

**OPINION No 10/2018
OF THE AGENCY FOR THE COOPERATION OF
ENERGY REGULATORS**

of 18 October 2018

ON THE ENTSO-E AND ENTSG DRAFT TYNDP 2018 SCENARIO REPORT

THE AGENCY FOR THE COOPERATION OF ENERGY REGULATORS,

Having regard to Regulation (EC) No 713/2009 of the European Parliament and of the Council of 13 July 2009 establishing an Agency for the Cooperation of Energy Regulators¹ (hereinafter referred to as “the Agency”), and, in particular, Articles 6(3)(b) and 17(3) thereof,

Having regard to Regulation (EC) No 714/2009 of the European Parliament and of the Council of 13 July 2009 on conditions for access to the network for cross-border exchanges in electricity and repealing Regulation (EC) No 1228/2003², and, in particular, Article 9(2) thereof,

Having regard to Regulation (EC) No 715/2009 of the European Parliament and of the Council of 13 July 2009 on conditions for access to the natural gas transmission networks and repealing Regulation (EC) No 1775/2005³, and, in particular, Article 9(2) thereof,

Having regard to the favourable opinion of the Board of Regulators of 15 October 2018, delivered pursuant to Article 15(1) of Regulation (EC) No 713/2009,

Whereas:

- (1) On 30 March 2018, the European Network of Transmission System Operators for Electricity (“ENTSO-E”) and the European Network of Transmission System Operators for Gas (“ENTSG”) jointly published their TYNDP 2018 Scenario Report⁴ (hereinafter “draft Scenario Report”), accompanied by three Annexes (country level results, methodology and public consultation). Furthermore, ENTSO-E published a dataset⁵ composed by twelve spreadsheets⁶ (load series for the year 2020, for the year 2025, for three scenarios of the year 2030 and for three scenarios of the year 2040, generation capacities, outputs, input data and demand side response) and ENTSG⁷ published three

¹ OJ L 211, 14.8.2009, p. 1.

² OJ L 211, 14.8.2009, p. 15.

³ OJ L 211, 14.8.2009, p. 36.

⁴ https://docstore.entsoe.eu/Documents/TYNDP%20documents/TYNDP2018/Scenario_Report_2018_Final.pdf

⁵ <https://tyndp.entsoe.eu/tyndp2018/scenario-report/>

⁶ <https://tyndp.entsoe.eu/maps-data/>

⁷ <https://www.entsog.eu/publications/tyndp#ENTSG-TEN-YEAR-NETWORK-DEVELOPMENT-PLAN-2018>

datasets regarding gas supply for the period 2018-2040, gas demand for the same timeframes as for electricity and gas capacities for the period 2017-2037.

- (2) Pursuant to Article 6(3)(b) of Regulation (EC) No 713/2009, the Agency shall provide an opinion to ENTSO-E in accordance with the first subparagraph of Article 9(2) of Regulation (EC) No 714/2009 on relevant documents referred to in Article 8(3) of Regulation (EC) No 714/2009 and an opinion to ENTSG in accordance with the first subparagraph of Article 9(2) of Regulation (EC) No 715/2009 on relevant documents referred to in Article 8(3) of Regulation (EC) No 715/2009.
- (3) Article 8(3)(b) of Regulation (EC) No 714/2009 requires ENTSO-E to adopt a non-binding Community-wide ten-year network development plan ("TYNDP") every two years. Pursuant to Article 8(10) of Regulation (EC) No 714/2009, the electricity TYNDP shall include, among other features, scenario development.
- (4) Article 8(3)(b) of Regulation (EC) No 715/2009 requires ENTSG to adopt a non-binding Community-wide ten-year network development plan ("TYNDP") every two years. Pursuant to Article 8(10) of Regulation (EC) No 715/2009, the gas TYNDP shall include, among other features, scenario development.
- (5) As scenario development was carried out as a separate activity during the preparation of the 2018 TYNDPs and a separate report was published, the Agency considers it important to assess the draft Scenario Report separately from the forthcoming draft TYNDPs.
- (6) The Agency's assessment takes primarily into account the TYNDP requirements defined by Regulations (EC) No 713/2009, No 714/2009 and No 715/2009, i.e. contribution of the TYNDPs (and specifically of their scenario development) to non-discrimination, effective competition, the efficient functioning of the market and a sufficient level of cross-border interconnection open to third-party access,

HAS ADOPTED THIS OPINION:

