

The EU Regulation on Gas Supply Security (994/2010)

A case study in EU energy policy-making

Pierre Noël

EPRG, University of Cambridge

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Main messages

- 15 months of negotiation have transformed a complex, ambitious but not sensible piece of legislation into a complex, not sensible and pointless one
- This failure reflects two levels of confusion on SoS policy
 - About EU v. member states ('federalism' issue)
 - About markets v. regulation

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Genealogy

- Early 2000s – DG TREN pushes for Gas SoS Directive
- Wanted European strategic gas storage -- settled for “national SoS standards”
- Proposal trimmed down (to nothing) by member states
- Directive 2004/67 – empty shell -- only obligation was to report to the Commission about national policies
- 2nd SER (2008) – ambition to re-open 2004/67
- **Crisis 2009 – creates very favourable context**

EU's reading of the crisis

- Brussels and MS were shocked by the great difficulty moving gas to central and south-east Europe
- Little European 'solidarity' was possible
- They concluded Europe needs more infrastructure: storage and especially 'interconnectors' -- *Market defective because infrastructure 'incomplete'*
- Regulation on SoS should be a powerful tool to force investment into gas infrastructure

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The Regulation at a glance

- Not covered here: levels of crisis, and corresponding levels of responsibility, at MS, 'regional' or EU level
- **Three obligations**
 - Infrastructure Standard
 1. Enough capacity in N-1 to cover 1-in-20 peak
 2. Cross-border points must be reverse flow
 - Supply Standard
 3. Companies must be able to serve 'protected customers' in extreme circumstances
- **Focus here: obligations 1) and 3)**

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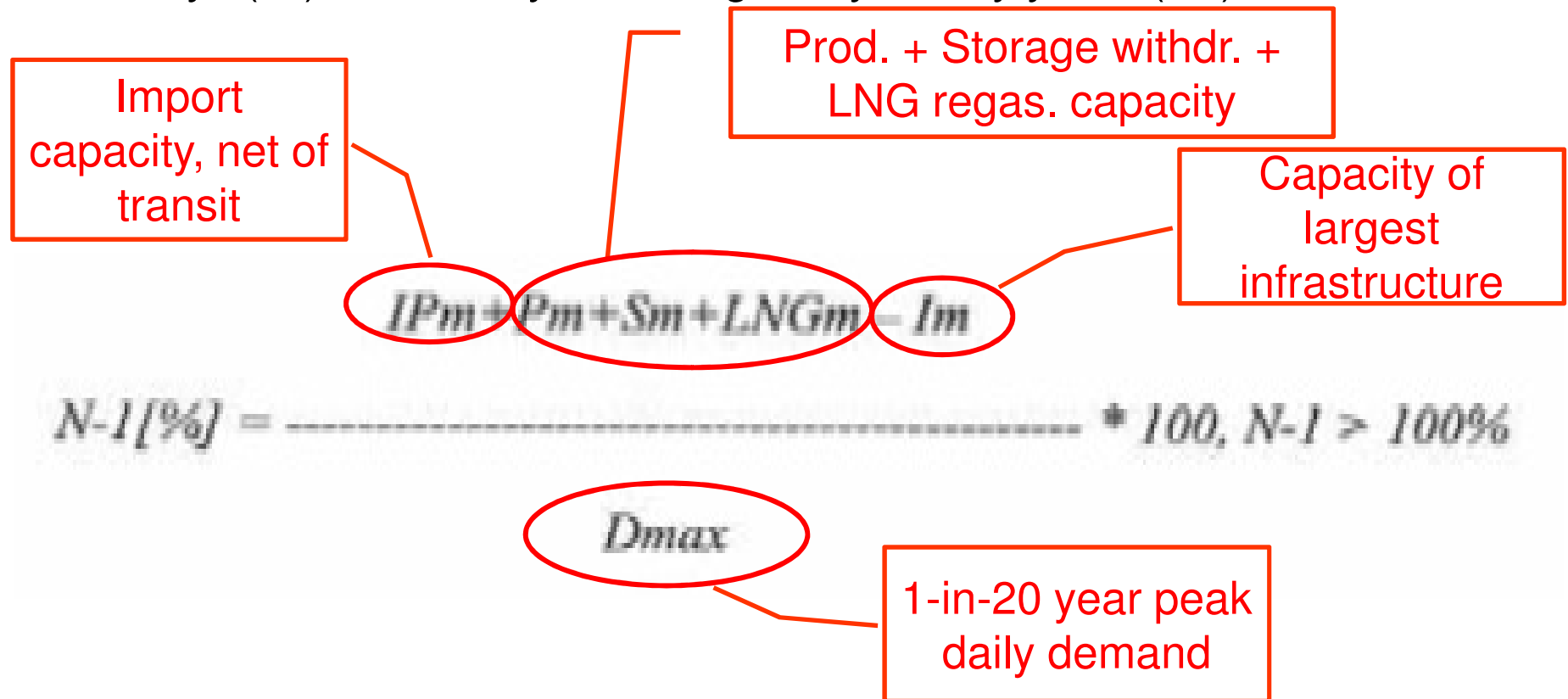
The Infrastructure Standard

