

## **Futures of natural gas demand**

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### **1. Laszlo Varro, Head of Gas, Coal and Power division at the International Energy agency.**

*Today the gas markets are fully functioning in comparison to the situation five years ago. Currently the gas fired power generation has significantly decreased. The current expectations of gas fired power generation for 2015 constitute only 72% of the expected levels for 2015 in the year 2007. The major factors that led to the smaller use of gas are the eurozone crisis (estimated effect on decreased demand about 8%), increase in the use of renewable energy (13%) and unfavourable sparkspreads (7%). Partially, it was caused by over-investment in power generation before the crisis. However, the combination of energy resources is not optimal, as Europe could save 7 billion by substituting coal for gas while keeping the constant level of CO<sub>2</sub>.*

*Gas demand has been strongly correlated with the GDP growth. However, there are a few factors that might help the demand for gas to recover. Coal fired power generation is projected to decrease starting 2013 due to policy driven decommissioning of old coal plants. Also, the wind and solar panel generation, while becoming more prominent, requires a back-up, as the peak power demand takes place around 7 pm, when most of the solar panels are off. Energy production from windmills is also quite volatile. Gas plants can provide a reliable back-up option in the mode when they work for 2-3 hours.*

*And easy diversification to gas is possible through the use of LNG. Recently China was heavily outbidding Europe of LNG, due to its focus on reducing pollution in its cities. Currently Chinese gas demand absorbs all production growth from Central Asia and a third of LNG supply growth. Moreover, more than the half of countries that produce LNG face some sort of political instability and/or declining gas output and/or surging domestic demand. One distant possibility is the US intervention with an attempt to stabilize the situation and hence lower the price of LNG.*

### **2. Carmen Rodriguez, ENTSOG advisor**

*There are several scenarios for the next 10 years produced by Eurogas, ENTSOG and other agencies. The ENTSOG demand scenario for modelling covers several situations: yearly demand and high daily demand. All the growth that is expected in gas demand comes from the power generating sector. There is huge uncertainty in the power generation sector. Nevertheless, the largest development is expected in Central Europe (Czech Republic, Poland, Slovakia).*

*Yearly demand: average yearly growth is expected to be of around 1%, coming from the power generating sector. The increase in demand is expected in the most of the EU countries except for Germany, Latvia, Denmark and Britain. The level of demand is expected to be between 5,000 TWh/d - 5,750 TWh/d in 2014 according to most estimates.*

*High daily demand: In design-case the average yearly growth is expected to be around 0.6%. The yearly demand is to start around 35 TWh/d and slowly grow to 26 TW/h by 2023. The total expected growth is around 5% and will be highest in Spain, Sweden, Central Europe and Balkan countries.*

*Power generation capacities will increase over the next 10 years and will grow from 200 GWe to 250 GWe in Europe. The gas consumption will also follow the trend with daily averages increasing from 4,000 GWh/d to 5,000 GWh/d. The largest increases in consumption and capacities will be observed in Czech Republic, Poland, Slovenia and Hungary.*

### **3. Open floor:**

*Q: What is the nature of competition between electricity and gas infrastructures?*

*A: The costs go down the stronger the infrastructures are integrated. However, this can be cumbersome, as for example in Germany expanding the network and building a line can be very costly, as a new legal case can be opened every 80 meters.*

*Q: Italian gas market is saturated by oversupply. What are the prospects?*

*A: 30-50% of gas consumption is used for power generation. Whether market is oversupplied depends on the price. Low gas consumption is not necessarily a market failure. Italy is a good illustration of Europe. One constraint is growth, and then there are competitiveness concerns. With the recent declines of solar tech costs, some are getting installed in the South even without subsidies. Italy is also hurt by the mess in the North Africa.*

*Q: Is there anything on the rise in the coal industry?*

*A: Coal power plants have almost the same operational conditions as gas plants and are quite flexible. A new coal plant costs at least 2 billion Euro which will take too long to recover. Coal has the advantage of being easily stored.*

*Notes by Sergiy Golovin*