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To: ENTSO-G (European Network of Transmission System Operators for Gas)

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EDISON GROUP RESPONSE TO THE CONSULTATION DOCUMENT ON ENTSOG TYNDP 2013-2022

GENERAL REMARKS

Edison welcomes the opportunity to answer the ENTSO-G public consultation document on the 10-year Network Development Plan (TYNDP) 2013-2022. We have appreciated ENTSO-G's efforts to actively engage stakeholders during the development phase of the Plan through the Stakeholder Joint Working Sessions and, after its publication, through the public workshop held in Riga and this public consultation. We believe that a continuous and transparent engagement of all interested stakeholders in the development of the TYNDP will contribute to further improving the quality of the report as well as its understanding by the natural gas market participants.

Edison also appreciates the effort made by ENTSO-G to improve the quality of the infrastructure assessments included in the Plan through the development of the modelling tool and the elaboration of further scenarios and analyses.

In our opinion, the revised structure of the Plan successfully contributes to extending the assessment of the role of new and existing gas infrastructures to support the three pillars of the European Energy Policy: security of supply, market integration and sustainability. Though some further refinement and improvement are needed (e.g. as regards sustainability), we believe that ENTSO-G is on the right path towards the integration in the TYNDP of the System-Wide Cost Benefit Analysis for Project of Common Interest (PCIs) as required by the new Regulation n. 347/2013 EU on "guidelines for trans-European energy infrastructures".



As already highlighted in the comments to the previous edition of the Plan, Edison continues to appreciate ENTSO-G's impartial approach to infrastructure assessment which provides market players with a clear overview of the existing and future gas transmission, storage and LNG projects whereas avoiding the selection of alternative infrastructures through a close evaluation of their technical and economic feasibility. We believe that the identification of alternative investments should be finally left to competitive markets which can be complemented, if necessary, by support schemes as the ones provided within the framework of the Infrastructure Package.

Therefore, we ask for the integration in the future edition of the Plan of the System-Wide Cost Benefit Analysis for PCIs which should be based on the current approach to infrastructure assessment, though properly developed according to the new regulatory provisions. In particular, we think that the ESW CBA analysis should rely on the same information now required to project promoters for the inclusion of their projects in the TYNDP, while more detailed data and estimations seem to be necessary only for the purposes of the Project Specific CBA.

Please refer to the answers to the questionnaire for more detailed comments on the specific sections of the TYNDP 2013-2022.

ANSWERS TO THE QUESTIONNAIRE

Infrastructure

1.1. Collection process

In order to ensure a consistent, transparent and non-discriminatory collection process of infrastructure projects, ENTSOG launched a public Call for project information during Summer 2012. Information collected through this process has been used to provide an overview of potential infrastructure development for the next 10-year and, in particular, as input for the network modelling. Detailed infrastructure project profiles are included in the TYNDP 2013-2022 Annex A.



Q 1: Could you suggest any further ways to enhance the Call for project information process?

Edison thinks that the Call for project information process is satisfactory in terms of advertising and data submission procedures. Therefore, we don't see specific aspects to be consistently improved.

Q 2: If you are a project promoter that participated in the data collection process, how did you find the on-line application used for that purpose? Do you have concrete proposals on how to improve this process further?

We are satisfied with the on-line application process.

1.2. Collected data

Collection of data has been quite challenging for ENTSOG in terms of the amount of data to be collected and the willingness of project promoters to submit data.

Q 3: As project promoters found it difficult to fill in the "project phase" part of the questionnaire, what changes should be made (which steps and associated definition) to cover all relevant parts of a project development? Please list maximum 4 project phases.

The development process of an infrastructure project covers three different areas:

- Technical development (engineering and design etc.)
- Commercial development (contractual arrangement, financing etc.)
- Permitting procedure.

The milestones of these development streams can overlap, so it is difficult to identify clear phases covering predefined parts of the project development. Therefore, we propose to introduce very general phases which encompass a broad range of actions necessary to achieve a specific milestone towards the final commissioning of the project:

1. <u>Project selection/assessment,</u> corresponding to the feasibility stage of the project;



- 2. <u>Project definition</u> which encompasses the permitting procedure, engineering and design, commercial development etc.;
- 3. <u>Construction</u>, starting with the Final Investment Decision which marks a watershed between the development phase and the construction phase;
- 4. Commissioning.
- **Q 4:** Do you think that ENTSOG should or should not include projects in the TYNDP where not all mandatory information (i.e. information necessary for network modelling) has been submitted?