Infrastructure standard (art. 6)

- Enough infrastructure capacity to meet one-in-20-year peak demand when the capacity of the largest infrastructure is deducted (N-1)
- Can be met (nationally or regionally) by:
 - Import capacity: pipeline or LNG regasification
 - storage withdrawal capacity
 - production capacity
 - fuel switching & interruptible contracts
- Cross-border pipelines must be made bi-directional (art. 6-5)

Commission Proposal – July 2009

- “(…) ensure that in the event of a disruption of the largest gas supply infrastructure, the remaining infrastructure has the capacity to deliver the necessary gas to satisfy total gas demand during a period of 60 days (…) statistically occurring every twenty years (sic)”



Commission Proposal (*cont'd*)

'60 days' rule has huge implications

- Clarification (Annex 1) -- Only storage withdrawal (and production) that can be sustained for 60 days counts towards meeting the standard
- The '60 days' rule de-rates storage withdrawal even though it provides gas molecules, not capacity (unlike pipeline & LNG)
- 60 consecutive days of 1-in-20 year peak daily demand!
...and "N-1" is (perhaps) a one in 40 event
→ Extremely demanding rule
- Many member states would have had to invest to meet such a standard, but it will not be tested

Final text (one year later)

- No reference to '60 days' any more
 - “shall ensure that (...) in the event of a disruption in the single largest gas infrastructure, the capacity of the remaining infrastructure (...) is able (...) to satisfy total gas demand (...) during a day of exceptionally high demand occurring with a statistical probability of once in 20 years.”
- Demand side response can be deducted from denominator
 - “the obligation shall be considered to be fulfilled where the Competent Authority demonstrates that a supply disruption may be sufficiently compensated for by appropriate market-based (sic) demand side measures.”

$$N - 1 [\%] = \frac{EP_m + P_m + S_m + LNG_m - I_m}{D_{max} - D_{dg}} \times 100, N - 1 \geq 100 \%$$

Import capacity

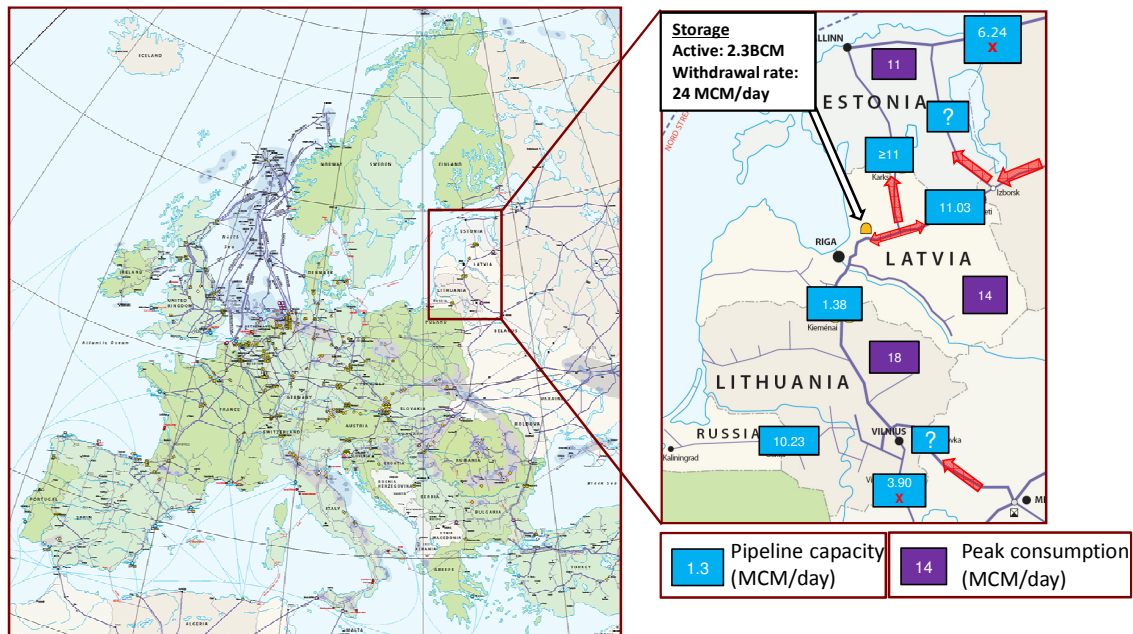
Peak *minus* DSR

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Does capacity mean security?

