

More interconnectors is the answer.

**What was the question?**

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REEK Conference on Energy Security in Central & Eastern Europe  
Budapest, 7 December 2010

# Summary

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1. Gas consumers enjoy more security when part of a wider, more liquid wholesale market
2. Efficient investment is an output of the market process –  
If the market does not deliver pan-EU transmission investment, perhaps the institutions are not right
3. However an adequate level of SoS can be achieved in any context, even in small and isolated markets
4. Subsidising pipelines to create a market to ensure security, is not a sound gas policy
5. A lot could be done with existing infrastructure

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# Large, liquid markets bring about security

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## A few stories

- Venezuelan oil strike & US refiners (2002)
- Katrina and US gas consumers (2005)
- Storage failure and UK gas security (2005/6)
- 1-in-50 winter + Norwegian outage (UK, 2010)
- Greece and the LNG market (January 2009)

# Not everyone is part of a larger market

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## Some sadder stories

- Hungary, January 2009 – *bailed out ‘administratively’ by E.ON & GDF Suez, not the market*
- Bulgaria, January 2009 – *50% of gas consumption un-served for 2 weeks*

## Lesson drawn from the crisis

- We need more interconnections to ‘complete’ the market and ensure security
- ‘Solidarity’ rhetoric – We need to be able to ‘share the gas’ in time of crisis

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# EU approach to transmission planning

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## Are we moving towards central planning?

- Brussels has been playing with the idea for a while
- ‘Recovery package’: a precedent for pipeline subsidy
- 3<sup>rd</sup> package: 10 year network development plans
- ERGEG: commissioned modelling work to reveal which investment is needed
- EC: identification of ‘priorities’, both import projects and intra-EU transmission lines
- EC Energy Infrastructure Priorities 2020
- **Why do we need to do this?**



# The view from the US federal regulator

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## Market Knows Best

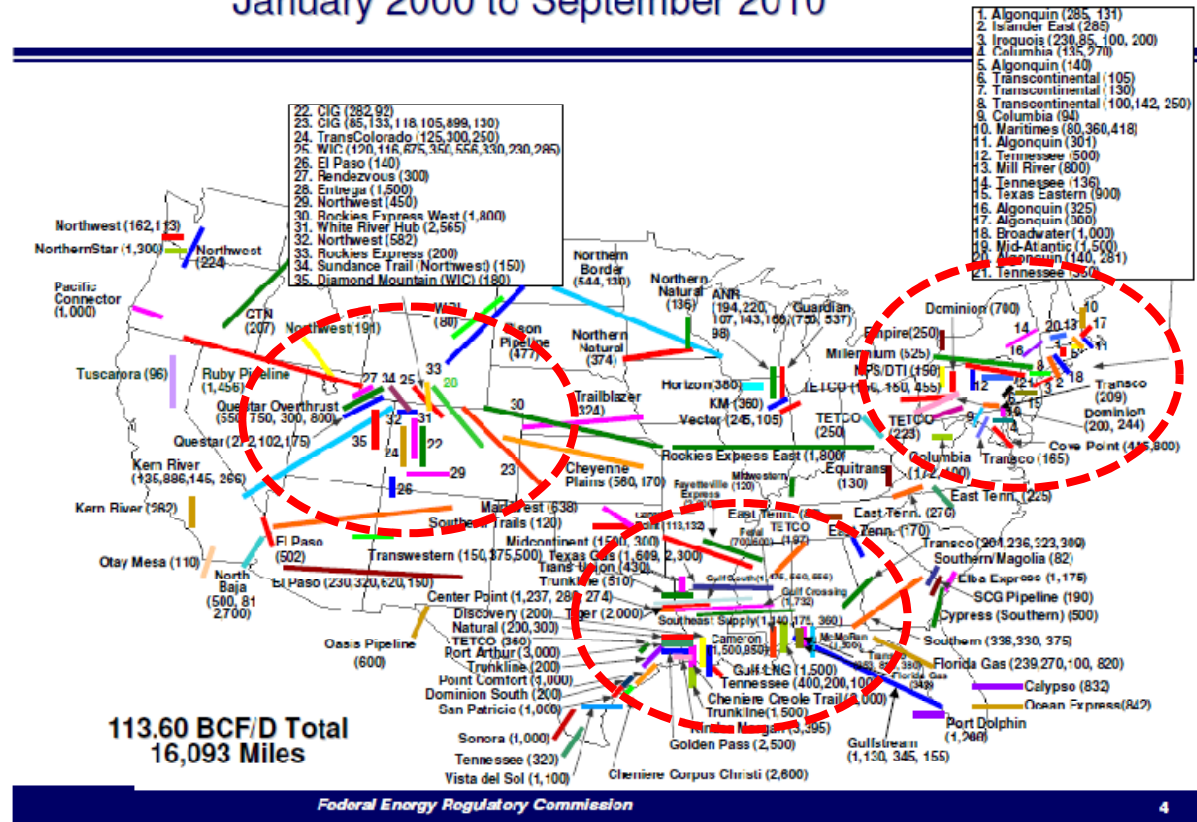
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- ⇒ FERC is not the market
- ⇒ FERC will present a “menu” of infrastructure solutions that are:
  - ⇒ In the public interest
  - ⇒ Will cause the least environmental impact
  - ⇒ Will be safe
- ⇒ The market is in the best position to select the infrastructure projects that get built

