Agenda

10:30 – 12:30	*GTE+ Workshop on the 10-Year Investment Statement*
12:30 - 13:30	*Lunch (standing buffet)*
13:30 – 13:45	**Opening address**
13:45 – 14:45	**Round table on methodology, highlights of the process and way forward** *- Presentation of ERGEG recommendations (CRE)* *- Presentation by Panel Members:* *European Commission DG TREN, ENTSOG, OGP, Eurogas, EFET* *- Discussion*
→ 14:45 – 15:45	**Intermediate results of ERGEG consultancy study:** „Model-based Analysis of Infrastructure Projects and Market Integration in Europe with Special Focus on Security of Supply Scenarios“ *- Status of the project (BNetzA)* *- Intermediate results (EWI)* *- Discussion*
15:45 – 16:00	**Conclusions & way forward**

Status of ERGEG's 10YNDP-Study

"Model-based Analysis of Infrastructure Projects and Market Integration in Europe with Special Focus on Security of Supply Scenarios"

Thomas Hölzer (BNetzA)

ERGEG's 3rd Workshop on the
10-Year Network Development Plan

26 January 2010

Goals & Background of ERGEG's Study

- **Increase know-how** on European infrastructure
- **Examination / validation of ENTSOG's work on 10YNDP and preparation for ACER**
- **Top down aspect: developing a European perspective**
  - European wide Supply and Demand assumptions as well as common infrastructure scenarios
  - European wide Map of gas flows: main cross-border points, storage and LNG facilities, consumption zones
  - Addressing European security of supply issues
- **Possible identification of infrastructure bottlenecks**
- **Study was tendered in summer ´09:**
  → Contractor: EWI (Energiewirtschaftliches Institut zu Köln)
- **Study financed by CEER + individual NRA contributions**

Possibilities and Limits of Project

- Study / TIGER-Model is **an economic based network simulation model,** but **no (technical) flow simulation** model
- Currently, necessary **data for European wide technical flow simulation not available** (for NRA´s)
- **Practical applications** of the model result in satisfactory **resemblance of real flows**
- Infrastructure Model is based on existent **published capacity data**

→ “Best feasible” approach !

Scenario Definitions

Scenario dimensions (number of variations)**:**

Supply (1) → EU production, pipeline ~ & LNG imports

Demand (2) → Reference & high demand case

Infrastructure (6) → **core of this study**

Major Import Pipeline Projects allow for several <u>infrastructure scenarios</u> (to be modelled and analysed for 2019):

- **Reference:** Nord Stream I only (but no other major projects)
- **Nord Stream II:** Reference + 2nd line of Nord Stream
- **Nabucco:** Reference + Nabucco pipeline
- **South Stream:** Reference + South Stream pipeline
- **DG-TREN:** Reference + 2nd line of Nord Stream + Nabucco
- **Low LNG-Price:** DG-TREN + lower LNG prices

Sensitivity Analyses

Sensitivities to be calculated for some scenarios:

- **Peak Demand Day** sensitivities:
  - will include not just monthly, but **daily** granularity
  - analyses will focus on utilisation of assets on the peak day

- **Security of Supply** sensitivities:
  - simulate system in a stress scenario
  - use **Russia-Ukraine** gas crisis to simulate effects for Jan. 2019
  - disruption of **13 days** (potentially prolonged to 4 weeks)
  - potentially: disruptions of supplies via **Belarus + Ukraine**
    disruptions of supplies from **Norway**
    → disruptions of supplies from **Algeria**

Milestones & Way Forward

- 10 Sept. 2009 — **Kick-Off Meeting** ERGEG Steering Group
- 27 Oct. 2009 — **2nd Workshop** w/ ENTSOG on 10YNDP: Presentation TIGER and Scenario Outline
- TODAY — **3rd Workshop** w/ ENTSOG on 10YNDP: Presentation of interim results of the study
- Feb/March 2010 — Final simulations and analyses (including additional security of supply sensitivities) Preparation of Final Report
- April 2010 — **Publication of the Final Report**

Presentation of **Final Results** at a dedicated **workshop** (potentially w/ ENTSOG)

Thank You!