	
Stock level (month 1st)	TWh	320	409	530	623	705	772	818



- GSE area plus Ireland, Portugal, Switzerland, Luxembourg, Slovenia, Croatia, Bosnia Herzegovina, Serbia, Macedonia, Greece, Romania, Lithuania, Latvia, Estonia, Finland and Sweden

All Europe	Unit	A	M	J	J	A	S	O
Consumption	GWh/d	14,223	11,138	10,657	10,473	9,733	11,659	
Injection	GWh/d	3,014	4,012	3,199	2,729	2,276	1,572	
Cons. & Inj.	GWh/d	17,237	15,150	13,856	13,202	12,009	13,231	
Stock level (month 1st)	TWh	328	418	542	638	722	792	852

A country based analysis of consumption and storage injection can be found in the annex.

Modelling Rules and Assumptions

The following rules and assumptions were used for the modelling of an integrated flow pattern across the European network:

- Only technical transmission capacities[2] have been applied. Where capacities are different at the two sides of a cross-border point, the lesser of rule has been applied.
- Entry flows from another country ≤ IP capacity at entry points
- Flows from national production ≤ national production potential
- Exit flows to another country = national intakes – (market demand + storage injection)
- If no injection rate data from GSE, an even rate is used for each month
- Imports from Norway, Algeria, Libya and LNG are based on average 2008 & 2009 load factors

The below table gives the assumed share of each supply source as applied in the simulation:

	A	M	J	J	A	S
Algeria	6%	6%	6%	6%	6%	6%
Libya	2%	2%	2%	2%	2%	2%
Norway	14%	14%	15%	17%	16%	16%
Russia	20%	22%	20%	19%	18%	21%
LNG	22%	21%	21%	21%	21%	20%
Imports	64%	65%	64%	65%	63%	65%
National production	36%	35%	36%	35%	37%	35%

Results

For each month, a simulation of the European network based on above rules and assumptions has been carried out and a consistent solution has been found for each country demand vs. supply balance.

Integrated flow patterns show functioning capacity / demand balances in the months from April 2010 through to September 2010, and show that there is considerable flexibility in most countries. A graphical representation of load factors of each monthly integrated flow pattern can be found in the annex.

Please note that the integrated flow patterns represent hypothetical cases just for the purposes of this Summer Outlook

ENTSOG plans to review the results of this report on the basis of actual flows in autumn 2010.

[2] Technical capacity means the maximum firm capacity that the transmission system operator can offer to the network users, taking account of system integrity and the operational requirements of the transmission network.