We believe that ENTSO-G should include in the TYNDP all the projects submitted to ENTSO-G if the data necessary to modelling are provided by project sponsors. Thus, when missing information are not essential for the elaboration of the Plan, ENTSO-G should not exclude the project from the TYNDP simulations.

1.3. Criteria and clustering

In order to build different infrastructure clusters to better assess the possible evolution of the European gas network, ENTSOG has chosen to aggregate projects according to their FID status (Final Investment Decision taken/ not taken). It is seen by ENTSOG and by many stakeholders as the only transparent, pragmatic and non-discriminatory parameter. It is noted that projects of a cluster are considered simultaneously for network modelling purposes and hence the choice of the parameter has a significant impact on the results of any given case.

Q 5: Do you see any other relevant criteria? If yes, which ones?

We agree with ENTSO-G that the achievement of the final investment decision is a transparent and non-discriminatory criterion for projects clustering, since it clearly marks the transition from the development phase to the construction phase of the infrastructure concerned and provides due evidence to its level of maturity.

With the entry into force of the Regulation on "guidelines on trans-European energy infrastructures" we share the ENTSO-G's proposal presented in the informal consultation on the development of a CBA methodology to further differentiate PCI NON-FID from NON-PCI NON-FID as a mean to mark out the impact of PCIs on the



European gas system when carrying out the ESW CBA analysis for PCIs.

Network model

ENTSOG's modelling approach has been based on market Zones linked by entry-exit capacity in line with the framework established for access to capacity by Regulation (EC) 715/2009. To consider the underlying physical infrastructure correctly, this approach has nevertheless been further refined to include a specific Zone for an independent infrastructure within a country and specific representation of long-haul pipelines.

Q 6: Which further improvements regarding the network topology would you consider useful, if any?

We welcome the new refinements of the representation of the network topology introduced in this TYNDP as a valuable effort to provide a more likely picture of the gas flows within the European gas system. The introduction of further details aimed to complete the architecture of the European gas network are welcomed if needed to refine the modelling results.

Based on feedback received on the TYNDP 2011-2020 approach (equal load factor) to allocating supply from a given supply source to an import route, ENTSOG has considered a load-factor derived from the average load factor observed during the last 3 years.

Q 7: Do you consider it as an appropriate methodology? If not what alternative approach would you advocate?

The use of the historical data to allocate supply from a given supply source to an import route seems to be an appropriate methodology. Nevertheless, considering only the average load factor of the last three years can be misleading since those data may reflect only transitory events (e.g. the economic crisis), possibly blurring the long-term trends which should be captured for an analysis encompassing a 10 year period. Thus, we suggest the use of historical data referred to a longer time period (e.g. 10 years) to allow ENTSO-G to make more realistic estimations and to isolate the effect of possible transitory events from more long term trends.



Considering that not every theoretical Situation could be run (TYNDP 2013-2022 is based on more than 200 situations compared to the 67 of the previous edition), what should be the priority for an even more robust assessment:

Q 8: Running some scenario-based assessments on demand? If yes, which types?

Concerning the 1-day average demand situation, further assessments should be carried out in order to provide evidence of average seasonal swings in natural gas demand due to climatic conditions. In our opinion, the distinction between winter and summer average demand situations could contribute to making market modelling results more realistic.

Q 9: Considering additional Supply Stress Situations under Infrastructure Resilience? If yes, which ones?

As far as disruptions of Russian and Algerian gas are concerned, we suggest to introduce scenarios simulating complete disruptions of gas supplies from these two sources besides the disruptions of each supply routes (Belarus, Ukraine, Transmed and Medgaz). The addition of these two scenarios would highlight the effect of possible disruptions (though very unlikely) linked to geopolitical problems.

Q 10: ENTSOG has run 4 different infrastructure assessments in the TYNDP. Do you consider these to cover all essential aspects of the European gas system or would you recommend applying any alternative analysis?

Edison is satisfied with the four infrastructure assessments introduced in this new edition of the TYNDP.

Q 11: All flow patterns used by ENTSOG in its TYNDP are considered technically feasible by TSOs, do you consider there is a need to define non-technical criteria in order to select only the most probable flow patterns? If yes, which criteria?

