ACER
European Union Agency for the Cooperation of Energy Regulators

OPINION No 09/2020 ON THE REVIEW OF GAS NATIONAL NETWORK DEVELOPMENT PLANS TO ASSESS THEIR CONSISTENCY WITH THE EU TEN-YEAR NETWORK DEVELOPMENT PLAN

Annexes:

I – National Development Plans: Methodological Aspects

II – Consistency of NDP/TYNDP Projects

18 December 2020

ACER
European Union Agency for the Cooperation of Energy Regulators

Contents

ANNEX I - NATIONAL DEVELOPMENT PLANS: METHODOLOGICAL ASPECTS

A. REGULATORY ASPECTS

Q 3.0 How many gas TSOs have been certified in your country?

Reporting NRA's MS	Number	Comments on TSOs certification and several certification models, and relevant changes / updates during the last 2 years
Austria	2	All TSOs are certified, no changes in the last 2 years.
Belgium	1	TSO is certified as Full Ownership Unbundling (FOU). No changes during the last 2 years.
Bulgaria	1	
Croatia	0	Process of TSO certification under Full Ownership Unbundling model is ongoing.
Cyprus	0	There is no gas market in Cyprus yet and no gas TSO.
Czech Republic	1	The TSO is certified.
Denmark	1	
Estonia	1	The TSO is certified.
Finland	1	The gas transmission grid of Finland is recently unbundled to a new TSO, Gasgrid Finland Oy. The new TSO was certified on 19 August 2020.
France	2	GRTgaz: OU. Teréga: ITO.
Germany	14	14 TSOs are certified in Germany: 3 TSOs are certified as FOU, 11 TSOs are certified as ITO.
Greece	2	DESFA has been certified as OU and TAP has been certified as an ITO.
Hungary	1	The TSO is certified. During the last 2 years the following change happened: the assets of the ownership unbundled TSO, MGT, were acquired by the ITO-certified TSO, FGSZ, and the two companies merged into one. Currently FGSZ is the sole TSO in Hungary.
Ireland	1	Gas Networks Ireland as the Gas TSO was certified as FOU compliant in 2016.
Italy	3	3 TSOs are currently operating national pipelines; all of them have been certified as OU. 6 other minor TSOs only operate regional pipelines, and they have not been certified given there is no legal duty for their certification; they still have to comply with national provisions on NDPs. 1 TSO (TAP AG) has been already certified as ITO but it is not under operation; also, TAP AG is not compelled to comply with Article 22 of the Gas Directive, since the scope of the provisions of Article 22 of the Gas Directive are sufficiently addressed by the in-depth assessment of the Authorities and by the conditions and time limits which are imposed by the exemption decision (article 4.5 of the Final Joint Opinion by ARERA, ERE and RAE, approved by ARERA Opinion 249/2013).
Latvia	1	Two major shareholders have changed in 2020. PUC is currently assessing shareholders' compliance with certification requirements.
Lithuania	1	The TSO is certified.
Luxembourg	1	Luxembourg holds a derogation from the unbundling rules on the basis of Article 49(6) of directive 2009/73/EC
Malta	0	Article 49 of Directive 2009/73/EC states that Article 9 on 'unbundling of transmission systems and transmission system operators' shall not apply to Malta. There is no TSO in Malta.
Netherlands	1	The TSO is certified.

Poland	1	OGP Gaz-System S.A. is the sole gas TSO on the territory of Poland. In 2014 the company was certified under OU model in relation to performing the function of a TSO on the networks belonging to the company and in 2015 OGP Gaz-System S.A. was certified under ISO model in relation to performing the function of TSO on the Polish section of Yamal pipeline belonging to EuRoPol GAZ S.A.
Portugal	1	The TSO is certified.
Romania	1	The TSO is certified.
Slovak Republic	1	The TSO is certified.
Slovenia	1	The TSO is certified.
Spain	4	There are 4 TSOs in Spain, all of them certified. Enagás and Reganosa (2 TSOs) are certified as OU. Saggas and Enagás Transporte del Norte (2 TSOs) are certified as ISO, with Enagás (OU) as their ISO.
Sweden	1	Swedegas is a certified transmission grid operator.

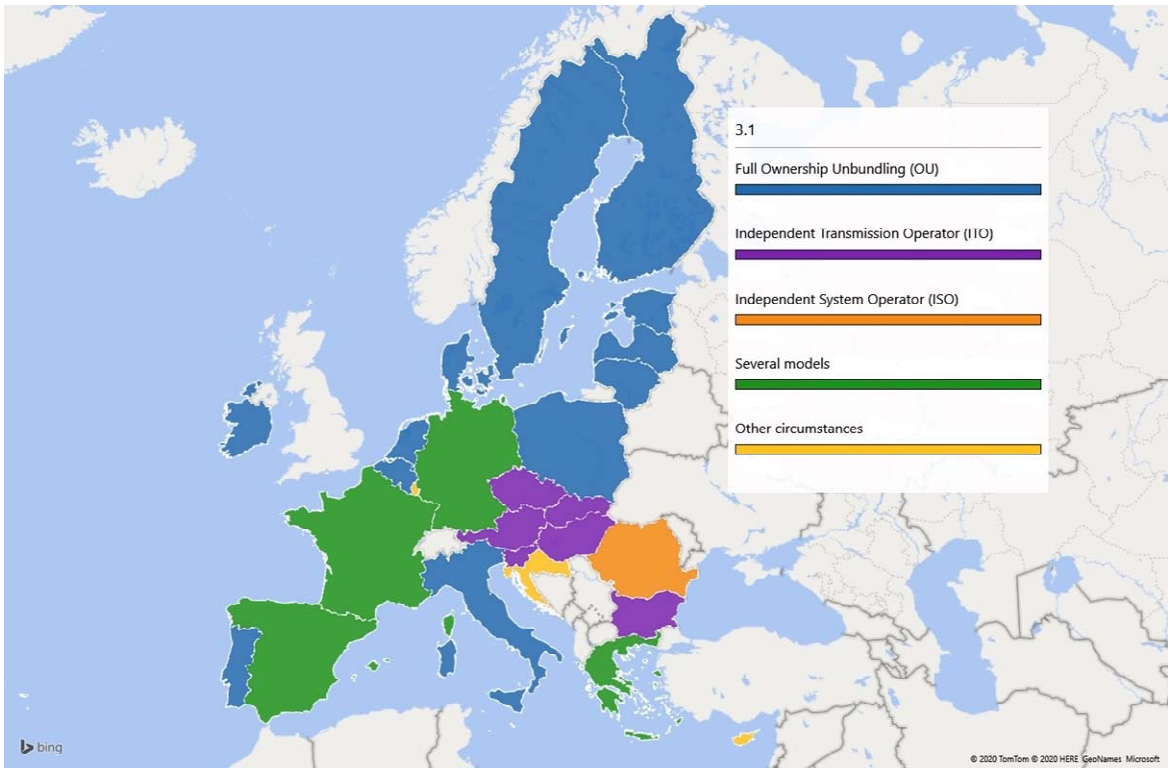
Summary: Most members states have 1 certified TSO (17 out of 27, 63%), while Germany, Austria, France, Italy, Spain and Greece have 2 or more (22%). Only Croatia, Cyprus and Malta do not have any certified TSO (11%).

Q 3.1 Under which unbundling model does the gas TSO(s) in your country operate?

Answers to Q.3.1	Number	%
Full Ownership Unbundling (OU)	**12**	**44%**
Belgium Denmark Estonia Finland Ireland Italy Latvia Lithuania Netherlands Poland Portugal Sweden		
Independent System Operator (ISO)	**1**	**4%**
Romania		
Independent Transmission Operator (ITO)	**6**	**22%**
Austria Bulgaria Czech Republic[1] Hungary Slovak Republic Slovenia		
Other circumstances	**4**	**15%**
Croatia Cyprus Luxembourg Malta		

[1] The current ownership structure is that of Ownership Unbundling. However, the TSO has been certified for the ITO model and, according the European Commission opinion, re-certification is not necessary.

Several models (in case of several TSOs operating in your Member State)	**4**	**15%**
France		
Germany		
Greece		
Spain		
Grand Total	**27**	**100%**



Summary: 44% of respondents indicate that TSOs operate and are certified in Full Ownership Unbundling. 6 member states (22%) have their TSOs operating as Independent Transmission Operators, 4 (15%) use several models, while the TSO in Romania operates as an Independent System Operator. Croatia, Cyprus and Luxembourg (15%) stated "Other circumstances".

Q 3.2 Are there any specific provisions regarding NDPs in your national framework in line with the provisions of Article 22 of Directive 2009/73/EC?

Answers to Q.3.2	Number	%
No	**7**	**26%**
Belgium		
Bulgaria		
Estonia		
Greece		
Latvia		
Poland		
Sweden		
Others	**6**	**22%**
Cyprus		
Italy		

Lithuania Luxembourg Malta Netherlands		
Yes	**14**	**52%**
Austria Croatia Czech Republic Denmark Finland France Germany Hungary Ireland Portugal Romania Slovak Republic Slovenia Spain		
Grand Total	**27**	**100%**

Summary: Slightly more than half of respondents (52%) noted that there are specific provisions regarding NDPs in their national framework. On the other hand, 7 countries (26%) stated that there are no such provisions. 6 countries (22%) answered others to the question.

Reporting NRA's MS	Comments to Q 3.2. If yes or others, please explain in the text box below. Elaborate on, if any, relevant changes / updates during the last 2 years.
Austria	Section 63 et seqq. of the Natural Gas Sector Act 2011 (GWG 2011) are in line with Article 22 of the Directive.
Belgium	No changes during the last 2 years.
Croatia	As prescribed by Article 28 of Gas Market Act (Official Gazette No. 18/18, 23/20) TSO is obliged to draw up a 10-year NDP in accordance with the Energy Development Strategy and the Energy Development Strategy Implementation Program and submit it to the NRA for approval every two years together with the Request for determination or change of tariffs for gas transmission in accordance with the Croatian methodology
Cyprus	There are no specific provisions in the national framework concerning gas NDPs. The only provision in the Law Regulating the Natural Gas Market in Cyprus, is that CERA shall monitor the NDP prepared by the TSO and may provide recommendations and/or require amendments.
Denmark	No changes during the last two years
Finland	No NDP required by the national law.
France	CRE launches public consultations, verifies that TSOs cover the investment needs, checks the consistency with the TYNDP and can ask TSOs to modify the NDP.
Germany	The regulatory authority may require the TSO to amend its NDP. The regulatory authority will monitor and evaluate the implementation of the NDP. Provisions of Article 22 are implemented.
Hungary	Provisions of Article 22 are implemented by including the relevant rules in Articles 81-83/A. of the Gas Act (Act XL of 2008).
Ireland	The Irish legislation on the NDP aligns with the EU Directive 2009/73/EC. In particular, Article 22 (7) of the Directive in which members states can give NRA the powers to make a particular investment occur if it is still relevant, has been entirely transposed into Irish legislation (S.I. 16 Of 2015 European Communities (Internal Market in Natural Gas And Electricity)

Italy	The current provisions from Art. 22 are as follows: Consultation by NRA (art 22.4 of Directive 73/2009) - **yes**, article 16.2 of Law Decree 93/2011;Examination by NRA (art. 22.5) - **yes**, article 16.6bis; Check of TYNDP-NDP consistency by NRA (art. 22.5) - **yes**, article 16.6bis; NRA powers to require amendments of NDP (art. 22.5) - **yes**, article 16.6bis; NRA duties to monitor NDP implementation (art. 22.6) - **yes**, article 16.7; NRA duties to ensure execution of investments (art. 22.7) - **yes**, article 16.8
Lithuania	Article 22 of the Gas Directive is transposed into legislation, despite that it has no obligation (it implemented the OU model)
Malta	There is no TSO in Malta.
Netherlands	There are several articles in the Dutch gas Act related to developing an 'Investment Plan' comparable to a NDP.
Portugal	The National Law establishes an ERSE duty to follow and monitor the planning and execution of investments approved in the NDP.
Romania	The national law of electricity and gas no. 123/2012 (art. 125, 128) sets out an obligation of TSOs to elaborate the 10-year development plan which is approved by ANRE and the obligation of TSO to comply with the approved plan
Slovak Republic	Energy Law 251/2012; §49 (7)h The TSO annually draws up a transmission network development plan, including an interconnection development plan for the next ten years (ten-year network development plan) and submit it to the Ministry and the regulatory Office by 30 November each year for the following ten years, including a report on the ten-year network development plan. The NRA shall impose on the gas TSO the duty to change the content in order to reflect innovation or technically and economically feasible requirements.
Slovenia	Provisions regarding the ITO model are in line with Directive 2009/73/EC. NRA can request from the TSO to amend/change the NDP if it is not in line with the legislation and/or with the public consultation results.
Spain	CNMC participates in the NDP elaboration via a non-binding report on the draft NDP. In 2019 a Royal Decree Law (RDL 1/2019) was approved assigning CNMC the competence to monitor investments plan.
Sweden	There is not yet a Swedish NDP. Therefore, most of the questions in this form are not applicable.

Q 3.3 Has a situation occurred in which a TSO, other than for overriding reasons, was not able to execute in the following 3 years an investment which was foreseen as mandatory in the 10-year network development plan? (Ref. Article 22(7) of Directive 2009/73/EC)

Respondents report that no situation has occurred as foreseen per Article 22(7).

