



European Union Agency for the Cooperation  
of Energy Regulators

# **OPINION**      **No 10/2025**

**on the 2025 draft regional lists of proposed  
electricity and hydrogen projects of common  
interest and projects of mutual interest in  
trans-European energy infrastructure**

30 September 2025

## Executive summary

The trans-European energy infrastructure development is a cornerstone of the European Union's efforts to achieve a secure, integrated and climate-neutral energy system that ensures affordability and supports competitiveness. The electricity and hydrogen grids facilitate the integration of renewable energy sources and ensure market integration across Member States. The expansion of the energy networks is essential for delivering the European Green Deal and Europe's energy and climate goals, which is why the TEN-E aims to identify and facilitate the development of Projects of Common Interest (PCIs) and Projects of Mutual Interest (PMIs).

PCIs and PMIs are electricity and hydrogen infrastructure projects, including smart grid solutions, that contribute to the development of trans-European energy infrastructure. They represent the tip of the spear of the energy transition and are trusted to deliver the greatest benefit to the European society.

ACER's role in the PCI/PMI selection process, as defined by the TEN-E Regulation is not to give a 'second opinion' on the relative merits of the different projects, thereby helping decision makers rank such projects for ultimate selection, but rather to focus on the selection process itself<sup>1</sup>, including the consistent application of methodologies and selection criteria across regions, the data utilised etc. Accordingly, in its Opinion below, ACER focuses on key selection process steps which in the Agency's view, if applied appropriately, would strengthen the credibility of the PCI/PMI selection process.

### Key findings and recommendations

ACER acknowledges that the use of a common set of principles across Regional Groups, e.g. scenarios, policy targets and shared methodologies, contributed to consistency in the 2025 selection process. However, this is insufficient to fully achieve the consistent application of the selection criteria across regions, which requires timely availability of data as well as full transparency. These requirements were not fully met due to a combination of factors outlined below.

First, the Ten-Year Network Development Plans (TYNDPs), including the cost-benefit analysis results, were not delivered on time. This shortcoming substantially undermined the assessment of candidate projects' benefits.

Second, the assessment of infrastructure capacity needs lacked granularity; this is a crucial input for determining how much infrastructure to build and where, which relies on the definition of capacity needs, at least, per border.

Third, ACER acknowledges that the final ranking of projects could factor in non-monetised drivers, including the fulfilment of wider EU policy objectives on top of the pure monetised cost-benefit based results. In ACER's view, by differentiating in a transparent way the monetised and non-monetised benefits of the evaluation, the credibility of the selection process would increase. The range of available monetised benefits would already allow for a simpler, clearer, and more credible ranking of projects, as was suggested in previous ACER's opinions. Such a differentiation would also contribute to the adequate reflection of the EU-wide perspective when planning the future EU energy network.

Fourth, the inclusion of projects on the draft regional PCI/PMI lists after the conclusion of the Regional Groups' assessment can affect the trustworthiness of the process, unless adequate justifications concerning their inclusion are provided.

Specifically on hydrogen projects, ACER observes procedural improvements such as the submission of more detailed proposals and a more thorough scrutiny of the eligibility of projects. However, substantial shortcomings remain, such as unclear projects' benefits and in certain cases incomplete or inconsistent project information. Given the immaturity of the hydrogen sector, it is particularly important to ensure a proper assessment of project costs and benefits, based on robust estimates of future hydrogen demand. This not only facilitates the consistent application of the selection criteria but also

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<sup>1</sup> NRAs assess PCI/PMI candidates individually on their territory pursuant to TEN-E regulation, a summary of NRAs' assessment is presented in the Annexes I-IV.

supports the effective development of hydrogen networks<sup>2</sup>. The risk is endorsing projects, based on benefits that are not sufficiently substantiated. Moreover, the ability of the National Regulatory Authorities to perform meaningful assessments of hydrogen projects was limited given the insufficient information available for less mature projects, and the lack of competence of most NRAs over hydrogen infrastructure.

To tackle these challenges, ACER puts forward the following recommendations<sup>3</sup>:

- i. The ENTSOs' TYNDPs are the basis of the PCI/PMI selection process. Ensuring timely availability and adequate quality of the TYNDP data is thus essential. Albeit this specific recommendation is mostly directed to the respective ENTSOs, the European Commission can help ensure it is met.
- ii. Regional Groups should strive to maintain consistent hydrogen project groupings between the TYNDP CBA assessment and the PCI/PMI selection process. Early and stable definition of project groupings would ensure comparability, avoid distortions in calculated benefits, and allow for accurate assessments.
- iii. To ensure a consistent and trustworthy selection of projects across regions, ACER considers it is essential to rely primarily on monetised benefits so that the most beneficial projects are prioritised. By clearly differentiating between monetised and non-monetised benefits in a transparent manner, the credibility of the selection process would be strengthened, particularly in clarifying the weight given to each type of benefit.
- iv. The assessment of capacity needs is essential when choosing what and where to build. This relies on defining capacity needs per border. ACER thus strongly urges the improvement of the TYNDP infrastructure gaps identification and of the needs assessment methodology to provide per border results for each energy vector.
- v. Ensuring transparency and timely availability of data is crucial for a robust assessment and selection of projects. This enables ACER's scrutiny of consistency and allows the Regional Groups to better assess the candidate projects, thereby improving the trustworthiness and robustness of final PCI/PMI lists.
- vi. ACER recognises that complementary project evaluations, especially those requiring bilateral discussions outside the formal selection process, are often difficult to avoid. Nonetheless, they need to be made fully transparent and should not impact the consistent application of criteria across regions.
- vii. Currently PCIs and PMIs have no clear priorities distinguished between mature and less-mature electricity projects. ACER recommends introducing clear criteria to distinguish between mature and less mature PCI/PMI projects in the selection process, with verification by the Regional Groups, to ensure transparent prioritisation and to support the development of (sound) less mature projects until they are ready for construction.

Therefore, ACER reiterates its previous calls to continue improving the level of transparency and to establish a timelier project selection process; in particular, the underlying methodologies should be presented early enough to enable adequate stakeholder consultation and the calculation details underlying the final projects' scores should be fully disclosed to the Regional Groups.

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<sup>2</sup> Also an outcome of [ACER 2024 Market Monitoring Report](#), see executive summary, recital 10.

<sup>3</sup> Recommendations are addressed to the European Commission and the Regional Groups in their respective responsibilities, unless stated otherwise below.

As a final remark, the TEN-E Regulation requires the use of multiple scenarios when selecting PCIs and PMIs. Thus, ACER recommends following ACER's Scenario Framework Guidelines<sup>4</sup> to further enhance the credibility and robustness of the selection process by using the proposed scenario variants to stress test the central scenario results.