We acknowledge that the simulated flow patterns in this TYNDP, though technically feasible, might be different from the actual ones due to specific features related to market design and dynamics (e.g. prices, SOS measures etc.). Nevertheless, we believe that publicly available data does not allow ENTSO-G to go beyond an



analysis focused on the technical feasibility of simulated flows which is in any case a valuable methodology for the identification of investment gaps as required by Regulation 715/2009 EC.

1.4. Demand

Q 12: What is your opinion on ENTSOG's approach to demand? Does a single demand scenario analysed through different daily situations cover a sufficiently wide range?

Edison welcomes the introduction of new daily situations (demand under 1-day and 14-day uniform risk situation) since they bring to a harmonization of assumptions on climatic conditions affecting national gas demand and contribute to increasing the accuracy of the analyses made. As already mentioned, the current demand situations could be complemented by further analyses focused on the identification of the effect of seasonal climatic conditions on average daily demand (i.e. identification of a summer and winter average).

Q 13: If not, what is the added value of multiple demand scenarios, and what parameters should be used?

ENTSO-G could assess whether would be relevant to include in its analysis one of the alternative demand scenarios developed by other organizations and presented in the current edition of the Plan (Chapter on Supply and Demand).

Q 14: Is the introduction of Uniform Risk Situation a valuable improvement? If yes, which added value does it bring for you?

We believe this is a valuable improvement since it allows to rely on scenarios based on a common set of assumptions about the definition of extreme climatic conditions. In this way, demand figures referred to different countries are comparable since they are derived using the same hypotheses. Moreover, the availability of the one-day uniform risk situation enables stakeholders to assess the possible impact on network planning of the different assumptions used by TSOs to estimate peak demand.



Q 15: Is the introduction of 14-day Situation a valuable improvement? If yes, which added value does it bring for you?

Yes, since this new situation has allowed to run simulations assessing the impact on the European gas network of a long period of system stress (14 days) implying a lower deliverability of UGS and LNG.

1.5. Daily Demand Situations

In addition to the 1-day Design-Case Situation which ensures consistency with national plans and represents the benchmark for the transportable energy, the assessment also includes a 14-day Uniform Risk Situation to capture the temporal dimension using the same occurrence at country level.

Q 16: As storage is analysed only through simulations of extreme situations (high daily demand), do you consider that other situations should be covered in order to assess the role of storage under less stressful conditions? If yes, please specify.

We agree with the approach adopted by ENTSO-G on the role of storage in the analysis carried out in the TYNDP.

Q 17: Considering the interaction between gas and electricity, should the consistency between gas and electricity scenarios be based on installed capacities (indirectly linked to the peak utilisation of the infrastructure in case of their concurrent use) or forecasted utilisation factors?

An approach based on forecasted utilization factors seems to be more realistic to assess the impact of power generation on gas consumption in a 10 year horizon.

Edison deems necessary that ENTSO-G and ENTSO-E closely cooperate for the definition of coordinated scenarios on the possible evolution of gas consumption from power generation. We acknowledge that different demand situations can be taken into account by ENTSO-G and ENTSO-E for their respective Plans, nevertheless we believe that a unique set of assumptions for the elaboration of common scenarios should be shared by the two organizations in order to enhance the consistency between their 10-year Investment Plans.



1.6. Supply

Under Average Day, supply shares for the Reference Case Situations are based on the historical data of 2009, 2010 and 2011, and then increased according to the Net Demand (National Demand minus National Production) growth. In order to assess both capacity and supply availability, a defined supply potential was used for each source as a supply cap.

ENTSOG has introduced three Potential Supply scenarios for each supply source in order to capture supply uncertainty. The Intermediate Potential Scenarios have been used as a supply cap for the Reference Case Situations.

Q 18: Do you agree on the way to define supply shares under the Reference Case? The same reasoning explained above (answer to question n. 7) for the estimated load-factor of gas import routes can be extended to the approach used to define supply shares under the reference case. The use of a wider range of historical data

(referred to a longer time period, e.g. 10-15 years, before the starting year of the Plan) would result in more accurate estimates less influenced by transitory events.

Q 19: Do you consider the introduction of the three Potential Supply scenarios as beneficial?