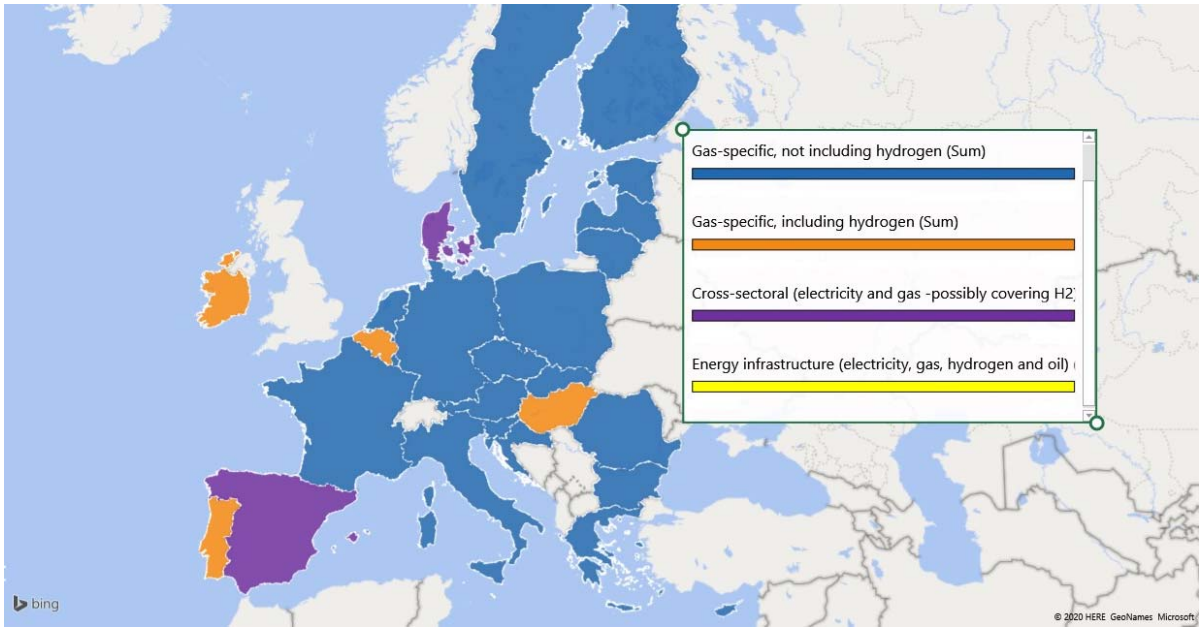
Q 3.4 Have actions been taken according to Article 22(7) Directive 2009/73/EC to ensure that an investment is made. Specify the actions taken and the investments to which they were applied. Elaborate, if any, on relevant changes / updates during the last 2 years

NRAs have not reported any action to be taken with regards to Article 22(7) of Directive 2009/73/EC to ensure that an investment is made.

B. KEY NDP FEATURES

Q 4.1 Does the publication of the gas NDP cover network development plans in other energy sectors (e. g. electricity, oil, etc.)

Answers to Q.4.1	Number	%
Cross-sectoral (electricity and gas -possibly covering H2)	**2**	**7%**
Denmark Spain		
Energy infrastructure (electricity, gas, hydrogen and oil)	**1**	**4%**
Malta		
Gas-specific, including hydrogen	**4**	**15%**
Belgium Hungary Ireland Portugal		
Gas-specific, not including hydrogen	**20**	**74%**
Austria Bulgaria Croatia Cyprus Czech Republic Estonia Finland France Germany Greece Italy Latvia Lithuania Luxembourg Netherlands Poland Romania Slovak Republic Slovenia Sweden		
Grand Total	**27**	**100%**



Summary: Almost 75% of respondents reported that the publication of the gas NDP is gas-specific and does not include hydrogen. 4 out 27 (15% of total) stated that hydrogen is somehow included in gas NDPs. Denmark and Spain noted that the NDP is cross-sectoral.

Reporting NRA's MS	Please provide any other comments. Elaborate, if any, on relevant changes/ updates during the last 2 years.
Cyprus	There is no gas NDP.
Finland	There is no gas NDP.
Germany	For the upcoming NDP, which is not finalised yet, hydrogen will be included solely for information purposes since a regulatory framework for hydrogen infrastructure is not in place.
Ireland	A response to the NRA led consultation on the draft NDP 2018 resulted in Gas Network Ireland (the gas TSO) changing their document development process for all future NDPs. GNI now prepare two documents which give information about Network Developments, the Network Development Plan (NDP) and the Network Investment Plan (NIP) The current form of the NDP provides a summary of all projects to be executed in the short and long term and the NIP which will set out in more detail the manner in which projects identified in the NDP will be developed. The NDP still fulfils the requirements of the Irish and EU legislation.
Malta	NDP is not published since there is no TSO and no gas transmission system in Malta. The answer provided refers to the "Malta's 2030 National Energy and Climate Plan" published in December 2019.

Q 4.2 NDP development process: role of TSOs, NRA and Ministries

Answers to Q.4.2	Number	%
Other options	**12**	**44%**
Belgium		
Cyprus		
Czech Republic		
Denmark		
Finland		
France		
Italy		
Luxembourg		
Malta		

Netherlands Slovak Republic Sweden		
Proposal developed by TSO, formal non-binding scrutiny (e.g. opinion) by NRA	**2**	**7%**
Estonia Ireland		
Proposal developed by TSOs, approved by Ministries. NRA is consulted on the proposal of the TSOs	**2**	**7%**
Portugal Spain		
Proposal developed by TSOs, approved by NRA. NRA can amend the TSOs' proposal	**4**	**15%**
Germany Hungary Latvia Lithuania		
Proposal developed by TSOs, approved by NRA. NRA can only approve / reject the proposal (but not amend it)	**7**	**26%**
Austria Bulgaria Croatia Greece Poland Romania Slovenia		
Grand Total	**27**	**100%**

Summary: At least 18 (65%) of public authorities, either NRAs or Ministries, have some kind of regulatory powers over the NDPs, including among these powers requests of amendments of draft plans, while the current EU legal framework does not provide such powers for the EU TYNDP. In nearly 50% of cases, NRAs are formally empowered, albeit in differing ways, to approve, reject or validate the NDP proposals of the TSOs

Reporting NRA's MS	Please provide any other comments on the process, in particular on the role of TSOs, NRA or Ministries in the NDP process according to national legislation Elaborate, if any, on relevant changes / updates during the last 2 years.
Austria	The NRA can only approve the entire NDP, but not single projects. If certain projects would need to be rejected, the NRA can request the TSO to withdraw the specific projects from the NDP. The TSO can refuse to do so, forcing the NRA to reject the entire NDP.
Belgium	No changes during the last 2 year except for the increasing attention to accept biomethane/hydrogen in the gas network. NDP covers transmission (Fluxys Belgium), UGS (Fluxys Belgium) and LNG terminals (Fluxys LNG). The TSO develops a proposal, followed by a formal non-binding scrutiny by NRA as well as the Ministry. There is cooperation between these parties before the TSO publishes the indicative NDP.

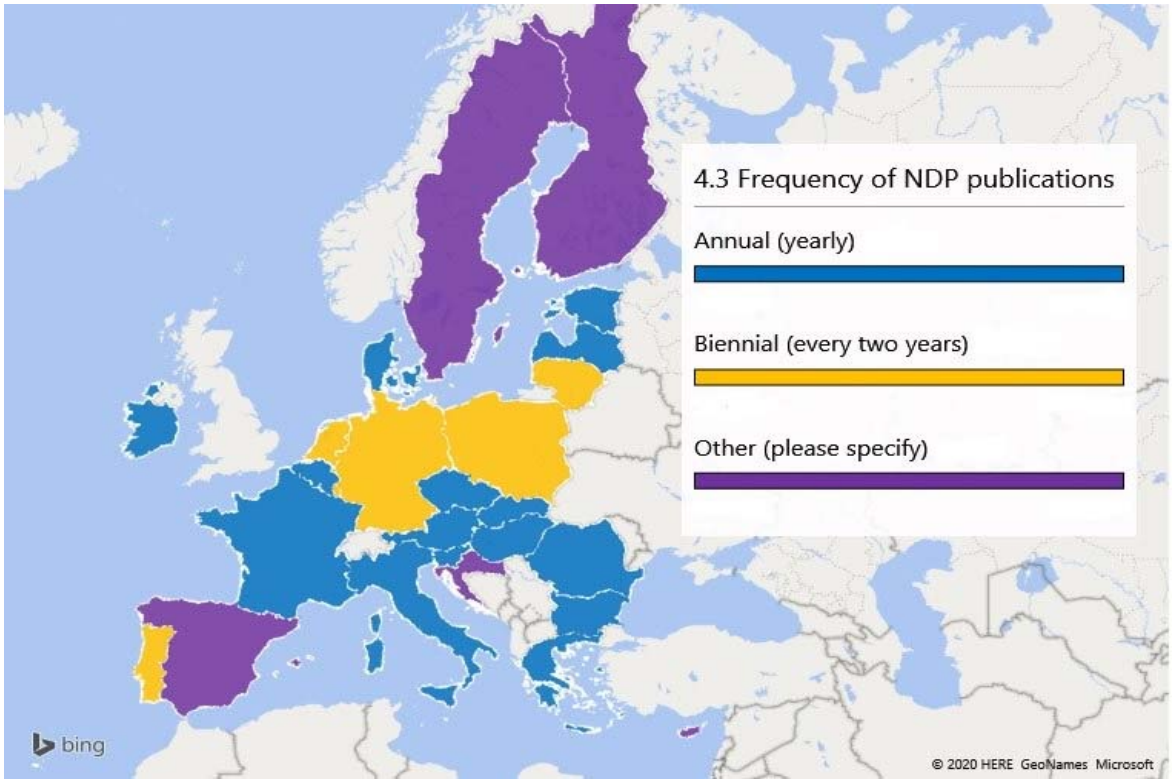
Cyprus	No specific provisions in the national framework concerning gas NDPs. The Article 22 "Network development and powers to make investment decisions" of the Directive 2009/73/EC has not been fully transposed into the National Law. The only provision transposed is that the regulatory authority monitors whether the network development plan covers all investment needs. The regulatory authority may provide recommendations and/or may require amendments to the network development plan. CERA may require TSOs to comply with minimum standards for the maintenance and development of the transmission system, including interconnection capacity.
Czech Republic	Proposal developed and consulted by the TSO. NRA consults the proposal of TSO. NRAs can amend and approve the TSOs' proposal. Ministry issues binding opinion.
Denmark	Publication developed by TSO, Ministry is informed about date of publication
Finland	No NDP.
France	The NRA reviews the NDP and can request the TSOs for amendments.
Greece	The NRA can make comments on the NDP and can ask the TSO to amend its proposal. Then, the NRA approves the amended proposal.
Italy	Proposal is developed by TSOs. The NDPs are not formally "approved". Rather, they are "evaluated" by both the NRA and the Ministry, according to the respective duties. The NRA can ask the TSOs for amendments to their NDPs.
Latvia	According to the Cabinet Regulation No. 322 of 25 April 2006 "Regulations Regarding the Annual Assessment Report of a Transmission System Operator" in the annual assessment report the TSO must provide an assessment of the transmission system incoming contributions of new system objects. Sub-paragraph 16.1. of PUC Decision No. 1/36 of 21 December 2017 "Information to be Submitted in Energy Sector" determines the investment plan for the next 5 years and the report on the implementation of the investment plan for the reference year to be submitted annually by March 31.
Luxembourg	There is no approval of the NDP: according to national law, our TSO has to develop a ten-year national plan, notify this plan to the Ministry and copy the regulator (ILR).
Malta	Not applicable. The "Malta's 2030 National Energy and Climate Plan" was published and developed by the Ministry for Energy and Water Management.
Netherlands	As of 1 January 2019 the Gas Act has been amended. The TSO used to be required to submit a so-called Quality- and Capacity Document (KCD) every two years. The current situation is: The TSO develops a draft Investment Plan (IP). After public consultation, the TSO is required to submit the IP to the NRA (ACM) and to the Minister of Economic Affairs and Climate. The Minister assesses if the TSO has taken into account the developments in the energy market sufficiently. The NRA assesses if the TSO has been able to develop the IP within reason. This includes amongst others an assessment if the IP is complete and if the necessity of the foreseen investments is well substantiated. After discussing with the TSO, the NRA can request the TSO to make adjustments to the draft IP. If these adjustments are not made, the NRA can apply a kind of 'binding rule', obliging the TSO to make the adjustments. After that, the TSO concludes the final IP. Foreseen investments presented in this final IP are considered necessary and the TSO is obliged to make these investments. In case of 'significant changes' the TSO is required to submit this adjustment of the IP to the NRA. The same procedure will be followed.

Poland	The Transmission System Operator shall conduct a consultation of a draft development plan with interested parties in an open and transparent manner. Observations can be notified to the TSO in the consultation process lasting no less than 21 days. Cooperation of a TSO with entities connected to the system and with regional authorities is aimed at providing efficiency of investments. While preparing the draft development plan a TSO shall extensively cooperate with regional authorities in order to assure compliance with assumptions, strategies and plans elaborated by regional authorities. The draft development plan has to be agreed with the Regulator. The approved development plan needs to be updated every 2 years. Execution of the approved plan is reported on a yearly basis. The development plans should ensure long term maximization of efficiency related to the costs of the investments and the costs borne by the energy enterprise so as to ensure that the expenses and the costs associated with them do not cause an extensive increase of prices and fee rates of natural gas in the respective years, while ensuring the continuity, reliability and quality of the supply. The NRA accepts the NDP and provides consultations with the owner of the pipeline regarding financing investment of the gas pipeline managed by the TSO (with TSO re. its own network and with SGT Europol-Gaz S.A.in the scope pertaining to the Yamal Pipeline). Moreover, the NRA assess compliance with legal requirements considering the balance of interests of the energy undertakings and gas customers.
Portugal	The Portuguese NRA has to perform a public consultation and issue an Opinion that is used for the Government's approval.
Romania	There have been no changes in the last 2 years.
Slovak Republic	TSO develops, consults and publishes the NDP. The NRA consults, monitors, assess and can ask the TSO for changes in the NDP.