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[https://www.acer.europa.eu/sites/default/files/documents/Official\\_documents/Acts\\_of\\_the\\_Agency/Framework\\_Guidelines/Framework%20Guidelines/FG\\_For\\_Joint\\_TYNDP\\_Scenarios.pdf](https://www.acer.europa.eu/sites/default/files/documents/Official_documents/Acts_of_the_Agency/Framework_Guidelines/Framework%20Guidelines/FG_For_Joint_TYNDP_Scenarios.pdf)

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## 1. Background

- 1 Regulation (EU) 2022/869 on guidelines for trans-European energy infrastructure (TEN-E Regulation)<sup>5</sup> establishes guidelines to promote the development and interoperability of the priority corridors and areas of trans-European energy infrastructure that contribute to ensuring climate change mitigation, interconnections, energy security, market and system integration, competition benefiting all Member States and affordability of energy prices. These energy infrastructure priority corridors and areas are listed in Annex I of the TEN-E Regulation and include electricity, hydrogen and electrolysers, cross-border carbon dioxide network as well as gas and electricity smart grids. In particular, the TEN-E Regulation details procedures for identifying, implementing, and financing key projects of common interest (PCIs) and projects of mutual interest (PMIs) which contribute to implementing the energy infrastructure priority corridors and areas.
- 2 Every two years, the European Commission (the Commission) adopts a Union list of PCIs and PMIs, that is based on regional lists of proposed projects. The regional lists are drafted by Regional Groups (RGs)<sup>6</sup> and adopted by their decision-making bodies, which include Member States and the Commission, in accordance with the process outlined in Section 2 of Annex III to the TEN-E Regulation. An important step in this process is obtaining an opinion from ACER on the draft regional lists.
- 3 To that end, the RGs are required to submit their draft lists to ACER six months prior to the adoption of the Union list, including any Member States' opinions on potential project impacts. ACER is then tasked with issuing an opinion within three months, verifying whether the projects' evaluation criteria, such as eligibility and priority requirements set out in Article 4 and Annex IV of the TEN-E Regulation, and the cost-benefit analysis (CBA), are applied consistently across regions and projects.
- 4 ACER's opinion is addressed to both the Commission and the RGs. Within one month of receiving this opinion, each RG's decision-making body must adopt its final regional list of proposed projects. In finalising this list, the decision-making bodies must consider the proposal from their RG, ACER's opinion, and assessments from the NRAs or the Commission for projects outside their scope. They also take into account the advice of the Commission to ensure that the total number of projects on the Union list remains manageable, particularly at borders with potentially competing projects.
- 5 According to Article 3(5) of the TEN-E Regulation, when establishing the Union list based on the regional lists, the Commission shall ensure that only projects meeting the criteria in Article 4 are included, that cross-regional consistency is maintained based on ACER's opinion, and that the opinions of Member States regarding potential impacts are duly considered. The Commission also aims to keep the total number of projects manageable on the Union list.
- 6 This Opinion pertains to the draft regional lists submitted to ACER on 2 July 2025 by the RGs and is issued in accordance with Article 11(c) of Regulation (EU) 2019/942<sup>7</sup> and Annex III.2.14 of the TEN-E Regulation.

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<sup>5</sup> OJ L 152, 3.6.2022, p. 45.

<sup>6</sup> Regional Groups are formed under the Annex II.1 of the Regulation TEN-E and are composed of representatives of the Member States, national regulatory authorities, TSOs, the Commission, ACER, the EU DSO entity and ENTSO-E or ENTSOG.

<sup>7</sup> OJ L 158, 14.6.2019, p. 22.

## 2. Procedure

- 7 In view of the requirement of Annex III.2.8 to the TEN-E Regulation, ACER developed a consultation questionnaire to coordinate NRAs' inputs. NRAs provided assessments of the candidate projects on the eligibility criteria, as well as on projects' CBAs. Details of these assessments are presented in Annexes I - IV to this Opinion.
- 8 The NRAs' assessments of candidate PCIs and PMIs have been carried out for electricity projects between 7 February 2025 and 11 April 2025; for hydrogen projects between 9 May 2025 and 30 May 2025, for electricity and gas smart grids projects between 20 February 2025 and 11 April 2025.
- 9 The NRAs' assessments were presented to the RGs on 21 May 2025 (electricity smart grids), 11 June 2025 (electricity), 13 June 2025 (gas smart grids), 16 June 2025 (hydrogen), as an input to the evaluation of the candidate projects in the selection process. These individual or joint NRAs assessments, including their updates where relevant, were also considered as an input for preparing this Opinion.
- 10 On 24 June 2025, the RGs' decision-making bodies decided which projects to include in the draft regional PCI/PMI lists.
- 11 On 2 July 2025, the Commission, on behalf of the RGs, submitted to ACER the draft regional lists of proposed PCIs/PMIs agreed by the RGs' decision-making bodies and requested ACER's opinion on the projects falling under the NRAs' competence.
- 12 During the preparation of the draft regional lists, a significant number of NRAs stated that they lack legal competence (i.e. jurisdiction) over hydrogen projects within their respective Member States, therefore, currently they may not be in a position to offer scrutiny on the proposed hydrogen projects. At the time of NRA consultation on candidate projects, only eight NRAs (Belgium, Czech Republic, Germany, Luxembourg, Malta, Poland, Portugal, Sweden) possessed the necessary competence to oversee hydrogen projects. Consequently, not all NRAs assessed the candidate projects on their territory and provided their input during the selection process.
- 13 The ACER Electricity and Gas Working Groups provided their advice on 5 September 2025.
- 14 The ACER Board of Regulators issued a favourable opinion on 17 September 2025 in accordance with Article 22(5)(a) of Regulation (EU) 2019/942.

## 3. ACER assessment

- 15 In this section, ACER presents its views on the selection process, focusing on the methodologies used for identifying system needs and assessing projects - chapter 3.1 (i.e. the PCI/PMI selection methodologies), as well as its views on the projects proposed for inclusion in the final Union list – chapter 3.2.
- 16 ACER herein provides its opinion regarding electricity (overhead, underground and offshore transmission lines, storage and smart electricity grids), smart gas grids and hydrogen (pipelines, storage, reception and regasification facilities) infrastructure categories set out in Annex II.1 to the TEN-E Regulation, i.e. regarding the NSI West Electricity, NSI East Electricity, BEMIP Electricity, NSOG, BEMIP offshore, South West offshore, South East offshore and Atlantic offshore grids priority corridors, HI West, HI East, BEMIP Hydrogen, the Smart electricity grids and Smart gas grids thematic area, set out in Annex I to the TEN-E Regulation.

- 17 ACER's findings in the following sections are accompanied by recommendations concerning both the current selection process and the draft regional lists, as well as suggestions for improving future selection processes with regard to system needs methodologies and project assessment methodologies.
- 18 In Annexes I – IV to this Opinion, summary statistics on the NRAs' assessment of candidate projects and their views on the inclusion of projects in the final Union lists are presented. The summary statistics part provides an overview of how the NRAs assessed various aspects of the candidate projects, while the NRAs' assessment part indicates whether the NRAs did not support the inclusion of certain projects or were unable to assess them. NRAs' comments on specific projects proposed for inclusion in the final Union list that need more attention are presented in Annex V.

### Project selection process and organisation

- 19 ACER welcomes the opportunity for cooperation with the Commission and the European Networks of Transmission System Operators for Gas (ENTSO-G) and for Electricity (ENTSO-E), carried out within the framework of the Cooperation Platforms<sup>8</sup>, held separately for electricity and hydrogen projects.
- 20 Overall, in ACER's view the 2025 selection followed the established process, consistently with previous cycles, identifying Member States' needs and proposing priority projects. The engagement of stakeholders and the assessments of National Regulatory Authorities helped to support the selection of projects for the draft regional lists. As a result, many of the observations made in ACER's 2023 Opinions<sup>9</sup> remain valid, particularly regarding the selection process itself, the identification of infrastructure needs carried out within it, and the methodologies used to assess candidate projects.

