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## The contribution of gas to re-launching European growth and jobs

The American Chamber of Commerce to the European Union (AmCham EU) speaks on behalf of companies of US parentage vested in and committed to Europe. Our member companies have witnessed how the increased production and use of natural gas as an energy source in the US has had a critical impact on the competitiveness of industry, thereby stimulating investment and growth in the US economy. The purpose of this submission is to **highlight the importance of the role of natural gas as part of a diverse mix of energy sources**, and to advocate for the adoption or implementation of a number of policy measures in Europe to support the growth of the natural gas industry, which could generate similar benefits for the European economy.

### Expansion of the US gas industry

Five years ago, the US was unaware of the potential gas resources at its disposal. Today, known gas reserves could sustain the needs of the American population for 100 years. Although Europe's gas resources may not be estimated at a similar magnitude as the US, the economic benefits are indicative of the impact a growing gas industry in Europe could have.

The recent expansion of the US gas industry has brought increased gas supplies on its domestic market. Consequently, the price of US natural gas has dramatically decreased from \$12.50/MBTU in 2008 to \$3.00/MBTU in 2012. This also led the US to reduce its dependency from external gas suppliers. Between 2006 and 2011, the US has reduced its gas imports by 17% and doubled their exports.

The lower gas prices have reduced US electricity prices and positively impacted national productivity. By 2017, lower gas prices will result in an initial impact of 2.9% higher industrial production, with a predicted increasing to 4.7% by 2035. Estimates also demonstrate that 'current low and stable gas prices contribute to 10% reduction of electricity costs, a 1.1% increase in the level of GDP by 2013'. Forecasts are demonstrating that lower gas prices, and consequently low electricity prices, will impact US manufacturers' competitiveness by 2,9% of higher industrial production by 2017 and 4,7% by 2035.<sup>1</sup>

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<sup>1</sup> HIS CERA report "The economic and employment contributions of shale gas in the United States" December 2011

## The role of gas in the European Union

Today, the European industrial sector struggles with gas prices four to five times higher than the in US. In particular, diversification of natural gas and corresponding measures that promote the use of gas as in the EU's power and industrial sectors would generate a number of specific important benefits:

- In all pathways presented by the European Commission's 2050 Energy Roadmap, **gas is critical to the transformation of the EU's power sector**. With less than half the carbon emissions compared to coal, it would contribute to the reduction of greenhouse gas (GHG) emissions and facilitate the development and use of a sustainable energy mix (including wind in particular). Natural gas also provides the most appropriate back-up capacity for renewable energy source intermittency, therefore supporting the integration of renewables into modern energy systems.
- Power sector investors face **market uncertainties** with gas power being pushed out of the merit order by coal, owing in large part to an EU ETS (Emissions Trading Scheme) carbon price that does not reflect the lower emissions that gas offers over other fossil fuels. Decreasing rates of gas power operating hours and insufficient remuneration levels means that vital back-up services for reactive power risk not being made available to the market.
- A successful EU economy includes industries that require a lot of energy. **Energy intensive industries** - such as the aluminum, cement and steel sectors - have an essential role to play creating jobs and growth, but risk being undermined by increases to their energy costs that represent the most important variable in their manufacturing processes. Greater use of gas would promote the reindustrialisation of Europe as it has done for the US, where it has meant reduced energy prices for residents and small businesses of \$930 per household per year.<sup>2</sup> It could also avoid the process of carbon leakage whereby energy intensive industry relocates to regions with less environmental regulation in order to retain competitiveness.
- **Case Study - EU Chemical Sector:** Gas constitutes an important feedstock in the chemical sector for ethylene production. Import diversification and increased domestic production could lead to reduced gas prices and a more competitive European chemical industry. Cheaper chemical products would impact the whole manufacturing chain related to plastic based substitutes for other materials such as metals, glass, metal, wood, and to other products with high chemical content (automotive, electronic components, packaging, etc.). Similarly, natural gas is used as the main input for the production of fertilisers such as urea, ammonium sulfate and ammonium nitrate.

