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## **ENTSOG TYNDP 2013-2022**

### **Submission to ACER**

Dear Alberto,

In accordance with Art. 9(2) of Regulation (EC) 715/2009 on conditions for access to the natural gas transmission networks (REG-715), I am pleased to submit to you ENTSOG Ten-Year Network Development Plan (TYNDP) 2013-2022. It was published on 21 February this year and subsequently presented at different events such as a dedicated TYNDP public workshop on 21-22 March in Riga, the 23<sup>rd</sup> Madrid Forum on 17-18 April or the Gas Coordination Group on 30 May. In parallel a 3-month public consultation had been carried out ending on 21 May.

The general feedback seems very positive, stakeholders acknowledge a significant improvement made since the publication of the TYNDP 2011-2020 which was already considered of good quality. This is true especially for the three main directions highlighted by stakeholders for further enhancement after the previous edition, namely the demand analysis, market integration assessment and stakeholders' involvement.

As for the public consultation, ENTSOG has received high-quality responses from stakeholders representing the broad range of interests of the gas industry (project promoters, associations of suppliers and traders). The level of detail of their answers provides a robust basis for analysis of future development needs.

It has to be considered that part of the critical feedback comes from expectations in contradiction with TYNDP concept. As this concept results from the Stakeholder Joint

Working Session consensus, such unmet expectations will have to be discussed as part of the stakeholders' engagement process defining the TYNDP 2015-2024 concept. This situation highlights the importance for stakeholders to get involved in the whole TYNDP process.

Moreover, the background of the European gas market keeps its dynamism and new challenges are showing up such as the Energy System Wide Cost Benefit Analysis for the next TYNDP, the consideration of the contradiction between current surge of coal power generation and the European Energy Policy, or the uncertainty on the development of unconventional gas (both biogas and shale gas).

In that context, new or changing expectations are part of the iterative development process of a living organism like the TYNDP. ENTSOG is planning to organise bilateral meetings with all respondents to understand better their feedback before starting officially the TYNDP 2015-2024 process with a public workshop this autumn. The below preliminary analysis of the responses which are published on the ENTSOG website, and of the more general feedback received until now, should therefore not be considered as any answer to the respondents' concerns but rather as a direction to be further investigated.

### **Infrastructures**

#### *> Infrastructure project collection*

The improvement of the process (timeline and access to a standard questionnaire through ENTSOG website filled in with information submitted for the previous edition where applicable) has been welcomed. Further streamlining, such as a web-portal access, would be further appreciated.

Regarding the content of the questionnaire, the use of FID status as the key for infrastructure clustering is commonly supported as well as the requirement on the project promoter to submit all data necessary for the modelling of projects. One more time, the identification of additional stages of the project development had proved difficult for project promoters and further investigation through the consultation of next TYNDP will be necessary.

#### *> Evaluation / monitoring of TYNDP*

Although the TYNDP layout and especially annexes in the Excel format allow an easy comparison of data between editions, there is no specific section on project progress monitoring as asked by some respondents. A specific question had been defined in the TYNDP questionnaire but only a few promoters made use of it.

The second edition of GRIPs by TSOs will provide the opportunity to run a project update through a new public call on project promoters. Nevertheless, the analysis of the reasons behind a change in project key features depends on information provided by promoters.

Regarding the general analysis of potential delays in the implementation of infrastructure projects, the newly introduced 'Barriers to investment' chapter draws attention to several issues. In that respect the strong decrease in the number of FID projects (when the overall number of projects increases) compared to the previous edition is noticeable. It may be explained by the fact that many of the FID projects of the TYNDP 2011-2020 have been commissioned, and are therefore considered as existing infrastructure, while only few Final Investment Decisions have been taken by project promoters on the previously non-FID projects for the reasons stated in the 'Barriers to investment' chapter.

In parallel, the total amount of projects has increased with many new Non-FID projects from promoters perceiving ENTSOG TYNDP as a major assessment of European gas infrastructures.

> *Barriers to infrastructure investments and potential solutions*

The main barriers according to respondents are the uncertainty on gas demand evolution and the lack of stability of some regulatory regimes. It is particularly important for the respondents to monitor the evolution of barriers on a project basis from one TYNDP to the other.

