

**OPINION No 08/2021
OF THE EUROPEAN UNION AGENCY
FOR THE COOPERATION OF ENERGY REGULATORS**

of 29 October 2021

**ON THE DRAFT REGIONAL LISTS OF PROPOSED
GAS PROJECTS OF COMMON INTEREST 2021**

THE EUROPEAN UNION AGENCY FOR THE COOPERATION OF ENERGY REGULATORS,

Having regard to Regulation (EU) No 347/2013 of the European Parliament and of the Council of 17 April 2013 on guidelines for trans-European energy infrastructure and repealing Decision No 1364/2006/EC and amending Regulations (EC) No 713/2009, (EC) No 714/2009 and (EC) No 715/2009 , and, in particular, Annex III.2(12) thereto,

Having regard to the favourable opinion of the Board of Regulators of 27 October 2021, delivered pursuant to Article 22(5)(a) of Regulation (EU) 2019/942 of the European Parliament and of the Council of 5 June 2019 establishing a European Union Agency for the Cooperation of Energy Regulators (ACER)¹,

Whereas:

1. INTRODUCTION

- (1) According to Article 3 of Regulation (EU) No 347/2013, a Union list of Projects of Common Interest ('PCIs') shall be established every two years, on the basis of the regional lists adopted by the decision-making bodies of the Regional Groups as set out in Annex III.1 to the same Regulation.
- (2) The draft regional lists of proposed projects falling under the categories set out in Annex II.1 and 2 to Regulation (EU) No 347/2013 drawn up by the Regional Groups shall be submitted to ACER six months before the adoption date of the Union list. The draft regional PCI lists shall be accompanied by the opinions of Member States to whose territory a proposed project does not relate, but on which the proposed project

¹ OJ L 158, 14.6.2019, p. 22–53.

may have a potential net positive impact or a potential significant effect, and which were presented to a Regional Group specifying their concerns.

- (3) According to Annex III.2.7 to Regulation (EU) No 347/2013, the National Regulatory Authorities (NRAs), and if necessary ACER, shall check the consistent application of the criteria and cost-benefit analysis (CBA) methodology and evaluate the cross-border relevance of the PCIs. They shall present their assessment to the Regional Groups.
- (4) ACER shall assess the draft regional lists and the accompanying opinions within three months of the date of receipt. ACER shall provide an Opinion on the draft regional lists, in particular on the consistent application of the criteria and the cost-benefit analysis across regions. The Opinion of ACER shall be adopted in accordance with the procedure referred to in Article 22(5) of Regulation (EU) No 2019/942.
- (5) In view of the requirement provided in recital (3), ACER coordinated NRA inputs and invited NRAs to provide structured assessments of the candidate projects by completing a questionnaire. The NRA assessments on the candidate projects were presented during the Cross-Regional Gas meeting (“RGs”) held on 22 April 2021 and have also been considered as an input for preparing this Opinion.
- (6) The European Commission presented in the meetings of the Regional Groups held on 21 and 22 June 2021 the final ranking and scoring of the candidate projects proposed for inclusion in the draft Union lists of PCIs, to be submitted to the technical Decision Making Body.
- (7) On 15 July 2021, the technical Decision Making Body decided on the inclusion of particular PCI candidates in the draft regional PCI list.
- (8) On 29 July 2021, the European Commission submitted to ACER for its opinion the draft regional lists of proposed PCIs (cf. Annex 3 to this Opinion) falling under the categories set out in Annex II.2 to Regulation (EU) No 347/2013. The document contains the draft lists of gas projects per priority corridors (NSI West, NSI East, SGC and BEMIP), as well as the list of “projects that failed to prove positive benefit - cost ratio”.
- (9) The draft regional PCI lists submitted to ACER includes reservations on the candidate projects stated by the Member States during the Technical Decision Making Body meeting.

2. ASSESSMENT OF THE DRAFT GAS PCI LISTS

2.1. Assessment of the process and the methodology used for drafting the draft Regional PCI lists

2.1.1. The organisation of the PCI selection process

(10) The process followed during the 2021 selection round is similar to the one of the 2019 selection round. ACER welcomes the following positive aspects of the fifth PCI selection process:

- The involvement of various stakeholders, including non-governmental organisations, in the Regional Group meetings. The presentations on individual project proposals in these Regional Groups enabled all stakeholders to get up-to-date information about essential project features of all candidate projects.
- The allotment of sufficient time (from 22 January 2021 to 19 March 2021) for NRAs' consultations and assessments of the PCI candidates. In this round, the results of project-specific cost-benefit analyses (CBAs) were made available at the start of the consultation process. Nevertheless, similarly to the past selection processes, the CBA results did not contain all the information (Economic Performance Indicators) which NRAs need for a thorough assessment of the projects. NRAs had access to such information only if they individually requested and received the Economic Performance Indicators directly from project promoters.
- The development of the methodology for providing a sustainability indicator, taking into account the impact on CO₂ emissions and other externalities (such as PM_x, NO_x and SO_x), started well in advance of the PCI selection process. The participants of the Cooperation Platform were informed on the principles of the sustainability indicator development.

(11) ACER commends the discussions with the European Commission and the European Network of Transmission System Operators for Gas (ENTSOG) held in the framework of the Cooperation Platform². The European Commission led and chaired the proceedings of the PCI Cooperation Platform, and facilitated the ongoing activities during the PCI selection process.

(12) At the same time, ACER notes limited effects of specific discussions within the Cooperation Platform (CP), especially regarding further improvement of the quality and transparency of the selection process. In particular, ACER regrets not being able to discuss the final proposal of the methodology for the assessment of the candidate

² See Annex A.1.1 to this Opinion.

projects in advance of the last RG meetings (21-22 July 2021), where the project ranking was presented by the European Commission.

