



**Response to
European Network of Transmission System Operators for Gas (ENTSOG)
Consultation on
Ten-Year Network Development Plan (TYNDP) 2011 – 2020**

**Gas Committee
European Federation of Energy Traders (EFET)¹
24th June, 2011**

¹ The European Federation of Energy Traders (EFET) promotes and facilitates European energy trading in open, transparent and liquid wholesale markets, unhindered by national borders or other undue obstacles. EFET currently represents more than 100 energy trading companies, active in over 27 European countries. For more information: www.efet.org.



Part 1 - Fundamental requirements for a useful Ten-Year Network Development Plan (TYNDP)

Over the last few years, the EFET Gas Committee has highlighted four main points regarding the ENTSOG TYNDP:

1. The TYNDP should use a consistent set of EU-wide assumptions and be based on an EU network model, or at least consistent regional network models.
2. It must recognise the difference between projects that have reached a final investment decision (FID) and all other projects, which must still be included for information purposes.
3. Updates at least of the data and the model should be published annually, with any major changes explained, justified and updated on an ongoing basis.
4. The investment focus in the TYNDP should ensure that:
 - a) All upstream gas can enter the EU transmission system;
 - b) Balancing zones/interconnections expand only to the optimum size;
 - c) Other EU security projects are identified.

The overall goal should be an integrated EU gas network plan that identifies potential network constraints and that shows the status of all new projects.

The investment decision-making process requires both:

- a) Analysis of the options to overcome expected bottlenecks or to meet security of supply criteria (e.g. reverse flow), for which some element of social funding may need to be identified, and
- b) That gas shippers/traders are able to indicate (and indeed determine) the need for increased capacity via market mechanisms (i.e. long-term capacity allocation via an auction process must include potential commitments to incremental capacity).

The investment decision-making process, therefore, extends well beyond the TYNDP, but the TYNDP should provide much of the data and analysis to inform decision-makers. The TYNDP database must also be updated whenever an investment decision is made, for example, to implement, change or delay a project.

Finally, we would note that the ability of the TYNDP to fulfil its central role in the future development of the EU gas market depends very much both on having a model that is fit for purpose and on having the right quality of data. ENTSOG has done a tremendous job to start the TYNDP process and we applaud the excellent progress that they have made. We have serious concerns, however, that data from TSOs are inconsistent and that the model does not provide the information that would be required to enable investment decisions to be made. Having said that, we do consider that the set of 2011 TYNDP documents are interesting and comprehensive. Our primary concern is that ENTSOG should now focus on improving the input data quality from TSOs. This, in our view, will require TSOs to use consistent network modelling assumptions and carry out their analysis using combined network models, at least as an input to the simplified TYNDP model.

The questions posed by ENTSOG may be overlooking these fundamental challenges, and we urge ENTSOG to take on board the abovementioned suggestions, in addition to the answers that we provide in the remainder of this document.

Part 2 - Answers to specific questions raised by ENTSOG

Infrastructure

▪ **Collection process**

- *Was the call for information process sufficiently well-advertised (a press release, a banner on the ENTSOG website, an email to all participants to the GIE conference 2010). What other communication channels should be used?*

Greater consistency and transparent presentation of data for the existing transmission pipelines in Europe is a fundamental pre-requisite that must be addressed as a higher priority than data collection and analysis for future projects.

Our gas trading members are not themselves gas infrastructure developers, but we would envisage that those parties who would provide information on future projects would appreciate advance publication of the timetable for ENTSOG information requests.

▪ **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 as too detailed, balanced or not detailed enough? Please explain your choice.*

The quality and scope of the information and data collected must correspond to what is necessary for the TYNDP to fulfil its purpose.

- *If you are a third party project sponsor would you be willing to provide to ENTSOG your project cost estimate if ENTSOG 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)?*

It would be helpful to understand why ENTSOG wants project cost estimates when the data do not appear to be used in the TYNDP model.

- *Do you think that ENTSOG should or should not include projects in the TYNDP where not all requested information has been submitted?*

All information that is submitted to ENTSOG should be in a publically accessible TYNDP database.

▪ **Criteria and clustering**

- *Do you consider the FID criterion as relevant?*

Yes. Indeed, greater emphasis should be given to the scenario in which there is no new investment beyond existing infrastructure plus FID projects. More time should be spent on analysis, stress testing and bottleneck identification in this baseline situation.

- *Do you see other relevant criteria? If yes, which ones?*

Projects should also be identified through analysis of the best options from an EU perspective to overcome bottleneck. In the previous TYNDP (2010-2019), the *Demand Scenarios vs. Capacity Report* indicated a need for additional capacity in the regions of Austria, Belgium, the Czech Republic, France, Germany, Ireland, Italy, Luxembourg, Netherlands, Switzerland, and the United Kingdom for 2018 and 2019. In the current TYNDP, the level of flexibility in the reference case scenario is much higher. We are concerned whether the nature of the grid developments could be due to TSOs opting for national solutions rather than for European development of cross-border interconnections. Indeed, according to the *Commission's Energy Infrastructure Priorities for 2020 and beyond*, the aim is to build infrastructure needed to allow gas from any source to be bought and sold anywhere in the EU, presumably where economic to do so. In brief, projected LNG and Storage facilities serve to cope with local security of supply issues, as the TYNDP evaluates, but they might not facilitate the most efficient flow of gas across the regions and markets.