## 3.1. Consistency of the criteria of the TEN-E Regulation and the cost-benefit analysis across regions

- 21 The assessment of candidate PCI/PMI projects is based on their compliance with the general and specific criteria set out in Article 4 of the TEN-E Regulation. In line with the general criteria, project promoters must demonstrate that the project is necessary for at least one priority corridor and that its overall benefits outweigh its costs. Projects must also exhibit a cross-border dimension, either by involving at least two Member States directly or indirectly, or by having a significant cross-border impact as defined in Annex IV of the TEN-E Regulation. Furthermore, candidate projects must fall within the eligible energy infrastructure categories listed in Annex II of the TEN-E Regulation. In addition to the general criteria, projects must contribute significantly to the specific criteria, defined by the TEN-E Regulation per each energy infrastructure category, such as sustainability, market integration, security of supply, system flexibility, competition and smart sector integration. The projects' compliance with the specific criteria has been substantiated through detailed, evidence-based information, as an outcome of the CBA calculations, provided by ENTSOs on behalf of project promoters or calculated and provided by project promoters themselves in case of smart grids projects.
- 22 Regarding the selection process and its consistency, the RGs applied a common set of principles (time horizon for the analysis, scenario, methodologies and same climate objective - EU's climate

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<sup>8</sup> The Cooperation Platform is an informal, working level team, chaired by the European Commission, where representatives from the European Commission, ENTSO-E, ENTSOG and ACER discuss the issues pertaining to the PCI/PMI selection process, aiming at finding solutions for a better PCI/PMI selection.

<sup>9</sup> [Opinion on draft regional lists of proposed electricity PCIs and PMIs.](#)  
[Opinion on draft regional lists of proposed hydrogen PCIs and PMIs.](#)

goal of reducing EU emissions by at least 55% by 2030) for each energy infrastructure category, as well as shared methodologies for identifying infrastructure needs and assessing candidate projects. The selection was carried out based on the general and specific criteria of Article 4 of the TEN-E Regulation across all regions. ACER notes that this approach contributed to a certain degree of consistency throughout the selection process and among the RGs.

- 23 ACER welcomes the Commission's and the RGs' thorough review of the candidate projects, including the verification of their eligibility and compliance with the technical, specific, and general criteria. As a result of applying this cross-border criteria verification, certain projects were considered not compliant or non-eligible for inclusion to the PCI/PMI list. In particular, a significant number of candidate hydrogen pipelines of radial configuration were identified as ineligible, primarily due to their intended purpose of connecting local supply sources to local demand centres, thereby serving predominantly national interests. In other cases, insufficient or non-detailed information submitted by project promoters prevented a proper assessment of the projects' eligibility or compliance.
- 24 Currently, PCIs and PMIs are not distinguished by their level of maturity, and they are not presented with clear prioritisation on the PCI/PMI lists. ACER sees merit in differentiating between mature and less mature PCI and PMI projects, particularly in light of the requirements set out for electricity PCIs in Articles 3(6) and 3(7) of the TEN-E Regulation and given that the PCI/PMI lists should include both mature projects that are expected to be commissioned within a few years and projects that are still in early phase and that require further studies to determine whether they are worthwhile to pursue. ACER therefore calls on the Commission to consider introducing criteria for identifying project maturity status for electricity PCIs as referred to in Articles 3(6) and 3(7) of the TEN-E Regulation and to apply them in the selection process, subject to verification by the Regional Groups. At least all projects which are in an "under consideration" status should be classified as less mature ones. Such an approach would facilitate the further development of less mature projects, including through EU grants for studies, and allow them, once sufficiently advanced, to be approved for construction.
- 25 To support the RGs in the assessment of candidate projects during the selection process, the NRAs, as required under Annex III.2.8 of the TEN-E Regulation, reviewed the consistent application of the criteria and the cost-benefit analysis methodology<sup>10</sup>, and evaluated the cross-border relevance of the candidate projects. ACER consolidated the NRAs' assessments and presented the outcome at the May and June meetings of the RGs and Priority Thematic Area<sup>11</sup>. The NRAs' contributions supported the decision-making process and facilitated the evaluation of the candidate projects prior to their inclusion in the draft regional lists. The results of the NRA assessments, along with relevant statistics, are provided in detail in Annexes I – IV of this Opinion.

### 3.1.1. Observations on hydrogen projects selection process

- 26 ACER notes several improvements in the hydrogen projects selection process compared to the previous selection process, including the submission of more concrete project proposals, more thorough scrutiny of project eligibility, and the inclusion of present value considerations for projects costs in the assessment methodology.
- 27 In order to enable a meaningful assessment and maximise collective benefits, projects are grouped into clusters and evaluated based on their combined ability to deliver greater value and address system needs more effectively. During the selection process, the RGs, in certain cases, used reformulated project clusters (elaborated in recital 50) for PCI/PMI candidates that differed from those clusters being used in the TYNDP process. However, due to changes made during

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<sup>10</sup> So called project assessment methodology as prepared and used by the RGs and is further analysed in the section below.

<sup>11</sup> Priority thematic areas are defined under the Annex I.4 of the TEN-E – smart electricity and gas grids.

the selection process (certain projects excluded or others included), the CBA assessment results derived from the TYNDP do not always correspond to the final cluster configurations used in the selection process. Therefore, potential changes in the application of project clustering and its impact on the assessment results remains unknown. ACER recommends that RGs propose and maintain the same project groupings in future selection process as proposed for the TYNDP CBA assessment in order to ensure consistency and avoid distortions in the calculated benefits resulting from changes in project grouping.

### 3.1.2. Assessment methodologies

- 28 For the purpose of identifying system needs in the electricity and hydrogen sectors, two separate methodologies were developed and applied during the PCI selection process. Similarly, two corresponding project assessment methodologies were developed to enable the assessment of project candidates, one for electricity and one for hydrogen and electrolysers. These methodologies were discussed within the framework of the Cooperation Platform meetings, coordinated by the Commission with inputs by the ENTSOs and ACER. The RGs were consulted and approved the system needs and project assessment methodologies prior to their application. The main inputs for the application of these methodologies are the results of the ENTSOs' TYNDPs. They are applied separately to analyse system needs and to assess projects during the PCI selection process, with adaptations made to fit the specific requirements of that process.

#### System needs methodologies

- 29 The system needs methodology is used to assess the relevant Member States' needs, highlighting possible infrastructure gaps for each of the TEN-E priority corridors. Similarly to the specific criteria set in the TEN-E Regulation for project assessment, the needs analysis should identify the infrastructure needs by looking at the sustainability, market integration and security of supply. Its primary objective is to support identifying which projects are essential for the development of the robust Trans-European energy network.
- 30 For electricity and offshore grid corridors, the identification of system needs methodology implemented was very similar to the one of the last selection process. ACER restates its view, that the infrastructure needs should be quantified at least per border (and not per country), based on the target capacities calculated in the TYNDP before the PCI/PMI selection and scrutinised and verified in the Regional Groups, and the discussion should focus on whether the candidate projects meet the specific need for extra capacity per border or on even more granular level.
- 31 For hydrogen infrastructure needs identification, the gap between projected hydrogen demand and national hydrogen production in 2040 was analysed, based on the plans and data submitted by Member States during the selection process (or taken from the NECPs). In cases where Member States were unable to provide the necessary data, the required information was sourced from the ENTSOG Infrastructure Gap Identification Report. However, not all Member States made hydrogen-related data available in their NECPs. As a result, the RGs had to rely on a combination of available NECP updates and ENTSOG data, based on established scenario, National Trend +, that uses in certain cases significantly different hydrogen supply and demand projections compared to the updates provided by Member States. ACER recommends that a single, harmonised data source be used in future selection processes. Ideally, this should be based on stable and reliable scenarios from which ENTSOs would identify infrastructure gaps and, subsequently, assess candidate projects in the project specific cost-benefit analysis (PS-CBAs).
- 32 Currently, the results of the system needs methodologies are presented at the Member State level, and their application indicates that, for all Member States, every analysed need is deemed necessary, which raises questions about the robustness of the methodologies, particularly if they are unable to distinguish between the specific needs of different Member States. To better serve the purpose and to support identifying which projects are essential for the development of the robust Trans-European energy network, ACER recommends that system needs are quantified

per border, based on target capacities calculated in the TYNDPs prior to the PCI/PMI selection. Discussions in the Regional Groups should then focus on whether candidate projects effectively address these identified cross-border capacity needs. The approach used by ENTSO-E in the Identification of System Needs in its TYNDP is a step in the right direction, and the system needs methodologies used for the selection process should follow this example.

