Iran’s gas exports: can past failure become future success?

18th REFORM Group Meeting
Salzburg, 30 August 2013

David Ramin Jalilvand, MSc
Berlin Centre for Caspian Region Studies
Freie Universität Berlin
d.r.jalilvand@fu-berlin.de
www.fu-berlin.de/bccare
Iran's gas exports: can past failure become future success?

Outline

1. Iran's failure in becoming a major gas exporter
2. Obstacles to Iranian gas exports
3. Outlook: turning past failure into success?

- Findings from a study published by the OIES at:
Iran's failure in becoming a major gas exporter

- Iran holds the world’s largest gas reserves
- Ambitious export plans announced by Iranian officials
  - 10%-share of global gas trade
- In reality, net-importer with exports of only 8.4 bcm in 2012
- Exports of world’s top-5 all above 50 bcm/y
  - Russia (200 bcm/y), Qatar (125 bcm/y), Norway (111 bcm/y), Canada (84 bcm/y), Algeria (50 bcm/y)
Current export projects

Turkey
- Contract for 10 bcm/y
- 2012: 7.5 bcm

Armenia
- Pipeline capacity of 2.3 bcm/y
- 2011: 0.5 bcm

Azerbaijan
- Swap-Deal for Azerbaijani enclave
- 2011: 0.25 bcm

Source: BP (2013)
Iran's gas exports: can past failure become future success?

### Envisaged export projects of the past decade

**By Pipeline:**

<table>
<thead>
<tr>
<th>Country</th>
<th>Year of contract/latest MoU</th>
<th>bcm/y</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pakistan</td>
<td>2009 (Contract)</td>
<td>8</td>
</tr>
<tr>
<td>Switzerland (EGL/TAP)</td>
<td>2007 (Contract)</td>
<td>5.5</td>
</tr>
<tr>
<td>Iraq</td>
<td>2013 (Preliminary Contract)</td>
<td>7.3-9.1</td>
</tr>
<tr>
<td>Syria</td>
<td>2011 (MoU)</td>
<td>5.5-7.3</td>
</tr>
<tr>
<td>Kuwait</td>
<td>2010 (MoU)</td>
<td>3.1</td>
</tr>
<tr>
<td>Bahrain</td>
<td>2007 (MoU)</td>
<td>10.2</td>
</tr>
<tr>
<td>Oman</td>
<td>2005 (MoU)</td>
<td>8</td>
</tr>
<tr>
<td>UAE</td>
<td>2001 (MoU)</td>
<td>5.2</td>
</tr>
<tr>
<td><strong>Total envisaged pipeline export quantities</strong></td>
<td><strong>52.8-56.4</strong></td>
<td></td>
</tr>
</tbody>
</table>

**By LNG:**

<table>
<thead>
<tr>
<th>LNG</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Iran LNG</td>
<td>15</td>
</tr>
<tr>
<td>Pars LNG</td>
<td>14</td>
</tr>
<tr>
<td>Persian LNG</td>
<td>22</td>
</tr>
<tr>
<td>Golshan LNG</td>
<td>14</td>
</tr>
<tr>
<td>Lavan LNG</td>
<td>3-4</td>
</tr>
<tr>
<td>North Pars LNG</td>
<td>28</td>
</tr>
<tr>
<td>Qeshm LNG</td>
<td>4-5</td>
</tr>
<tr>
<td><strong>Total envisaged LNG export quantities</strong></td>
<td><strong>100-102</strong></td>
</tr>
</tbody>
</table>

**Overall:**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total envisaged gas export quantities</strong></td>
<td><strong>152.8-158.4</strong></td>
</tr>
</tbody>
</table>

Source: Jalilvand (2013)
Obstacles to Iranian gas exports

External: Sanctions

- Significant only since 2010
- Main Effects
  - Western companies left Iran
  - European market out of reach (‘geopolitics of gas trade’)
  - No access to latest LNG technology

Internal:

- Subsidies
- Objections to foreign participation
- Policy and institutional conflicts
Subsidies (1)

- For decades, natural gas available at highly subsidized prices
- Poor energy intensity
  - Worse than average of Middle East (1.8x), World (3.6x); OECD (6.4x)
- Subsidy-Reform under way since December 2010
  - But currently halted by Parliament

