Iran and the future of European Gas Supply – the European Perspective

BC CARE Energy Policy Round Table
Salzburg, August 31, 2013
Executive Summary

- The EU-27 is a **net natural gas importer**: to meet its growing consumption and low production rate.

- The largest share of natural gas is currently provided by **Russia**. A dependency of over 30% is currently experienced within the EU-28. A greater need for supply diversification has been recognized in the European Union.

- Additionally Gazprom has decreased its production volumes in recent years and seeks to negotiate long-term contracts as opposed to cheaper spot-market prices.

- Deemed as the country with the worldwide largest natural gas reserves worldwide, Iran could provide interesting opportunities for **the EU’s desire to diversify its energy supply** by country of origin in natural gas.

- Foreign investments in the Iranian natural gas sector can only occur through the **buy-back contractual model**, a challenge for European energy companies.

- Sanctions have made natural gas trade with Iran more difficult – **but not impossible**.
Final Energy Consumption EU-27 2010

Source: Eurogas 2012
Largest natural gas consumers are Germany, the UK and Italy – the Netherlands and Denmark are the only net exporter.

Gross inland consumption of natural gas in thousand terajoules (GCV) in the EU in 2012

Source: Eurostat
EU-27 is a net natural gas importer

Total imports and exports of natural gas by country in the EU-27

2012 data indicates significant import dependency

Source: Eurostat
EU-27 import dependency for natural gas remains dominant

Main origin of natural gas imports

- Russia: 32.4% (2011) vs. 31.9% (2012)
- Norway: 26.7% (2011) vs. 29.4% (2012)
- Algeria: 13.0% (2011) vs. 13.8% (2012)
- Qatar: 8.7% (2011) vs. 11.0% (2012)
- Nigeria: 4.3% (2011) vs. 3.4% (2012)
- Trinidad and Tobago: 1.1% (2011) vs. 0.8% (2012)
- Egypt: 1.0% (2011) vs. 0.5% (2012)
- Libya: 0.7% (2011) vs. 2.0% (2012)
- Other third countries: 9.8% (2011) vs. 9.5% (2012)
Energy acceptance in EU-25 (Eurobarometer)
Gas Market Europe → competition

* with supply cost below $9/MBtu
Gazprom production projections – 487 bcm in 2012 – New alternatives may be necessary as increases remain low!

- Gazprom production in 2012 amounted to 487 bcm
Since 2005 gas production in Iran has increased on average annually by 7% – there are 33.6 tcm proven gas reserves.

Proven national gas reserves in Iran
In tcm

Natural gas production in Iran
In bcm

Source: British Petroleum 2013
1. 2012-2015 Daten von Business Monitor
What are options to bring natural gas to Europe from Iran or the region?
Current and potential natural gas trade from Turkmenistan to Iran – to potentially Europe

Pipelines:
Korpedzhe-Kurt Kui Pipeline  Dauletabad-Sarakhs-Khanigaran Pipeline
Operational since: 1997  Operational since: 2010
Capacity: 8 bcm/year  Capacity: 12 bcm/year

Capacities and contracted volumes to Iran (in bcm/year):

<table>
<thead>
<tr>
<th></th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
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<tr>
<td>Pipeline capacity</td>
<td>8</td>
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<td>8</td>
<td>8</td>
<td>14</td>
<td>20</td>
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<td>Contracted volumes</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>14</td>
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<tr>
<td>Unbound capacity</td>
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<td>Exports (IEA)</td>
<td>6,3</td>
<td>6,2</td>
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<td>5,8</td>
<td>8,6</td>
<td>13,4</td>
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<tr>
<td>Exports (OIES¹)</td>
<td>6,3</td>
<td>6,2</td>
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<td>8</td>
<td>8</td>
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<tr>
<td>Exports (BP)</td>
<td>5,8</td>
<td>6,1</td>
<td>6,5</td>
<td>5,8</td>
<td>6,5</td>
<td>10,2</td>
<td>9,0</td>
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<td>Free capacity</td>
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<td>1,8-1,9</td>
<td>0,9-1,5</td>
<td>1-1,2</td>
<td>5,4-7,5</td>
<td>6,6-12</td>
<td>11-12</td>
<td>12</td>
</tr>
</tbody>
</table>

¹ Forecasts for 2013
Source: IEA, OIES, BP, Cedigaz
Currently, 90% of Iranian natural gas exports are destined for Turkey – energy transit to Europe?

Tabriz-Ankara Pipeline exports, 2001-2012
In bcm

<table>
<thead>
<tr>
<th>Year</th>
<th>Actual Use</th>
<th>Operational Capacity</th>
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<tbody>
<tr>
<td>2001</td>
<td>0.1</td>
<td>0.7</td>
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<tr>
<td>2002</td>
<td>4.0</td>
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<tr>
<td>2003</td>
<td>4.3</td>
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<tr>
<td>2004</td>
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<td>5.7</td>
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<tr>
<td>2005</td>
<td>5.7</td>
<td>6.1</td>
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<tr>
<td>2006</td>
<td>10.0</td>
<td>-39%</td>
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<tr>
<td>2007</td>
<td>10.0</td>
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<td>2008</td>
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<td>2009</td>
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<td>2010</td>
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<tr>
<td>2011</td>
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<td>2012</td>
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<td>2013</td>
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<tr>
<td>2014</td>
<td>10.0</td>
<td>13?</td>
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Negotiations for an additional 3 bcm to Turkey:
- 2 bcm for domestic consumption and 1 bcm for European consumption

Concluding remarks and open questions

- Europe seeks an alternative natural gas supplier to Russia that can offer:
  a) extensive volumes and
  b) financially attractive natural gas supply

- Some issues that – apart from sanctions – hinder European investments in Iran’s natural gas sector, including the limited investment options are limited to buy-back models

- Free capacities towards Europe?

- Which route options are available?

- Spot-market vs. guaranteed pricing?
Thank you for your attention!

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