Some respondents have identified other barriers to be investigated such as non-efficient tariffs, different levels of TSO coordination in infrastructure development and selection of remedies.

**Network modelling tool**

> *Network topology*

The use of ENTSOG modelling tool structured along entry/exit capacity as offered by TSOs and aggregated at balancing zone level is now well accepted by respondents. The implementation of CAM Network Code and CMP provisions will ensure that TYNDP capacity data reflect the best practises in terms of capacity optimization.

Compared to the previous edition the modelling topology is based on Zones rather than countries, and complex IPs are modelled explicitly as intermediate nodes (e.g. Emden). This ensures that flow constraints linked to the actual IP configuration are accurately translated into the topology.

Further improvements are expected in considering hybrid capacity products (e.g. BZK in Germany) in order not to give a too optimistic view of some Zones capability. The associated challenge is the access to data robust enough on at least a 10-year range.

> *Modelling inputs*

The input data applied to the topology are demand at Zone level, capacity between Zones, UGS and LNG terminal capacities together with available supply at source and import route level. In absence of access to contractual information at the EU border, an approach based on the definition of maximum and minimum flows derived from historical values and

extrapolated on the 10-year range has been used as a proxy. No contractual constraints have been considered within Europe as the implementation of the 3<sup>rd</sup> Energy Package should strongly mitigate their impact. Therefore considering such type of constraints does not provide a robust basis to identify infrastructure needs with a lifetime of more than 30 years. It could result in an overestimation of needs and lead to stranded assets in the medium term.

> *Identification of investment need*

The national, regional and union-wide perspectives provide altogether a comprehensive view of investment needs. Each one has its particular focus but they complement each other.

One of the most valuable outputs of the Union-wide TYNDP is the identification of investment needs of cross-border relevance. TYNDP is explicitly neutral as to the appropriate investment solution if any proposed by project promoters. Such remedies could include transmission, UGS or LNG projects. The majority of respondents have praised this neutral approach as it gives room to market commitments in the determination of an efficient solution.

Where TYNDP results are perceived as not showing sufficient infrastructure-related market integration, further analysis at regional and national level should follow to identify potential remedies. If such remedies materialized as projects they could then be submitted to the following TYNDP as part of an iterative process.

**Demand and supply**

> *Demand*

The recent increase of coal-fired power production, at the expense of gas, gives rise to a conflict between short term trends and long term ones, the latter indicating a greater use of gas. Considering the opinion of many stakeholders and especially institutions, ENTSOG considers reasonable to favour such long term trends meeting energy policy targets.

Nevertheless, the current trend is regularly analysed through Seasonal Reviews which are published by ENTSOG as part of the Supply Outlook cycle. Such reviews also provide an analysis of the simultaneity of high daily demand condition across Europe.

Further cooperation between ENTSOG and ENTSO-E is also desirable in order to have better consistence in the use of gas-fired power plants.

The difference in gas demand forecast from one country to another is partially explained by very different end-consumer markets. Different national energy policies are another factor of heterogeneity. Some of these forecasts have a national status making it difficult for TSO to provide a different best estimate.

In order to explain these differences, some underlying factors of TSO forecast are provided in Annex C.

Regarding demand cases, the introduction of the Uniform Risk approach (1-day and 14-day) has also been welcomed. Some respondents advocate the addition of some winter/summer cases in order to better capture the seasonal swing that could induce specific investment needs.

> *Supply*

Respondents agree with the introduction of multi-scenario approach for non-EU gas sources and the enhanced definition of supply availability under high daily situations. In the future, if sufficient reliable data in each country are accessible, the same approach could be extended to national production. At this stage the uncertainty around unconventional gas development and the lack of robust data accessible to TSO make it difficult to define additional scenarios.

Some respondents would be interested in having a deeper analysis of supply availability including for example the development of gas demand in these producing countries as it impacts their potential for export. Such improvement could of course make the assessment more robust but at the same time would require access to more data beyond the TSO remit.