- (1) The Agency welcomes the fact that the draft Scenario Report is characterised by cross-sectoral (electricity and gas) consistency and a longer time horizon (up to 2040) compared to the scenarios previously developed by ENTSO-E and ENTSG ("ENTSGs"). However, the draft Scenario Report's contribution to meeting the objectives of Regulations (EC) No 714/2009 and No 715/2009, concerning the efficient functioning of the market and non-discrimination is still rather weak, as discussed in the rest of this Opinion. For instance, project promoters which are not ENTSGs' members do not have the same level of access to the scenario data as members of the ENTSGs. A review of the degree to which the draft Scenario Report misses achieving such contributions is contained in the following sections⁸, which provide remarks:
 - A) on the process for preparing the draft Scenario Report;
 - B) on the methodology for developing scenarios;
 - C) on the consistency and transparency of the scenarios.

⁸ See in particular points (8), (10), (25), (39) and (43) of this Opinion.

A. Remarks on the preparation process of the draft Scenario Report

- (2) The Agency deems that the preparation process of the TYNDP Scenario Reports should be streamlined, participatory, transparent and resulting in an integrated view on the possible futures of the electricity and gas sectors in Europe.
- (3) The scenario development process lasted from May 2016 to the end of March 2018, including, *inter alia*, the following steps:
 - 12 May - 12 June 2016: public consultation on the ENTSOs TYNDP 2018 storylines development⁹;
 - 2 June 2016: public workshop with stakeholders on storylines development;
 - 5 July 2016: workshop with Member States and National Regulatory Authorities (NRAs) on storylines development;
 - 19 September 2016: communication of the selected storylines in the ENTSOs Report “Overview of the selected/proposed gas and electricity TYNDP 2018 2040 story lines”¹⁰;
 - 20 September - 10 October 2016: request for inputs “Going from assumptions to figures - TYNDP 2018 gas and electricity scenarios”;
 - 10 October 2016: public webinar on scenario building;
 - Autumn 2016: data collection from electricity and gas TSOs;
 - 2 October - 10 November 2017: joint ENTSOs public consultation on the scenario report and Annexes I (country level results) and II (Methodology);
 - 9 October 2017: public workshop “Joint ENTSOs Scenario Workshop - What we envisage up to 2040”;
 - 10 October 2017: publication of ENTSGO gas supply and demand datasets¹¹ for consultation;
 - 1st half October 2017: publication of the ENTSO-E Scenario dataset for consultation;
 - 8 December 2017: ENTSGO workshop on gas supply potentials and renewable gases, with a breakdown by Norwegian and Russian supply¹², EU domestic production, indigenous supplies, power-to-gas, biogas and biomethane, liquefied natural gas (LNG) supplies outlook¹³, and a gas quality review;
 - 29-30 March 2018: publication of the draft Scenario Report.

⁹ https://consultations.entsoe.eu/system-development/joint-electricity-and-gas-consultation-build-the-e/supporting_documents/160512_Overview%20of%20all%20the%20ENTSOs%20scenarios%20consultation%20questions_12%20May%2012%20June.pdf

¹⁰ https://consultations.entsoe.eu/system-development/tyndp-2018-scenarios-figures/user_uploads/160919_tyndp-2018_-proposed-scenarios.pdf-1

¹¹ The “capacities” dataset was not made available in the frame of the public consultation.

¹² Russian supply (Gazprom) was published on 21 December 2017.

¹³ LNG supplies outlook was published on 13 December 2017.