- The 'pipeline to nowhere' issue
- Example of Estonia and Latvia – import capacity if Latvia storage fails is *not* an indication of security
- Latvia: $(24+11+11+1.5-24)/14 = 167\%$ [UK=113%]
- But no gas available in Lithuania, Estonia, Russia -- *Real ratio = 0%*

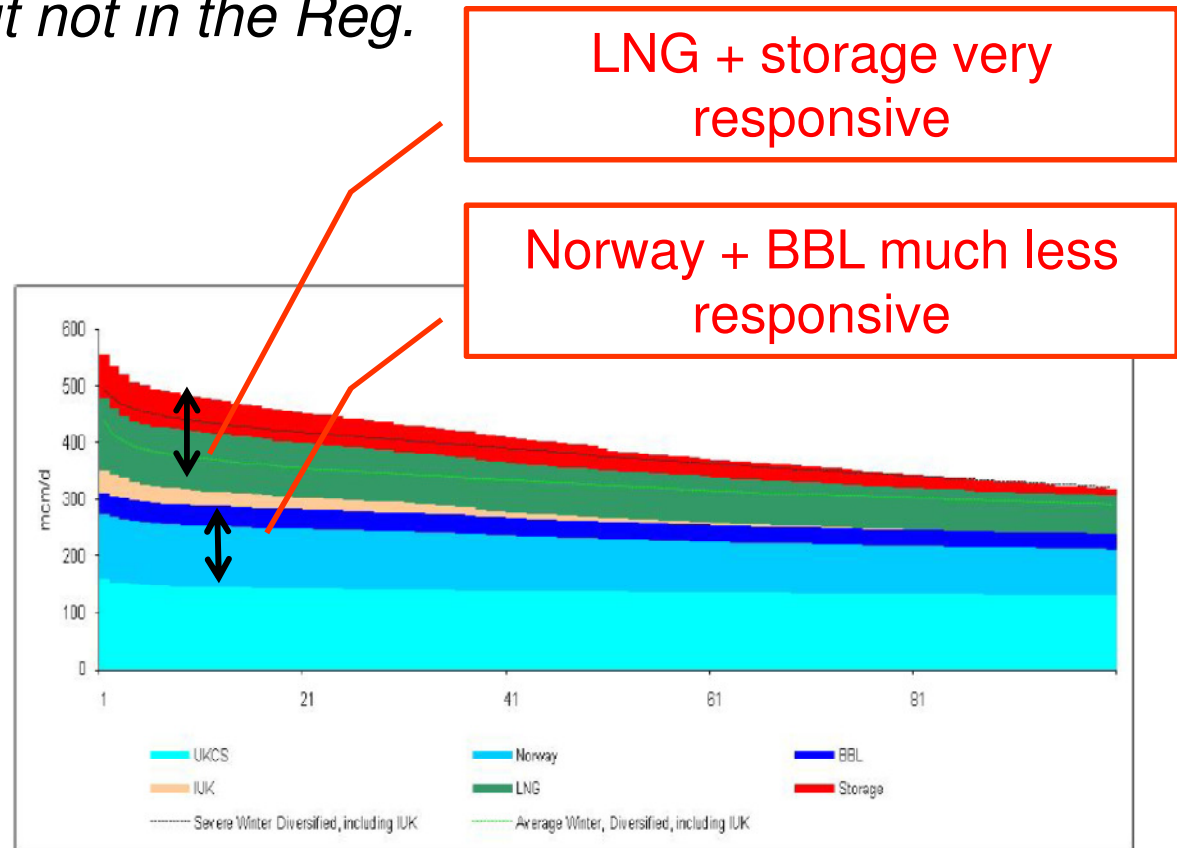
The Baltic States



Source: Gas Transmission Europe

Capacity vs. security (2)

- Not all supplies are equally price-responsive
- 1 mcm/d of LNG or storage withdrawal rate is worth more than 1 mcm/d of BBL – *but not in the Reg.*



Source: National Grid

Capacity vs. security (3)

- Capacity / peak demand ratio ignores contracts
- Slovakia – the capacity (West-East) was there anyway, but there is no liquid market west of SK
- After crisis: option contracts signed. They do not contribute to meeting the standard, only capacity does



For those who do not comply *ex ante*

- Article 6.10
 - “Luxembourg, Slovenia and Sweden shall, by way of exception, not be bound by, but shall endeavour to meet, the obligations set out in paragraph 1 of this Article.”