### Project assessment methodologies

- 33 Separate project assessment methodologies were applied in the selection process for electricity projects, hydrogen and electrolyser projects, smart electricity grids, and smart gas grids. These methodologies followed a multi-criteria approach designed to evaluate all candidate projects within the same project category. Each methodology was used to verify compliance with the legal requirements by assessing general, specific, and technical<sup>12</sup> eligibility criteria. Candidate projects were then subject to a benefit-cost analysis based on data provided by project promoters<sup>13</sup> or ENTSOs (an outcome of the TYNDP processes).
- 34 ACER notes that for projects assessments, only the "National Trends +" scenario, was used in the selection process, whereas Annex IV of the TEN-E Regulation calls for "various planning scenarios" to be used. In its Scenario Guidelines, ACER specifies that the set of mid-term and long-term scenarios shall include, at least, a best-estimate central scenario (based on the NECPs) and contrasting "low"-economy and "high"-economy variants, which would serve to stress tests the central scenario project assessment. ACER, therefore, recommends that ENTSOs assess projects based on scenarios and variants developed based on ACER's Scenario Guidelines, and subsequently these are considered in the selection process.
- 35 Regarding the multi-criteria analysis approach used for the project ranking, ACER points out to its recommendation from its past PCI/PMI list Opinion<sup>14</sup>: *"In ACER's view, the multi-criteria analysis approach used for the ranking of the projects should have been avoided, as the spectrum of available monetised benefits could allow for a simple and easily understandable, purely CBA – based approach. The final ranking of projects can definitely factor in other drivers, including the fulfilment of wider EU policy objectives (e.g. coherence of EU Member States, increase of security of supply, integration in the EU internal energy market), on top of the pure CBA-based results, as long as these drivers are clearly defined. In ACER's view, this approach of structuring the process would considerably increase the credibility of the PCI/PMI selection process by differentiating in a transparent way between the technical and the policy-oriented aspects of the evaluation."* The same approach should be applied to the hydrogen sector, where, in the current selection process, no monetised benefit indicators were considered. ACER calls on the concerned RGs to ensure that, in the next selection process, monetised benefits of hydrogen projects are taken into account.
- 36 Important elements of the project assessment methodologies, such as the normalisation scale of monetised benefits (electricity specific), the threshold on the multi-criteria analysis and the consideration of non-monetised benefits (hydrogen specific) were presented to the RGs only at the latest stage of the PCI/PMI selection process, limiting the scope for the RG members to prepare in advance and provide their views. Therefore, ACER recommends that the discussion of the methodologies should take place at the beginning of the selection process. Also, a clear and well-documented description of the PCI/PMI selection methodologies, including all important information, such as the details of the implementation of the CBA rules for the calculation of the

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<sup>12</sup> According to eligibility criteria described in the TEN-E Annex II

<sup>13</sup> Project Promoters provide their own CBA calculations for the smart grids projects, for other categories the CBA results are provided by ENTSOs.

<sup>14</sup> [ACER Opinion No 10/2023 on draft regional lists of proposed electricity PCIs and PMIs](#)

present values of the benefits and costs of the candidate projects, should be provided to the RGs, allowing the replication of the calculations by interested RG members.

- 37 Furthermore, ACER calls for greater transparency in the application of the methodologies and in the presentation of the results obtained for candidate projects by the RGs. ACER is of the view that both the application of the methodologies and the corresponding calculation of the final scores should be made available to all members of the RGs in a transparent way, rather than being shared and discussed solely in bilateral exchanges with the concerned project promoters or Member States.

### 3.1.3. NRA assessment process

- 38 A summary of NRAs' assessments of candidate projects, together with related statistics, is presented in Annexes I - IV to this Opinion. It is noted that NRAs submitted an assessment for 94 out of 114 electricity candidate projects, 108 out of 198 hydrogen candidate projects, all 6 electricity smart grids candidate projects and 2 out of 3 smart gas grids candidate projects.

#### Electricity projects

- 39 ACER acknowledges that the electricity sector benefited from a relatively earlier availability of PS-CBA results as an outcome of the TYNDP process and a more mature set of indicators compared to other infrastructure categories. Specifically, the identification of system needs and project assessment methodologies used in the selection process for electricity were more developed, supported by a more structured and established data sets, which facilitated a clearer and more consistent evaluation of project candidates.

#### Hydrogen projects

- 40 ACER observes that the reliability of data sourced from the TYNDP was a major point of concern, NRA consultation was based on the provisional TYNDP data (no final verification of the PS-CBA results by the project promoters). In addition, the late availability of PS-CBA results<sup>15</sup> significantly constrained the NRAs' ability to perform timely and robust assessments. Therefore, project promoters should be required to submit complete information early in the process, and RGs should take steps to validate the completeness of submitted data before proceeding with the projects' assessment step.
- 41 In the initial planning of the hydrogen selection process, the NRA assessment of project candidates was foreseen early in the process. However, due to the very late delivery of the project specific cost-benefit analysis (PS-CBA) results by ENTSOG, an essential input for the assessment of candidate projects by the NRAs, the consultation was carried out with a significantly shortened timeframe (between 9 and 30 May) instead of the envisaged three month duration. This delay, combined with the fact that some NRAs do not have formal competence over hydrogen infrastructure, prevented a comprehensive and detailed evaluation of the candidate projects as well as hindering effective coordination between NRAs, particularly in view of the late delivery and unverified PS-CBA data provided by ENTSOG.
- 42 During NRA assessment of hydrogen projects, NRAs encountered several challenges in assessing PCI/PMI candidate projects. Many NRAs were unable to determine whether project benefits outweighed costs due to a lack of essential data, particularly concerning CAPEX/OPEX figures and project benefits, methodological uncertainties, or the early development stage of the projects. Differing national competence over infrastructure further restricted NRAs' ability to

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<sup>15</sup> The CBA results were available for NRA assessment on 9 May 2025, the CBA results have not been verified by the Project Promoters.

conduct a thorough assessment. Divergent views of NRAs also emerged due to unverified project assumptions, plausibility of the commissioning dates and unclear cross-border relevance.

- 43 ACER, therefore, urges ENTSOG, as well as the Commission, to ensure that PS-CBA results are delivered prior to the launch of the next selection process. Timely delivery would allow for a proper and high-quality assessment of the candidate projects, enabling thereby NRAs to provide meaningful and evidenced based input that supports the RGs' assessment in a timely manner, rather than only at the final stage before the ranking of project candidates is presented, giving the impression of an irrelevant assessment.

## 3.2. Draft regional lists assessments

- 44 In this chapter, ACER provides an opinion on the draft regional lists, considering the accompanying comments of Member States and support of a project by the technical-decision making body where provided. The draft regional lists, consisting of PCI and PMI projects comprises of the following lists: NSI West Electricity, NSI East Electricity, BEMIP Electricity, Northern Seas offshore grids (NSOG), Baltic Energy Market Interconnection Plan offshore grids (BEMIP offshore), South and West offshore grids (SW offshore), Atlantic offshore grids, Hydrogen interconnections in Western Europe (HI West), Hydrogen interconnections in Central Eastern and South Eastern Europe (HI East), Baltic Energy Market Interconnection Plan in hydrogen (BEMIP Hydrogen), Priority Thematic Area Smart electricity grids deployment, Priority Thematic Area Smart gas grids, Projects that maintain their status of project of common interest (Article 24 derogation) and Priority Thematic Area Cross-border carbon dioxide network. The latter is not under ACER or NRAs' legal competence, therefore an assessment of Cross-border carbon dioxide networks and the selection process is not provided in this Opinion.