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<sup>2</sup> The Impact of Shale Gas on the U.S. Economy: CERA; March 2012

- There are a significant number of important **collateral benefits** that could result from a greater use and supply of gas as an energy resource. First, this development would generate a need for more gas *infrastructure investments*, particularly in a resilient network of gas pipelines connecting producers and users, both for gas from outside and within the EU. Second, greater use of gas in the *transportation* (e.g. shipping and commercial road transport) and *household heating sectors* would promote cleaner urban air and possibly lower energy bills.

### Policies to support a robust gas market

- **Power market design:** With the growing penetration of renewables, the energy sector requires new capabilities and services that establish power system values for capacity and flexibility services. The EU needs to ensure the most ‘capable’ flexible generation can offer the required operating characteristics and receive adequate returns for making these investments available to the market. Energy markets in Europe have primarily rewarded generation volume; however, power systems will increasingly be required to reward ‘capability’, i.e. efficiency, part-load and fast-starts. The EU internal energy market must also be underpinned by a robust carbon price that supports investment in low carbon technologies.
- **Diversification:** Promoting the development of diversified gas resources, in particular internal European resources would bring Europe to higher levels of self-sufficiency and make European gas customers less dependent on the supply from the oligopoly of external supplying countries. Accordingly, policy-makers should encourage the promotion and development of alternative natural gas resources such as LNG, unconventional and biogas. As a part of this the incentive to tap locally sourced unconventional gas must be supported by a robust regulatory framework as there are a number of areas across the continent that may have commercially viable unconventional gas resources. For example, shale gas development supported 600,000 US jobs in 2010 growing to an estimated 900,000 jobs by 2015, and could result in \$1.9 trillion in capital investment into the economy from 2010 to 2035.
- **Energy gas market liberalisation:** Increasing competition in the European gas sector will increase efficiency and lower costs for final consumers; the creation of a truly working internal market will also deliver more resilience in the event of supply disruptions, and stimulate investments. Attractive markets for gas and pipeline capacity needed for reliable inland gas transport require markets that function properly, reflect a well-founded and stable regulatory regime and protect the value of the necessary regulated infrastructure investments. The EU issued three gas directives from 1998 to 2009, all of which embody the vision of competitive gas markets in the EU, but none of which have yet had that effect. While progress has been achieved, these Directives have



generally failed to generate the full benefits of a truly internal European natural gas market.

- **Decoupling price of gas from oil prices:** For many years, the prices of oil and natural gas have generally tracked each other with oil prices (\$ per barrel), typically 6-12 times natural gas prices (\$ per MMBtu). This trend has been supported by the need to fund construction of upstream infrastructure (required to extract and transport both products) or their substitution of gas and oil-based products by consumers. The development of new gas markets, such as liquefied natural gas in conjunction with reserves of shale gas in the US, could result in downward pressure on natural gas prices. However further structural measures will also be required such as removing restrictive terms that existing gas contracts generally have, both on prices and quantities and the ability of buyers to re-sell contracted supplies to others. New gas markets may ultimately lead such restrictions to be unenforceable (as was the case in the US in the 1980s), signaling a period of reformation.

### Conclusions

Energy policy has been dominated by a ‘technology vs. technology’ debate, but AmCham EU sees **gas as part of a diverse energy mix and highly complementary to the EU’s overall energy policy** to meet the security of supply, climate change and affordability goals.

We are seeing the US economy recover and in particular the US industrial and manufacturing sectors gaining competitiveness in the global market. The situation in Europe is different but we can still take steps to better leverage our own gas resource to the benefit of our energy intensive industries, consumers and the overall economy.

This can be achieved by better policies: **enhanced power market design, stronger carbon prices and energy diversification** that fosters greater diversity in supply, promoting unconventional gas, stimulating LNG investment and fostering biogas alternatives

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*AmCham EU speaks for American companies committed to Europe on trade, investment and competitiveness issues. It aims to ensure a growth-orientated business and investment climate in Europe. AmCham EU facilitates the resolution of transatlantic issues that impact business and plays a role in creating better understanding of EU and US positions on business matters. Aggregate U.S. investment in Europe totaled €1.7 trillion in 2010 and directly supports more than 4.2 million jobs in Europe.*

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