- (4) For the first time, the draft Scenario Report is a stand-alone report in the gas sector. Furthermore, again for the first time, it is the result of a joint undertaking of both ENTSOs to come to an integrated and joint scenario development. The Agency welcomes this collaborative scenario development, as recommended by the Agency in its recent Opinions¹⁴.
- (5) However, the Agency notes that some aspects of the ENTSOs cooperation in the scenario development should be explained in more detail. For instance, the description of the scenario building process in Annex II (pp. 23-28) to the draft Scenario Report only contains the electricity part.
- (6) The Agency proposes that the ENTSOs further improve their collaboration, and transparently explain in the methodology how the initial electricity and gas sectoral assumptions interrelate and how the ENTSOs come to a joint view of the future in a particular scenario.
- (7) The Agency reaffirms its view¹⁵ that the level of interlinkage between the modelling of the electricity and gas sectors should be enhanced, and that consideration should be given as to whether the following interlinkages are relevant and should be included:
 - the interaction of the price formation process for the gas and electricity sectors;
 - the interaction (potential competition and synergies) of electricity and gas infrastructure developments;
 - the cross-sectoral influence of gas and electricity projects.
- (8) The Agency is of the view that the duration of the scenario development processes (almost 2 years) was too long and created risks of inconsistencies with the TYNDP preparation schedule, especially by compressing the needs identification process and the cost-benefit analyses, which have to be carried out mostly after the completion of the scenario development. In particular, such inconsistencies may arise due to the lack of up-to-date scenario inputs to the TYNDP preparation (especially considering the data collection which was carried out in autumn 2016), thus also resulting in possibly misleading output data. The lack of up-to-date scenarios data weakens the TYNDPs' contribution to the efficient network development and, consequently, efficient market functioning.
- (9) Too lengthy a scenario development process goes against the suggestions in the previous Agency's recommendation, which requested finalising and publishing the Scenario

¹⁴ Agency's Opinion No 12/2016 on the ENTSO-E draft TYNDP 2016 scenario development report.
https://www.acer.europa.eu/Official_documents/Acts_of_the_Agency/Opinions/Opinions/ACER%20Opinion%2012-2016.pdf;

Agency's Opinion No 06/2017 on the ENTSG draft TYNDP 2017.
https://www.acer.europa.eu/Official_documents/Acts_of_the_Agency/Opinions/Opinions/ACER%20Opinion%2006-2017.pdf.

¹⁵ Agency's Opinion No 07/2017, page 4.
https://www.acer.europa.eu/Official_documents/Acts_of_the_Agency/Opinions/Opinions/ACER%20Opinion%2007-2017.pdf

Development Report in the year before the TYNDP¹⁶. It also impedes the ability of the ENTSOs to take fully into account the Agency's Opinion.

- (10) Furthermore, the lengthy preparation of the draft Scenario Report and the resulting lack of timely¹⁷ communication of the scenarios data to all project promoters severely reduced the capacity of non-TSO promoters to carry out assessments of their projects, leading to discrimination between promoters who are members of the ENTSOs and thus enjoy an immediate access to the data, and the other promoters. This concern is particularly relevant in electricity, where a process for the calculation of complementary benefits to those assessed by ENTSO-E has been launched by ENTSO-E with strict deadlines in summer 2018.
- (11) The Agency recommends that the scenario development process be streamlined and shortened, by carrying out the data collection processes closer to the release of the TYNDPs, by reducing and focusing the interactions with stakeholders, and by favouring the timely completion of the scenario preparatory work, taking into consideration the input from all stakeholders.
- (12) In addition, the Agency is of the view that the process and timeline used by the ENTSOs for developing the scenarios for use in the TYNDP should accommodate the opinions of the Agency, so that these could be given due consideration before finalising the scenario reports.
- (13) The Agency furthermore recommends that ENTSOs ensure the timely and non-discriminatory availability of all data to all project promoters.
- (14) The Agency regrets that information on the modality of data collection from TSOs and the treatment of the collected input data was not published by either of the ENTSOs. Especially given the long time period between the data collection (which was planned in autumn 2016¹⁸) and the publication of the pre-consultation version of the scenario report (October 2017), more transparency and clarity on these processes would have been appropriate.
- (15) The documentation related to scenario development was published on the websites of both ENTSOs. However, it is easier to track the history of the development and the publication of documents on ENTSG's website than on ENTSO-E website, which is less user-friendly in this respect and, for instance, does not allow retrieving the pre-consultation version of the scenario report¹⁹. For the sake of consistency, the Agency calls on ENTSO-E to provide, in a single webpage, the history of the scenario development

¹⁶ Agency's Opinion No 21/2014, p. 3.

https://www.acer.europa.eu/Official_documents/Acts_of_the_Agency/Opinions/Opinions/ACER%20Opinion%2021-2014.pdf

¹⁷ The ENTSO-E Annual Work Programme 2017 envisaged the finalisation and publication of the scenario report by September 2017. The actual release was 6 months later, on 30 March 2018. Furthermore, this publication did not include all data needed to execute network development planning simulations. The ENTSG Annual Work Programmes 2017 and 2018 did not include the scenario report as a deliverable, thus it is not possible to make a comparison.

¹⁸ According to the ENTSOs presentation given at the public webinar of 10 October 2016.