- 45 ACER notes that two gas PCIs associated with Malta<sup>16</sup> and Cyprus<sup>17</sup>, both of which are not interconnected to the trans-European gas network, have retained their status from the 5<sup>th</sup> PCI list due to a derogation pursuant to Article 24 of the TEN-E Regulation.

- 46 In Annex V to this Opinion, the NRAs' views on the projects included in the draft regional lists are presented. This annex records only the updates provided by NRAs in comparison with their previous assessments, as set out in Annexes I - IV.

- 47 ACER recommends that the RGs provide to all their members, before the meeting of the decision-making bodies, details of how the assessment was carried out for all candidate projects. Furthermore, the decision-making bodies should disclose detailed information to all the members of the respective RG in case complementary evaluation is carried out on top of the assessment concluded by the RGs during the selection process.

### 3.2.1. Electricity regional lists

- 48 The draft regional lists submitted to ACER included comments on two candidate projects. In one case, a Member State expressed a reservation regarding a project; in the other, the technical decision-making body expressed support for a project despite an initial assessment that was not sufficiently substantiated:

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<sup>16</sup> Connection of Malta to the European gas network - pipeline interconnection with Italy at Gela

<sup>17</sup> 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

- For the project Interconnection between La Spezia (IT) and Ramis (ES) [known as "APOLLO-LINK"] on the NSI West electricity list, the Member State of Spain expressed reservation due to a lack of project maturity.
- A PCI project candidate (Ptolemaida Battery Energy Storage System in Greece) that had initially not passed the threshold for inclusion was added to the draft NSI east electricity storage list, accompanied by a comment indicating that further CBA assessment would be conducted outside the scope of the RG process. It remains unclear how this project will be re-evaluated and assessed, given that it will not follow the standard selection procedure within the RGs, including the use of CBA input data. ACER recommends, the assessment of this project should be communicated to the RG to ensure transparency and equal treatment of candidate projects, as proposed in paragraph 47.

### 3.2.2. Hydrogen regional lists

49 ACER observes that for the hydrogen storage project in the HI West corridor, only one part of the project group, Gasunie SpHyGER Etzel (GSE) in Germany, has been included. However, this project group had been assessed together with the project Hyperlink 4-5 Wilhelmshaven-Emsbüren, which is currently not listed in the draft regional list. ACER recommends that the Commission further clarifies and specifies the individual components of this project group in the final Union list.

50 In the draft regional lists for hydrogen, ACER observes that certain components of project groups, primarily internal pipelines that serve national demand, were excluded on the grounds of ineligibility. ACER supports this approach but calls on the RGs to ensure that project grouping is clearly defined prior to the start of the selection process, ideally during the TYNDP phase. Early definition would allow for accurate calculation of PS-CBA results for the entire group. It is likely that project groupings which do not include internal pipelines may yield different benefits, especially if capacity increments change, underscoring the importance of consistent and timely project grouping definitions.

### 3.2.3. Priority Thematic Area Smart electricity grids

51 No particular concerns were raised during the NRAs' assessment process on Smart electricity grids or on the draft PCI/PMI list proposal, and none of the NRAs objected to the inclusion of a PCI candidate to the draft list.

### 3.2.4. Priority Thematic Area Smart gas grids

52 All three Smart gas grids project candidates were put on the draft regional list with a comment "*Some assets excluded as not compliant with Annex II (2)*". During the Thematic Area Smart gas grids final meeting where the assessment was presented, the Commission proposes to include two projects<sup>18</sup> on the list under the condition that certain components are removed. ACER calls on the Thematic Area members to disclose detailed information to all members of the Thematic Area on complementary evaluation carried out on top of the assessment concluded during the selection process and explaining what assets were not included and their impact on the PS-CBA results.

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<sup>18</sup> Croatia Slovenia smart gas grid and Smart switch project.

## 4. Conclusions

53 The 2025 PCI/PMI selection process has been broadly similar to that of 2023. Overall, ACER finds that the key steps and analyses were carried out throughout the selection process. These include the preparation of the system needs and project assessment methodologies, consultations with NRAs and the public on the candidate projects, preparatory meetings within the Cooperation Platform, and meetings of the RGs, during which information was presented and the methodologies were discussed. In the final stages of the process, the agreed methodologies, with the mentioned caveats in section 3 of this Opinion, were applied, enabling the RGs to rank and select the projects that met the eligibility criteria and passed the benefit-cost ratio threshold for inclusion in the draft regional lists. These steps enabled the RGs to assess the relevance of the candidate projects and to propose projects for the draft regional lists.

54 While ACER acknowledges that the key steps and analyses of the selection process were followed, it has identified several key elements that require improvement:

- i. the TYNDP-sourced data from ENTSOG and ENTSO-E were provided late in the selection process;
- ii. the changes made to certain hydrogen project groupings during the selection process, compared to those used in the ENTSOG TYNDP, resulted in CBA outcomes that do not always correspond to the final cluster configurations, leaving the impact of clustering adjustments unclear;
- iii. the multi-criteria analysis approach used for the ranking of the projects and how diverse criteria are combined for a final scoring;
- iv. the system needs methodologies identified needs at Member State level, but did not provide indicators and capacity needs per borders;
- v. transparency regarding the outcomes of the methodologies applied for system needs (for hydrogen sector) and projects assessment, should be improved;
- vi. NRAs, and RG members, faced difficulties in assessing hydrogen PCI/PMI candidate projects due to sometimes late, missing or incomplete delivery of data, unclear project benefits, and limited project maturity, all of which often prevented a thorough and consistent assessment;
- vii. inclusion of projects in the draft regional lists after the final RG meetings required better clarification and justification, particularly where such inclusion deviates from the standard assessment process;
- viii. the draft PCI/PMI lists do not clearly distinguish between mature and less mature electricity projects: such a distinction would provide further insight on the degree of support that projects need, depending on the stage they are in.

55 ACER recognises the considerable effort invested in the preparation and structuring of the draft regional lists. In order to enable a more informed ACER Opinion on the draft regional lists and, more broadly, to ensure a more robust PCI/PMI selection process in the future, certain improvements are required. A strengthened process would enhance trust among stakeholders, increase transparency, and facilitate credibility of the final Union list. To address the identified areas for improvement on the basis of the deficiencies mentioned, ACER makes the following key recommendations:

- i. ensure timely availability and adequate quality of TYNDP data and secure stable and timely delivery of the TYNDP scenarios. TYNDP input data should be available prior to the launch of the PCI/PMI selection process and the ENTSOs should provide TYNDP outputs based on

all scenarios developed within the TYNDP framework. The timely finalisation of the TYNDP would also allow for ACER's TYNDP opinion to be properly considered in the final delivery and for any necessary improvements to be made in advance of the PCI/PMI selection process. Furthermore, ACER notes, that pursuant to Article 12(2) of the TEN-E Regulation, ENTSOs shall assess projects based on scenarios and variants developed under the ACER's Scenario Guidelines, which are to be considered also in the selection process;