<table>
<thead>
<tr>
<th></th>
<th>pre-2007</th>
<th>Summer 2011</th>
<th>by 2015/2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential and</td>
<td>$0.4/mb</td>
<td>$3.1/mb</td>
<td>75% of export price index (2015)</td>
</tr>
<tr>
<td>commercial</td>
<td>mmBtu</td>
<td>mmBtu</td>
<td>(at the end of February 2013, this would have been $9.8/mmBtu)</td>
</tr>
<tr>
<td>Industrial</td>
<td>$0.53/mmBtu</td>
<td>$2.0/mmBtu</td>
<td>65% of export price index (2020)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(at the end of February 2013, this would have been $8.5/mmBtu)</td>
</tr>
</tbody>
</table>

Source: Adibi (2011)
Subsidies (2)

- Consequence: domestic over-consumption
  - Any increase in production was absorbed by the domestic market
  - No spare capacity available

Source: BP (2013)
Iran's gas exports: can past failure become future success?

**Subsidies (3)**

- Increase of prices reduced growth in domestic consumption
- New peaks predicted by NIGC:
  - 800 mcm/d in 1392 (2013/14)
  - 895 mcm/d in 1393 (2014/15)
  - 950 mcm/d in 1394 (2015/16)
  - 437 mcm/d in 2007

Source: Shana (2013, 19 February); NIGC (2013)
Objections to foreign participation

- In response to historical experiences (D'Arcy Concession/AIOC,...), significant objections to foreign participation since 1979 revolution
- In the energy sector -> buyback-scheme
  - Reducing the role of any foreign partner to that of a service-provider
- Buyback-scheme did not prevent co-operation but reduces its attractiveness for international companies
Policy and institutional conflicts

Policy

– Exports vs. domestic use (re-injection into oil fields, electricity generation, feedstock for industry, ...)

Institutional

– Organisation of responsibilities among Ministry of Petroleum, Ministry of Energy, NIOC and subsidiaries
– Interference in the energy sector from political branches
Outlook: turning failure into success? (1)

What would be necessary for Iran to become a major natural gas exporter? (i.e. exports of more than 50 bcm/y or so)

– Create a sufficient export capacity
– Secure contracts
Outlook: turning failure into success? (2)

Creating a sufficient export capacity:

– Full implementation of subsidy reform
  ▪ Increasing marketable production at a faster rate than domestic consumption
  ▪ Addressing the question of flaring and losses (37 bcm in 2011)

Source: Cedigaz (2012)
Iran's gas exports: can past failure become future success?

Outlook: turning failure into success? (3)

Securing contracts:

- Rationalize relations among politics and energy sector
  - Stop politics from interfering in negotiations
  - Provide effective framework

- Improvement of Iranian-Western relations
  - Access to European market; access to LNG technology; Western technology for development of gas industry

- Embracing the benefits of a changing gas market in Europe
  - Spot-Pricing as opposed to long-term oil indexation
  - ‘Norwegian model of taking over shares from Russia’
Conclusions

- In principle, sufficient potential for exports of > 50 bcm/y
- Sanctions ‘only’ add to domestic obstacles
- Several issues need to be addressed for Iran to become a major exporter
  - Full implementation of subsidy-reform -> export capacity
  - Rationalize relations among politics and energy sector
  - Improvement of Iranian-Western relations
  - Embracing the benefits of a changing gas market in Europe
Thank you very much for your attention!

David Ramin Jalilvand, MSc

Berlin Centre for Caspian Region Studies (BC CARE)
Freie Universität Berlin

Ihnestr. 22
D-14195 Berlin

Office: +49 (0)30 838 553 81
Fax: +49 (0)30 838 566 85

E-Mail: d.r.jalilvand@fu-berlin.de
Internet: www.fu-berlin.de/bccare
Bibliography

Pana News (2012, 16 April): sherkat-e gaz: sahm-e yek darsadi-ye iran dar tejarat-e gaz [gas company: share of one percent of Iran in gas trade].
Shana (2013, 19 February): afsayesh-e masraf-e gas-e keshvar be 800 milion metr-e moka'ab dar rooz [increase of gas consumption of the country to 800 million cubic metres per day].