- (13) ACER would favour more clarity on how the decision was made for the approach taken with respect to the selected weights of the indicators, as well as on the more detailed methodology for costs scoring allocation and the predefined benefit - cost threshold value for inclusion in the draft regional PCI lists. ACER is of the opinion that the selected weights among the four specific criteria, set by Article 4(2)(b) of Regulation (EU) No 347/2013, should have been the result of a studied approach and a substantiated dialogue among the Regional Group members.
- (14) ACER recommends for the next selection round that the European Commission provides intermediate results of the final scoring to the participants of the Cooperation Platform in advance of the last Regional Group meeting. This would allow ACER and ENTSOG to gain better insight and provide informed comments on the application of the methodology before the ranking is presented to the RGs.
- (15) Even though the European Commission's requests to ACER and ENTSOG for inputs to the Cooperation Platform were made well in advance of the meetings, the level of acceptance of suggestions and requests made by ACER and NRAs was below their expectations, in particular in the area of a transparent application of the methodology for the assessment of the candidate projects.
- (16) In order to further improve the efficiency and transparency of future PCI selection processes, ACER recommends that:
- The information available in ACER's most recent PCI monitoring report be taken into account, by also making evident if and how the information from the report has been considered when deciding on the inclusion or exclusion of projects in the final PCI lists.
 - Greater transparency should be provided on the PCI assessment process, especially when various stakeholders request the disclosure of more details of the final ranking. ACER notes that the results of the calculations used for project ranking were presented at the Regional Group meetings held on 21-22 June 2021. However, the results presented at these meetings only covered those projects which were selected for inclusion in the draft regional lists, meaning that calculations were not made available to all Regional Groups' members for all projects proposed by the Regional Groups³.
 - Due to complexity of the PCI assessment methodology combined with a simplified description, ACER finds it difficult to reproduce the calculations and verify the

³ For example, no calculation results were provided for competing projects and these projects were not ranked. Only explanation provided that they have had lower scoring.

results. ACER recommends that the methodology should rather be renamed “Principles of PCI selection and ranking”, which avoid giving an impression of a detailed methodology that would be easily applicable.

- The proposed draft regional PCI lists should provide more details on how the assessment was carried out and the justification for the inclusion or exclusion of certain candidate projects from the draft lists be provided to all members of the Regional Groups.

(17) ACER notes that the final TYNDP 2020 was finalised only in July 2021, which firstly means that TYNDP was late and secondly, it was deemed inadequate by ACER. ACER recommends that Commission clarifies how both the late submission and its inadequacy affected the PCI selection process.

2.1.2. Identification of infrastructure needs and related preparatory activities

(18) ACER finds that the methodology used for the identification and assessment of infrastructure issues and needs helps to ascertain whether a candidate project addresses an infrastructure gap, or whether it may lead to redundant capacities in the existing gas transmission system. ACER positively notes that the PCI selection process included a comparative assessment of the way in which candidate projects address system development needs.

(19) ACER welcomes the simplification of the methodology used for the identification of infrastructure needs, notably the reduction and the simplification of indicators.

(20) As in previous selection processes, ACER commends the high level of consistency between the outputs of the methodology for the identification of infrastructure needs and the methodology for assessing the candidate PCI projects, achieved by the use of the same indicators.

(21) ACER appreciates the important improvement of the process by the inclusion of the sustainability assessment. In particular, the sustainability need was recognised in each Member State, and projects had to show their contribution to address it.

(22) ACER calls for greater transparency of the results stemming from the application of the methodology for the identification of infrastructure needs, which has been presented during RG meetings. ACER is of the opinion that the results should be available to all members of the RGs, rather than being only available and discussed bilaterally with a requesting Member State.

2.1.3. The selection methodology for candidate projects

(23) ACER appreciates the Commission’s study performed for the purpose of measuring the contribution of gas infrastructure projects to sustainability. The study has been conducted well in advance of the PCI selection process, also involving ENTSOG. A

comparison between the newly developed “sustainability methodology” and the one used in the 2019 PCI selection process could show the improvements which the updated methodology brought; however, unfortunately no such comparison has been presented during the process. Such a comparison could highlight the improved assessments of the projects’ contributions to sustainability and provide better insights into the way in which each project helps to resolve the need for sustainability.

- (24) In this context, ACER commends ENTSOG for introducing a flow-based allocation of sustainability benefits to candidate projects. In particular, ACER positively notes that the ability of existing infrastructure to flow gases is considered first, and only then the potential benefits resulting from incremental flows attributable to candidate projects are considered.
- (25) In order to properly measure the contribution of gas infrastructure projects to sustainability and take this into account, ACER recommends for the next selection process to address also the methane emissions as a part of the sustainability indicator. An evaluation of projects’ methane emissions from project-level and system-wide emissions perspective would then give a more complete picture on the assessed projects’ impact on GHG emissions.
- (26) ACER notes that the benefits of projects have been considered only when addressing the system needs identified per MS, and not beyond the identified system need’s threshold. ACER acknowledges that such a way of considering projects’ benefits ensures that only the most relevant projects addressing system needs are considered for the PCI list. ACER also welcomes the approach whereby more benefits are allocated to projects that positively contribute to improvements in MSs which are in a worse initial position from a system situation perspective, i.e. in MSs which are lagging behind the predefined threshold.
- (27) Comparing to the previous PCI selection process, ACER sees no improvement in the PCI assessment methodology used for the scoring and ranking of the candidate projects. The PCI assessment methodology only foresees the use of non-monetised benefits, i.e. the methodology relies entirely on non-monetised multi-criteria analyses and assessments, and completely bypasses the capabilities of the existing 2nd CBA Methodology to monetise benefits⁴, as well as any already available information about monetised benefits. Even when taking into consideration the serious limitations of the 2nd CBA Methodology⁵ for monetising benefits, the reliance solely on non-monetised indicators obscures a fundamental feature of the proposed projects, namely the

⁴ ACER recalls its view from the past opinion that the absence of full monetisation of the expected benefits of projects renders the CBA not fit for the purpose of correctly comparing all the costs and all the expected benefits associated with the projects’ planned implementation.