Regarding LNG, the approach implemented by ENTSOG is consistent with the concept agreed through the SJWSs of 2012; that is the consideration of the dual role of LNG (import source and short term storage), the identification of access to LNG and more information on assumptions about LNG sources. The intention has been to identify LNG supply while letting the reader apply its own assessment of the embedded diversification as the LNG basket strongly differs from one country to another and will vary along the 10-year range. The wide range of producing countries together with the flexibility of marine routes makes historical data a weak basis for the definition of LNG basket per country on the long term.

Moreover the emergence of a global LNG price reduces the added-value of a more detailed approach and the tracking of LNG source within the European gas market would have led to some dilution issues in the supply source diversification assessment.

**Assessment results**

> *Infrastructure-related market integration*

The new structure of the assessment chapter based on the concept of infrastructure-related market integration is seen as a significant improvement facilitating the understanding of the role of gas infrastructures.

The selection of every case has been discussed extensively during SJWSs and each agreed as part of the concept to be included in the TYNDP. This selection has resulted from the balance between the number of cases (to be run and analysed), their added-value and their occurrence.

SJWS participants did not put emphasis on a total supply disruption given their potential occurrence. Nevertheless, some GRIPs have explored additional cases as part of their analysis of regional issues (including a simultaneous disruption of transit through Belarus and Ukraine, or a complete disruption of Algerian supplies).

The disruption of supply imported through non-FID projects (e.g. South Stream or Nabucco) can be easily derived from FID cluster results.

It is appreciated that the tool identified investment gaps without defining a specific solution to mitigate it as the market should have the initiative in this regard.

> *Sustainability*

The analysis of gas demand for power generation is acknowledged as a step in the right direction to cover the role of infrastructure in achieving the sustainability objective of the European Energy Policy. Nevertheless, this part of the assessment will have to be further developed in the context of the ESW-CBA and respondents have provided some directions such as the use of LNG in transport, mitigation of other emissions (e.g. NOx) and further investigation of power generation (e.g. the support for RES balancing and the use of CO2 intensive reserve capacity).

**Stakeholder involvement**

The introduction of the Stakeholder Joint Working Sessions as the core element of consultation with stakeholders has been highly praised by the respondents. This process ensures the adequacy of TYNDP concept to meet main stakeholders' expectations on the one hand and the validation of this concept on the other. Therefore any changes to the TYNDP methodology resulting from the public consultation will have to be processed through a new SJWS cycle in order to ensure consensus on the updated concept.

A process based on the extensive engagement of stakeholders before the TYNDP publication rather than thereafter seems to offer a more efficient way for the TYNDP development compared to a 2-step process. It allows for greater consistency throughout the 2-year cycle while aiming at high level of robustness and transparency from its beginning.

**TYNDP 2013-2022 as a basis for the ESW-CBA**

As stated above, ESW-CBA is seen as the main expectation from stakeholders for the next edition and all respondents consider TYNDP 2013-2022 as a sound basis for such future analysis. Of course improvements are necessary to meet the regulatory requirements under Regulation (EU) 347/2013.

In any case the introduction of the ESW-CBA in TYNDP should not impact the transparency and non-discrimination of the report by favouring PCI projects compared to other projects.

We hope that ACER will consider the TYNDP as meeting the requirements of REG-715, namely that it contributes to non-discrimination, effective competition, and sufficient level of cross-border interconnection open to third-party access.

Please do not hesitate to contact us if you need any further clarifications from ENTSOG.

Please note that minor data corrections have been included in the submitted TYNDP compared to the document published in February. Where necessary the impact of such modifications on the main report has been assessed applying an expert judgement.

Yours sincerely,



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ENTSOG General Manager

Annexes

*Given the size of the files, they are accessible on ENTSOG website:*

<http://www.entsog.eu/publications/tyndp>

*TYNDP 2013-2022 Main report (.pdf)*

*TYNDP 2013-2022 Annex A -- Infrastructure projects (.pdf, .xslm)*

*TYNDP 2013-2022 Annex B -- Country Profiles (.pdf, .xslm)*

*TYNDP 2013-2022 Annex C -- Supply & Demand (.xslm)*

*TYNDP 2013-2022 Annex D -- Capacities (.xslm)*

*TYNDP 2013-2022 Annex E -- Assessment Results (.xslm)*

*TYNDP 2013-2022 Corrigendum*

CC: Catharina Sikow-Magny (HoU, B1, DG ENER)