¹⁹ https://consultations.entsoe.eu/tyndp/entso-consults-the-stakeholders-on-the-2018-scenar/consult_view/

process for the TYNDP 2018, along with links to relevant consultation information, calls for input and documents from workshops and seminars.

- (16) The Agency recommends that the ENTSOs make easily accessible in a single webpage the history of scenario development and related documents from workshops and seminars, as well as the evaluation of stakeholders' input.
- (17) The Agency is also of the view that the ENTSOs should publish the responses to the first public consultation carried out in spring 2016, as well as stakeholders' input provided in October 2016²⁰. The ENTSOs should also publish their evaluations of these feedbacks and expand the sections (Section 1.1 and Section 4 of the draft Scenario Report) which elucidate how the feedback has been considered in the scenario development process.
- (18) Finally, the Agency welcomes the overview of the feedback received via the public consultation of October 2017 (Annex III to the draft Scenario Report).

B. Remarks on the methodology for the development of the scenarios

- (19) The Agency deems that the fundamental objective of the scenarios is to depict an appropriate range of plausible futures and, as regards network development planning, to assess, primarily in the interest of network users, possible future infrastructure needs and the contribution of projects in terms of addressing these needs and of providing value for money. The Agency is of the view that the methodology for building the scenarios needs to result in plausible, consistent, transparent and integrated scenarios.
- (20) The first ENTSOs' consultation also invited feedback on the time horizon to be investigated (among five options: 2020, 2025, 2030, 2035 and 2040), on the number of scenarios to be developed, on the approach (bottom-up vs. top-down or both) to be used for each of them, as well as on the time horizons over which the cost benefit analyses should have focused on. The draft Scenario Report contains single scenarios for 2020 and 2025²¹ (best estimate), with - only for gas - a so-called "sensitivity assessment" that allows to check the effects of preference of gas over coal for 2025. There are three scenarios for each of the years 2030 and 2040. However, it remains unclear which inputs were provided during the consultation and which considerations (apart from limiting the number of scenarios for practical aspects) led ENTSOs to the selected approach.
- (21) Given that the stakeholder consultation seemed to be poorly effective on these key aspects of scenario development, the Agency reiterates its recommendation (see Opinions No 21/2014 and No 12/2016) to invite contributions from selected experts and organise a specific workshop with invited speakers, which would contribute to improving the ENTSOs' scenario development methodology and making it more robust.

²⁰ Only a spreadsheet "Report on Polls" is currently available:

[https://www.entsog.eu/public/uploads/files/publications/Events/2016/WEBINAR%20Public%20Workshop%20Scenario%20Building%20\(SDC\)%20-Report%20on%20polls.xlsx](https://www.entsog.eu/public/uploads/files/publications/Events/2016/WEBINAR%20Public%20Workshop%20Scenario%20Building%20(SDC)%20-Report%20on%20polls.xlsx)

²¹ The 2025 best estimate scenario foresees "coal before gas".

- (22) The ENTSOs started cooperating with stakeholders on scenario development in May 2016, proposing five potential storylines²² and later choosing three²³, following the workshops in June and July 2016. As regards a fundamental element of the storylines (“economic conditions”), the initially proposed storylines included three options: one option with “high growth”, one option with “moderate growth” and one characterised by “low growth”. The three storylines selected by the ENTSOs retained two futures with “high growth” and one with “moderate growth”, in line with the inputs provided during the public workshop on 2 June 2016.
- (23) The Agency regrets that such a selection disregarded the recommendations of the public workshop of 5 July 2016, where Member States and NRA representatives highly recommended the inclusion of the storyline named “Behind targets”.
- (24) In this respect, the draft Scenario Report (p.4) states that *“A number of stakeholders expressed the wish to see a Behind the Targets scenario as part of the TYNDP 2018 framework. Behind the Targets is a possible future and it was one of the initial scenarios proposed for the scenario framework. However, the ENTSOs can only develop a certain number of scenarios and during the stakeholder consultation there was a majority for not including the behind the target scenario when compared to the other scenarios”*. In addition, all scenarios at the study year 2030 consider “gas before coal” in the power generation sector²⁴.
- (25) The Agency sees shortcomings in the storylines selection performed by the ENTSOs, not only because it did not take into account some of the recommendations formulated by Member States and NRA representatives, but also because it did not consider a wide spectrum of plausible futures, thus disregarding the key scenario feature of assessing alternative futures. Indeed, the ENTSOs’ approach also contradicts the former inclusion of a “slowest progress” scenario in the ENTSO-E TYNDP 2016 and of a “slow progression” scenario in the ENTSG TYNDP 2017. This fundamental flaw hinders the TYNDPs’ contribution to the efficient network development and, consequently, efficient market functioning.
- (26) The Agency is of the view that considering a “low economic growth / slow progress” scenario could help to build trust in the scenario development, by not just building on policy goals, but also highlighting possible risks of not achieving these goals. Proper understanding of the risks associated with each scenario would also help to build trust in the scenarios, which is of utmost importance if a certain infrastructure is to be built. Notably, and as evident from the workshop with Member States and NRAs held on 5 July 2016, it is important to provide information on project benefits through a cost-benefit analysis in all scenarios and not only in optimistic scenarios.
- (27) A “slow progress” scenario should be investigated by the cost-benefit analyses, for all years where multiple scenarios are developed in the TYNDPs.
- (28) The methodology explained in the “step-by-step scenario building” process is not sufficiently clear. In particular, the addition of production (generation) units and the