⁵ ACER recalls its view from the past opinion that the quality of ENTSOG’s TYNDP should be improved, and in particular the results of the application of the PS-CBA, so that the TYNDP would produce an output for each project which unambiguously demonstrates whether a project’s benefits exceed its costs in monetary terms, and indicate the economic value of all the net benefits individually for all proposed projects on a comparable basis.

balance of costs and monetised benefits which projects are expected to bring. Furthermore, ACER regrets that the Economic Performance Indicators of the projects were not available to the Regional Groups, but only at a specific request of an NRA to the respective project promoter.

- (28) ACER recalls its view that the 2nd CBA methodology should be of such nature and implementation modality as to allow all stakeholders independently to replicate the CBA results. ACER proposes that the PCI assessment methodology contains clear procedures and techniques allowing Regional Groups members independently to replicate the technical results, should they wish to do so.
- (29) Furthermore, ACER recalls its recommendation that the European Commission foresees the relevant data collection and provision tools, which should enable all stakeholders, including NRAs, TSOs, and ENTSOG, to assess the impact of energy supply-side and demand-side scenarios on various proposed projects, and the individual contribution of the proposed PCIs to sustainability under such scenarios.
- (30) ACER recommends the Commission to inform RGs members on the scoring of the projects' sustainability benefits in order to have clarity on how each project contributes to the sustainability goals.
- (31) ACER sees a lack of criteria in the PCI assessment methodology for the allocation of points to PCI candidates' costs in cases where the number of projects in the relevant RG is considered to be "very small". ACER recommends to specify in the methodology clearly when and how points for costs are to be allocated to such projects, as the current definition seems to be too vague, making the replication of the scoring impossible. Commission should ensure consistent application of the criteria across regions, taking into account regional specificities where applicable.
- (32) ACER recommends Commission to specify the benefit - cost threshold value in the PCI assessment methodology as applied in all Regional Groups, which means before the meeting where the final ranking of the projects is presented to the Regional Groups. A predefined benefit - cost threshold value would provide greater clarity of the criteria that candidate projects need to meet in order to be included in the draft regional PCI lists.

2.2. Assessment of the proposed PCIs in the draft Regional PCI lists

The NRAs reviewed and assessed the candidate PCIs between 22 January 2021 and 19 March 2021. The NRAs assessed 39 projects⁶ (34 at group level and 5 at individual level). For 22 PCI candidates, the relevant NRAs provided coordinated assessments.

⁶ More detailed consultation outcomes are summarised in the Annex II of this Opinion

- (33) The NRAs assessed the inclusion of the PCI candidates in the National Development Plans, the cross border relevance of the project candidates, the compliance of the projects with the policy criteria provided in Article 4(2)(b) of Regulation (EU) No 347/2013, the consistency of the cost and benefit data provided by the project promoters, the merits of the qualitative project analyses, and the soundness of the projects' implementation schedule, in particular the commissioning dates.
- (34) ACER welcomes the fact that the draft regional PCI lists contain a much smaller number of projects in comparison to the 4th PCI list, being reduced by approximately one third, which corresponds to the very limited needs for additional gas infrastructure in Europe in view of decarbonisation goals. ACER notes that the proposed draft gas PCI list is now about 80% shorter than the 1st PCI list. ACER supports the need to very cautiously and selectively plan additional gas infrastructure in view of the evolving needs and energy policy priorities and to avoid potential redundancy in gas infrastructure, while, at the same time, focusing on proposed projects which can address identified needs in an efficient way.
- (35) ACER notes the consistent application of a non-monetised benefit - cost threshold across RGs, with the threshold for the inclusion of a project in the draft regional PCI lists set to the value one (1). One inconsistency has been noted in NSI East where one of the projects with the scoring above the threshold (1) has not been proposed for the draft PCI list.
- (36) ACER notes that no reasoning is provided for the candidate projects not included on the draft PCI list beyond the ones which had insufficient benefit - cost ratio. Candidate projects not meeting general or specific criteria and the ones with commissioning date before March 2022 should be listed as well with relevant justifications.
- (37) Finally, in practical terms, ACER finds the draft PCI regional lists as submitted by the Commission at times challenging to understand. The projects' names do not correspond to existing PCIs' numbering or to the names of the candidate projects submitted for the Public Consultation. Therefore ACER recommends the Commission to align the projects naming and numbering with the ones used during Public Consultation and previous PCI list.

HAS ADOPTED THIS OPINION:

1. ACER notes that the draft Union PCI list demonstrates improvements in terms of:
 - Identifying infrastructure needs (reduction, simplification and alignment of indicators);
 - Applying a conservative approach to the consideration of the expected project benefits, whereby any project's benefits exceeding the identified needs or benefits beyond a defined threshold are not considered;
 - Considering the sustainability aspect of the PCI candidates;
 - Extending the duration of the consultation periods;
 - Applying, for the purposes of the selection, an identical benefit - cost threshold value across all Regional Groups.