Source: M. McGehee (FERC), “US natural gas: supply and infrastructure = security”, 8<sup>th</sup> EU-US Regulators Roundtable, Berlin, Oct 2010

# US pipeline market responds to shale boom

Major Pipeline Projects Certificated (MMcf/d)  
January 2000 to September 2010



Source: M. McGehee (FERC), “US natural gas: supply and infrastructure = security”, 8<sup>th</sup> EU-US Regulators Roundtable, Berlin, Oct 2010

# Does Europe have the right institutions?

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**Cf. P Hunt (2008; 2010); J Makhholm (2007)**

- Monopoly TSOs over wide entry-exit zones where transmission system is ‘virtualised’ and cost socialised
- Third package – towards a pan-European ‘virtualisation’ of the transmission network, with mechanisms of inter-TSO compensation
- Can we turn a patchwork of E-E zones into an EU-wide market? Based on market-driven investment?
- Does our ‘market model’ lead to central planning at EU level?

# The right institutions? (*cont'd*)

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## Reforming our market institutions?

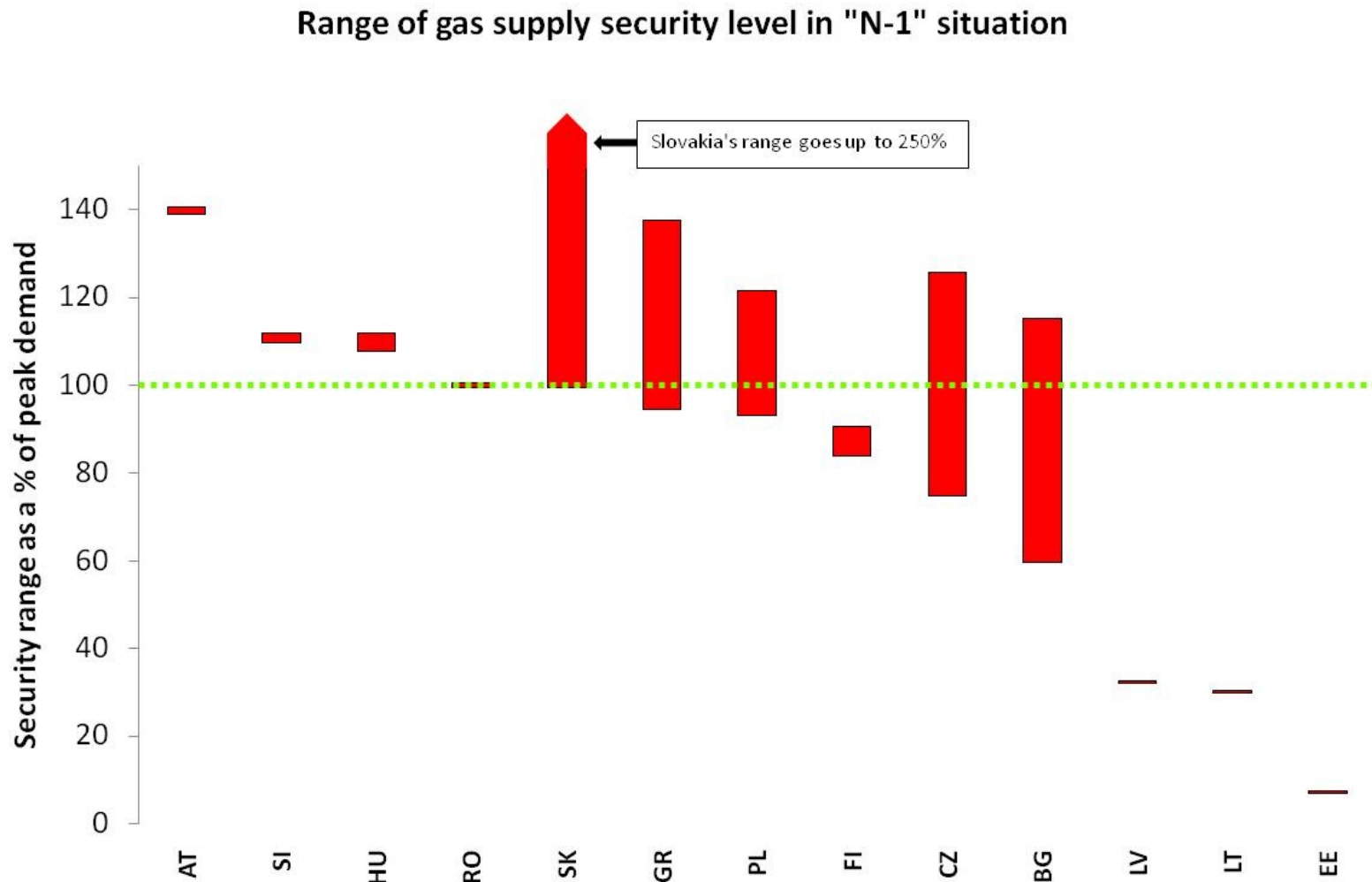
- Free entry into long-distance pipelines regulated by European body?
- Smaller E-E zones?
- Does retail competition inhibit indirect long-term commitments by consumers?
- **We need experiment more than harmonise**
- Let regions try different models, see what works

