

Feedback from Tauerngasleitung GmbH to the TYNDP 2011-2020:

Infrastructure

- **Collection process**

In order to ensure a consistent, transparent and non-discriminatory collection process of infrastructure projects, ENTSG launched a public questionnaire during Summer 2010. Information collected through this process was used to provide some aggregate views on the infrastructure development on the ten-year range and, in particular, for network modelling. All information was also published in an annex to the TYNDP 2011-2020.

- Was the call for information process sufficiently well-advertised (a press release, a banner on the ENTSG website, an email to all participants to the GIE conference 2010). What other communication channels should be used? **The information should also be sent directly to the regulators and to all known European TSOs.**

- **Collected data**

- Considering the different interests of the European institutions & MSs (cf. Communication of the European Commission on Energy Infrastructure Priorities for 2020 and beyond; Council Regulation (EC) 617/2010 concerning the notification to the Commission of investment projects in energy infrastructure within the European Union), energy regulatory authorities (cf. ERGEG TYNDP recommendations) and network users, incl. third party project sponsors, with regards to the TYNDP, do you consider the requested data requested as too detailed, balanced or not detailed enough? Please explain your choice. **We considered it as balanced. Maybe one could add at least a rough guess of CAPEX and OPEX.**
- If you are a third party project sponsor would you be willing to provide to ENTSG your project cost estimate if ENTSG committed to keeping it confidential and would use the same aggregation for such information as in the current TYNDP (FID/non-FID projects separately for transmission, storage and LNG)?
- Do you think that ENTSG should or should not include projects in the TYNDP where not all requested information has been submitted? **This depends on the project status: FID projects should have the obligation to include all the requested information. Non-FID projects should be urged to do so, but sometimes not all of the information can already be given.**

- **Criteria and clustering**

In order to build different infrastructure scenarios to better assess the possible evolution of the European gas network, ENTSOG has chosen to cluster projects as FID (Final Investment Decision taken) or non-FID. The FID criterion is seen by ENTSOG as the only transparent, pragmatic and non-discriminatory one. All projects of a given category have been considered simultaneously while modelling the network.

- Do you consider the FID criterion as relevant? **Yes.**
- Do you see other relevant criteria? If yes, which ones? **Percentage of right of ways (ROW) and if there is already a permission for the construction (as these criteria say a lot about the degree of maturity of a project) -> the social feasibility of infrastructure if very important these days!**

Demand

- What is your opinion on ENTSOG's approach to demand? Do you think that ENTSOG should apply a demand definition based on more criteria than climatic conditions? **Yes.**

If yes, what parameters should be used? **The future role of natural gas in the countries because the demand can highly decrease or increase based on the energymix of a certain country (use of renewables or nuclear power in the future).**

- Is the current comparative approach to demand outlooks published by other organisations/stakeholders sufficient or should more analysis be done? (Please consider that currently only the PRIMES and ENTSOG data are provided on country basis). **We propose to add some more outlooks (e.g. 5 in total) to take into account the big range of outlooks.**

Supply

- Considering supply outlook is beyond TSOs' remit, do you consider this first ENTSOG attempt being beneficial?

When defining supply shares for the Reference Case scenario, ENTSOG based its approach on historical data of 2008 and 2009, then increased according to the Net Demand (national demand minus indigenous production) increase. In order to assess not only capacity availability some supply potential was used for each source as a supply cap.

- Do you agree on the way to define supply shares under the Reference Case?
- Do you agree with the definition of the supply cap?

- If any, in which direction supply analysis could be investigated further?

One important question for the future might be: How can unconventional natural gas (e.g. shale gas or tight gas) or synthetically produced methane influence supply (more endogenous production to reduce the import dependency).

SoS resilience

For this second edition, ENTSOG considered the following scenarios: technical disruption (Norway and North Africa), transit disruption (Ukraine and Belarus), supply disruption (Qatari LNG) and the low deliverability of underground storage facilities.

- Do you consider these scenarios appropriate? **Yes but only for import.**
- What other scenarios should, in your opinion, be used? **Scenarios for a disruption of important inner-European pipelines (e.g. Transigas, TAG or MEGAL).**

ENTSOG used the remaining flexibility indicator (being one minus the ratio between entering flow into a country and the entry capacity into that country) in order to assess the network resilience and to identify investment gaps.

- Do you consider this indicator as meaningful? **Yes.**
- What alternative or additional indicator could be used? **-**

Market integration resilience

In its first attempt to picture market integration at the European level, ENTSOG has considered the supply diversification as a robust and meaningful underlying factor (contractual congestion is supposed to be solved by REG-715). What is your view on the approach parameters:

- No limitation in supply in order to assess network robustness ('capacity potential' approach)?
- An even physical spread of each supply source one by one?
- 3 different supply sources, including indigenous production, as being the benchmark?
- A 5% minimum share to consider a supply source within a given country?
- Do you consider this approach as requiring additional development? Or do you consider another approach as being more relevant?

Concerning market integration we propose to have also a focus on the direct interconnection of countries and gas markets, i.e. the physical linkage to transport gas.

Network model

ENTSOG has chosen the modelling approach based on market zones linked by entry-exit capacity as being consistent with both REG-715 requiring entry/exit regime and market products sold by TSOs.

- Having in mind that translation of a physical network into a commercial offer is a TSO responsibility, how could the model be improved? -

When considering the import routes from a given supply source, ENTSOG has considered an equal load factor as a robust approach on a 10-year range.

- Do you consider it as an appropriate methodology? If not what alternative approach would you advocate? **Yes.**

Considering that not every theoretical scenario could be run, what should be the priority of a more robust resilience assessment:

- Running some sensitivity on demand (severe climatic conditions, yearly...)? If yes which types? **The future role of natural gas in the countries because the demand can highly decrease or increase based on the energymix of a certain country.**
- Considering additional SoS scenarios? If yes which ones? **Scenarios for a disruption of important inner-European pipelines (e.g. Transitgas, TAG or MEGAL).**
- Considering additional Market integration scenarios? If yes which ones? **A focus on the direct interconnection of countries and gas markets, i.e. the physical linkage to transport gas.**
- Individual infrastructure corridors? If yes which ones? **One goal in the EU is a development of an additional new North-South corridor. So this corridor (the existing and planned projects to develop this corridor – maybe also some scenarios how this new corridor can be developed) should be assessed-.**

General questions

Considering that stakeholders' involvement in TYNDP process is crucial regarding the identification of their expectations and the collection of data beyond TSOs' scope, are you satisfied with the dialogue between ENTSOG and stakeholders during the TYNDP process?

- How could this process be further improved? -
- What were your main expectations regarding ENTSOG TYNDP 2011-2020? **Give a broad overview about European projects.**

- Has the report met these expectations? **Yes.**

Considering the TYNDP as a continuous process facing a rapidly evolving market and expectations which improvement do you value the most in comparison with the first TYNDP?

- Which improvement should be given priority for the next edition (maximum 3 ranked answers)? **More concentration on inner-European SoS and market integration.**

Please feel free to address any other issues that may not be covered by the questions but, you think, deserve further elaboration?

We would like to thank ENTSOG and its staff for the comprehensive and good work!