2. ACER is unable to assess the consistent application of the cost-benefit analysis to all the candidate projects due to:
 - a. Lack of sufficient transparency of the methodology for assessing the gas candidate PCI projects, notably:
 - i. Lack of clarity about the PCI candidates' contribution to each specific criterion and about the extent to which each PCI candidate addresses an identified need;
 - ii. Unclear procedure for the calculation of cost scoring in the Regional Groups where the number of projects is very small.
 - b. Non-replicability of the results of the application of the PCI assessment methodology.

3. To help tackle the deficiencies listed above and enable ACER to perform its legal duty, the Regional Groups should continue their work on improving the transparency of the process and the methodology for assessing the gas candidate PCI projects, taking into account ACER's recommendations included in this Opinion. Furthermore a great emphasis should be put on monetisation and quantification of benefits to the maximum possible extent.

This Opinion is addressed to the European Commission.

Done at Ljubljana, on 29 October 2021.

- SIGNED -

*For the Agency
The Director*

C. ZINGLERSEN

Annexes:

Annex I – Process and main activities for establishing the draft regional PCI lists

Annex II – NRAs assessments of candidate projects

Annex III – The draft regional lists and NRAs' comments on the individual projects

ANNEXES

Annex 1. Process and main activities for establishing the draft regional PCI lists

A.1.1 PCI Cooperation Platform

The Cooperation Platform was the main forum of discussion during the PCI selection process between the European Commission, ACER, NRAs, and ENTSOG. As a result of the discussions, concrete proposals were presented to the Regional Groups for use in their decision-making. The participants in the Cooperation Platform regularly discussed trilaterally key issues during numerous teleconferences held between March 2020 and July 2021. In certain instances, the participants in the Cooperation Platform expressed divergent views. In these instances, the final proposals to the Regional Groups were formulated by the European Commission.

The joint work in the Cooperation Platform facilitated the development of a methodology for the identification of infrastructure needs and of the methodology for the assessment of PCI candidates.

A.1.2 Identification of infrastructure needs

The indicators used to identify the infrastructure needs were the following:

Security of Supply

- Curtailed Demand (CD);
- Single Largest Infrastructure Disruption (SLID);

Market Integration and Competition

- Commercial Source Access (CSA);
- Minimum annual supply dependence (MASD);

Sustainability

- Sustainability

Other

- Adaptation to high-calorific gas
- Physical isolation
- Access to a new source

ACER considers such an exercise essential for identifying those regions and Member States where only infrastructure developments can solve an existing bottleneck and, consequently, where project promoters are expected to put forward project proposals. In order to facilitate the assessment of the proposed projects, promoters had to indicate, in the course of the call for PCI applications, which infrastructure need(s) their candidate project would address.

A.1.3 Process schedule and main activities

The European Commission convened an introductory and 4 regular meeting rounds of the gas Regional Groups between 17 November 2020 and 22 June 2020. The milestones of the PCI selection process are highlighted in the table below.

Table 1 - Main activities carried out in the framework of the Regional Groups in the PCI selection process

| Date | Milestone / meeting |
|----------------------|--|
| 17 November 2020 | PCI cross-Regional gas kick off meeting - PCI process (2020 / 2021) in view of preparing the 5 th Union list |
| 25 November 2020 | Opening call for gas projects to be submitted as candidates for the 5 th European Union PCI list |
| 7 January 2021 | Deadline for project promoters to submit their PCI applications through ENTSOG's online tool. |
| 14 January 2021 | Start of the public consultation on PCI candidates in gas |
| 22 January 2021 | Start of NRA assessments of the consistent application of the criteria/CBA methodology and the evaluation of the cross-border relevance of the PCI candidates |
| 4 - 23 February 2021 | Open call for RG members for written comments on a draft needs methodology |
| 10 February 2021 | Meetings of the TEN-E cross-Regional Groups on gas – specific country needs and presentation of the methodology for the identification of system needs |
| 15 - 16 March 2021 | Meetings of the TEN-E Regional Groups on gas: presentation on the draft final methodology for the identification of system needs and regional needs identification and validation |
| 19 March 2021 | Deadline for NRA assessments of the PCI candidate projects |
| 8 April 2021 | End of the public consultation on the PCI candidates |
| 12 – 30 April 2021 | Open call for RG members for written comments on Methodology for assessing the gas candidate PCI projects |
| 22 - 23 April 2021 | Meetings of the TEN-E Regional Groups on gas: presentation of the draft methodology for the assessment of the candidate projects to the members of the Regional Groups, NRAs consultation outcomes and 360° scrutiny of the candidate projects |
| 21-22 June 2021 | Meetings of the TEN-E Regional Groups on gas: final PCI assessment methodology presentation, ranking of PCI candidate projects and a proposal for including projects in the draft regional PCI lists |
| 15 July 2021 | Meetings of the technical Decision Making Bodies, finalising the draft regional PCI lists |
| 29 July 2021 | Draft regional PCI lists submitted to ACER |

A.1.4 ENTSOG's System Wide and the Project-specific CBA in the context of the PCI selection

For the purpose of PCI assessment, NRAs received the PS-CBA results on the starting date of the consultation, 22 January 2021. The results were based on the application of the 2nd CBA Methodology⁷. Depending on the maturity of each project, the PS-CBA assessment evaluated the impact of projects under different infrastructure levels⁸, namely the “low infrastructure level” (existing infrastructure, as well as projects with final investment decision – FID - taken) and the “advanced infrastructure level”.

The impact of a given project was assessed by comparing the situations “with the project” and “without the project” (“incremental approach”) for each considered infrastructure level and for each scenario. Generally, benefits generated by projects tended to be higher in the low infrastructure level where the infrastructure grid is less developed (consisting of only existing infrastructure and FID projects), whereas in the case of the advanced infrastructure level, the infrastructure gaps may be already (partially) filled by possible competing projects.