Q 4.3 Frequency of the NDP publication

Answers to Q.4.3	Number	%
Annual (yearly)	**15**	**56%**
Austria		
Belgium		
Bulgaria		
Czech Republic		
Denmark		
Estonia		
France		
Greece		
Hungary		
Ireland		
Italy		
Latvia		
Romania		
Slovak Republic		
Slovenia		
Biennial (every two years)	**6**	**22%**
Germany		
Lithuania		
Luxembourg		
Netherlands		
Poland		
Portugal		
Other (please specify)	**6**	**22%**
Croatia		

Cyprus Finland Malta Spain Sweden		
Grand Total	**27**	**100%**



Summary: Just over half of all member states (56%) publish their NDP on an annual basis, 7 (26%) every two years, while the remaining 7 countries answered "Other". NRAs comments and updates during last 2 years, as well as explanations are provided in the table below.

Reporting NRA's MS	Please provide any other comments. Indicate since when (year) this frequency applies and elaborate, if any, on relevant changes / updates during the last 2 years.
Austria	Sect. 63 Natural Gas Sector Act 2011, according to which a NDP has to be established every year entered into force in November 2011. The first NDP which was established in accordance with this provision was submitted to the NRA in 2012 and approved by the NRA in January 2013.
Belgium	No changes during the last 2 years.
Croatia	As prescribed by Article 28 of Gas Market Act, the gas TSO is obliged to draw up a 10-year NDP in accordance with the Energy Development Strategy and the Energy Development Strategy Implementation Program and submit it to the NRA for approval every two years and also with the Request for determining or changing the amount of tariff items for gas transmission, which usually is in the year before the new regulatory period starts (each regulatory period lasts for 5 years).
Cyprus	There is no gas NDP.
Italy	Yearly frequency applies since 2011. The NRA recommended changing it to biennial frequency.
Malta	Not applicable.
Portugal	The TSO proposal is sent every odd year since 2008.
Romania	There have been no changes in the last 2 years.

Spain	NDP publication is every 4 years. However, the last NDP in Spain was approved in 2008 and it hast not been updated yet.
Sweden	Not applicable.

Q 4.4 Time horizon of the NDP

Answers to Q.4.4	Number	%
10 years, flexible deadline (possible to include some projects expected for commissioning after 10 years)	**9**	**33%**
Belgium Czech Republic Estonia Hungary Italy Lithuania Luxembourg Slovenia Spain		
10 years, strict deadline	**10**	**37%**
Bulgaria Croatia France Germany Greece Ireland Poland Portugal Romania Slovak Republic		
Other	**8**	**30%**
Austria Cyprus Denmark Finland Latvia Malta Netherlands Sweden		
Grand Total	**27**	**100%**

Summary: 10 respondents (37%) reported that the time horizon for their respective NDP is 10 years, with a strict deadline. 9 respondents (33%) stated that the 10 year deadline of the NDP is flexible, meaning that some projects expected for commissioning after 10 years can be included. 8 NRAs opted for the option “Other”. Comments and updates during last 2 years in the table below.

Reporting NRA's MS	4.4 Time horizon of the NDP	If selected Other, please specify. Elaborate, if any, on relevant changes / updates during the last 2 years.
Austria	Other	The NDP covers 10 years (sec. 63 para. 1 Natural Gas Act 2011). In practice, no projects have ever been planned to be completed later than 7 years from their first publication in the NDP. Reinvestment projects are included in the NDP if their

		execution is intended within the next three years from the NDP approval date.
Denmark	Other	No deadline for commissioning of projects included in the NDP.
Latvia	Other	10 years for the annual assessment report (published). 5 years for investment plan submitted according to the Sub-paragraph 16.1. of PUC Decision No. 1/36 of 21 December 2017.
Malta	Other	Not applicable. Malta's 2030 NECP was elaborated for the period 2021-2030.
Netherlands	Other	10 years - not clear what the distinction between a strict and flexible deadline means.

Q 4.5 Mandatory or indicative date of commissioning for NDP projects

Answers to Q.4.5	Number	%
Indicative for all projects	**11**	**41%**
Belgium France Germany Greece Italy Latvia Luxembourg Poland Romania Portugal Slovak Republic		
Mandatory for projects to be commissioned in next "x" years, indicative for others (comment in textbox below)	**7**	**26%**
Bulgaria Croatia Czech Republic Hungary Lithuania Netherlands Slovenia		
No date of commissioning is provided in the NDP	**3**	**11%**
Denmark Estonia Ireland		
Other	**6**	**22%**
Austria Cyprus Finland Malta Spain Sweden		
Grand Total	**27**	**100%**

Summary: 11 (41%) respondents stated that the date for commissioning of projects is indicative for all projects. 7 respondents (26%) noted that all projects to be commissioned in next “x” years (3 years in most cases) are mandatory, while others are indicative. Denmark,

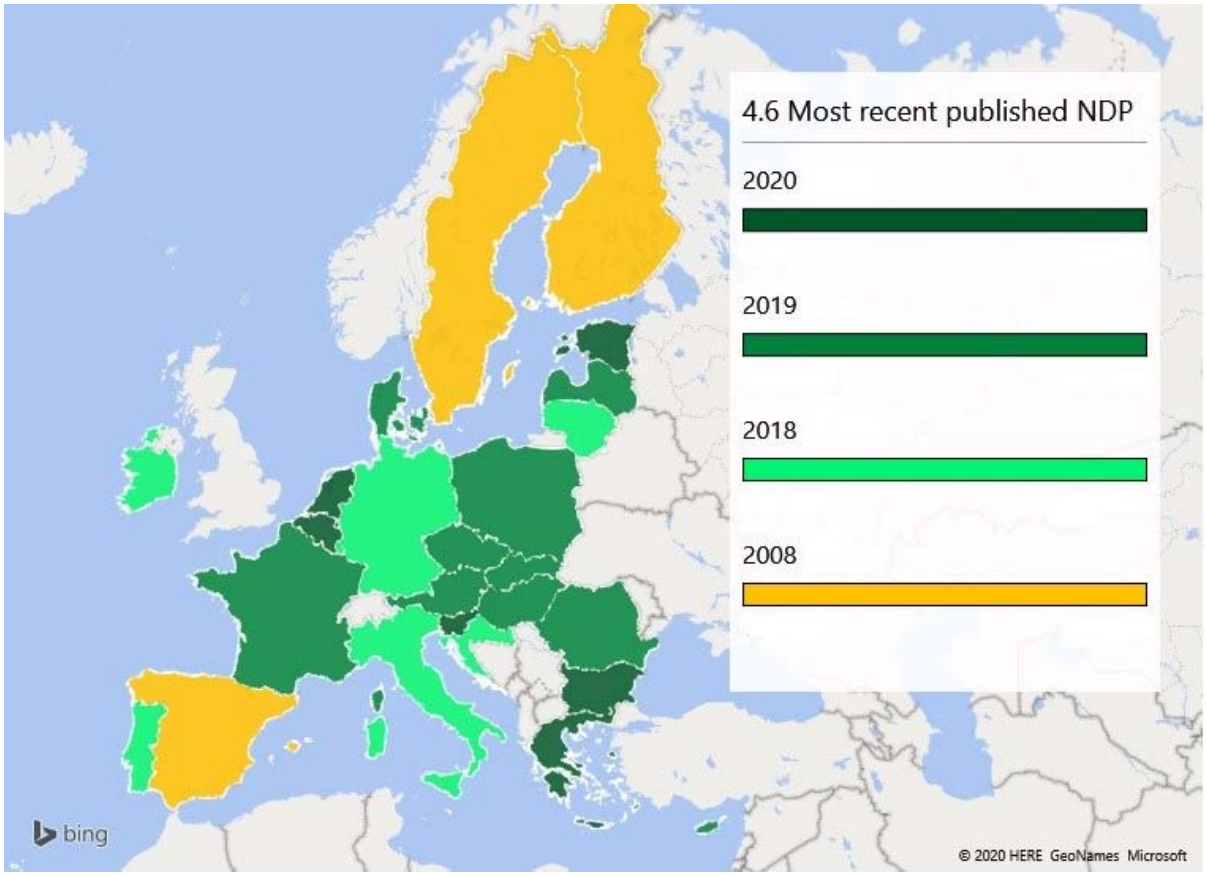
Estonia and Ireland's (11%) NDPs do not contain a commissioning date. Comments, explanations and updates during last 2 years can be found in the table below.

Reporting NRA's MS	4.5 Projects included in the NDP have a date of commissioning which is	If selected other, please specify. Elaborate, if any, on relevant changes/updates during the last 2 years.
Austria	Other.	Projects either have an execution time window or a commissioning date. The first category concerns projects, which require the involvement of other market participants, while the second category in general is used for projects which are under the full control of the TSO.
Belgium	Indicative for all projects.	No changes during the last 2 years.
Croatia	Mandatory for projects to be commissioned in next "x" years, indicative for others (comment in textbox below).	Mandatory in the short term (for the projects commissioned in the current regulatory period - maximum up to 5 years) and indicative in the long term (for projects planned to be commissioned in the subsequent regulatory period/s).
Cyprus	Other.	There is no gas NDP
Czech Republic	Mandatory for projects to be commissioned in next "x" years, indicative for others (comment in textbox below).	Where x = 3 years.
Greece	Indicative for all projects.	Most of the projects have an indicative commissioning date. This has created several issues regarding project delays.
Hungary	Mandatory for projects to be commissioned in next "x" years, indicative for others (comment in textbox below).	Mandatory for projects to be commissioned in next 3 years, indicative for others.
Lithuania	Mandatory for projects to be commissioned in next "x" years, indicative for others (comment in textbox below).	Mandatory for projects to be commissioned in next 3 years, indicative for others.
Malta	Other	Not applicable.
Netherlands	Mandatory for projects to be commissioned in next "x" years, indicative for others (comment in textbox below).	The investment plan needs to include a qualitative description of the foreseen investments in the first 10 years and a quantitative description of the foreseen investments in the first 5 years.
Romania	Indicative for all projects	There have been no changes in the last 2 years.
Slovenia	Mandatory for projects to be commissioned in next "x" years, indicative for others (comment in textbox below).	The TSO is obliged to realise projects with a commissioning date in next 3 years, for other projects the commissioning date is indicative.
Spain	Other.	In general, most of the projects include an indicative date of commissioning, but a few of them were subject to some viability studies and therefore a date of commissioning could not be provided by the TSO.
Sweden	Other.	Not applicable.

Q 4.6 Latest approved/published NDP publication (specify year)

Q 4.7 Latest draft NDP (approval/publication expected soon, i.e. by end 2020)

Reporting NRA's MS	4.6 Latest approved/published NDP publication (year)	4.7 Latest draft NDP (approval/publication expected soon, i.e. by end 2020)
Austria	2019	2020
Belgium	2020	
Bulgaria	2020	2020
Croatia	2018	2020
Cyprus	2019	
Czech Republic	2019	2020
Denmark	2019	2020
Estonia	2020	2020
Finland	2008	
France	2019	
Germany	2018	2020
Greece	2020	2020
Hungary	2019	2019
Ireland	2018	2020
Italy	2018	2020
Latvia	2019	
Lithuania	2018	2020
Luxembourg	2018	
Malta	2020	2020
Netherlands	2020	2020
Poland	2019	
Portugal	2018	2020
Romania	2019	2020
Slovak Republic	2019	2020
Slovenia	2020	2020
Spain	2008	
Sweden	2008	



Summary: 7 NDPs (26%) have been published in 2020, 11 (37%) in 2019 and 6 in 2018. Finland, Spain and Sweden stated their last dates of publication of NDPs is 2008, but Finland and Sweden have no gas NDP as such. All NDPs have been published, 10 NDP are also available in full in English and in 2 cases a summary of the NDP is available in English.

Reporting NRA's MS	4.8 Link(s) to latest NDP publication(s) in official language(s) of Member State
Austria	https://www.aggm.at/netzinformationen/netzentwicklungsplaene/knep
Belgium	in Dutch: https://www.fluxys.com/nl/company/fluxys-belgium/infrastructure in French: https://www.fluxys.com/fr/company/fluxys-belgium/infrastructure
Bulgaria	https://bulgartransgaz.bg/files/useruploads/files/amd/TYNDP%202020-2029%20EN.pdf
Croatia	https://www.plinacro.hr/default.aspx?id=733
Cyprus	Not applicable.
Czech Republic	https://www.net4gas.cz/files/rozvojove-plany/ntyndp20-29_cz_191209.pdf
Denmark	https://energinet.dk/Om-publikationer/Publikationer/Systemplan-2019
Estonia	https://elering.ee/sites/default/files/2020-02/Eesti%20gaasi%C3%BClekandev%C3%B5rgu%20arengukava%202020-2029.pdf
Finland	-
France	GRTgaz: http://www.grtgaz.com/fileadmin/plaquettes/fr/2019/Plan_decennal_2018-2027.pdf Teréga: https://www2.terega.fr/fileadmin/Nos_publications/Publications_institutionnelles/2019/Terega_PDD_10ans_reseau_transport.pdf
Germany	https://www.fnb-gas.de/netzentwicklungsplan/netzentwicklungsplaene/netzentwicklungsplan-2020/

Greece	https://www.desfa.gr/userfiles/5fd9503d-e7c5-4ed8-9993-a84700d05071/%CE%A6%CE%95%CE%9A%20%CE%92%201746%20-%20%CE%91%CF%80%CF%8C%CF%86%CE%B1%CF%83%CE%B7%20755_2020%20-%20%CE%A0%CE%91%202020-29.pdf
Hungary	https://fgsz.hu/file/documents/1/1744/2020_07_09_tiz_eves_fejlesztesi_terv.pdf
Ireland	https://www.gasnetworks.ie/corporate/gas-regulation/regulatory-publications/GNI-Network-Development-Plan-2017.pdf
Italy	All the NDPs for different years can be found at the following webpage https://www.arera.it/it/operatori/pdstrasporto.htm
Latvia	https://www.conexus.lv/uploads/filedir/Zinojumi/pso_zinojums_2019.pdf
Lithuania	https://www.ambergrid.lt/uploads/documents/Gamtini%C5%B3%20duj%C5%B3%20PSO%2010%20m_%20(2018-2027%20m)%20tinklo%20pl%C4%97tros%20planas.pdf
Luxembourg	No publication at the time being.
Malta	https://mfin.gov.mt/en/Library/Documents/NRP/NRP_2020_final_version_04052020.pdf https://ec.europa.eu/energy/sites/ener/files/documents/mt_final_necp_main_en.pdf https://www.snam.it/export/sites/snam-rp/repository-srg/file/it/business-servizi/Processi_Online/Allacciamenti/informazioni/piano-decennale/pd_2020_2029/SRG-Piano-Decennale-2020-2029.pdf
Netherlands	Draft IP: https://www.gasunietransportservices.nl/gasmarkt/investeringsplan/investeringsplan-2020 Final IP: is expected at the end of September 2020.
Poland	https://www.gaz-system.pl/fileadmin/Krajowy_Dziesiecioletni_Plan_Rozwoju_Systemu_Przesylowego_na_lata_2020-2029_01.pdf
Portugal	https://www.erse.pt/media/qxahptud/parecer-à-proposta-de-pdirgn-2019.pdf
Romania	http://www.transgaz.ro/ro/activitati/cooperare-internationala/proiecte-majore-de-dezvoltare
Slovak Republic	https://www.eustream.sk/files/docs/sk/Plan_rozvoja_prepravnej_siete_na_obdobie_2020_2029.pdf
Slovenia	http://www.plinovodi.si/media/5139/razvojni-načrt-2020-2029.pdf
Spain	https://energia.gob.es/planificacion/Planificacionelectricidadygas/desarrollo2008-2016/DocTransportes/planificacion2008_2016.pdf
Sweden	Not applicable.