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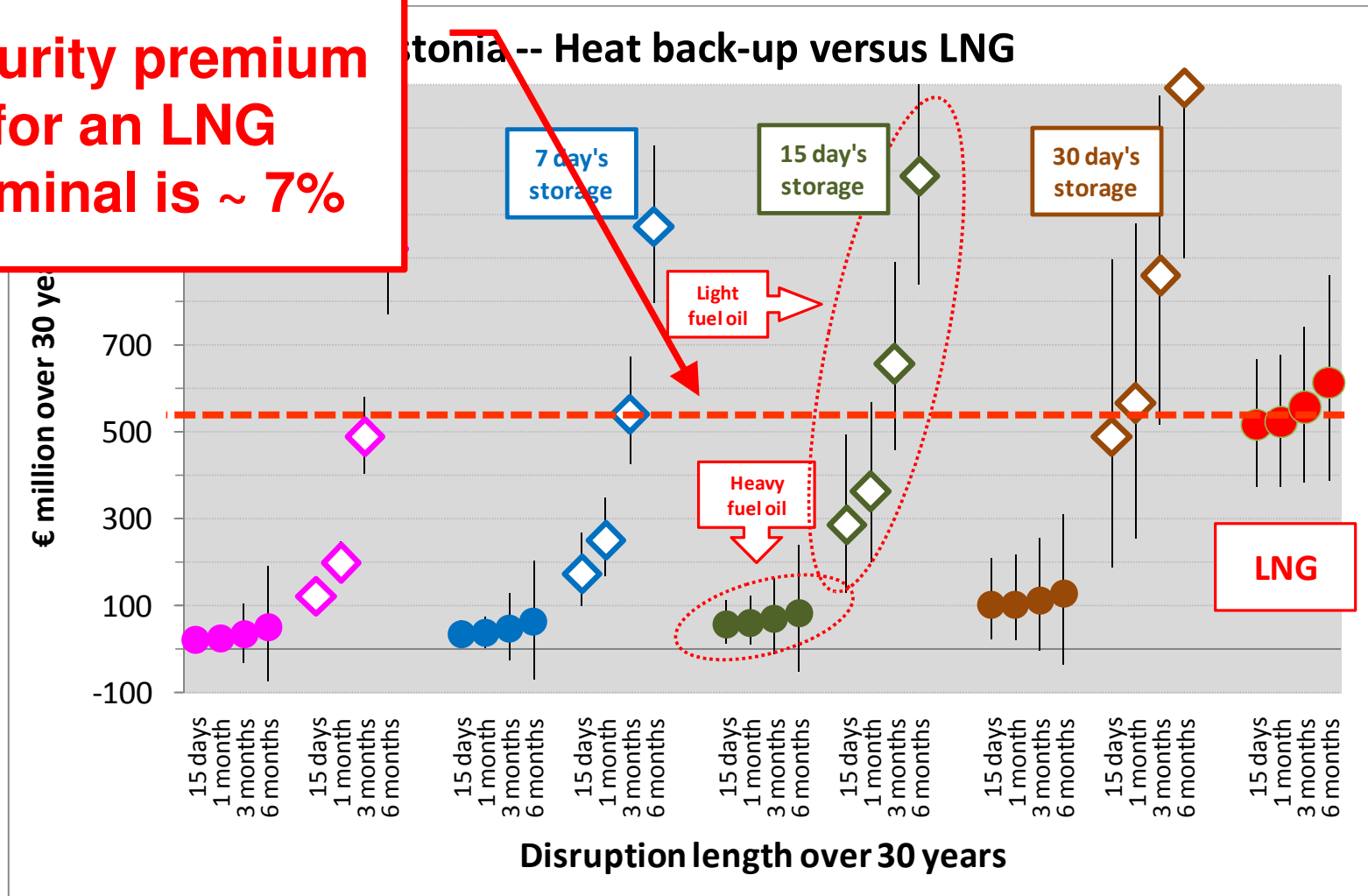
# How secure is Russia-dependent Europe?