ENTSOG's 2nd CBA Methodology is essentially a multi-criteria analysis method which combines some monetised benefits with non-monetised or quantitative elements. Benefits have been calculated for the years 2025, 2030 and 2040.

For the purpose of the PCI selection process, PCI candidates were assessed only for the timeframe until 2030, in line with the EU 2030 targets. The assessment of PCI candidates was based on benefits calculated by using the TYNDP 2020 “National Trends” scenario. The infrastructure level used for the project assessments was the “low infrastructure level”. In the case of competing projects, the results calculated by using the advanced infrastructure level and timeframe until 2040 were considered.

Ultimately, only the non-monetised indicators from the PS-CBA were taken into account in a multi-criteria analysis and candidate project assessments. In ACER's view, assessing the

⁷https://www.entsog.eu/sites/default/files/2019-03/1.%20ADAPTED_2nd%20CBA%20Methodology_Main%20document_EC%20APPROVED.pdf

⁸ ENTSOG uses different infrastructure configurations (called “levels”) when considering the available infrastructure on the basis of which the PCI candidates are assessed at system-wide level in order to identify how they mitigate the investment gaps:

1. The “low infrastructure level” considers only the existing infrastructure and FID projects; it is the reference point for the identification of infrastructure needs.
2. The “advanced infrastructure level” considers the existing infrastructure, FID projects, and “advanced” projects. This level represents a certain configuration of the infrastructure with reasonable confidence, therefore providing a meaningful basis for the energy system-wide assessment of the concerned projects.

benefits by only using non-monetised indicators essentially makes it impossible to demonstrate that a given project's benefits exceed its cost.

A.1.5 TYNDP related issues – cost data, distinction of the TYNDP and the PCI selection process

As in past opinions, ACER reiterates that cost estimates for the candidate projects⁹ constitute an essential part of the project attributes, given the requirement to demonstrate that a candidate project's benefits exceed its costs. As the potential overall benefits of the project must outweigh its costs¹⁰, no substantive assessment of the fulfilment of this criterion can be carried out without a comparison of the project's monetised benefits and its cost.

Regarding the criteria established in the Regulation which requires that a PCI candidate be included in the TYNDP, ACER points out that being included in ENTSOG's TYNDP is a necessary, but not a sufficient condition for a project to be put forward as a PCI candidate. PCI candidates must contribute significantly to optimising EU's gas network development by addressing clearly present needs, to the Union's overall energy and climate policy objectives, and to the creation and the efficient functioning of the single gas market.

A.1.6 Establishment of project groups for the PS-CBA, treatment of maturity and of complementary and competing projects

As in the 2019 PCI selection process, candidate projects were grouped so that the CBA could assess the combined benefits for those projects which are complementary¹¹ in nature. The grouping was circulated to NRAs on 22 January 2021. NRA assessments of the consistent application of the criteria and the CBA methodology¹², and the evaluation of the cross-border relevance of candidate projects were carried out on the basis of these project groups.

⁹ Including both the total investment costs up to the commissioning of the project and the entire lifetime costs.

¹⁰ Cf. Article 4(1b) of Regulation (EU) No 347/2013.

¹¹ This includes projects which are dependent on each other (i.e. enabler and enabled project) or which mutually enhance each other's benefits. Competing projects were not included in the same group.

¹² Cf. further details of the NRA assessments in Annex 2.

Annex 2. NRA assessment of candidate projects¹³

In line with the provisions of Annex III 2(7) to Regulation (EU) No 347/2013, the NRAs cooperating in the framework of ACER checked the consistent application of the criteria and the CBA methodology and evaluated the cross-border relevance of the candidate projects for PCI lists. The NRA checks and evaluations were carried out between 22 January 2021 and 19 March 2021. The scope of the assessments covered the candidate projects and project groups. The summary of the assessment results was communicated to the Regional Groups on 22 April 2021¹⁴.

The assessment included the following main elements:

- Presence of the candidate projects in the National Development Plans of the hosting Member States;
- Compliance with the criteria of cross-border relevance¹⁵, in line with Article 4.1(c) of Regulation (EU) No 347/2013;
- Compliance with the specific policy criteria¹⁶, in line with Article 4.2(b) of Regulation (EU) No 347/2013;
- Consistency of the indicated capital expenditure (CAPEX) and operational expenditure (OPEX) data of the project and the information available to the NRA from other sources;
- Consistency and validity of the simulation results and the Economic Performance Indicators¹⁷;
- Credibility of the qualitative analysis;
- Whether the overall benefits by the project outweigh its costs;
- NRAs' own assessment of the realism of the indicated commissioning date; and
- Objections (if any) to the inclusion of the candidate project in the draft regional PCI lists.

The NRAs examined 34 PCI candidates at the Group level (out of the 41 in total) and 5 at individual level. Two projects being part of a project groups, TRA-A-302 (part of EAST 16A) and TRA-N-0066 (part of EAST_15), were assessed only on individual level. Additionally,

¹³ The results in this section cover candidate projects that were grouped and communicated to the Regional Groups in the beginning of the process, thus including a broader scope of projects than those on the draft regional PCI lists.

¹⁴ ACER shared the detailed NRAs assessment table with the European Commission.

¹⁵ These criteria scrutinise whether the candidate project involves at least two Member States by directly crossing the border between them, or it is located in one Member State but has a significant cross-border impact, or it crosses the border of an EU Member State and a country of the European Economic Area.

¹⁶ These are: security of supply, market integration, competition and sustainability.

¹⁷ Including net present value, the benefit-to-cost ratio and the sensitivity of the cost figures, where applicable, due to non-availability of the Economic Performance Indicator data for NRAs, unless direct requests for such data were made by the NRAs to project promoters.