- ii. ensure that Regional Groups maintain the same hydrogen project groupings in the selection process as those applied in the ENTSOG TYNDP CBA assessment, to keep consistency and avoid distortions in calculated benefits. ACER further calls on Regional Groups to define project groupings clearly and at an early stage, preferably during the TYNDP process, to allow for accurate PS-CBA calculations for the entire project group.
- iii. enable a simple and easily understandable, purely CBA-based approach by already available monetised benefits. The final ranking of projects could factor in other non-monetised drivers, including the fulfilment of wider EU policy objectives on top of the pure CBA-based results. In ACER's view, this approach would considerably increase the credibility of the selection process by differentiating in a transparent way the monetised and non-monetised benefits of the evaluation;
- iv. adjust the system needs methodologies to quantify capacity needs at each border for each vector. In ACER's view, system needs should be quantified per border, rather than per Member State level, based on target capacities calculated in the TYNDPs prior to the PCI/PMI selection. Discussions in the RGs shall focus on the extent to which projects address the identified cross-border capacity needs;
- v. ensure full transparency of the methodologies used to assess countries' needs (for hydrogen sector) and projects' benefits, as well as of the results derived from the application of these methodologies. All relevant assumptions and the main steps of the methodologies applied in the selection process should be made available to the RGs earlier in the process, so that their members have the opportunity to properly provide their views;
- vi. ensure that the complete set of project data is made available for the NRAs' assessment in due time, including cost estimates, commissioning dates, and quantified benefits, to enable NRAs to conduct thorough and consistent assessments. Project promoters should be required to submit complete information early in the process, and RGs should take steps to validate the completeness of submitted data before proceeding with the projects' assessment;
- vii. strengthen the transparency, consistency, and credibility of the current selection process by providing to all members of the RGs and Thematic Areas with detailed information on how project assessments were conducted in case of complementary evaluations of certain projects made outside the formal selection process, particularly where such decisions are based on bilateral discussions. This would help ensure a robust, transparent, and fair selection process across all project categories;
- viii. introduce clear criteria to distinguish between mature and less mature electricity PCI/PMI projects in the selection process, with verification by the Regional Groups, to ensure transparent prioritisation and to support the development of (sound) less mature projects until they are ready for construction.

This Opinion is addressed to the European Commission and the Regional Groups.

Done at Ljubljana, on 30 September 2025.

— SIGNED —

C. ZINGLERSEN, *ACER Director*

**Annexes:**

- Annex I: [Statistics and NRAs' assessment of Electricity candidate projects](#)
- Annex II: [Statistics and NRAs' assessment of Hydrogen candidate projects](#)
- Annex III: [Statistics and NRAs' assessment of Smart electricity grids candidate projects](#)
- Annex IV: [Statistics and NRAs' assessment of Smart gas grids candidate projects](#)
- Annex V: [NRAs' comments on the Draft Regional PCI/PMI lists \(changes compared to the previous NRA assessments presented in annexes I-IV\)](#)

## Annex I: Statistics and NRAs' assessment of Electricity transmission and storage candidate projects

This Annex is divided into two sections:

- Statistics on NRA's assessment of candidate projects and
- NRA's assessment on the inclusion of the project in the final PCI/PMI list.

The former presents an overview how the NRAs assessed different aspects of the candidate projects. The latter focuses on whether NRAs expressed reservations about the inclusion (or are not able to assess) of the projects in the final PCI/PMI list.

### Statistics on NRAs' assessment of candidate projects

In line with the provisions of Annex III, 2.(8), Regulation (EU) 2022/869, 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 electricity projects for PCI/PMI lists. The NRA checks and evaluations were carried out between 7 February 2025 and 11 April 2025. The scope of the assessments covered the candidate projects and project groups. The summary of the assessment results was presented to the Regional Groups on 11 June 2025.

The NRAs under the coordination of ACER provided their assessment and views on the following topics:

- Candidate Projects of Common Interest (PCIs) meeting the general criteria set out in *Art. 4.1.c of Reg. (EU) 2022/869* (cross border relevance);
- Candidate Projects of Mutual Interest (PMIs) meeting the general criteria set out in *Art. 4.2 of Reg. (EU) 2022/869*;
- Contribution of the projects to the specific criteria set out in *art. 4.3.a of Reg. (EU) 2022/869* (market integration, security of supply and sustainability);
- Identification of inconsistencies and disagreements regarding the available benefits i.e., SEW (B1), CO2 emissions (B2), Non-CO2 emissions (B4), grid losses (B5) SoS (B6, B7 and B8), and costs of redispatch reserves (B9);
- statement whether possible benefits outweigh costs;
- Identification of inconsistencies regarding the provided cost data (CAPEX, OPEX);
- Identification of projects' commissioning date and status' inconsistency; and
- Potential NRA objection to the inclusion in the final Regional Union list.

### Summary of the assessment

NRAs submitted assessments regarding 94<sup>19</sup> out of the 114 candidate projects, i.e. for 79 out of 84 transmission candidates and for 15 out of 30 candidate storage projects. Out of the 94 transmission and storage candidates, 73 projects assessed were PCIs and 21 PMIs.

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<sup>19</sup> In case of 5 candidates, i.e. project 187, 210, 313, 375 and 1105 double assessment was provided by different NRAs. The individual assessments of each of these 5 projects were compared and presented as a joint assessment in this analysis.

In the following table, we present statistics of the NRAs submissions per corridor<sup>20</sup>:

**Table 1. NRA assessments by corridor**

	<b>Candidate projects</b>	<b>Projects assessed by NRAs</b>	<b>Assessment in coordination with other EU-NRAs</b>	<b>Coordination with non-EU country</b>
Atlantic offshore grids	<b>6</b>	<b>6</b>	0	0
BEMIP electricity	<b>9</b>	<b>7</b>	6	0
BEMIP offshore	<b>3</b>	<b>3</b>	1	0
NSI East	<b>35</b>	<b>32</b>	8	4
NSI West	<b>38</b>	<b>28</b>	7	4
NSOG	<b>13</b>	<b>12</b>	3	0
SE offshore	<b>0</b>	<b>0</b>	0	0
SW offshore	<b>3</b>	<b>3</b>	0	0
Not defined yet	<b>7</b>	<b>3<sup>21</sup></b>	0	1
<b>Total</b>	<b>114</b>	<b>94<sup>22</sup></b>	<b>25</b>	<b>9</b>

**Main outcome**

In one case, i.e. for TYNDP project 247, the NRA(s) objected to the inclusion of the project in the final PCI/PMI list.

**Compliance with general criteria**

For 5 PCIs candidates, i.e. for TYNDP projects 338, 1041 (storage), 1052 (storage), 1157 and 1166, the NRA(s) stated that the projects do not meet any of the general criteria for PCIs set out in Art. 4(1)(c) (i.e. regarding cross-border relevance).

For 7 assessed PMIs candidates, i.e. for TYNDP projects 247, 285, 1192, 1193, 1208, 1215 and 1230, the NRA(s) were not able to assess if the projects meet any of the general criteria for PMIs set out in Art. 4(2).

<sup>20</sup> For 5 projects, i.e. TYNDP projects 107, 1049, 1050, 1051 and 1074, the priority corridor reported by NRAs in the February 2023 questionnaire differs from the priority corridor in the Draft Regional PCI/PMI lists. In the table, the Draft Regional PCI/PMI lists are used as reference for priority corridors.

<sup>21</sup> Projects 1049, 1230, 1239

<sup>22</sup> In case of 5 candidates, i.e. project 187, 210, 313, 375 and 1105 double assessment was provided by different NRAs. The individual assessments of each of these 5 projects were compared and implemented as a joint assessment in this analysis. Projects 1192 & 1193 are assessed together, as well as projects 35, 330 and 1100, but we count them separately here.

### Compliance with the specific criteria

Regarding the sustainability specific criterion in 4 cases, i.e. for projects 1106, 1211, 1213 and 1216, the NRAs were not able to assess it. Moreover, in 3 cases, for projects 1210, 276 and 270, the NRAs involved had divergent views.

Concerning the specific criteria for PCIs according to the Art. 4.3(a), NRAs indicate the same outcome of the assessment as for the sustainability criterion regarding the lack of capacity to assess or divergent views (i.e. the outcome of the assessment is the same for the projects mentioned in the previous paragraph).

### Inclusion in national development plans

Regarding transmission projects, 52 are included in the NDPs of all countries where the project is located, while 12 projects are indicated as *not included* in any of the current national NDPs. In 4 cases only some of the investments are included and/or are only included in some of the hosting MS NDP(s), and 10 projects are included as “under consideration”.