Q 4.9 NDP publication available in English and links

Answers to Q.4.9	Number	%	Links
Yes, a summary	**2**	**7%**	
Belgium			https://www.fluxys.com/en/company/fluxys-belgium/infrastructure
Hungary			https://fgsz.hu/file/documents/1/1743/2020_07_09_ten_year_network_development_plan.pdf
Yes, the full NDP	**9**	**33%**	
Austria			https://www.aggm.at/en/network-information/network-developments-plans/cndp
Bulgaria			https://bulgartransgaz.bg/files/useruploads/files/amd/TYNDP%202020-2029%20EN.pdf
Germany			https://www.fnb-gas.de/netzentwicklungsplan/netzentwicklungsplaene/netzentwicklungsplan-2020/
Greece			https://www.desfa.gr/userfiles/5fd9503d-e7c5-4ed8-9993-a84700d05071/Development_Plan_2020-2029.pdf
Ireland			See above

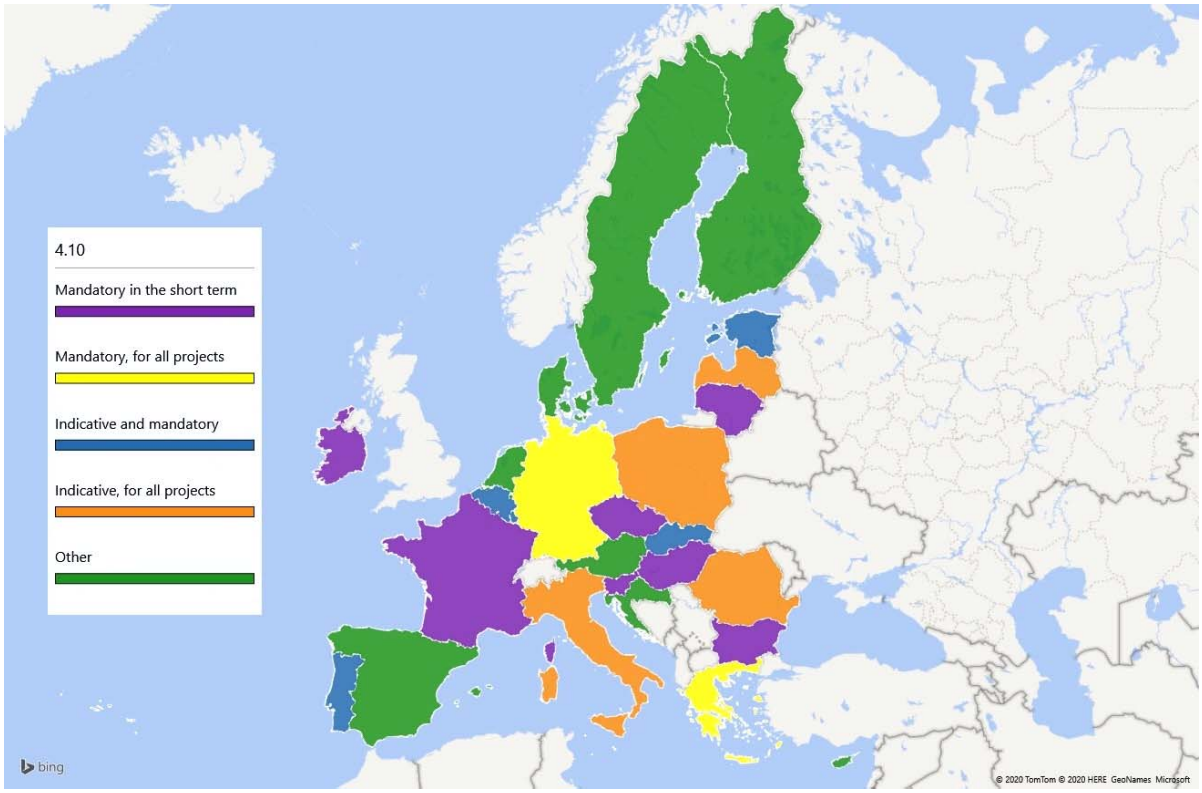
Latvia			https://www.conexus.lv/uploads/filedir/Zinojumi/tso_report_2019.pdf
Lithuania			https://www.ambergrid.lt/uploads/documents/Ten-year%20plan%20for%20TSO%20system%20development%202018-2027.pdf
Malta			https://mfin.gov.mt/en/Library/Documents/NRP/NRP_2020_final_version_04052020.pdf https://ec.europa.eu/energy/sites/ener/files/documents/mt_final_necp_main_en.pdf
Slovenia			http://www.plinovodi.si/media/5140/development-plan-2020-2029.pdf

Q 4.10 Legal nature of the NDP (indicative, mandatory)

Answers to Q.4.10	Number	%
Indicative and mandatory (on a project-by-project basis)	**5**	**19%**
Belgium Estonia Luxembourg Portugal Slovak Republic		
Indicative, for all projects	**4**	**15%**
Italy Latvia Poland Romania		
Mandatory in the short term (projects to be commissioned in 3 years) and indicative in the long term	**7**	**26%**
Bulgaria Czech Republic France Hungary Ireland Lithuania Slovenia		
Mandatory, for all projects	**2**	**7%**
Germany Greece		
Other	**9**	**33%**
Austria Croatia Cyprus Denmark Finland Malta Netherlands Spain Sweden		
Grand Total	**27**	**100%**

Reporting NRA's MS	If selected other, please explain. Elaborate on, if any, relevant changes/ updates during the last 2 years.

Austria	Projects are defined as: - Planning projects creating additional capacities: projects in an early planning stage aiming to create additional capacities. The technical design, the economic optimisation and the marketing modalities have not yet been finalised - Projects creating additional capacities: projects in an advanced planning stage (e.g. detailed planning has been completed, approval procedures have been started, a feasibility study has been carried out). - Re-investment projects: re-investments that concern important existing infrastructure pursuant to section 63 para. 3 item 1 Natural Gas Act 2011 and guarantee safe, reliable and effective operations must be included in the CNDP. Approved projects are still subject to approval procedures of other approval agencies (building authority, authority regarding Environmental Impact Assessment), which are not bound by the NRA's decision. If they reject the project, this qualifies as an overriding reason beyond the TSO's control (sec. 65 para. 2 Natural Gas Act 2011). In this case the TSO has to develop a new project for the NDP and can request the withdrawal of the rejected one.
Croatia	Mandatory in the short term (for the projects commissioned in the current regulatory period - maximum up to 5 years) and indicative in the long term (for the projects planned to be commissioned in the subsequent regulatory period/s).
Cyprus	Not clearly defined in the Law yet.
Denmark	NDP includes all known expected projects by the TSO.
Malta	Not applicable.
Netherlands	See answer to Q 4.5.
Spain	It is mandatory for LNG terminals, high pressure (>60 bar) and secondary (60-16 bar) pipelines and basic underground storages. It is indicative for the rest of the infrastructures (CS and other pipelines).

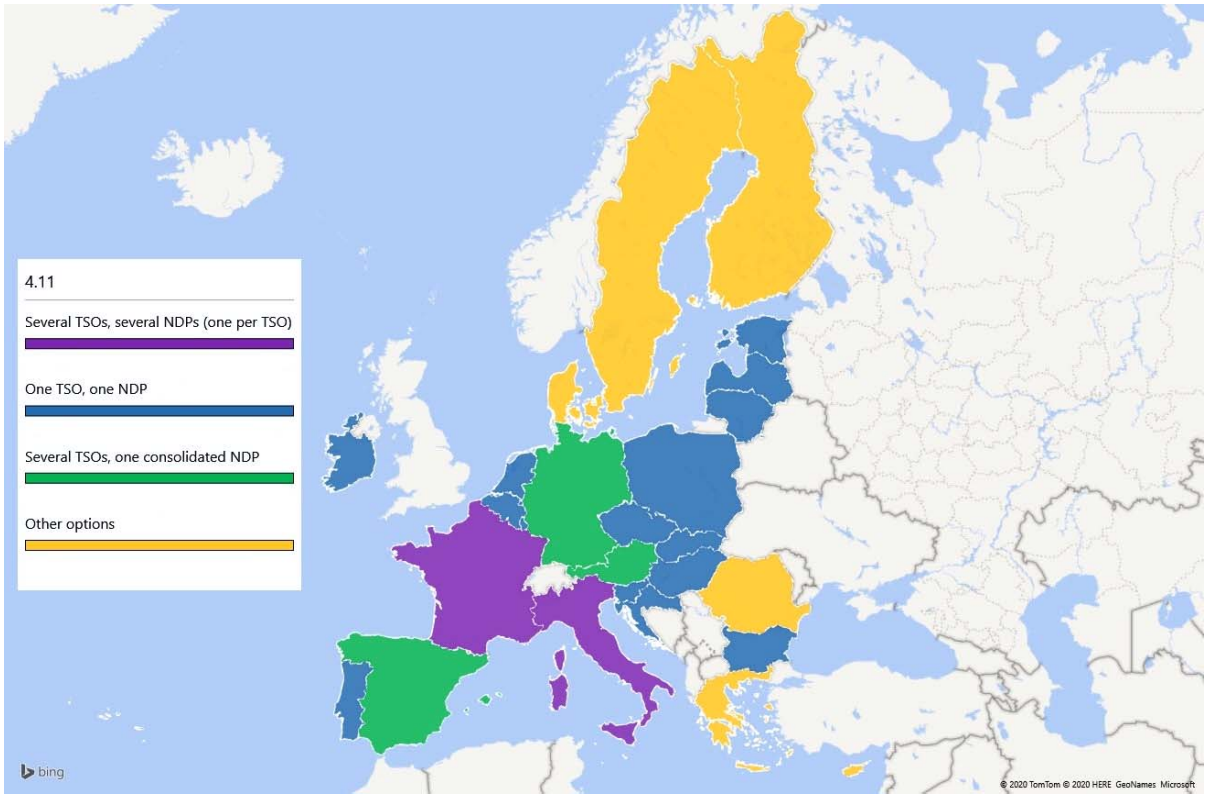


Summary: In only two countries (7%, Germany and Greece) the NDPs are mandatory for all projects. 26% of NDPs are mandatory in the short- term and indicative in the long-term, and 19% of NDPs are indicative and mandatory depending on the project. 15% of respondents stated that their NDPs is indicative for all projects, while the majority of respondents (33%) opted with the option “Other”.

Q 4.11. One or more gas NDPs per country

Answers to Q.4.11	Number	%
One TSO, one NDP	**15**	**56%**
Belgium		
Bulgaria		
Croatia		
Czech Republic		
Estonia		
Hungary		
Ireland		
Latvia		
Lithuania		
Luxembourg		
Netherlands		
Poland		
Portugal		
Slovak Republic		
Slovenia		
Other options	**7**	**26%**
Cyprus		
Denmark		
Finland		
Greece		
Malta		
Romania		
Sweden		
Several TSOs, one consolidated NDP	**3**	**11%**
Austria		
Germany		
Spain		
Several TSOs, several NDPs (one per TSO)	**2**	**7%**
France		
Italy		
Grand Total	**27**	**100%**

Summary: Slightly more than half of member states (56%) have one TSO and one NDP per country. 3 member states (11%) have several NDPs with one consolidated NDP, while only France and Italy have several TSOs and several NDPs (one per TSO). The remaining 26% of respondents answered with the option “Other”.



Q 4.11 Explanation for other options and relevant changes during last 2 years

Reporting NRA's MS	Please provide an explanation, in particular, if selected other options (e.g. each TSO, UGS operator, and LNG operators develops its own PLAN). Elaborate, if any, on relevant changes/updates during the last 2 years
Belgium	No changes during the last 2 years. NDP covers transmission (Fluxys Belgium), UGS (Fluxys Belgium) and LNG terminalling (Fluxys LNG).
Cyprus	Not applicable.
Denmark	One TSO, no NDP but three publications covers the role of an NDP. 8 Link(s) to latest NDP publication(s) in official language(s) of Member State.
Finland	One TSO, no NDP.
Greece	2 TSOs, 1 NDP, TAP is not required to submit a NDP since it is exempted.
Italy	Snam Rete Gas also assesses the potential interlinkages between projects of different TSOs.
Latvia	JSC Conexus Baltic Grid is a unified natural gas transmission system and underground storage system operator.
Malta	Not applicable.
Portugal	There are different operators for the UGS and LNG infrastructures but the NDP proposals are coordinated and presented by the TSO operator.
Romania	Beside the NDP of the TSO, UGS operators develop their own NDP's, which are included in the TSO plan. There are two UGS operators in Romania.
Slovak Republic	One NDP for transit operator.
Sweden	One TSO, no NDP.