Infrastructure Std. -- *Conclusions*

- Final version more sensible
 - ‘60 days’ rule (de-rating storage) was over the top
 - Switching load to oil creates security (cf Finland)
- But no longer an *infrastructure* standard
 - The whole point of making demand flexible is *not to build* new infrastructure (cf Lapuerta 2007; Silve & Noel 2010)
- Standard largely benign – *all MS comply ex-ante*
 - *No MS will be forced to build new storage and/or pipelines (primary motivation of the Commission)*
 - *Because of capacity / peak D ratio, even the few really insecure countries will not have to improve*
- **Member states lowered the bar – *but the proxy was a bad one***

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The 'Supply Standard'

Supply standard (art. 8)

- Gas companies must be able to supply the country's "Protected Customers" (at least residentials, and as little as possible beyond that) in case of :
 - 1-in-20-yr 7 day peak period
 - 1-in-20-yr 30 day peak period
 - 30 day disruption of largest infrastructure in average winter conditions
- Obligation can be met at regional or EU level, not necessarily "based on infrastructure located only within [the] territory".

Outcome of negotiation

July 2009

- “Competent Authority” shall make sure that “Protected Customers” can be supplied during
 - 1-in-20 seven day peak period
 - 1-in-20 **sixty day** peak period

October 2010 (final version)

- “Undertakings” (gas companies) shall take measures so that PC can be supplied during
 - 1-in-20 seven day peak period
 - 1-in-20 **thirty day** peak period (not sixty)
 - **30-day period in N-1 in average winter conditions**

Supply Standard (*cont'd*)

Protected customers

- Household customers and, “where the MS so decides”:
 - Additional customers “provided [these] do not represent more than 20% of final use”
 - District heating plants, “provided [these] are not able to switch to other fuels”
- Commission’s clear preference: households only. Why this position? Why not pushing MS to widen the definition (and negotiate with them on this)
- The non-obligation to include district heating has important implications for some member states (*cf infra*)

Supply Standard (*cont'd*)

What does it mean concretely? Is it a storage mandate?

- Undefined “obligations” on suppliers
 - “The obligations imposed on natural gas undertakings for the fulfilment of the supply standard (...)” (8.4)
- How can the standard be met?
 - Not necessarily “based on infrastructure located only within [the national] territory”
 - “undertakings shall be allowed to meet these obligations at a regional or Union level”
- Ambiguous – *clearly storage is implied*
- At Union level – pan-EU companies will meet it by pooling all their storage against all their residential customers – What is this “guarantee” worth?

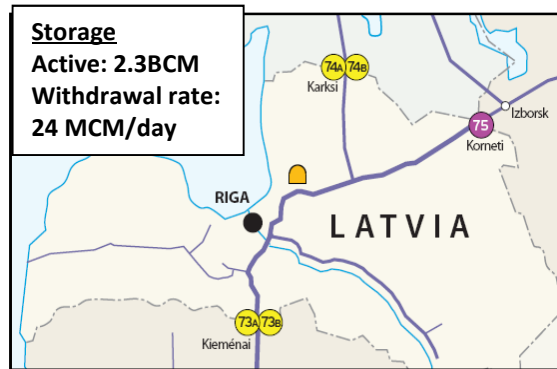
Supply Standard (cont'd)

Do Estonia and Latvia comply?

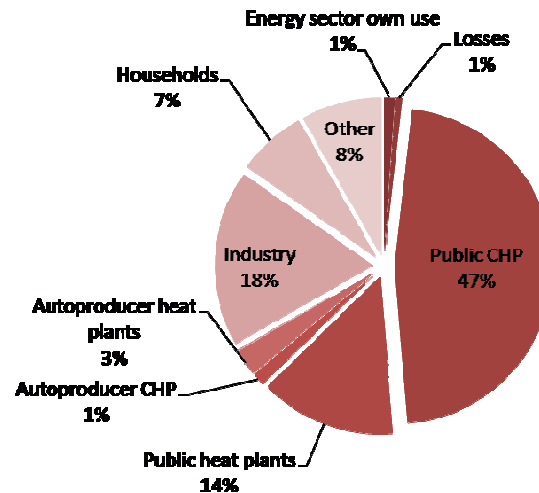
- Very small share (tiny volumes) of household consumption
- DH dominates the heating market – entirely gas-fired – **But not “protected”**
- *In N-1 in winter (LV storage unavailable) they could not supply their households*