We appreciate the effort made by ENTSO-G to introduce three potential supply scenarios for each supply source as a mean to make the supply maximization and minimization exercises carried out for the infrastructure assessments more realistic. Nevertheless, we suggest to ENTSO-G to include in the supply chapter a more detailed description of the assumptions used in the definition of the different supply scenarios, e.g. by summarizing the information provided by the reference sources (e.g. Russian Energy Strategy etc.). Notably, ENTSO-G should make clear the hypotheses used to calculate amount of export from each supply source to Europe, e.g. by including in the Report the estimations on the evolution of domestic consumption in the gas-producing countries and on their gas exports to other geographical areas.



- **Q 20:** What is your opinion on the level of each of the 3 Potential Supply scenarios (Minimum, Intermediate and Maximum) for each source (Azerbaijan, Algeria, Libya, LNG, Norway and Russia)? In case you consider them inadequate, please specify why and which sources of information should be used for an enhanced definition.
- **Q 21:** Regarding the definition of LNG supply scenarios, the Minimum and Intermediate scenarios have been defined on the basis of the historical load factors of European LNG terminals, while the Maximum was defined according to the evolution of liquefaction capacities by basin and the historical shares of the production of each basin exported to the EU. Is this approach adequate? If not, what other parameters are missing?

We wish to reiterate the same comments already made regarding the use of historical data to make estimations on the future supply shares (answer to question n. 18). Moreover, further clarification is needed on the assumptions used to calculate the shares of each LNG Basin's production directed to Europe which are factored in the calculation of the maximum LNG scenario.

As regards the estimations on the evolution of the unconventional gas production in Europe, different scenarios should be taken into consideration in addition to the Golden Rules Case presented in the report in order to give an account of the impact of specific factors on the potential development of this new indigenous source. Furthermore, ENTSO-G should evaluate the opportunity to introduce three potential supply scenarios also for national production.

Q 22: Considering that supply is out of TSOs' remit and that stakeholders have not provided any detailed information on the topic during SJWSs, in which direction, do you think, could the supply analysis be investigated further?

Edison believes that it would be useful to provide further supply scenarios showing the gas supply potential coming from the Middle East, notably from Iraq and Iran, and from other Caspian areas (e.g. Turkmenistan) to enlarge the scope of the supply analysis presented in the TYNDP. ENTSO-G could rely on public available sources (e.g. IEA reports etc.) also for the elaboration of these new scenarios.



1.7. Supply allocation

Under high daily demand Situations, each import source has been set at the maximum reached between the years 2009 and 2011. This value has been increased only in case of a new project increasing the capacity of the import routes coming from that source. UGS and LNG terminals (their storage component) are then used as sources of last resort supply. LNG storage component is based on the Average Day value increased by 10% to capture the seasonal swing.

Q 23: Do you agree with the evolution of import based on historical values and its increase according to the import route capacity development?

We agree on ENTSO-G's approach on the evolution of import.

Q 24: Do you agree with the dual approach established for LNG (import and storage component)?

We agree with the dual approach established for LNG.

Assessment Results

As an answer to stakeholders' concerns that Security of Supply should not be seen as separated from market integration, and that TYNDP does not assess directly such integration, the links between the Energy policy pillars and market integration, and the assessment provided by the TYNDP have been reviewed and redefined.

Q 25: Do you consider this new structure as more representative? If not, which modifications do you see as necessary?

Edison welcomes the effort made by ENTSO-G to further develop the structure of the infrastructure assessment section compared to the previous edition of the Plan. Enlarging the scope of the sensitivity studies enabled stakeholder to make a wider range of considerations related to security of supply, competition and market integration.

1.8. Infrastructure Resilience

For this third edition, ENTSOG considered the following Supply Stress events:



technical disruptions (from Norway to France and the UK, and from North Africa to Italy and Spain), transit disruptions (Russian gas through Ukraine and Belarus), supply disruption (Azeri gas) and the low deliverability of LNG terminals.

Q 26: Do you consider these events appropriate?

See answer to question 9.

Q 27: What other events should, in your opinion, be accounted for? See answer to question 9.

1.9. Supply Source Dependency

This new approach aims at identifying Zones whose annual balance depends on at least 20% of a given source.

Q 28: Do you value this addition?

We believe that this assessment helps to better identify possible issues related to the dependence of a specific market zone on one gas supply source. The assessment could be further complemented taking into account the average winter demand when supply dependence could result stronger due to higher consumption levels.

Q 29: Is the yearly analysis the right basis for this assessment? See answer to question 8.

1.10. Adaptability to Supply Evolution

This new approach aims at identifying the ability of the European gas system to balance each Zone on annual basis when each source moves from the Reference Case share up to the Maximum Supply Potential or down to the Minimum Supply Potential.