Q 4.12 Process timeline of last NDP published

	Stakeholder consultation:		TSO draft:		NRA consultation dates:		NRA opinion or approval		Ministerial consultation or approval	
Reporting NRA's MS	From	To	From	To	From	To	From	To	From	To
Austria	17 October 2019	9 November 2019	9 November 2019	14 November 2019	19 November 2019	3 December 2019	30 January 2020		-	-
Belgium			approx. sept yearly	approx. dec. yearly	approx. sept yearly	approx. dec yearly	approx. sept yearly	approx. dec yearly	approx. sept yearly	approx. dec yearly
Croatia	03/2017	04/2017	08/2017	11/2017	11/2017	12/2017		12/2017		
Czech Republic	07/2019	08/2019	1/2019	06/2019	11/2019	11/2019	12/2019	12/2019	12/2019	12/2019
Estonia	01/2020	02/2020	01/2020	01/2020	02/2020	02/2020	02/2020	02/2020	n/a	n/a
France	11/2018	12/2018	Teréga: 10/2018 GRT Gaz: 01/2019	Teréga: 10/2018 GRT Gaz: 01/2019	02/2019	03/2019	03/2019	03/2019	/	/
Germany	02/2018	04/2018	04/2018	04/2018	04/2018	07/2018	12/2018			
Greece	1/8/2019	2/9/2019		29/10/2019	9/12/2019	17/1/2020		24/4/2020		
Hungary	2019/12/03	2019/12/23	2019/12/24	2019/12/31			2019/12/31	2020/06/18		
Ireland	02/2017	04/2017	04/2017	08/2017	09/2017	10/2017	10/2017	11/2017	-	-
Italy	07/2018	09/2019		01/2019	05/2020	07/2020				
Lithuania	06/06/2018	20/06/2018	20/06/2018	05/07/2018	05/07/2018	04/08/2018	31/07/2018	23/08/2018	23/08/2018	
Netherlands	1 May 2020	28 May 2020	1 July 2020		1 July 2020 the			Sep. 2020		Sep. 2020
Poland	01/2019	02/2019	04/2019		n.a.	n.a.		08/2019	n.a.	n.a.
Portugal			03/2017	07/2017	12/2017	02/2018	02/2018	04/2018	04/2018	12/2018
Romania	05/2019	06/2019	09/2019	09/2019	10/2019	11/2019	12/2019	12/2019	-	-
Slovak Republic	09/2019	10/2019	09/2019	11/2019	12/2019	01/2020	04/2020		11/2019	
Slovenia	04/2019	05/2019	06/2019		06/2019	07/2019	09/2019	05/2020	/	/
Spain	08/2007	09/2007	08/2006	07/2007	10/2007	01/2008	01/2008	01/2008	05/2008	05/2008

Q 4.13 Are the projects in the NDP classified according to purpose or other criteria?

Reporting NRA's MS	Maturity	Urgency	Decarbonisation	Sector integration	Security of supply	Market integration	Others	If selected other, please explain. NRAs are invited to provide a brief definition of possible criteria used in their national context. Elaborate on, if any, relevant changes/ updates during the last 2 years.
Austria							X	Projects are mainly classified as projects for new capacity and reinvestment projects.
Belgium	X	X	X	X	X	X	X	There are no standard definitions for clusters but the need for projects is well described and allow easily a categorization. For example, projects related to the conversion from L-gas to H-gas is an important category. Connections for the injection of biomethane and hydrogen is a rather new category with increasing attention (energy transition).
Bulgaria								

Reporting NRA's MS	Maturity	Urgency	Decarbonisation	Sector integration	Security of supply	Market integration	Others	If selected other, please explain. NRAs are invited to provide a brief definition of possible criteria used in their national context. Elaborate on, if any, relevant changes/ updates during the last 2 years.
Croatia							X	Projects are classified in groups by technical type of project: pipelines, measuring and reduction stations, gas junctions, abandonment of gas objects which are out of function, compressor stations, monitoring and control systems, technical protection system, operating facilities, development of new technologies.
Cyprus								
Czech Republic							X	Projects are classified as non-FID or FID projects.
Denmark							X	Case by case, e.g. capacity demand, integration of renewable energy
Estonia				X	X	X		
Finland								
France	X							
Germany							X	Projects are not classified. Nevertheless, the context/background of the respective projects is described and explained.
Greece		X						Urgent projects are included in the 3 year development period. Projects are classified to Transmission Projects, LNG Projects and non-regulated projects.
Hungary	X	X						
Ireland							X	The NDP classifies projects based on the nature of the project themselves. e.g. Above Ground Installations (AGI) upgrades, New AGIs, New Compressed Natural Gas (CNG) Stations, New Centralised Grid Injection (CGI) facilities.
Italy	X	X					X	Development projects are mainly grouped according to priority and maturity. However, the NDP also shows, in a dedicated chapter, the connection projects and the main maintenance investments.
Latvia	X		X		X			
Lithuania							X	TSO have to indicate the commissioning date of the specific investment project.
Luxembourg							X	No criteria specified.
Malta							X	Not applicable.
Netherlands							X	Classified as regular investments, major investments, connections or network related investments. Including indications if it concerns an investment for replacement or expansion. In addition it is indicated if the investment is foreseen to solve a quality or capacity bottleneck.
Poland							X	The following categories are related to categorisation of all projects (or groups of projects) in NDP. Every NDP project should be attributed to a given category: LRE - load related expenditures

Reporting NRA's MS	Maturity	Urgency	Decarbonisation	Sector integration	Security of supply	Market integration	Others	If selected other, please explain. NRAs are invited to provide a brief definition of possible criteria used in their national context. Elaborate on, if any, relevant changes/ updates during the last 2 years.
								NLRE - non load related expenditures RNI - others
Portugal	X		X		X	X		
Romania	X	X			X	X		
Slovak Republic	X	X			X	X		Projects with FID, projects which shall be completed within the next 3 years, projects under consideration.
Slovenia	X	X			X	X	X	Projects are classified according to: - projects for SoS, - internal projects in Slovenia, - cross-border projects. Projects are also classified according to the maturity: - in construction phase, - in preparation phase (to be commissioned in next 3 years), - in planning phase (to be commissioned in more than 3 years). The priority list is developed on the urgency/maturity of the projects.
Spain		X						

Q 4.14 Features of the projects published in the NDP

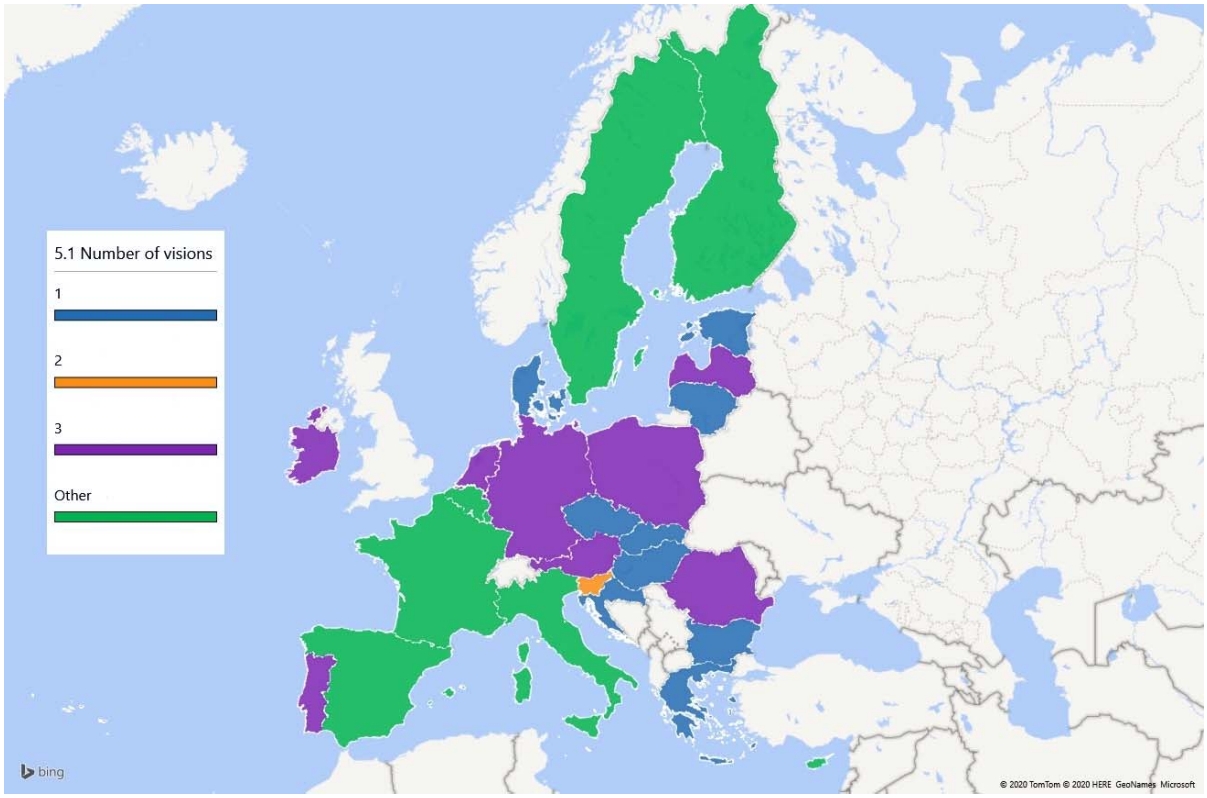
Reporting NRA's MS	NDP Commissioning date	Implementation status	Progress since the previous NDP	Increase of cross border capacity	Project Cost Published	Project Benefits published	Projects Economic test, outcome of the market consultation	Project Contribution to Energy Transition (decarbonisation, sector integration)
Austria	Partially, not for all projects	Yes	Yes	Partially, not for all projects	Partially, not for all projects	Partially, not for all projects	Partially, not for all projects	Partially, not for all projects
Belgium	Yes	Yes	Yes	Yes	Partially, not for all projects	Partially, not for all projects	Partially, not for all projects	Partially, not for all projects
Bulgaria								
Croatia	Yes	Partially, not for all projects	No	Yes	No	No	No	No
Cyprus								
Czech Republic	Yes	Yes	No	Yes	Partially, not for all projects	No	No	No

Denmark	Partially, not for all projects	Partially, not for all projects	Partially, not for all projects	Partially, not for all projects	No	No	No	Partially
Estonia	No	No	No	No	Partially, not for all projects	Partially, not for all projects	No	No
Finland								
France	Yes	Yes	Partially, not for all projects	Yes	Partially, not for all projects	No	No	No
Germany	Yes	Yes	Yes	Partially, not for all projects	x	No	No	No
Greece	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Hungary	Partially, not for all projects	Partially, not for all projects	Partially, not for all projects	Yes	No	No	No	
Ireland	No	No	No	Partially, not for all projects	No	Yes	No	Yes
Italy	Yes	Yes	No	No	Yes	Yes	No	No
Latvia								
Lithuania	Yes	Yes	Yes	Yes	Yes	No	No	Partially, not for all projects
Luxembourg	Yes	No	No	No	Yes	No	No	No
Malta								
Netherlands								
Poland	Partially, not for all projects	No	No	No	No	Partially, not for all projects	No	Partially, not for all projects
Portugal	Partially, not for all projects	Partially, not for all projects	Yes	Partially, not for all projects	Yes	Yes	No	No, Expected for future NDP proposals
Romania	Yes		Yes	Yes	Yes	Yes		
Slovak Republic	Yes	Yes	Yes					
Slovenia	Partially, not for all projects	Yes	Partially, not for all projects	Partially, not for all projects	Yes	Partially, not for all projects	Partially, not for all projects	No
Spain	Partially, not for all projects	No	Yes	Yes	Partially not for all projects	No	No	No
Sweden								

C. INPUT USED TO ELABORATE NDPS

Q 5.1 How many visions / general scenarios are used for the elaboration of the NDP?

Answers to Q.5.1 Reporting NRA's MS	Number	%
1 visions / scenario	**9**	**33%**
Bulgaria		
Croatia		
Czech Republic		
Denmark		
Estonia		
Greece		
Hungary		
Lithuania		
Slovak Republic		
2 visions / scenario	**1**	**4%**
Slovenia		
3 visions / scenario	**8**	**30%**
Austria		
Germany		
Ireland		
Latvia		
Netherlands		
Poland		
Portugal		
Romania		
Other	**9**	**33%**
Belgium		
Cyprus		
Finland		
France		
Italy		
Luxembourg		
Malta		
Spain		
Sweden		
Grand Total	**27**	**100%**



Summary: 9 out of 27 respondents (33%) stated they envision 1 scenario, 8 (30%) answered that they envision 3 scenarios, while only Slovenia stated 2 scenarios (4%). As many respondents as those who envision 1 scenario opted for option "Other".

Reporting NRA's MS	If selected Other, please indicate and or elaborate on the number of scenarios
Belgium	NDP is strongly driven by capacity demand from shippers (capacity bookings) and new connections (e.g. power plants). However, some simulations are done according to ENTSOG storylines/scenarios.
Cyprus	Not applicable.
France	4
Italy	Single scenario for 2025. From 2030 onwards there are 4 scenarios: BAU, CEN, DEC, PNIEC (National Energy and Climate Plan).
Luxembourg	Not applicable.
Malta	Not applicable. Malta's 2030 NECP provides 2 visions ('With Existing Measures' and 'With Planned Measures' scenarios).
Spain	Two scenarios for the total demand forecast, one for the yearly peak demand. Then, the system is simulated considering conditions of normal operation, the failure of the main infrastructure and a cold spell (peak demands).
Sweden	Not applicable.