Annual: 1.7 BCM/year (0.17bcf/d)
 Peak: 14 MCM/day
 Gas Source: Gazprom

Transmission Network:



Structure of consumption:

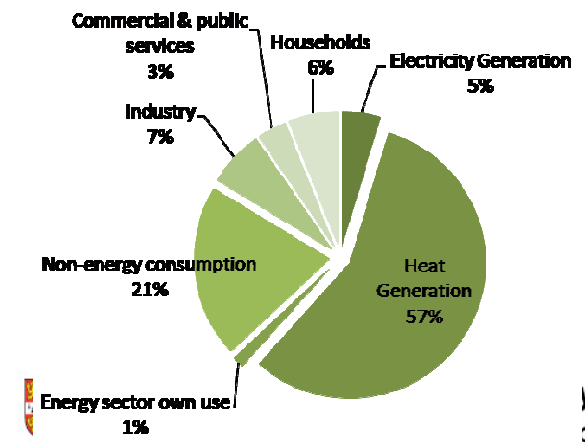


Annual: 1.003 BCM/year (0.1bcf/d)
 Peak: 11 MCM/day
 Gas source: Gazprom

Transmission Network:



Structure of consumption:



Supply Standard (*cont'd*)

Does the UK comply?

- Can this standard be met via an incentives-based policy?
- Or does it require supplier obligations such as storage mandate?

Supply standard

5.23. The cold spell analysis in section 5 demonstrates that the UK comfortably achieves the supply standard requirements to ensure gas supply to protected customers in the circumstances set out in Article 8 of the Regulation.

5.24. In practice, the UK achieves the requirements of the supply standard through sharp commercial incentives on shippers/suppliers to provide sufficient gas to meet the needs of all their firm customers²⁷ on any gas day and under any weather conditions or other circumstances.²⁸ These incentives are being sharpened further through the Ofgem Gas Security of Supply Significant Code Review.

5.25. DECC are, however, considering whether the UK needs to take any further action in order to formalise the terms of the Supply Standard within the UK arrangements.

Source: DECC, Risk assessment for the purpose of EU Regulation 994/2010 on security of gas supply, November 2011, p. 36

Supply Std. – *Conclusions & questions*

- The Commission itself made it soft!
 - “District heating *unless* dual-fuel” would have been smart
- Is it a storage mandate?
 - If yes, why allow meeting it “at EU level”?
 - Why not saying it clearly?
 - UK compliance interesting issue – *HMG wants storage!*
- Meeting PC demand: at beginning of winter or at any time?
- Interaction with SO crisis management uncertain
 - All member states have interruption policies protecting residential (and beyond)
 - In 01/2009 Bulgaria did supply households (though not district heating plants!) – *does it comply?*

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Two overarching (& related) questions

- I. Is short term security of supply an issue for the EU or member states? Do we need EU intervention?

- II. What does this Regulation tell us about the EU doctrine on gas markets and supply security?