SGC_2b and 3b were assessed both at the group level, as well as (project TRA-A-0068) at individual level. All projects meet at least one of the specific policy criteria, with 21 of the assessed projects contributing to all four specific policy criteria.

Regarding cross-border relevance, NRA indicated one project (ETR-N-20) as not being able to be assessed against criteria of Article 4(1)(c) of the Regulation (EU) No 347/2013.

One candidate project (ETR-N-20) is not included in the NDPs of hosting Member State, and eleven are only partially included in the NDPs.

By looking at other elements, NRAs confirmed for 22 of the candidate projects that the data for CAPEX is consistent.

In 31 cases, NRAs saw as credible the candidate projects' specific simulation results identifying benefits and in 34 cases NRAs evaluated positively a credibility of the qualitative analysis.

As regards the planned commissioning dates, NRAs estimated that 21 of the assessed projects could be completed by the indicated deadline. For 12 of the assessed projects, NRAs indicated that their commissioning could realistically take place at a later date than the one indicated by the promoter, and for three projects the NRAs were unable to assess the credibility of the indicated commissioning date.

Overall, the results demonstrate that more than half (26) of the NRAs consider that the overall benefits of PCI candidates outweigh its costs. The second most frequent reply (8) of NRAs was that they are not able to assess and in 5 cases NRAs expressed divergent views.

ACER notes that Economic Performance Indicators were not provided by ENTSOG to NRAs, and that instead NRAs needed to request this data directly from the promoters if the NRAs wished properly to assess the candidate project. Consequently, in many instances the NRAs were unable to assess the projects or responded that no data had been provided.

NRA assessments by corridor

| Corridor | Number of candidate projects | |
|-----------------|-------------------------------------|--|
| | NRA assessments | Assessments in coordination with other NRAs |
| NSI West | 3 | 2 |
| NSI East | 24 | 11 |
| SGC | 7 | 6 |
| BEMIP | 5 | 4 |
| TOTAL | 39 | 23 |

NRAs did not provide assessments for project groups: BEMIP_10, EAST_19, EAST_23 and EAST_24a. Additionally, partial assessments were provided for three project groups:

EAST_15 (TRA-N-0066), EAST_16a (TRA-A-0302) and EAST_16b (TRA-A-0302; TRA-A-0068).

Consistency of CAPEX figures

| Corridor | Number of assessed candidate projects | | | | |
|--------------|---------------------------------------|--------------|------------------|------------------|-------------------------|
| | Consistent | Inconsistent | No data provided | Unable to assess | Divergent views of NRAs |
| NSI West | 2 | 0 | 1 | 0 | 0 |
| NSI East | 14 | 3 | 1 | 1 | 5 |
| SGC | 1 | 4 | 0 | 1 | 1 |
| BEMIP | 5 | 0 | 0 | 0 | 0 |
| TOTAL | 22 | 7 | 2 | 2 | 6 |

Divergent views of NRAs were expressed for EAST_11a, EAST_11b, EAST_14a, EAST_14b, EAST_14c, SGC_05b.

Consistency of OPEX figures

| Corridor | Number of assessed candidate projects | | | | |
|--------------|---------------------------------------|--------------|------------------|------------------|-------------------------|
| | Consistent | Inconsistent | No data provided | Unable to assess | Divergent views of NRAs |
| NSI West | 2 | 0 | 1 | 0 | 0 |
| NSI East | 6 | 0 | 1 | 12 | 5 |
| SGC | 5 | 0 | 1 | 1 | 0 |
| BEMIP | 5 | 0 | 0 | 0 | 0 |
| TOTAL | 18 | 0 | 3 | 13 | 5 |

Divergent views of NRAs were expressed for EAST_03, EAST_11b, EAST_12b, EAST_12c and EAST_13.

Specific simulation results (identifying benefits)

| Corridor | Number of assessed candidate projects | | | | | |
|--------------|---------------------------------------|--------------|------------------|-------------------------|------------------|-------------------------|
| | Credible | Not credible | No data provided | Group not mature enough | Unable to assess | Divergent views of NRAs |
| NSI West | 2 | 0 | 1 | 0 | 0 | 0 |
| NSI East | 17 | 1 | 0 | 0 | 0 | 6 |
| SGC | 7 | 0 | 0 | 0 | 0 | 0 |
| BEMIP | 5 | 0 | 0 | 0 | 0 | 0 |
| TOTAL | 31 | 1 | 1 | 0 | 0 | 6 |

Divergent views of NRAs were expressed for EAST_03, EAST_11a, EAST_11b, EAST_12b, EAST_12c and EAST_13.

Economic Performance Indicators (NPV, IRR, B/C ratio)

| Corridor | Number of assessed candidate projects | | | | | |
|--------------|---------------------------------------|--------------|------------------|-------------------------|------------------|-------------------------|
| | Credible | Not credible | No data provided | Group not mature enough | Unable to assess | Divergent views of NRAs |
| NSI West | 2 | 0 | 1 | 0 | 0 | 0 |
| NSI East | 1 | 0 | 8 | 0 | 11 | 4 |
| SGC | 1 | 0 | 5 | 0 | 1 | 0 |
| BEMIP | 2 | 0 | 2 | 0 | 1 | 0 |
| TOTAL | 6 | 0 | 16 | 0 | 13 | 4 |

Divergent views of NRAs were expressed for EAST_03, EAST_12b, EAST_12c and EAST_13.