Q 5.1.a Time horizon of the general scenarios / visions in the NDP – in years

5.1.a Timehorizon of the general scenarios/visions in the NDP	Reporting NRA's MS	Total (number)	%
10 years	Austria Belgium Croatia Czech Republic		

	Estonia Germany Greece Hungary Ireland Latvia Lithuania Netherlands Romania Slovak Republic Slovenia Spain		
10 years, Total		**16**	**76%**
11 years	Portugal		
11 years, Total		**1**	**5%**
17 years	France		
17 years, Total		**1**	**5%**
20 years	Denmark Italy		
20 years, Total		**2**	**10%**
21 years	Poland		
21 years, Total		**1**	**5%**
Grand Total		**21**	**100%**

More than 75% of NDPs cover a time horizon of 10 years, but a few cover an expanded timespan of up to 21 years.

Q 5.2 Stakeholders consulted for NDP scenario determination

Reporting NRA's MS	Public consultation	Universities, academics	Market players	Ministries	NRAs	Others	Total SHs	Text box for comments on stakeholders' consultation
Austria						X	**1**	According to sec. 22 Natural gas Act 2011, the distribution area manager shall draw up, at least once a year, a long-term plan for the distribution pipeline systems. The long-term plan describes three gas demand scenarios. Moreover, ENTSOG scenarios (TYNDP) are considered.
Belgium				X	X		**2**	There is no overall consultation of draft NDPs. Investments are basically proposed by the TSO according to new capacity demands revealed by the market. However, the TSO communicates and discusses capacity needs and investments with the involved stakeholders before integrating them in the NDP but the draft NDPs as such is not consulted. NRA and Ministry are closely involved in the updates of the NDP within permanent task forces with the TSO dealing with investment issues (e.g. SOS, L-gas phase-out, power plants, etc.). Hence, the NDP can be seen for some extent as the outcome of these TFs TSO-Ministry-NRA and discussion with stakeholders.
Bulgaria	X						**1**	
Croatia	X						**1**	
Cyprus						X	**1**	Not applicable.

Czech Republic						X	**1**	The scenario used and adjusted by TSO is developed for market operators.
Denmark	X	X	X				**3**	The process with scenarios and analysis assumptions are governed by the Danish Energy Agency
Estonia	X						**1**	
Finland						X	**1**	
France	X		X	X	X		**4**	
Germany	X	X	X	X	X	X	**6**	
Greece	X						**1**	
Hungary	X						**1**	Before the development of the TSO-level demand forecast the TSO requests individual gas demand forecasts from the relevant market players.
Ireland		X	X			X	**3**	Engagement with the Electricity TSO forms a major part of the document development process
Italy	X						**1**	Snam and Terna, in charge of jointly preparing the scenarios, have organized three different workshops with the aim of presenting and sharing contents and results of the scenario document. These events involved a wide variety of stakeholders of the energy sector: representatives of the institutions, research institutes, sector players, etc.
Latvia			X	X	X		**3**	
Lithuania	X		X	X	X		**4**	
Luxembourg				X			**1**	
Malta						X	**1**	Not applicable.
Netherlands	X						**1**	
Poland	X						**1**	
Portugal			X	X			**2**	
Romania				X			**1**	
Slovak Republic	X						**1**	
Slovenia	X						**1**	
Spain	X						**1**	Scenarios are submitted to public consultation with together with the NDP proposal, not in a previous phase.
Sweden						X	**1**	

Summary: scenarios used in NDPs are in the majority of cases subject to a public consultation. In addition, for some NDPs stakeholders such as academics, market players, Ministries and NRAs are specifically consulted during the scenario development process.

Q 5.3 Gas demand breakdown: Do gas demand scenarios consider a breakdown of demand (e.g. by type of customers or by economic sector)?

Answers to Q.5.3	Number	%
No	**9**	**33%**
Austria Cyprus Czech Republic		

Finland Latvia Luxembourg Malta Portugal Sweden		
Yes	**18**	**67%**
Belgium Bulgaria Croatia Denmark Estonia France Germany Greece Hungary Ireland Italy Lithuania Netherlands Poland Romania Slovak Republic Slovenia Spain		
Grand Total	**27**	**100%**

Summary: 18 out 27 (67%) stated that gas demand scenarios do consider a breakdown of demand, while 9 (33%) answered they did not.

Q 5.4 Gas supply breakdown: Please elaborate on demand disaggregation by type of costumer or economic sector

Answers to Q.5.4 Reporting NRA's MS	5.4 Gas supply breakdown: Please elaborate on demand disaggregation by type of costumer or economic sector
Belgium	Industrial; Power generation; Commercial; Households; Border to border flows (gas transit); Other sectors (e.g. food and beverage, transportation, agriculture, etc.)
Bulgaria	
Croatia	Other sectors (e.g. food and beverage, transportation, agriculture, etc.)
Denmark	Industrial; Power generation; Commercial; Households; Border to border flows (gas transit); Other sectors (e.g. food and beverage, transportation, agriculture, etc.)
Estonia	Industrial; Commercial; Households; Border to border flows (gas transit)
France	Industrial; Power generation; Commercial; Households; Border to border flows (gas transit); Other sectors (e.g. food and beverage, transportation, agriculture, etc.)
Germany	Industrial; Power generation; Commercial; Households; Border to border flows (gas transit); Other sectors (e.g. food and beverage, transportation, agriculture, etc.)
Greece	Industrial; Power generation; Commercial; Households; Border to border flows (gas transit)
Hungary	Power generation; Border to border flows (gas transit)
Ireland	Industrial; Power generation; Commercial Households

Italy	Industrial; Power generation; Border to border flows (gas transit); Other sectors (e.g. food and beverage, transportation, agriculture, etc.)
Lithuania	Industrial; Power generation; Commercial; Households; Other sectors (e.g. food and beverage, transportation, agriculture, etc.)
Netherlands	
Poland	Power generation; Other sectors (e.g. food and beverage, transportation, agriculture, etc.)
Romania	Industrial; Power generation; Commercial; Households; Border to border flows (gas transit); Other sectors (e.g. food and beverage, transportation, agriculture, etc.)
Slovak Republic	
Slovenia	Industrial; Power generation; Commercial; Households; Other sectors (e.g. food and beverage, transportation, agriculture, etc.)
Spain	Power generation

Summary: 18 NDPs (67%) provide gas demand disaggregated figures, normally with a breakdown for industrial, power generation, commercial and households, transit and other sectors.

D. OUTPUTS OF THE NDPS

Q 6.1 Does the NDP indicate the estimated target cross-border capacities?

Answers to Q.6.1	Number	%
No	**12**	**44%**
Belgium		
Cyprus		
Czech Republic		
Denmark		
Finland		
France		
Greece		
Latvia		
Lithuania		
Luxembourg		
Spain		
Sweden		
Yes	**15**	**56%**
Austria		
Bulgaria		
Croatia		
Estonia		
Germany		
Hungary		
Ireland		
Italy		
Malta		
Netherlands		
Poland		
Portugal		
Romania		
Slovak Republic		
Slovenia		

Grand Total	27	100%

Summary: 15 respondents (56%) stated that their NDPs indicate the estimated target cross-border capacities, while 12 (44%) responded that they did not. The table below offers more details on the availability of target cross-border capacities in some NDPs.

Reporting NRA's MS	If selected yes, please elaborate. Elaborate, if any, on relevant changes/updates during the last 2 years
Austria	The status of the booking situation at every interconnection point (IP) is presented as well as incremental capacity projects.
Croatia	For each project there is a stated planned technical capacity (GWh/day).
Germany	Cross-border capacities are considered as an exogenous parameter and are defined in the scenario frameworks. They are used accordingly in the modelling exercise by the TSOs.
Hungary	The NDP includes the estimated capacity gains from each submitted cross-border project.
Italy	There is no target as such. However, Snam defines the long-term plan of cross-border capacities taking into account both FID and non- FID projects along the NDP time horizon
Malta	It does not specifically refer to NDP but a general procedure used for technical analysis. According Malta's 2030 NECP the gas interconnection to Italy is expected to have a flow capacity of 2 bcm/y at standard conditions.
Portugal	The NDP proposals have always included the N-1 security analysis to justify a 3rd interconnection with Spain. No change in the last 2 years.
Romania	No changes in the last 2 years. The NDP includes the estimated capacity increments from each cross-border project.
Slovenia	Planned technical capacity and estimated booked capacity are indicated.

Q 6.2 Are the estimated cross-border capacities (and their timing) in line with the latest available NDPs of your neighbouring Member States?

Answers to Q.6.2	Number	%
No	**2**	**10%**
Germany		
Spain		
Not able to assess	**13**	**62%**
Croatia		
Denmark		
Estonia		
France		
Greece		
Ireland		
Italy		
Latvia		
Luxembourg		
Poland		
Portugal		
Romania		
Sweden		
Yes	**6**	**29%**
Austria		
Belgium		
Czech Republic		
Hungary		
Slovak Republic		

Slovenia		
Grand Total	**21**	**100%**

Summary: Only 6 respondents (29%) stated that the estimated cross-border capacities are in line with the latest available NDP. The majority of respondents (62%) were not able to assess, and only two respondents noted that this was not the case (10%).

Q 6.3 Process of identification of investment gaps: Please indicate how investment gaps are determined in the NDP

Reporting NRA's MS	6.3 Process of identification of investment gaps: Please indicate how investment gaps are determined in the NDP	Provide comments. Elaborate, if any, on relevant changes/updates during the last 2 years
Austria	Evaluation after an in-depth analysis of the "needs" of infrastructure (top-down approach); Outcome of economic test (capacity auction, market consultation, demand of shippers).	It depends on the type of project. (e.g. incremental or reinvestment).
Belgium	Outcome of the system and/or market modelling; Decided case-by-case after analysis of project candidates (bottom-up approach); Outcome of economic test (capacity auction, market consultation, demand of shippers).	No changes during the last 2 years. The market needs (capacity bookings) determine basically the investments needs, but this does not exclude that the government may identify specific needs in addition.
Bulgaria	Evaluation after an in-depth analysis of the "needs" of infrastructure (top-down approach).	
Croatia	Outcome of the system and/or market modelling; Decided case-by-case after analysis of project candidates (bottom-up approach).	
Cyprus	Evaluation after an in-depth analysis of the "needs" of infrastructure (top-down approach).	
Czech Republic	Decided case-by-case after analysis of project candidates (bottom-up approach).	TSO is in charge to provide sufficient evidence on needs of the project.
Denmark	Decided case-by-case after analysis of project candidates (bottom-up approach); Outcome of economic test (capacity auction, market consultation, demand of shippers).	
Estonia	Decided case-by-case after analysis of project candidates (bottom-up approach).	
Finland	Evaluation after an in-depth analysis of the "needs" of infrastructure (top-down approach).	
France	Evaluation after an in-depth analysis of the "needs" of infrastructure (top-down approach).	
Germany	Outcome of the system and/or market modelling	
Greece	Evaluation after an in-depth analysis of the "needs" of infrastructure (top-down approach);Decided case-by-case after analysis of project candidates (bottom-up approach);Outcome of economic test (capacity auction, market consultation, demand of shippers).	All processes are used depending on the project.
Hungary	Evaluation after an in-depth analysis of the "needs" of infrastructure (top-down approach); Decided case-by-case after analysis of project candidates (bottom-up approach).	
Ireland	Outcome of the system and/or market modelling; Decided case-by-case after analysis of project candidates (bottom-up approach); Outcome of economic test (capacity auction, market consultation, demand of shippers).	GNI compares the forecasted demand and the forecasted supplies over next 10 years and identifies if additional capacity is required. However, some local capacity additions maybe decided on a case to case basis.

Italy	Evaluation after an in-depth analysis of the "needs" of infrastructure (top-down approach); Outcome of the system and/or market modelling.	Decisions on investment projects are taken according to a set of different criteria considering the European and national legislation (such as Regulation (CE) n. 2017/1938 on bidirectional cross-border flows) and the relevant regulation of the Energy Authority. The future transport capacities are identified making use of a gas hydraulic modelling software.
Latvia	Evaluation after an in-depth analysis of the "needs" of infrastructure (top-down approach).	
Lithuania	Outcome of economic test (capacity auction, market consultation, demand of shippers).	Not facing investment gaps because due to the decreased gas consumption the TSO. Identification with brief analyses can be applied if the market participants indicate the necessity during the consultation. Projects in the national strategic documents (National Energy Strategy) can also be included.
Luxembourg	Evaluation after an in-depth analysis of the "needs" of infrastructure (top-down approach).	
Malta	Evaluation after an in-depth analysis of the "needs" of infrastructure (top-down approach);Outcome of the system and/or market modelling; Decided case-by-case after analysis of project candidates (bottom-up approach);Outcome of economic test (capacity auction, market consultation, demand of shippers).	It does not specifically refer to NDP but a general procedure used for technical analysis.
Netherlands	Evaluation after an in-depth analysis of the "needs" of infrastructure (top-down approach).	The IP contains, legally, the following elements: Developments in the energy market including scenarios and a bottleneck analysis of the transport network. This does not include incremental capacity (CAM), which is done separately.
Poland	Decided case-by-case after analysis of project candidates (bottom-up approach).	
Portugal	Evaluation after an in-depth analysis of the "needs" of infrastructure (top-down approach).	See Q. 6.1.
Romania	Decided case-by-case after analysis of project candidates (bottom-up approach).	
Slovak Republic	Evaluation after an in-depth analysis of the "needs" of infrastructure (top-down approach); Outcome of economic test (capacity auction, market consultation, demand of shippers).	
Slovenia	Evaluation after an in-depth analysis of the "needs" of infrastructure (top-down approach);Outcome of the system and/or market modelling; Decided case-by-case after analysis of project candidates (bottom-up approach);Outcome of economic test (capacity auction, market consultation, demand of shippers)	Process of identification of investment gaps depends on the type (purpose) of the infrastructure.
Spain	Outcome of the system and/or market modelling	

Sweden	Evaluation after an in-depth analysis of the "needs" of infrastructure (top-down approach)	

Summary: In nearly 50% of NDPs, the identification of investment gaps follows a combination of approaches with at least two criteria. 16 NDPs evaluate gaps after an in-depth analysis of the "needs" of infrastructure (top-down approach), in 12 NDPs the gaps are decided on a case-by-case basis after specific analysis of project candidates (bottom-up approach), in 9 NDPs they are the outcome of the system and/or market modelling, while in 7 NDPs they are the outcome of economic tests (capacity auction, market consultation, demand of shippers).

