Recommendations for Funding Investments in the Energy Community Gas Ring
A common approach
for the Northern and Southern Branches

23rd Permanent High Level Group Meeting,
Brussels, 14 December 2011
The Energy Community Gas Ring

- Caspian or Russian gas via Greece (TGI or TAP or South Stream/Sud’)
- Caspian gas via Romania (White Stream & PEGP)
- Russian gas via Bulgaria (Blue Stream or South Stream/Nord)
- Russian gas via Hungary and Serbia or Croatia
- Mix of gas via Croatia
- LNG?

Source: ECA, SEE Regional Gasification Study World Bank and KfW
Northern and Southern Routes
The Challenge

- How to fund the completion (or the development) of the Northern and Southern routes of the Gas Ring?

- What are the obstacles to attracting private capital investment?

- What needs to be done to overcome these obstacles?

- How we could formulate a framework for the completion of the Ring in the future?
Investor requirements

- Investors in gas infrastructure must have reasonable certainty that they will get a return on their investment in order to justify their investment decision.

- There are some steps which regulators, donors, governments and other actors can take which, where appropriate, can reduce the risk faced by investors in gas infrastructure.
Risk Assessment – a methodological approach

- **Key requirements:**
  - Simple
  - Common (simplified) approach to facilitate dialogue with investors and other parties (e.g. Governments, TSOs and IFIs)
  - Leads to concrete solutions
Risk Assessment Methodology (1)

- Step 1: Risk categories must be identified. They will be political (legal and regulatory) risks, or commercial (such as price and volume) risks.

- Step 2: for each risk the probability of it occurring must be assessed and quantified. A simple 5 point scale is proposed (1 = low probability; 5 = high probability).

- Step 3: the impact of each risk, were it to occur, must also be assessed. (1 = low impact, 3 = high impact).

- Step 4: By multiplying the probability and impact assessments the overall risk can be assessed.
## Risk Assessment Methodology (2)

<table>
<thead>
<tr>
<th>Political Risks</th>
<th>Commercial Risks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expropriation</td>
<td>Planning</td>
</tr>
<tr>
<td>Security</td>
<td>Design</td>
</tr>
<tr>
<td>Breach of contract</td>
<td>Construction</td>
</tr>
<tr>
<td>Legal and regulatory</td>
<td>Volume (including price risk)</td>
</tr>
<tr>
<td>Currency transfer restriction</td>
<td>Supply</td>
</tr>
<tr>
<td>Dispute resolution</td>
<td>Payment</td>
</tr>
<tr>
<td></td>
<td>Exchange rate</td>
</tr>
<tr>
<td></td>
<td>Interest rate</td>
</tr>
</tbody>
</table>

Source: South East Europe- Regional Gasification study
## Regulatory and legal risk for the Northern Route

<table>
<thead>
<tr>
<th>Country</th>
<th>Risk factor</th>
<th>Impact assessment</th>
<th>Risk assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Croatia</td>
<td>1</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>BiH</td>
<td>3</td>
<td>3</td>
<td>9</td>
</tr>
<tr>
<td>Serbia</td>
<td>1</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>
Use of the Risk Assessment Framework

- Initial assessment by regulators followed by discussion with others.
- Enable informed decisions to be made on where to apply risk management measures and what form they should take.
- Enable a common and straightforward basis to assess and understand risks to each investment project proposal.
- Does not aim to replace more complex risk assessment approaches used by IFIs and others.
Risk Management Toolbox

- Political and legal risks must be addressed through the establishment of a sound legal and regulatory framework. This is an essential prerequisite.

- Commercial risks may sometimes fall entirely to the investor to manage.

- The main commercial risk is volume and price risk and risk management tools may be required to address these.
Regulated model can apply to Tiers A, B and C capacity

- **Tier A**: serves national consumers
- **Tier B**: dedicated to specific commercial consumers (e.g. anchor loads)
- **Tier C**: future network expansion and market development (national and regional, i.e. “Ring” users)

All types of capacity may exist in a single project and be cross border.

Commercial model suited to Tier B capacity

Hybrid models can be designed to enable development of Tier A and C capacity where a commercial commitment to the development of tier B capacity (i.e. an anchor load)
Volume and price risk

- Critical for ensuring confidence of investors that they will get a fair return on their investment.

- Confidence that capacity will have users who pay varies depending on type of capacity:
  - Tier A – tariff payers
  - Tier B – commercial users paying by contract
  - Tier C – tariff payers

- Business model needs to address risks based on certainty of future paying users of capacity in each category.

- ‘Anchor loads’ address Tier B funding, but not A or C.
Risks for the Northern and Southern routes (1)

- No established gas markets in some countries
  - How to manage resulting volume risk?
  - Can Tier B capacity be funded on a commercial business model?
  - What form of risk management mechanisms would enable development of Tier A and Tier C capacity? Will Government have to take on some of the risk – or an IFI?
Risk management measures: examples

- **Risk reduction:**
  - Reducing potential competition (such as TPA exemption)
  - Offering monopoly access to an area under licence
  - Subsidy (many disadvantages)

- **Risk transfer**
  - Power purchase agreements
  - Cap and collar regulatory regime (passing some risks to consumers)
  - Government guarantees

- **Risk sharing**
  - PPP
Some countries have no gas TSO or gas regulatory framework

- Will Governments commit to implement EU 3rd energy package measures and in what timescale?
- What form of regulatory framework will be put in place for e.g. future tariffs?
Comparison to other proposed solutions for Gas Ring

- World Bank proposal for consortium
- European Commission proposal for single buyer in the region

- Both seek to address volume and price risks identified
- There may be other approaches which private investors would prefer, but investors must first be identified to determine most suitable business model
- Centralised structures may give rise to other difficult obstacles and risks (e.g. legal and regulatory risks)
Recommendations

- Where there are few gas consumers there will be no private investment in new gas infrastructure unless there are government guarantees in place.

- The development of commercial capacity to serve anchor loads should also consider incremental capacity for national customers and future market development. This may need some time limited derogation from the requirements of the EU 3rd energy package.

Roadmap:

- Identify commercial entities willing to invest in commercial capacity (anchor loads) e.g. through open tender
- Undertake full end to end risk assessment on potential projects
- Design appropriate risk management measures to address identified high level risks – including in relation to incremental non-commercial capacity
- Open a dialogue with other relevant bodies (Governments, IFIs, TSOs) to develop appropriate risk management tools
Thank you for your attention!

Michael Thomadakis  
mthom@rae.gr

Vincenzo Cioffo  
vcioffo@autorita.energia.it

Co-Chairmen ECRB GWG