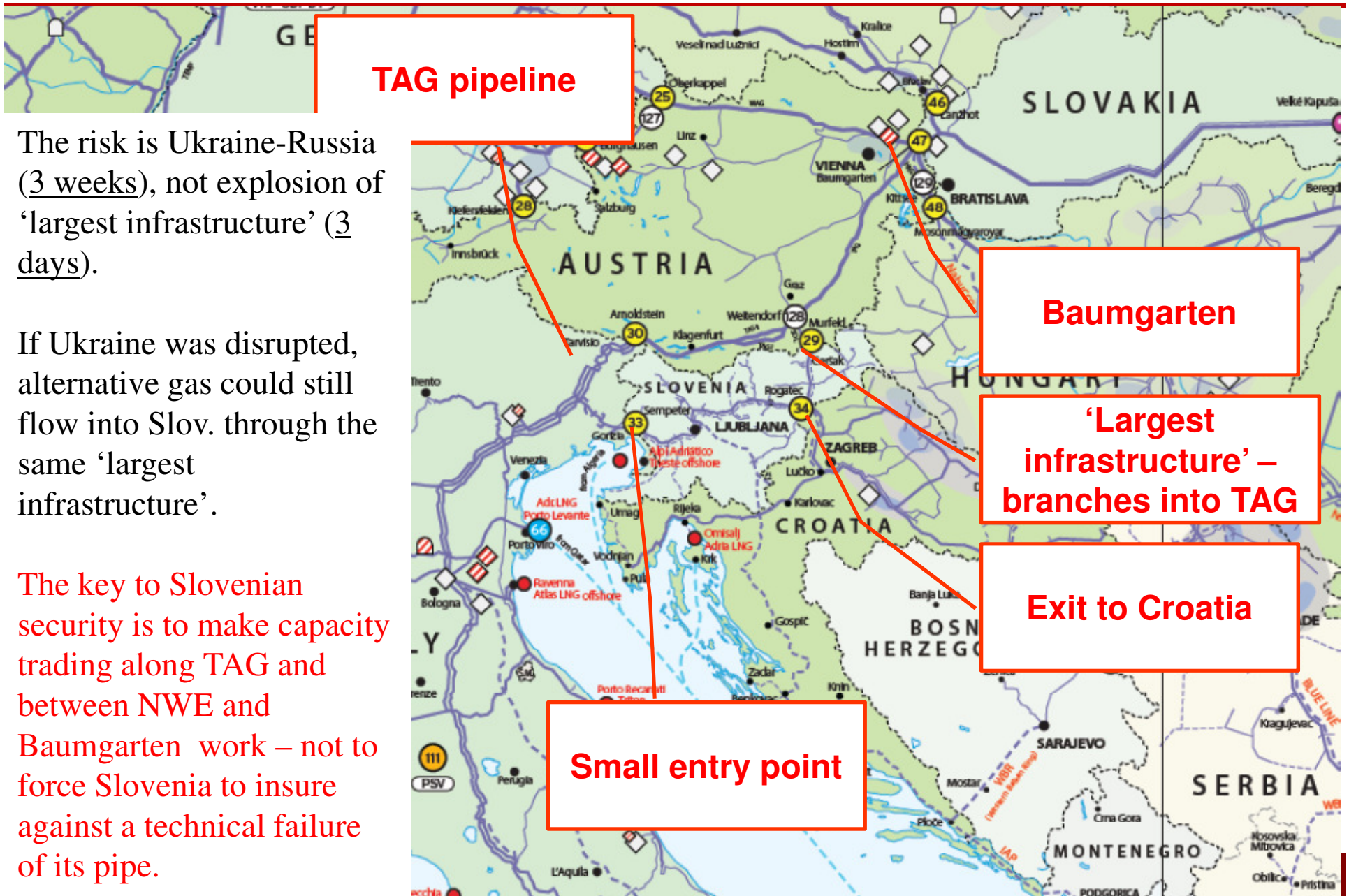
Should the EU regulate SoS?

- In a dysfunctional EU market, need for SoS policy
- However, it should be left to member states
 - Poland cannot free ride on Germany's security
 - Insecurity in Sofia does not impact Ljubljana
 - **National electorate will hold their government accountable**
- MS bound to resist an arbitrary level of insurance
 - Sensible level of insurance is country-specific
 - There is no coalition supporting tough standards
- Interesting aspect of the Regulation: “risk assessments”
 - Revealing the SoS situation and national policies
 - Empowering national debates is better than top-down regulation (cf Noel, 2010 – eprg website)
- **Gov. generally over-provide security**

What about the market?

- Substantial amount of lip service to the role of “the market” in this Regulation
- However, it is all about justifying centrally planned (MS & EU) infrastructure – fits into a wider EU ‘doctrine’: “*subsidise-infrastructure-to-create-a-market-to-ensure-security*”
- No incentive for member states to make the market work, or pedagogy about how markets provide LT & ST security
 - Reg. might even provide UK gov. excuse to intervene
- If EC is to fight with MS, let them do it on the institutional conditions for a proper gas (transportation) market to emerge
 - SoS payoff far greater than anything this Reg. will ever deliver

The proof by Slovenia



TAG pipeline

The risk is Ukraine-Russia (3 weeks), not explosion of ‘largest infrastructure’ (3 days).

If Ukraine was disrupted, alternative gas could still flow into Slov. through the same ‘largest infrastructure’.

Baumgarten

‘Largest infrastructure’ – branches into TAG

Exit to Croatia

Small entry point

The key to Slovenian security is to make capacity trading along TAG and between NWE and Baumgarten work – not to force Slovenia to insure against a technical failure of its pipe.

We'll get there – perhaps

