

Conditions for investments in natural gas infrastructures

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How do we ensure optimal and timely investment in natural gas infrastructures?



What's the problem?

The investment decision from private and public perspective

	Costs	Benefits
Private perspective	• Investment costs • Operational costs	• Trade & arbitrage revenues
Public perspective	• Deep network costs	• Security of supply • Competition (affordability)

High capital costs of investment

- Exemplary gas infrastructure projects
 - Nabucco 4.6 B€ (20 - 25 bcm)
 - NEGP 4.0 B€ (45 bcm)
 - Langede 1.0 B€ (22 – 24 bcm)
 - GALSI 1.2 B€ (8 - 10 bcm)

	Costs	Benefits
Private perspective	• <i>Investment costs</i> • Operational costs	• Trade & arbitrage revenues
Public perspective	• Deep network costs	• Security of supply • Competition (affordability)

Uncertain revenues: price and volume risk

- Distorted price signals for investment from:
 - Gas wholesale market (commodity)
 - Gas transmission market (capacity)

	Costs	Benefits
Private perspective	• Investment costs • Operational costs	• <i>Trade & arbitrage revenues</i>
Public perspective	• Deep network costs	• Security of supply • Competition (affordability)

Uncertain revenues: policy and regulatory risk

- Uncertainty on unexpected changes in policy and regulation
- Uncertainty on outcomes of policy and regulatory procedures

	Costs	Benefits
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Three basic strategies to mitigate risks

- Financial hedging
 - *Limitedly available now*
 - *Future potential uncertain*
- Contractual hedging
 - *Discouraged within EU (exceptions under Article 22)*
- Organisational hedging
 - *Gas producers move downward in gas value chain*
 - *Legal unbundling required between trading and transmission / distribution*

Role for policy makers based on *private perspective*

Regarding high capital costs

- Financial support (loans, support preliminary studies)

Regarding investment risks

- Stimulate wholesale market competition (counter market abuse)
- Implement market-based capacity allocation methods
- Reduce regulatory risk

Regarding risk mitigation strategies

- Financial hedging
 - Facilitation of gas exchange development
- Contractual hedging
 - Allow for 'innovative' long term contracts
- Organisational hedging
 - Risk of conflict of interest

Optimality from public perspective

- *Positive* market externalities on **security of supply** and **competition**
- *Negative* market externality through **deep network costs**

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Private perspective	• Investment costs • Operational costs	• Trade & arbitrage revenues
<i>Public perspective</i>	• <i>Deep network costs</i>	• <i>Security of supply</i> • <i>Competition (affordability)</i>

Role for policy makers based on *public perspective*

Regarding project benefits

- Include **social cost/benefit analysis** in regulatory process
- **Coordination** between *projects across borders*

Regarding project costs (deep network costs)

- Take into account **interdependency** between **private and public** investment projects

Conclusions

Investments in gas infrastructures can be improved.

- From **private** perspective
 - Decrease level of investment risk
 - Provide sufficient risk-mitigation strategies
- From **public** perspective
 - Larger role for coordination
 - Inclusion of social cost-benefit analysis

Points for discussion

- A. How can coordination of projects across countries be achieved? (Level, actors, authority)**
- B. How should we improve coordination of gas infrastructures investments within and outside the EU?**
- C. Is there a proper framework available that deals with the valuation of social costs and benefits?**
- D. Can the gas sector learn from experiences in other network sectors?**

Thank you for your attention!

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More info on project Encouraged:

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