Q 6.3.1 Do the project costs indicated in the NDP include an estimate of the following cost items?

Answers to Q.6.3.1	Number	%
Investment costs (CAPEX)	**17**	**63%**
Austria Belgium Bulgaria Croatia Czech Republic Estonia France Germany Greece Latvia Lithuania Luxembourg Netherlands Poland Portugal Slovenia Spain		
Investment costs (CAPEX);Operational costs (OPEX)	**2**	**7%**
Italy Malta		
NDP does not include cost information	**8**	**30%**
Cyprus Denmark Finland Hungary Ireland Romania Slovak Republic Sweden		
Grand Total	**27**	**100%**

Summary: 70% of NDPs include investment costs. Italy and Malta's NDPs include CAPEX and OPEX (7%). The NDPs of 8 member states (30%) do not include any cost information yet.

Q 6.4 Total cost of the planned investments in NDP (in € million) and during the next 5 years

Only 11 NRAs report numerically total cost for investment plans, amounting approximately to € 9.3 Billion. Only a few NRAs were able to provide yearly amounts of planned investment costs for the next 5 years.

E. METHODOLOGY USED FOR THE NDPS

Q 7.1 Use of market studies: Are market studies carried out covering projections of gas market fundamental data (supplies, demand, peak demand capacity and prices?)

Answers to Q.7.1	Number	%
No	**9**	**33%**
Austria		
Croatia		
Cyprus		
Czech Republic		
Finland		
Lithuania		
Luxembourg		
Portugal		
Spain		
Yes	**18**	**67%**
Belgium		
Bulgaria		
Denmark		
Estonia		
France		
Germany		
Greece		
Hungary		
Ireland		
Italy		
Latvia		
Malta		
Netherlands		
Poland		
Romania		
Slovak Republic		
Slovenia		
Sweden		
Grand Total	**27**	**100%**

Summary: 18 out of 27 member states (67%) noted that market studies are carried out covering projections of gas market fundamental data. 9 respondents (33%) reported that no market studies were carried out.

Q 7.2 Use of network studies: Are network studies (hydraulic simulations) carried out covering the ability of the network to cover stress/high demand situations?

Answers to Q.7.2	Number	%
No	**8**	**30%**
Cyprus		
Denmark		
Estonia		
Finland		
Lithuania		
Luxembourg		
Malta		
Portugal		
Yes	**19**	**70%**
Austria		
Belgium		
Bulgaria		

Croatia Czech Republic France Germany Greece Hungary Ireland Italy Latvia Netherlands Poland Romania Slovak Republic Slovenia Spain Sweden		
Grand Total	**27**	**100%**

Summary: 19 out of 27 respondents (70%) stated that network studies are carried out, while 8 respondents (30%) noted that no such network studies are carried out.

Q 7.3 Use of sector integrated studies: Are simulations performed by using an integrated network (at least covering electricity and gas) and market model?

Answers to Q.7.3	Number	%
No	**21**	**78%**
Austria Belgium Bulgaria Croatia Cyprus Czech Republic Denmark Estonia Finland France Germany Greece Italy Lithuania Luxembourg Malta Netherlands Poland Romania Slovak Republic Slovenia		
Yes	**6**	**22%**
Hungary Ireland Latvia Portugal Spain Sweden		
Grand Total	**27**	**100%**

Summary: Only 6 respondents (22%) indicated that their gas NDPs include simulations performed by using an integrated network (at least covering electricity and gas) and market model.

Q 7.2.1. Please elaborate on the network-flow models of the TSOs and their simulations and on time granularity of market simulations (daily, hourly). Elaborate, if any, on relevant changes / updates during the last 2 years.

Reporting NRA's MS	7.2.1. Please elaborate on the network-flow models of the TSOs and their simulations and on time granularity of market simulations (daily, hourly) Elaborate, if any, on relevant changes / updates during the last 2 years
Austria	For the development of several projects, the TSOs are required to run hydraulic simulations to establish where and how the project has to be carried out. The simulation covers the maximum annual technical capacity values.
Belgium	The TSO uses a very detailed network simulation model (SIMONE) for investment planning which is also used for capacity allocations (commercial). The network simulation model covers the whole architecture of the BE gas system (incl. all technical features and offtakes) and is able to simulate technical capacities at all IPs and connection points as well as (remaining) available capacities for selling (commercial capacity data is also included. Various scenarios can be simulated.
Croatia	Network-flow models of the TSO are done by hydraulic simulations based on different scenarios for specific years, taking into account development of the significant infrastructure projects.
Czech Republic	ERÚ does not have the model and scenarios used by the TSO at its disposal.
Germany	The TSOs use different network flow models.
Latvia	In 2019, JSC Conexus Baltic Grid took part in a comparative study by the Council of European Energy Regulators, which assessed the operational and cost efficiency of gas transmission system operators. (https://www.ceer.eu/documents/104400/-/-/90707d6c-6da8-0da2-bce9-0fbbc55bea8c). In conjunction with the Latvian Biogas Association, a study about the production of biogas in Latvia was conducted in 2019.
Netherlands	For assessing and calculating the network capacity the TSO uses various models, these are not included in the investment plan.
Poland	The TSO carries out simulations and presents only outcomes in the NDP.
Portugal	No hydraulic simulations are carried out.
Romania	There have been no changes in the last 2 years.
Slovenia	On the request of the NRA the TSO must submit the market/network studies/simulations for the individual project to prove the eligibility of the project.
Sweden	Not applicable.

Q 7.4 Is cost-benefit analysis (CBA) used to evaluate investments?

Answers to Q.7.4	Number	%
No	**9**	**33%**
Austria Czech Republic Estonia France Germany Hungary Lithuania Poland Spain		
Other	**4**	**15%**
Croatia Cyprus Finland		

Luxembourg		
Yes	**14**	**52%**
Belgium		
Bulgaria		
Denmark		
Greece		
Ireland		
Italy		
Latvia		
Malta		
Netherlands		
Portugal		
Romania		
Slovak Republic		
Slovenia		
Sweden		
Grand Total	**27**	**100%**

Summary: Slightly more than half of respondents NRAs (52%) reported that CBA are used to evaluate investments. 9 NRAs (37%) noted that the NDPs do not use CBA, while the remaining 15% opted for the option "Other" options for evaluating gas investments. When cost-benefit analysis is used, benefits in the vast majority of cases are not monetised.

Q 7.5 SoS evaluation: Is there in the NDP an economic valuation of gas lost load due to potential supply disruptions

Answers to Q.7.5	Number	%
No	**21**	**78%**
Austria		
Belgium		
Croatia		
Cyprus		
Czech Republic		
Denmark		
Estonia		
France		
Germany		
Greece		
Hungary		
Ireland		
Lithuania		
Luxembourg		
Netherlands		
Portugal		
Romania		
Slovak Republic		
Slovenia		
Spain		
Sweden		
Not able to assess	**3**	**11%**
Finland		
Malta		
Poland		

Yes	3	11%
Bulgaria		
Italy		
Latvia		
Grand Total	**27**	**100%**

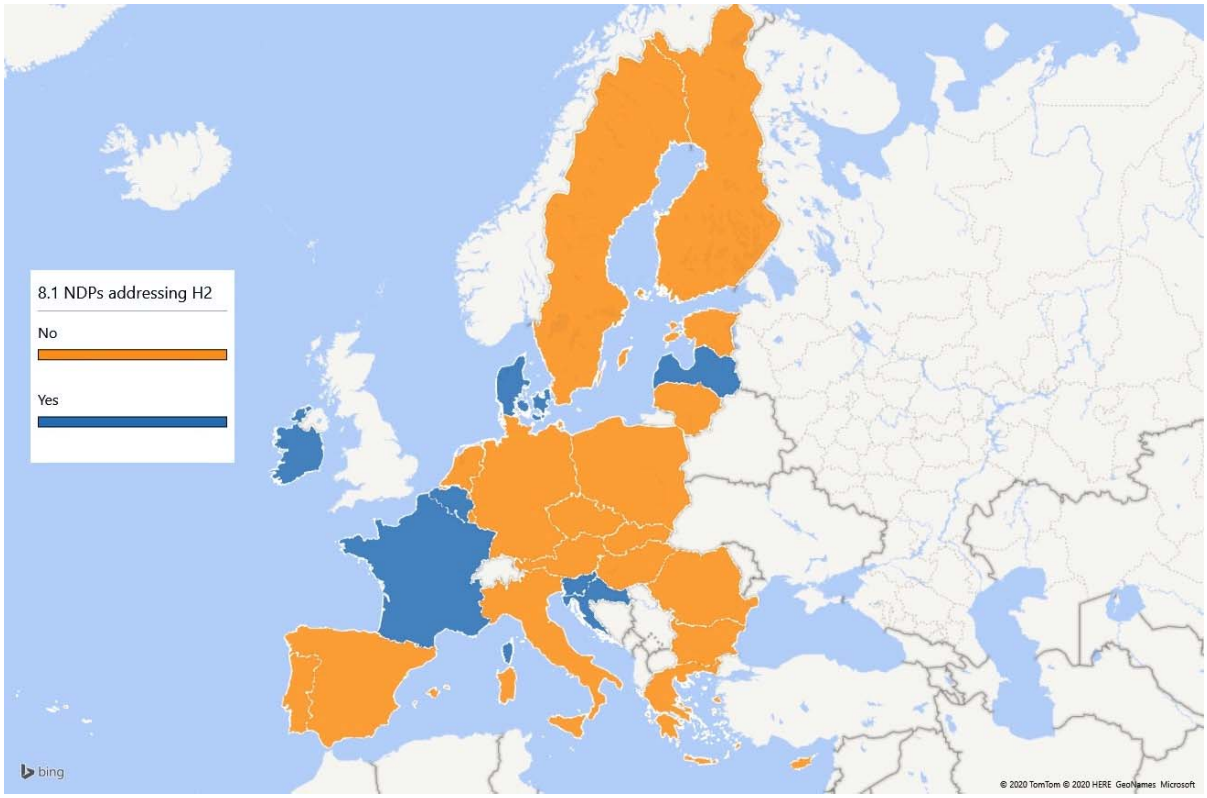
Summary: The majority of respondents (78%) noted that there is no economic valuation of gas load value, i.e. the cost of disruption of gas supply, in their NDPs. Only Bulgaria, Italy and Latvia (11%) confirmed that their NDPs contain an economic evaluation. The remaining 3 respondents (11%) were not able to assess.

F. ENERGY TRANSITION ASPECTS IN GAS NDPS

Coverage of H2 in NDPs

Q 8.1 Does the most recent gas NDP(s) in your country address hydrogen?

Answers to Q.8.1	Number	%
No	**19**	**70%**
Austria		
Bulgaria		
Cyprus		
Czech Republic		
Estonia		
Finland		
Germany		
Greece		
Hungary		
Italy		
Lithuania		
Luxembourg		
Netherlands		
Poland		
Portugal		
Romania		
Slovak Republic		
Spain		
Sweden		
Yes	**8**	**30%**
Belgium		
Croatia		
Denmark		
France		
Ireland		
Latvia		
Malta		
Slovenia		
Grand Total	**27**	**100%**



Summary: 8 NRAs (30%) reported that their most recent NDPs address hydrogen developments, however, still the majority of respondents (70%) reported that H2 developments are not covered in existing NDPs. The main aspects that are covered are network adaptations needed to enable hydrogen blending in gas networks (4 instances) and connections points for H2 injection (2 instances).