As a possible further refinement, FID projects could be subdivided into those that are already under construction and those that are not. If there are any agreed projects, for which the developer has not yet made their internal FID, then these too should be included in the TYNDP, making five categories of infrastructure:

- Existing infrastructure
- Committed projects;
 - Under construction
 - FID, but not yet under construction
 - Agreed, but no FID yet
- Other projects

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?*

A consistent approach to demand is necessary when the TSOs first calculate their own network capacities. Unless the initial data is consistent, particularly between interconnected TSOs, doubts will remain in the analysis produced by ENTSOG, regardless of the demand numbers that are used.

- *If yes, what parameters should be used?*

Overall we agree that the primary determinant for demand variations should be climatic conditions. However, the model should be available for users to input alternative demand scenarios, for example, as may arise with different forecasts of the use of gas for power generation.

- *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).*

The TYNDP model should be available for users to input alternative demand scenarios.

Supply

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

Some supply assumptions are required to run the model, but the emphasis should be on existing supplies and supplies associated with committed projects.

- *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?*

We suspect that these questions result from the way the model has been formulated. The starting point on supplies should be to ensure that all the gas that is expected from each upstream FID project could enter and be transported through the EU network if it were required. If this is not the case with current and committed downstream infrastructure, then where are the bottlenecks and what is required to resolve them?

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?*
- *What other scenarios should, in your opinion, be used?*
- *Do you consider this indicator as meaningful?*
- *What alternative or additional indicator could be used?*

These are interesting stress tests that provide indicative results. More detailed analysis would be useful, but only once the underlying data quality has been improved.

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?*
- *Three 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?*

We congratulate ENTSOG on its innovative approach to this issue and we agree that "supply diversity" can be one indicator of market integration. However, we remain concerned that the analysis has used the wrong starting point with potentially inaccurate data. As we have previously suggested, the focus should be on ensuring that a) gas can be delivered into the EU; b) gas can be transported at a wholesale level as required by market participants within the EU; and c) gas can reach final consumers (although we recognise that this might be beyond the scope of ENTSOG). To the extent that there are networks or other physical constraints that prevent a), b) or c) from taking place, then these should be identified and resolved to improve market integration, where it is economic to do this.

We would urge for caution in the way LNG is treated as a single-supply source, as neither the degree of market integration among neighbouring markets, nor the actual resilience of the system is the same as for an inflexible pipeline delivery route. For instance, Portugal is supplied by just two sources (Algeria and LNG) but in terms of SoS and market resilience, multi-source LNG places the country in a reasonable position.

We welcome ENTSOG's analysis that tries to address the lack of integration of certain sources of gas production. However, important questions remain. For example, viewing the high and widespread potential influence of import sources in 2020 (with FID projects), we could ask why Algerian gas imports do not progress to compete in European markets in the same way as Norwegian or Russian gas?

According to the network modelling, it seems that LNG market integration increases in good time due to the development of pipeline interconnections. However, the market integration of LNG responds to the implementation of new LNG facilities across Europe. It does not assess how the LNG is being used regarding its real potential of supply (*how it could be used*). Following the same example as before, we could argue that if Algerian gas is not reaching the European meshed grid, the existing Iberian LNG capacity is not being fully used either. In the market resilience scenario, the TYNDP should identify far more clearly when the lack of infrastructure hampers the full use of other facilities and the integration of more sources in the market.

In their document, ENTSOG suggest that market integration may progress, thanks to new internal infrastructure projects, to send gas into the core of the European gas network, making use of the existing well-meshed network already in place. To this point, we think those countries/regions with spare entry capacity are not adequately considered. TSOs should be optimising the existing infrastructure by investing when it is economic to equalise capacity on both sides of a border. The TYNDP should identify the infrastructure needed to make capacity equal on both sides, in other words, to optimise what already exists where this has a lower marginal investment costs. Overall, the TYNDP should serve to identify where there is a lack of capacity from an internal European market point of view and to suggest the optimal solution, or at least the realistic options.

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?*

Ensure that the physical capacities are realistic and consistent between TSOs.

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?*

The answer depends on the purpose of the particular model run.

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?*
- *Considering additional SoS scenarios? If yes which ones?*
- *Considering additional Market integration scenarios? If yes which ones?*
- *Individual infrastructure corridors? If yes which ones?*

ENTSO-G should produce a high quality baseline and a range of core model runs, including sensitivity scenarios of ongoing severe and mild weather. The input data, the design of the model and the scenarios implemented should identify bottlenecks and potential investment required to enable FID gas supplies to be transported throughout Europe, as far as it is economic to do so under all reasonably foreseeable circumstances.

In addition to the consideration of future projects linked to new production sources or other future infrastructure, the TYNDP should include the implementation of an internal interconnection development approach as a real alternative. For example, this could comprise the grid improvements necessary to take advantage of regions with spare existing entry capacity, or to optimise the existing European infrastructure by making capacities equal on both sides of the borders.

Overall, we are seeking that the TYNDP will help the decision-making process by showing how different investment options contribute both to market integration and to security of supply. Whilst the TYNDP model itself does not include costs, the analysis to support decision-making and inform market participants needs to address the overall costs, so that the most efficient investment path can be achieved. Investment and improved market integration within Europe may well offer a lower cost alternative to some externally linked projects.