Source: Noel & Findlater, forthcoming

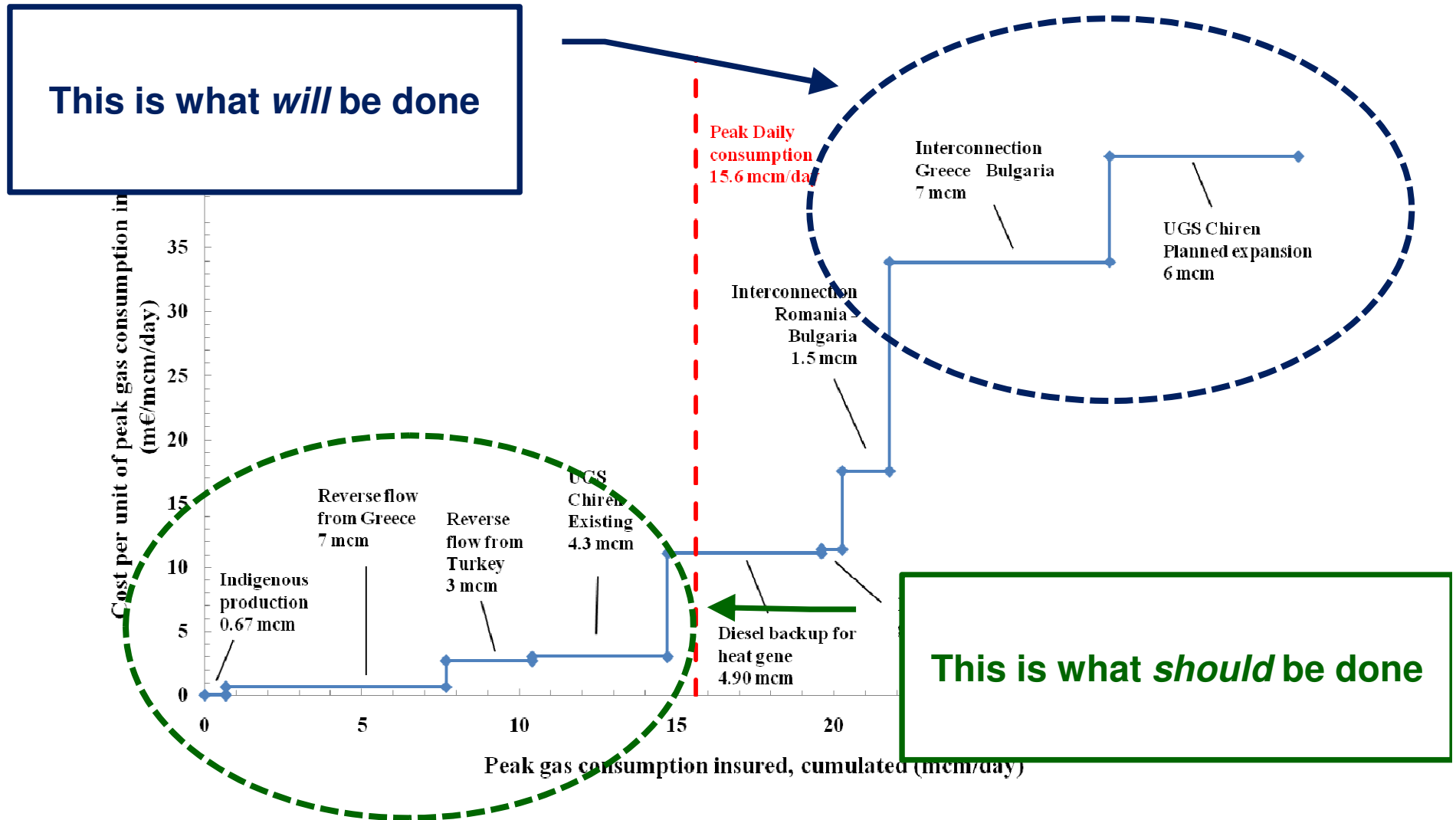
# Estonia: Heat back-up vs. LNG

**Security premium  
for an LNG  
terminal is ~ 7%**



Source: Noel & Findlater, forthcoming

# SoS Cost Curve for Bulgaria



Source: Silve & Noel, 2010



# Three transformative moves

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## Backhaul services on transit pipelines

- Yamal-Europe
  - Would allow Poland to import from NW Europe
- BG-GR
  - LNG & Turkmen gas would move up to Bulgaria
- TAG
  - Italian LNG to Baumgarten, Hungary, Slovakia (+ Slovenia & Croatia)

# Key messages

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1. Pipelines are expensive – *and it is consumers who pay*
2. In H, CZ, SK, A (among others), *consumers have already paid for security of supply*
3. In the insecure countries (Baltics, Bulgaria), SoS can be improved without building pipelines (or storage)
4. Backhaul transaction on the main transit pipelines could make Russian gas contestable deep into central Europe
5. Beware central planning! We need institutions that will let a market *emerge and evolve*

Good to see  
the market can  
work...



South Texas, 2003

# References

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