ASSESSMENT OF REQUIREMENTS OF THEORETICAL IMPLEMENTATION OF PROPOSED NEW REGULATION - REPEALING DIR: 2004/67/EC

Energy Community Secretariat
www.energy-community.org

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Vienna
GAS CRISIS: INCREASE OF MARGINAL COSTS

Supply Cost Increases and Disruptions

Source: Bettzige & Lochner (2009)

Locational short-run marginal costs indicate the costs for the whole system of supplying one additional cubic meter of gas at the respective time and location (the marginal unit's commodity cost at the import point plus variable transport/storage cost). This map illustrates the relative increase in the short-run marginal cost during the crisis compared to a "normal" January day.

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CRISIS: INCREASE MARGINAL COSTS-REVERSE FLOW

Implementing additional reverse flows...

Source: own illustration based on simulations by the Institute of Energy Economics at the University of Cologne (EWI)
This map illustrates the relative increase in the short-run marginal cost during an identical crisis compared to a "normal" January day, assuming that all pipelines can be operated bi-directionally.

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... and grid expansion, especially in CEE

Source: own illustration based on GTE+ Reverse Flow Study

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CRISIS: INCREASE MARGINAL COSTS- GRID EXTENSION

...and large scale pipeline infrastructure, e.g.:

- South Stream
- Nabucco
- GALSI
- Extension Transmed
- Greenstream

New Reverse Flow Capacity  New Pipelines

Source: own illustration based on GTE+ Reverse Flow Study

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Conclusions

- Response by European Gas Industry close to a simulated least cost solution
- Disruptions unavoidable even in a simulated world of optimal response
- Sufficient storage levels critically important especially in SEE, Germany, Italy
- Infrastructure investment necessary preconditions for enhanced robustness against potential future supply disruptions
  - more bidirectional flexibility
  - enlargement of pipeline network
Infrastructurstandard:

- N – 1 RULE (CPs having a gas market):
  - BiH cannot fulfill
  - Croatia cannot fulfill
  - former Yugoslav Republic of Macedonia can fulfill
  - Serbia cannot fulfill
Supply standard:

- Supply to protected customers [60 days (1 in 20) – also in „Emergency“:
  - BiH cannot fulfill
  - Croatia can fulfill
  - f. Yugoslav Republic of Macedonia cannot fulfill without demand side measures
  - Serbia cannot fulfill

- Supply to protected customers [7 days (1 in 20)]
  - BiH might be difficult
  - Croatia can ensure (significant domestic production)
  - f. Yugoslav Republic of Macedonia can ensure (sufficient capacity)
  - Serbia can probably be ensured
TAG – REVERSE FLOW INVESTMENT - BENEFITS FOR CPs?

- TAG GmbH currently carries out market survey to assess demand for physical reverse flow capacity on TAG gas system:
  - Start: 25 January 2010; End: 31 March 2010;
  - Minimum: 9 mcm/day to Maximum: 40 mcm/day

Source: ERGEG: Cost allocation of reverse flow projects; Gas Coordination Group Meeting 15. March 2010
Source: EC
Next Steps:

- Continuing with further assessment by all CPs (gas market)
- Discussion with ECS
- Development of common regional approach
- Assessment of regional approach
- Information to PHLG (next PHLG meeting)
THANK YOU FOR YOUR ATTENTION

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