²² The proposed scenario storylines were named “Global Climate Action”, “Subsidized Green Europe”, “Sustainable Transition”, “Behind Targets” and “Distributed Generation”.

²³ “Sustainable Transition”, “Distributed Generation” and “Global Climate Action”.

²⁴ Draft Scenario Report, page 10, figure 3.

modification of the electricity grid during the optimisation of renewable energy sources (RES) and thermal generation are not sufficiently explained, making this stage of the scenario building unclear. Moreover, it is not clear with respect to which parameter the RES and thermal generation are optimised (e.g., minimise energy-not-supplied – ENS - or maximise economic value) and, more generally, how the ENS and the economic viability of the generation fleet are taken into account when building the scenarios.

- (29) The Agency recommends that the ENTSOs restrict and convincingly argue about the need, if any, for adjustments (“optimisation”) of the bottom-up scenarios.
- (30) The assessment of the effects of the so-called “preference of gas over coal” or “coal over gas” for 2025, which is considered as “sensitivity assessment” in the draft Scenario Report, is in essence an addition of two sub-scenarios, rather than a proper sensitivity analysis, where only one variable is modified, *ceteris paribus*, in order to assess the impact of that change on the simulation results.
- (31) For the sake of avoiding doubt, the Agency recommends ENTSOs not to use the term “sensitivity assessment” in the future scenario development reports, unless a proper sensitivity analysis is performed and its results presented.
- (32) The Agency considers the “best estimate” approach for the short term and the multi-scenario approach for the long term as appropriate, so as better to consider the growing uncertainties over time. Such an approach is mostly aligned with the Agency’s recommendations²⁵ on the treatment of uncertainties.
- (33) However, in its former acts, the Agency also recommended to complement the near-term best-estimate scenario with appropriate sensitivity analyses. Such sensitivity analyses would be particularly useful in detecting the main factors on which a project outcome (benefits) depend upon.
- (34) Furthermore, for the preparation of the TYNDP 2020, it could be useful to consider the definition of a “central” and “main” scenario for the study year 2030, aligned with the EU policy targets for that year as agreed by the Council in June 2018²⁶. Ideally, this should be a top-down scenario.
- (35) It would also be useful to complement this scenario with two other ones related to “slow progress” and to “fast progress”. For simplicity, these scenarios (integrated between electricity and gas) could be based on “bottom up” assumptions provided by the TSOs.

C. Remarks on consistency and transparency of the scenarios and their data

- (36) Any ambiguity regarding the consistency of the scenarios used for the development of the TYNDPs should be avoided by the ENTSOs. In view of the importance of the ENTSOs scenarios, the underlying data shall be published comprehensively and on time.

²⁵ Agency’s Opinion No 01/2014 and Agency’s Recommendation No 05/2015.