Q 8.2 If yes to (8.1), which H2 developments/projects are covered

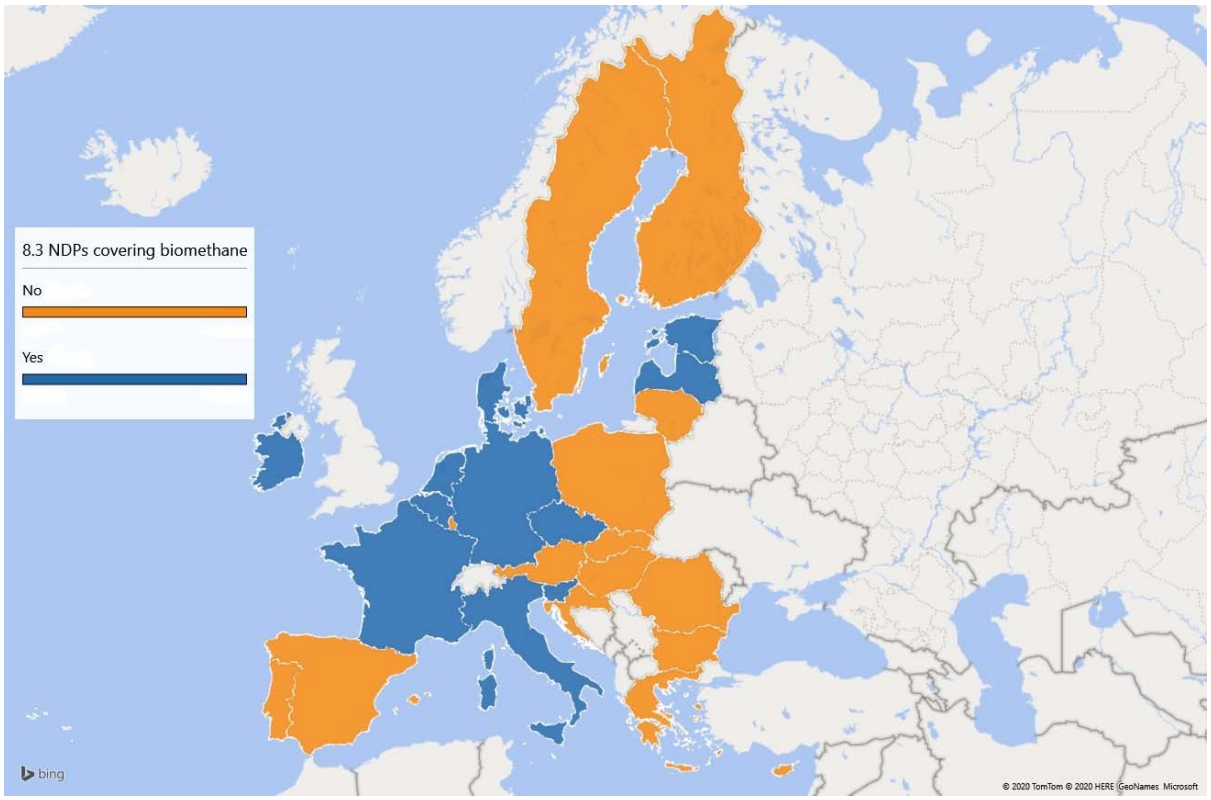
Reporting NRA's MS	Network adaptations to allow H2 blending in gas networks	Repurposing gas networks to dedicated 100% H2 networks	New dedicated 100% H2 networks	Connections points for H2 injection	Best locations for power-to-"x" developments, based on gas TSO analysis	Best locations for power-to-"x" developments, based on joint electricity and gas TSOs analysis	Hydrogen production developments from renewable sources (electrolysis)	Hydrogen production developments from carbon capture and storage (CCS)	Imported hydrogen
Belgium	X			X					
Croatia	X								
France				X			X		
Denmark		X	X						
Ireland					X			X	
Latvia	X								
Malta									X
Slovenia	X					X			

NRAs report that NDPs do not offer cost information for hydrogen development projects.

Coverage of biomethane in NDPs

Q 8.3 Does the most recent gas NDP(s) in your country address biomethane developments?

Answers to Q.8.3	Number	%
No	**16**	**59%**
Austria		
Bulgaria		
Croatia		
Cyprus		
Finland		
Greece		
Hungary		
Lithuania		
Luxembourg		
Malta		
Poland		
Portugal		
Romania		
Slovak Republic		
Spain		
Sweden		
Yes	**11**	**41%**
Belgium		
Czech Republic		
Denmark		
Estonia		
France		
Germany		
Ireland		
Italy		
Latvia		
Netherlands		
Slovenia		
Grand Total	**27**	**100%**



Summary: Compared to hydrogen, more NDPs (11, 41%) address biomethane developments. When biomethane is covered, NDPs include at least two of the following aspects, with the exception of the French NDP which covers all of them: network adaptations needed to enable biomethane injection at transmission level, direct connection points for biomethane injection at transmission level, reverse flow capacity from distribution to transmission networks, and biomethane production potential.

If reported yes to 8.3, which developments/projects are covered?

Reporting NRA's MS	Network adaptations to allow biomethane injection at transmission level	Direct connections points for biomethane injection at transmission level	Reverse flow capacity from the distribution to the transmission network	Biomethane production potential (estimates of biomethane installed capacities)	Best locations for biomethane potential
Belgium	x	x	x		
Czech Republic				x	
Denmark		x	x	x	
Estonia	x		x	x	
France	x	x	x	x	
Germany		x			
Ireland		x		x	
Italy		x			
Latvia	x				
Netherlands		x	x		
Slovenia	x				

Information on the cost of biomethane projects is generally not available in NDPs.

NRAs views on future gas NDPs in view of Energy Transition

0 - I do not have an opinion, 1- I totally disagree, 2 - I disagree, 3 - I somewhat agree, 4 - I agree, 5 - I totally agree

NDPs should: / Reporting NRA's MS	Remain business as usual and focus on traditional gas infrastructure, but be open to include ET aspects	Focus primarily on ET topics, and include traditional gas infrastructure only if duly justified	Focus only on energy transition topics and the decarbonisation of gas sector	Be more coordinated and interlinked with electricity NDPs	Be part of sector integrated plans covering at least electric and gas sectors
Austria	5	2	1	3	3
Belgium	5	2	2	5	4
Bulgaria					
Croatia	4	2	2	3	2
Cyprus					
Czech Republic	4	2	1	3	3
Denmark	4	2	2	4	4
Estonia	4	1	3	1	1
Finland					
France					
Germany				3	
Greece	3	4	5	5	5
Hungary	4	2	1	4	3
Ireland	2	4	3	5	5
Italy					
Latvia	4	3	2	4	4
Lithuania	5	3	5	3	3
Luxembourg					
Malta	1	5	1	4	4
Netherlands					
Poland	4	2	2	4	4
Portugal	2	3	1	4	4
Romania	1	5	1	2	2
Slovak Republic	4	2			
Slovenia	4	2	1	5	5
Spain	4	3	2	5	5
Sweden					
Average [numeric, no replies are not counted]	***3.6***	***2.7***	***2.1***	***3.7***	***3.6***
Average [qualitative]	*4-I agree*	*3- I somewhat agree*	*2- I disagree*	*4-I agree*	*4-I agree*

Summary: The majority of the NRAs (14 out of 17, 82%) agrees that while the focus of future NDPs should be on traditional gas infrastructure, NDPs should be open to include energy transition aspects. More than 80% of the NRAs agree that gas NDPs should be better coordinated and interlinked with electricity NDPs, and are also in favour of possibly sector-integrated plans which cover both the electricity and the gas sectors.

ANNEX II - CONSISTENCY OF NDP/TYNDP PROJECTS

NRAs checks of project consistency, background

The NRAs were invited to crosscheck from 8 August until 11 September 2019 the input data (project attributes) of the draft TYNDP 2020 project candidates as submitted by the project promoters to ENTSOG, including the consistency with NDPs.

The views and comments of the NRAs on the projects were communicated to ENTSOG "as received" at a moment when the TYNDP 2020 was at an early phase of development with the aim of improving the quality of the input data for TYNDP 2020 projects, and to help resolve potential inconsistencies.

NRA Responses:

ACER received input from 22 NRAs:

1. 6 NRAs had "no comments/remarks on TYNDP 2020 projects": Estonia, Germany, Lithuania, Slovenia, Sweden and United Kingdom-GB.
2. 16 NRAs had "comments/remarks on TYNDP 2020 projects": Austria, Belgium, Croatia, Cyprus, Czech Republic, France, Greece, Hungary, Ireland, Italy, Latvia, Malta, Slovak Republic, Spain and United Kingdom (Northern Ireland). Regarding the type of comments:
    a. 11 NRAs had "Project-specific comments and remarks on data items of TYNDP 2020 projects": Austria, Croatia, Cyprus, Czech Republic, France, Italy, Latvia, Malta, Portugal, Slovak Republic, Spain.
    b. 3 NRAs had "General comments and remarks on TYNDP 2020 projects": Belgium, Croatia, Cyprus, Czech Republic, Greece, Hungary, Ireland, United Kingdom (Northern Ireland), France, Italy, Portugal, Slovak Republic and Spain.

List of TYNDP 2020 projects for which NRA comments were received

Austria	TRA-N-361	Croatia	UGS-N-347	Italy	ETR-N-528
Croatia	LNG-F-82	Cyprus	LNG-A-1146	Italy	ETR-N-595
Croatia	TRA-A-70	Czech Republic	TRA-N-136	Italy	ETR-N-617
Croatia	TRA-N-75	Czech Republic	TRA-N-133	Italy	ETR-N-623
Croatia	TRA-A-68	France	ETR-N-226	Italy	TRA-A-12
Croatia	TRA-F-90	France	TRA-N-269	Italy	TRA-F-409
Croatia	TRA-N-66	France	TRA-A-252	Italy	TRA-F-424
Croatia	TRA-A-86	France	LNG-N-227	Italy	TRA-F-1193
Croatia	TRA-N-303	France	ETR-F-587	Italy	TRA-N-1194
Croatia	TRA-A-302	France	ETR-N-624	Italy	TRA-N-439
Croatia	TRA-N-336	France	TRA-N-258	Italy	TRA-N-1227
Croatia	TRA-N-1057	Italy	ETR-F-516	Italy	TRA-N-1246
Croatia	TRA-N-1058	Italy	ETR-F-523	Italy	TRA-N-1265
Croatia	TRA-F-334	Italy	ETR-F-599	Italy	UGS-F-260

Latvia	UGS-F-374	Spain	TRA-A-161	Spain	ETR-N-483
Latvia	TRA-A-382	Spain	Several terminals in Spain	LNG Spain	ETR-N-501
Malta	TRA-A-31	Spain	TRA-N-168	Spain	ETR-A-504
Portugal	TRA-A-283	Spain	ETR-F-632	Spain	ETR-A-519
Portugal	TRA-A-320	Spain	ETR-F-541	Spain	ETR-N-521
Spain	LNG-F-163	Spain	ETR-N-427	Spain	ETR-N-537

General NRAs comments and remarks on projects listed in TYNDP 2020

Reporting NRA's MS (*)	Please provide general comments and remarks on projects listed in TYNDP 2020
Belgium	1) TRA-F-845 provides L-gas export capacity declines from the NL. This may not hamper L-gas trading from NL to L-gas importing countries during the transition to H-gas (SoS). 2) More transparency is welcome regarding the coherence of projects with decarbonisation objectives. E.g. transparency is needed whether projects are able to transport hydrogen. 3) Fluxys Belgium NV/SA is BE TSO & promotor of RA-N-500. Surprisingly Fluxys Belgium appears also as a promotor of projects outside BE.
Cyprus	Concerning the project TRA-A-330 - EastMED, CERA has no information available, so we are not able to assess.
Czech Republic	**TRA-N-133: ERU has fundamental objections** against the inclusion of this project in the TYNDP, NDP and PCI list. Based on the wording of the Condition ("Implementation of BACI as a PCI will depend on the outcome of the pilot project "Trading Regional Upgrade") related to the inclusion of project TRA-N-133 on the 3rd PCI list, ERU does not see fundamental background for including this project on the TYNDP 2020.
Hungary	For some **projects in the excel tables (TRA-N-831, TRA-N-636, TRA-N-524) the project promoter is listed as Magyar Gáz Tranzit Zrt (MGT). Recently, the assets of MGT have been purchased by the main Hungarian TSO, FGSZ Zrt**. The Hungarian Energy Authority has approved this transaction, and the deal is expected to be finalised sometime during early October this year.
Ireland	We understand, based on ENTSOG 2018 Infrastructure Report, the threshold for an "Advanced" project is one with a commissioning date within six years of the year of TYNDP data collection. However the **'TYNDP Project Submission' file gives the commissioning date for the LNG-A-30 project of 2029 (further out than six years)** while listing the project as Advanced.
Italy	ARERA welcomes the inclusion of **ETR projects,** but calls for an in-depth discussion on **criteria for inclusion**. In ENTSOG PID, the criteria are broad potentially leading to very heterogeneous projects. Also, the TYNDP should provide an overview of all projects impacting the system, but it is not clear to what extent ETR projects promoted by third parties would be included. Lastly, TSOs developing innovative projects raises concerns with regards to unbundling provisions at MS and EU level.
Portugal	As incorrectly referred in TYNDP 2020 projects file, the Portuguese projects do NOT belong to the NDP approved in 19/12/2018. Nevertheless they are under scrutiny in the 2020-2029 NDP which is actually under analysis.
Spain	**CNMC has doubts on the necessity of some projects and the possibility for TSO to develop others**: **3rd IP ES-PT**: currently there are 2 interconnections between ES-PT that are underbooked and underused. **Increase at Musel and Mugardos plants**: currently underused due to the lack of capacity demand at these terminals.

	Canary and Tenerife plants: other supply solutions may be a better option **Projects to produce renewable gases**: they should be developed by companies legally separated from TSOs

Draft EU TYNDP 2020 projects present in NDPs, by EU-27 countries[2]

The level of consistency of project inclusion on the NDPs projects in the draft EU TYNDP 2020 is assessed based on information available in Annex A – list of projects to the draft EU TYNDP 2020.

Country	Not included NDPs	Included in NDP	Total	% of TYNDP projects included in NDPs
Austria		4	4	**100%**
Belgium	2	1	3	**33%**
Bulgaria		6	6	**100%**
Croatia	1	13	14	**93%**
Cyprus	1		1	**0%**
Czechia	1	4	5	**80%**
Denmark	3		3	**0%**
Estonia		4	4	**100%**
Finland	1		1	**0%**
France	6	6	12	**50%**
Germany	12	16	28	**57%**
Greece	**9**	**9**	**18**	**50%**
Hungary		7	7	**100%**
Ireland	2	2	4	**50%**
Italy	10	16	26	**62%**
Latvia	6		6	**0%**
Lithuania		3	3	**100%**
Malta		1	1	**100%**
Netherlands	6	5	11	**45%**
Poland	1	11	12	**92%**
Portugal		2	2	**100%**
Romania	6	11	17	**65%**
Slovakia	2	5	7	**71%**
Slovenia		**7**	**7**	**100%**
Spain	12	6	18	**33%**
Sweden	1		1	**0%**
Total	**82**	**139**	**221**	**63%**

[2] Some EU countries like LU, not mentioned in the table, have no transmission projects in the NDP, and thus have none in the TYNDP.