Q 30: Do you value this addition?

Q 31: Is the yearly analysis the right basis for this assessment?



1.11. Supply Source Diversification

ENTSOG has refined its approach to the assessment of the Supply Source Diversification by applying the Targeted Maximisation modelling approach. What is your view on the following parameters?

Q 32: The use of non-simultaneous targeted flow patterns to test the maximum physical reach of each source?

Q 33: The use of 5% and 20% as supply share thresholds?

1.12. Pilot indexes

As a way to collect stakeholders' feedback on some indicators to be included in the Cost-Benefit Analysis methodology to be developed by ENTSOG, two capacity-based indexes have been introduced.

Q 34: Do you consider the Import Route Diversification Index as introducing the right approach for such analysis? Which further development would you consider valuable?

We believe that the proposed indexes are a good starting point towards the definition of the System-wide Cost-Benefit Analysis methodology foreseen by the new Regulation 347/2013 EU, although further parameters should be developed in order to guarantee a complete assessment of PCIs according to the criteria set out in the Regulation.

Q 35: Do you consider the Import Dependency Index as introducing the right approach for such analysis? Which further development would you consider valuable?

See answer to the previous question.

Barriers to investment and potential solutions

This new chapter has been introduced in consideration of the framework established for the TYNDP by Regulation (EC) 715/2009. It identifies the different factors that can negatively impact the appetite for new infrastructure projects and the willingness of project promoters to take a Final Investment Decision. At the



same time, it describes positive elements which could help the system in overcoming these opposing factors.

Q 36: Do you share the same view regarding the identified barriers? If not, please explain. Which other factors would you like to be considered?

Edison favourably welcomes the introduction in the TYNDP of a chapter dedicated to barriers to infrastructure investments as it is required by art. 8.10 of Regulation 715/2009 EC.

The identified barriers to investment in gas infrastructure listed by ENTSO-G can have a possible impact in delaying or preventing the realization of investment projects. Nevertheless, we suggest to ENTSO-G to further develop this chapter with a section dedicated to the monitoring of the actual impact of these barriers on the delay or non-realization of investment projects according to the data submitted in TYNDP. For instance, ENTSO-G could investigate on the reasons of delays in the commissioning dates of projects included in the previous edition of the TYNDP and present the results of this survey in the new TYNDP edition (as it is currently done by ENTSO-E in its TYNDP). This monitoring chapter would help stakeholders and TSOs to clearly identify the actual impact of the above mentioned barriers on the realization of the investment projects included in the Plan.

Furthermore, we wish to highlight that practices liable to reduce the interest of market participants on the development of new gas infrastructure (or on the refurbishment of existing infrastructures) may have a negative impact on the implementation of investment projects. This could be the case of uncoordinated open seasons carried out by different TSOs managing infrastructures located on a given route. The lack of coordination between open season procedures may consistently reduce the interest of shippers in these processes since the booking of capacity on a specific border may not correspond to a parallel capacity booking on another border encompassed by the same infrastructure or supply route.

Q 37: Do you see other ways to reduce barriers besides those proposed in the Report?

See answer to the previous question.



Future role of the TYNDP in the PCI process

TYNDP 2013-2022 is released before the entry into force of the Infrastructure Guidelines Regulation defining the PCI selection process. Nevertheless, the TYNDP already provides a definition of demand and supply Scenarios, a system-wide analysis of the European gas system and some indicators assessing the infrastructure-related market integration.

Q 38: In that respect, do you consider TYNDP 2013-2022 methodology as a sound basis for the development of the future Energy System-Wide Cost Benefit Analysis (CBA)? If not, what should be further elaborated?

We believe that the current TYNDP methodology provides a sound basis for the development of the future Energy System-Wide Cost Benefit Analysis. The methodology already introduces an assessment of the European gas infrastructure according to the three pillars of the European energy policy: security of supply, sustainability and market integration. Nevertheless, further improvements are needed, for instance as regards the assessment of the sustainability criterion, while other indicators should be elaborated starting from the two proposed in the current TYNDP in order to extend the analysis to cover all the relevant criteria PCIs have to fulfil according to the Regulation.