For storage projects, 5 are indicated to be included in the NDPs, whereas for 9 of the projects none of the investments are included in the relevant NDP. In those cases, the NRA indicated that storage projects are not included in the NDP. For 2 projects only some investments are included.

### Assessment of cost estimations and benefit calculations

The statistics regarding the identification of inconsistencies to the data and calculations included in the TYNDP 2024 regarding the projects’ CAPEX and OPEX, and the benefit calculations of the different benefit indicators are presented respectively in *Figure 1* and *Figure 2* below.

Figure 1: NRAs assessments regarding inconsistencies to the CAPEX and OPEX data

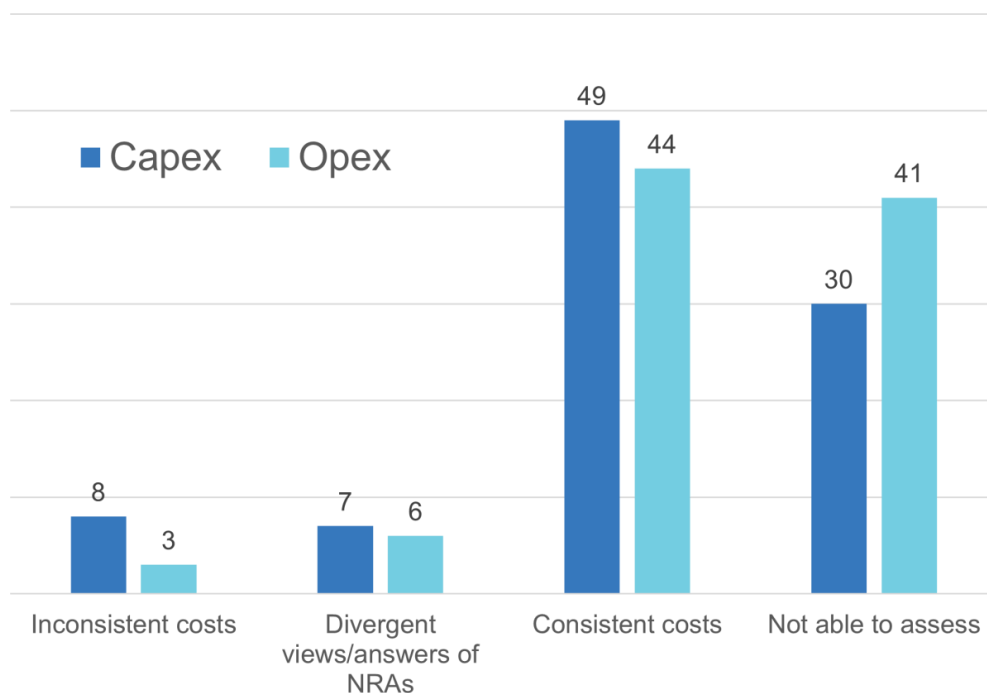
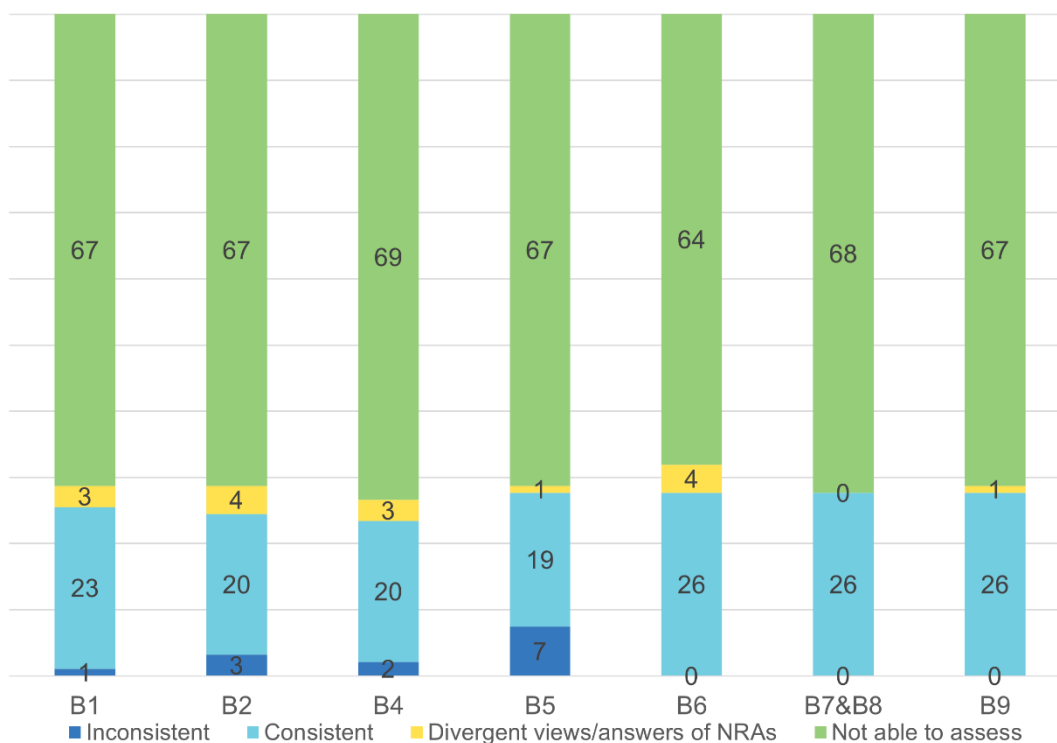


Figure 2: NRAs assessments of transmission and storage projects regarding inconsistencies and disagreements to benefits



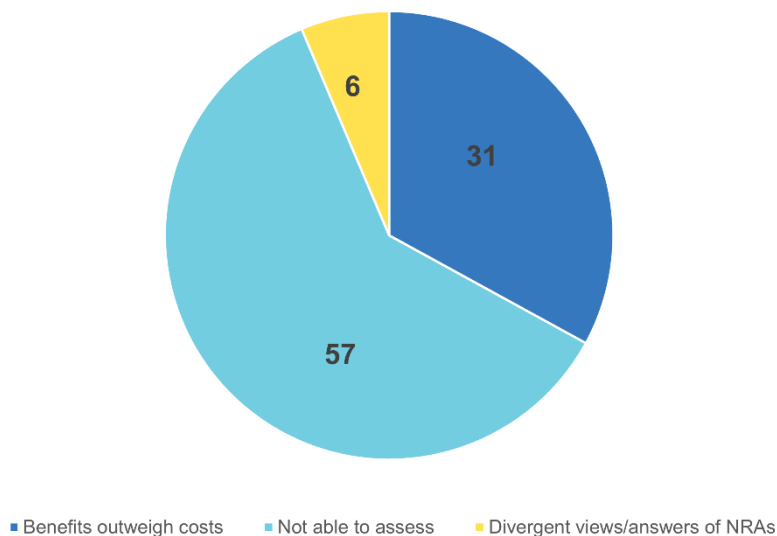
The inconsistencies identified pertain to a small number of projects, which should be further scrutinised by the RGs. The main objections indicated by the NRAs are:

- Project benefits are calculated using a different project design and, therefore, may not be fully applicable to the new design of the project;
- Different project design (project 1166 for B1 and B4);
- Errors or missing elements in analysis or valuation (project 1166 for B2);
- Significant decrease with respect to TYNDP 2022 without explanation (project 280 for B2);
- Unclear definition and interpretation of positive/negative signs (projects 1157, 1166, 338 and 28 for B5);
- Missing data on losses (project 1210 for B5).

For more than half of the projects, the NRAs stated that they were not able to assess the benefits calculations for all the benefit indicators. The main reasons were related to NTC assumptions, fuel price assumptions, methodological caveats, lack of transparency, lack of internal resources to assess and lack of tools.