²⁶ Including, inter alia, reduction of 40% of greenhouse gas emissions, a minimum of 32 % renewables in the EU energy mix and the 32.5 % goal of energy efficiency savings. Cf. http://europa.eu/rapid/press-release_IP-18-4229_en.htm

- The Agency is of the view that the publication of a description of the scenarios' quantitative data and of the qualitative assumptions would allow stakeholders to gain real insights into the realism of the scenarios and the fundamental differences between them.
- (37) The Agency notes that the ENTSOs' data collection and scenario building process lasted approximately one year, starting in autumn 2016 and ending (with the launch of the public consultation) in autumn 2017. Considering this timeframe, the Agency would have expected more transparency in the methodology used by ENTSOs or made available to its members for the quantification and the identification, definition and interpretation of the different parameters used.
 - (38) The draft Scenario Report (p. 46) indicates that *“Following the draft scenario report public consultation, the Sustainable Transition 2030 scenario was mapped to World Energy Outlook 2016 New Policy Prices with an adjustment in Carbon Price to set the merit order to Gas before Coal.”* and that *“The Distributed Generation scenarios are based on the WEO2016 New policies with an increase in CO2 price to set the scenario merit order”*.
 - (39) The Agency considers that, when starting from a (supposedly consistent) set of scenario assumptions, a significant change of one assumption risks to render the scenario inconsistent. For instance, it is unclear how the assumption of a high CO2 price in the sustainable transition 2030 scenario (84.3 Eur/tCO2) can fit a scenario which is characterised by moderate economic growth. Such an assumption implies a significantly higher CO2 price compared to the corresponding IEA scenario (around 33 Eur/tCO2) and presented in the October 2017 pre-consultation draft Scenario Report. Furthermore, it is also remarkably higher than the CO2 prices used for 2030 in the scenarios with high economic growth (27 Eur/tCO2 for EUCO30 scenario and 50 Eur/tCO2 for DG2030) and in other EU-wide or worldwide scenario assumptions. The price amendments carried out by ENTSOs risk to render the simulated scenarios implausible, thus endangering the contribution of the TYNDPs to an efficient network development and, consequently, to the efficient functioning of the market.
 - (40) Table 1 in Section 1 of the draft Scenario Report is intended to show “key topics and where to find them”.
 - (41) While the approach and ENTSOs' intention are to be commended, regrettably, the Agency notes that various mistakes and inconsistent texts²⁷ are present in this table, significantly limiting its value for the reader.
 - (42) Regarding the bottom-up approach used for the 2020 Best Estimate, 2025 Best Estimate and 2030 Sustainable Transition scenarios, the guidance provided to the TSOs when constructing the bottom-up scenarios is not evident from the draft Scenario Report.
 - (43) The Agency recommends that the ENTSOs include more information on the so-called “bottom-up” approach, in order to allow stakeholders better to grasp how these scenarios are developed.

²⁷ E.g. “Charts provided to indicate merit orders for the different categories of lignite, coal and gas power plants.” Combined with “The rule according to which elements remaining in operation within TSO's Responsibility Area after a Contingency from the Contingency List must be capable of accommodating the new operational situation without violating Operational Security Limits”.

- (44) The data accompanying the draft Scenario Report regarding electricity and gas market models are incomplete (and were incomplete when released for public consultation), missing, for instance, the installed capacities of each sub-category of fossil-based generation (labelled e.g. “old1”, “old2” “new” in the draft Scenario Report), the hourly generation profile of non-dispatchable renewable generation and the gas inter-zonal charges (transportation tariffs). Furthermore, most of the datasets were not made available for consultation in October 2017.
- (45) The lack of this information impedes project promoters other than ENTSOs’ members directly to use the scenarios data for the purpose of project (re-)assessment, leading to discrimination between ENTSOs members and non-ENTSOs members.
- (46) The Agency deems that any scenario-based market and network models which are applied for the cost-benefit assessment of the TYNDP projects should also become available, to their full extent, with the publication of the scenario development reports, so that project promoters could timely analyse their projected investments. Stakeholders should have access to the electricity network models upon request, in the same format and the same terms as used by the ENTSO-E in its tools.
- (47) A clear and transparent description should be added, providing information on how scenario assumptions were used when building the electricity network models, regarding:
- the definition of demand, demand response capabilities and installed generation per network node (e.g. based on the latest available real data for typical days or constructed based on yearly load profiles and accounting for expected evolutions on top of “current” values);
 - the sources for deciding where to locate new generation and where power plants are decommissioned in the future;
 - the indication on how the expected demand evolutions are applied across different nodes/areas.
- (48) The Agency positively notes that a comparison of the TYNDP 2018 scenarios with the previous TYNDP scenarios (2016 and 2017 for electricity and gas respectively) is included in the draft Scenario Report. However, this comparison should be expanded and include more details, especially where the assumptions behind the scenarios are substantially different.

Done at Ljubljana on 18 October 2018.


For the Agency
Director ad interim
Alberto POTOTSCHNIG