Qualitative analysis seen as credible (i.e. apparently reasonable, valid, truthful)

| Corridor | Number of assessed candidate projects | | | | |
|--------------|---------------------------------------|--------------|------------------|------------------|-------------------------|
| | Credible | Not credible | No data provided | Unable to assess | Divergent views of NRAs |
| NSI West | 2 | 0 | 1 | 0 | 0 |
| NSI East | 20 | 0 | 0 | 0 | 4 |
| SGC | 7 | 0 | 0 | 0 | 0 |
| BEMIP | 5 | 0 | 0 | 0 | 0 |
| TOTAL | 34 | 0 | 1 | 0 | 4 |

Divergent views of NRAs were expressed for EAST_11b, EAST_12b, EAST_12c and EAST_13.

Do benefits outweigh the costs?

| Corridor | Number of assessed candidate projects | | | | | |
|--------------|---------------------------------------|--------------|------------------|-------------------------|------------------|-------------------------|
| | Credible | Not credible | No data provided | Group not mature enough | Unable to assess | Divergent views of NRAs |
| NSI West | 2 | 0 | 0 | 0 | 1 | 0 |
| NSI East | 12 | 0 | 0 | 0 | 7 | 5 |
| SGC | 7 | 0 | 0 | 0 | 0 | 0 |
| BEMIP | 5 | 0 | 0 | 0 | 0 | 0 |
| TOTAL | 26 | 0 | 0 | 0 | 8 | 5 |

Divergent view of NRAs were expressed for EAST_03, EAST_12b, EAST_12c, EAST_13 and EAST_14b.

NRAs assessment of the date of commissioning indicated by project promoters

| Corridor | Number of assessed candidate projects | | | | | |
|--------------|---------------------------------------|----------|-----------|-------------------|------------------|-------------------------|
| | In the same year | Sooner | Later | Not likely at all | Unable to assess | Divergent views of NRAs |
| NSI West | 1 | 0 | 1 | 0 | 1 | 0 |
| NSI East | 9 | 1 | 10 | 0 | 1 | 3 |
| SGC | 2 | 4 | 0 | 0 | 1 | 0 |
| BEMIP | 4 | 0 | 1 | 0 | 0 | 0 |
| TOTAL | 16 | 5 | 12 | 0 | 3 | 3 |

Divergent views of NRAs were expressed for EAST_12b, EAST_12c and EAST_13.

Do NRAs object to the inclusion of the project in the final PCI list?

| Corridor | Number of assessed candidate projects | | | |
|--------------|---------------------------------------|-----------|------------------|-------------------------|
| | Yes | No | Unable to assess | Divergent views of NRAs |
| NSI West | 0 | 3 | 0 | 0 |
| NSI East | 0 | 23 | 0 | 1 |
| SGC | 0 | 7 | 0 | 0 |
| BEMIP | 0 | 5 | 0 | 0 |
| TOTAL | 0 | 38 | 0 | 1 |

Divergent views of NRAs were expressed for EAST_11b.

Annex 3. Draft regional PCI lists¹⁸ and NRA comments on individual projects

1. NSI West Gas

| Project name | NRA comments |
|---|---|
| Connection of Malta to the European Gas Network via a new subsea pipeline | REWS and ARERA agree to the inclusion in the final PCI list of the Melita Trans Gas Pipeline Malta - Italy interconnection project. |
| Adaptation from low to high calorific gas in France and Belgium ¹⁹ | |

2. NSI East Gas

| Project name | NRA comments |
|---|--------------|
| <p>Cluster of infrastructure development and enhancement enabling the Balkan Gas Hub including the following projects:</p> <ul style="list-style-type: none"> -Interconnection Greece – Bulgaria [currently known as "IGB"] between Komotini (EL) – Stara Zagora (BG); compressor station at Kipi (EL) -Rehabilitation, modernization and expansion of the Bulgarian transmission system -Gas interconnection Bulgaria – Serbia [currently known as "IBS"] | |

¹⁸ As submitted to ACER for its Opinion, including project names.

¹⁹ Information on the MS reservation [expressed during the t-DMB 15 July meeting]: France expressed its reservation on this project as no more in need of PCI status.

| | |
|--|---|
| <p>Cluster of projects to increase storage capacity in South-East Europe, including:</p> <ul style="list-style-type: none"> -Chiren underground gas storage expansion (Bulgaria) -South Kavala underground gas storage facility and metering and regulating station (Greece) -And one of the following projects in Romania: <ul style="list-style-type: none"> o Bilciuresti underground gas storage o Depomures underground gas storage | |
| <p>BRUA pipeline corridor Phase 2 including: Expansion of the transmission capacity in Romania from Recas to Horia towards Hungary up to 4.4 bcm/a and expansion of the compressor stations in Podisor, Bibesti and Jupa; Black Sea shore; Podișor (RO) pipeline for taking over the Black sea gas; and the Romanian-Hungarian reverse flow: 2nd stage compressor station at Csanádpalota (HU)</p> | <p>HEA: 6.24 Cluster phased capacity increase on the (Bulgaria) — Romania — Hungary — (Austria) bidirectional transmission corridor 6.24.4 ROHU(AT)/BRUA – 2 nd phase: Under consideration and rescheduled, because March 2020 Open Season was unsuccessful due to lack of market interest. Excess capacity needs have been identified in the 2021 market survey. The advertised RO>HU capacity is currently 200,000 m3/h (15°C) and the maximum demand with the new demand submitted is 216,000 m3/h (15°C), only in gas years 2027/28-2029/30 the capacity demand is higher than the advertised demand. Transgaz will be consulted shortly on how to meet this demand.</p> |
| <p>Development and enhancement of transmission capacity of Slovakia – Hungary interconnection</p> | <p>ÚRSO: NRA fully support this development project. The regular incremental process is expected to take place in 2022. This project presents an increase of diversification of gas supply route.</p> <p>HEA: 6.2.13 Development and enhancement of transmission capacity of Slovak-Hungarian interconnector: Enhancement of transmission capacity of Slovak-Hungarian interconnector – Comissioned (2019-10-01) Development of transmission capacity of Slovak-Hungarian interconnector – Under consideration, due Unsuccessful auction in July 2020. The new 2021 market survey has been</p> |