We think that the information now required to project promoters for the inclusion of their projects within the TYNDP are sufficient to carry out the ESW CBA as required by the Regulation, though some additional data on project costs will be probably needed¹. Edison deems it necessary to keep the current TYNDP neutral approach towards investment projects, avoiding closer assessments which may finally lead to a pre-selection of the investment projects to be realized. A higher level of detail in the evaluation of investment projects should be left to the Project Specific CBA which is mainly aimed to support the decision on the access to the specific regulatory and financial support measures provided in the Regulation. Finally, the identification of the specific cluster of PCIs non-FID could provide a good basis for the assessment of the impact of PCI projects according to the methodology for the ESW CBA.

¹ As required in Annex V, paragraph 5 of Regulation 347/2013 EU.



ENTSOG is planning to launch a public consultation on the CBA methodology Scoping document soon. This will provide stakeholders with further opportunity to comment on the future role of TYNDP in the PCI process.

General questions

1.13. Stakeholder engagement

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

Q 39: How could this process be further improved?

We are satisfied with the involvement of stakeholders during the TYNDP development process.

1.14. Use of graphics

Graphical layout of quantitative information is a key element helping the reader to grasp complex information.

Q 40: What is your opinion of graphical representation of information in the TYNDP 2013-2022 (Methodology, Supply and Demand, and Assessment Results chapters)?

We are generally satisfied with the graphical representation of information in the TYNDP. In any case the possibility of further improvements should be evaluated by ENTSO-G in order to facilitate the understanding of the Report.

Q 41: Which further improvement would you suggest?

1.15. Data accessibility

ENTSOG has taken special care to make all TYNDP-related data available in an easy way and in a format that allows for further analysis.

Q 42: What is your opinion on the new format of Annex A and B? Do you have any proposals for further improvement?

We suggest to revise the structure and the layout of the Annex A on infrastructure



projects in order to improve its readability and the accessibility of the information presented. In particular, a list of the relevant projects should be included at the beginning of each country session together with a clearer graphical representation in the map.

As a way to improve the usability of the Plan, we suggest to add, at least in the Annexes, demand and supply data expressed in volumes (cubic meters) in addition to data expressed in energy units (GWh).

Q 43: Do you consider that hard copies of the TYNDP should be available upon request as a complementary option to the on-line download?

1.16. Sustainability

ENTSOG has introduced some thoughts on the assessment of the role of gas and gas infrastructure for sustainability through the quantitative assessment of gas demand for power generation.

Q 44: Which other way(s) would you consider adequate for capturing the role of gas infrastructure in a sustainable energy policy?

We agree on the importance to assess gas demand for power generation as a fundamental component in the analysis of the role of gas infrastructure for a sustainable energy policy. Nevertheless, we believe that ENTSO-G should further extend its assessment going beyond the sole presentation of the future trend of gas consumption for power generation. For instance, ENTSO-G could evaluate whether additional flexibility in the European gas network should be developed (e.g. availability of short-term overcapacity) to enable the use of gas fired power generation to replace traditional fossil-fuel plants and as back-up for renewables.

Moreover, it would be interesting to investigate market zones where CO2 emission intensive power plants are used as a last resort (e.g. strategic reserve) to ensure security of supply in case of gas supply disruption. This analysis would allow to better assess the additional value and the expected benefit of new gas infrastructures in terms of sustainability in those areas.

It should be finally considered that the expected benefit of power production from natural gas replacing the use of coal and oil power stations also consists in a



dramatic reduction of the emissions of other pollutants, in addition to CO2, such as nitrogen dioxide (NOx), sulphur dioxide (SO2) and particulate.

1.17. Next focus

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 TYNDP 2011-2020?

Edison welcomed the improvements introduced in this last edition of the TYNDP with particular reference to:

- The further elaboration of the methodology and the increase in the number of scenarios and infrastructure assessments;
- The introduction of further demand and supply scenarios and the analysis of the evolution of gas demand for power generation;
- The introduction of a specific chapter on barriers to investments in gas infrastructures.

Q 45: Which improvement should be given priority for the next edition (maximum 3 ranked answers)?

We suggest the following improvements as the most important for the next edition of the Plan:

- Further analysis of the potential impact of gas fired power generation on gas consumption and on the development of the European gas network.
- Integration of the System-Wide Cost Benefit Analysis within the report for a correct assessment of the impact of PCIs on the European gas system according to the new Regulation.
- Introduction of a monitoring chapter dedicated to the assessment of the identified investment barriers on the implementation path of the infrastructure projects included in the TYNDP.