| | |
|----------------------------------|---|
| | <p>done, no capacity requests have been received. No new incremental process will be launched. No progress is expected until a new demand is identified.</p> <p>The TSO is obliged by the NRA's Resolution to continuously monitor any capacity demand and to annually report on any relevant transmission demands.</p> |
| Interconnection Croatia-Slovenia | <p>AGEN SI: The main benefits of this project would be realized only in connection with the PCI candidate project EAST_14A (SI-AT interconnection). Both projects together represent the PCI candidate project EAST_14C (gas corridor HR-SI-AT). Another important precondition is capacity enhancement of LNG Krk in the coming years. Without these two preconditions (enabled gas flow from LNG Krk to Baumgarten), the EAST_14B project (HR-SI interconnection) is not commercially interesting and therefore economically not viable. The benefits in the field of security of supply (SoS) do not outweigh its costs.</p> <p>HERA: HERA fully supports inclusion of the project candidate Interconnection Croatia-Slovenia on the 5th PCI list, which would allow higher gas flow and bidirectional operation on the gas route AT-SI-HR.</p> |
| LNG terminal in Gdansk, Poland | <p>URE: LNG terminal in Gdansk and Poland–Denmark North Sea interconnection [currently known as “Baltic Pipe”] is fully justified. We do not object to the inclusion of the candidates on final list. Both projects meet required criteria and assessment on projects concludes positive benefits for market and infrastructure.</p> |

3. SGC

| Project name | NRA comments |
|-------------------------------|--|
| LNG import terminal in Cyprus | <p>CERA: Comment on ‘LNG import terminal in Cyprus’ (SGC_04)</p> <ol style="list-style-type: none"> 1. CERA welcomes the inclusion of the project in the 5th PIC list since the project contributes significantly to market integration, sustainability, security of supply and competition. |

| | |
|---|---|
| | <p>2. The provided project Economic Performance Indicators through the CBA, that were evaluated during the assessment of the investment request are seen as credible. There are no other data on EPIs available.</p> |
| <p>Cluster of infrastructure projects to bring new gas from the East Mediterranean gas reserves including:²⁰</p> <ul style="list-style-type: none"> - Pipeline from the East Mediterranean gas reserves to Greece mainland via Cyprus and Crete [currently known as "EastMed Pipeline"], with metering and regulating station at Megalopoli, Greece - Offshore gas pipeline connecting Greece and Italy [currently known as "Poseidon Pipeline"] - Reinforcement of internal transmission capacities in Italy, including reinforcement of the South-North internal transmission capacities [currently known as "Adriatica Line"] and reinforcement of internal transmission capacities in Apulia region [Matagiola - Massafra pipeline] | <p>CERA: Comment on 'Eastmed Pipeline' TRA-N-0030 (SGC_05b)</p> <ol style="list-style-type: none"> 1. CERA welcomes the inclusion of the project in the 5th PIC list since the project contributes significantly to market integration, sustainability, security of supply and competition. 2. The Economic Performance Indicators and results are not provided. |

²⁰ Information on the MS reservation [expressed during the t-DMB 15 July meeting]: Regarding the Poseidon pipeline, Italy and Greece asked for the following statement to be reflected in the meeting minutes of the upcoming high-level decision-making body: "for the transport of gas from Greece to Italy, the Member States concerned are considering the offshore section of the Poseidon pipeline as well as other existing alternative infrastructure not included in this PCI list."

4. BEMIP

| Project name | NRA comments |
|---|---|
| <p>Cluster infrastructure upgrade in the Eastern Baltic Sea region including the following projects:</p> <ul style="list-style-type: none"> - Enhancement of Latvia — Lithuania interconnection - Enhancement of Inčukalns Underground Gas Storage (LV) | <p>LV NRA: PUC expresses support for the project “Enhancement of Latvia — Lithuania interconnection” because project together with other regional scale projects (for example, GIPL, Lithuania's part of the project and Enhancement of Inčukalns UGS) is important for the development of regional market, will help to diversify sources and routes, and will enable competition in the regional gas market, eliminate bottleneck for alternative gas flows once GIPL will be in operation.</p> <p>PUC expresses support for the project “Enhancement of Inčukalns Underground Gas Storage (LV)”. Inčukalns UGS is significantly important for LV and Regional security of supply as the region is located far away from deposit areas and main gas transmission routes. With working gas capacity of 24 TWh Inčukalns UGS represents the largest available gas storage in the Baltic Sea region. Project will facilitate competition in the developing regional market, and can be considered as additional gas source in winter, contributing to the market integration, ensuring Security of Supply and Sustainability. The aim of the project is to enhance the operations of the storage to allow the Inčukalns UGS to maintain its functionality after pressure upgrade in Baltic transmission system. The key benefit from the implementation of the Project is the ability to reduce the dependence of withdrawal capacity on the volume of gas reserves in the Inčukalns UGS. Also with other regional scale projects (GIPL, enhancement of LV-LT, and completed Balticconnector, EE-LV interconnection) can be used more effectively from the successful implementation of the Inčukalns UGS enhancement project.</p> |
| <p>Poland–Denmark North Sea interconnection [currently known as “Baltic Pipe”]</p> | <p>URE: LNG terminal in Gdansk and Poland–Denmark North Sea interconnection [currently known as “Baltic Pipe”] is fully justified. We do not object to the inclusion of the candidates on final list. Both projects meet required criteria and assessment on projects concludes positive benefits for market and infrastructure.</p> |