The following figure presents the assessment of NRAs whether the projects “overall benefits outweigh the costs”:

Figure 3. Do potential overall benefits outweigh the project's costs?

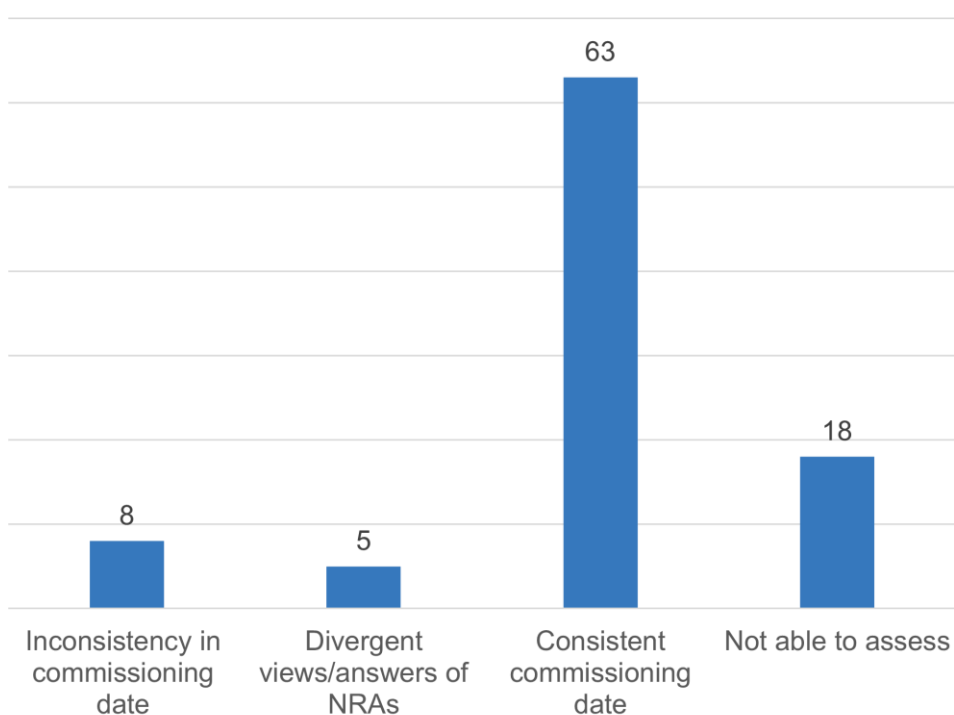


For more than half of the projects, NRAs were not able to assess whether the projects “overall benefits outweigh the costs”. This implies an increase with respect to the [previous exercise](#) from 49% to 61% of the projects.

#### Plausibility of the commissioning dates

The statistics regarding the assessment of plausibility of the commissioning dates provided by the PCI promoters are presented in Figure 4 below.

Figure 4. NRAs assessments of inconsistencies to the commissioning dates of the candidate projects indicated in the draft TYNDP 2024



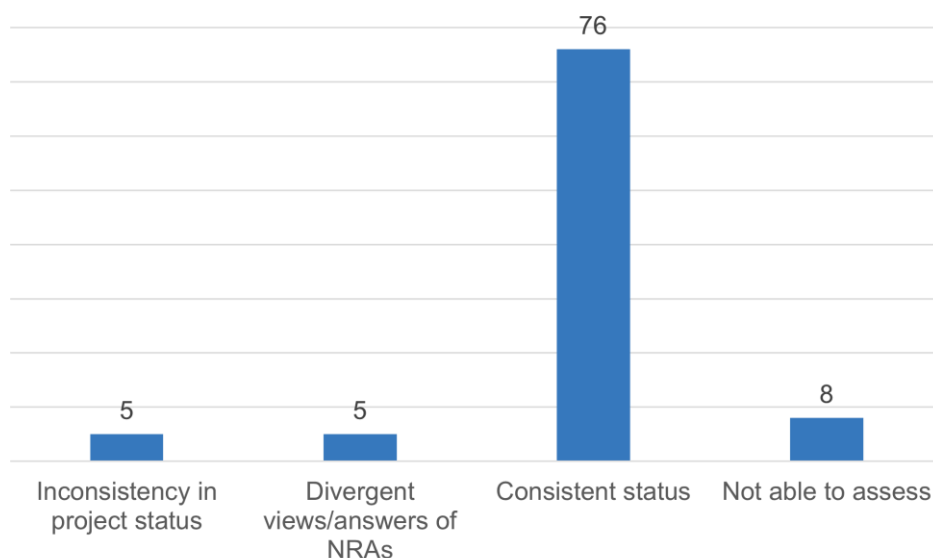
It is noted that in most of the cases where inconsistencies were identified, i.e. in 8 cases<sup>23</sup>, NRAs indicated that project promoters were overly optimistic with the commissioning dates.

**Consistency of the project status**

The statistics regarding the assessment of the status provided by the PCI promoters for transmission and storage projects are presented in figure 5 below.

In most of the cases where inconsistencies were identified, i.e. in 3 cases, NRAs indicated that the status of the project should be or is already “under consideration” since the second-step approval has not yet been granted or because no final decision on project implementation has been made. For one project, i.e. for project 338, the NRA stated that the project is now under construction.

Figure 5. NRAs assessments of inconsistencies to the project's status of the candidate projects indicated in the draft TYNDP 2024



**NRAs objection to the inclusion in the final PCI/PMI regional list**

Finally, regarding the question “Do NRA objects to the inclusion of the project in the final PCI/PMI Regional list?” the replies received are presented in the following figure.

The 6 projects for which NRAs object to the inclusion in the Regional PCI/PMI list are the following TYNDP projects: 247, 338, 1049, 1157, 1166, and 1068 (storage).

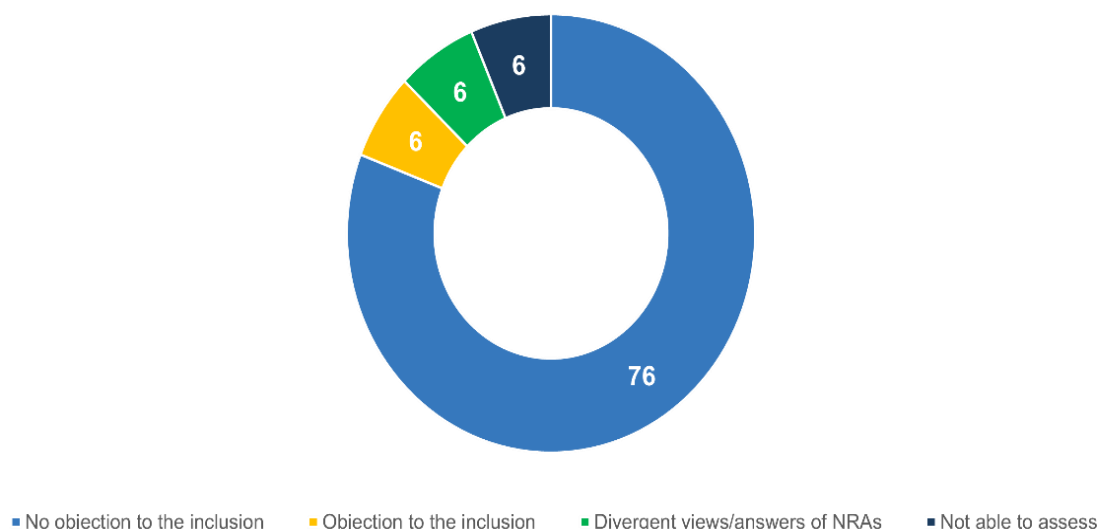
The projects for which NRAs have divergent views are TYNDP projects: 270, 276, 1105, 1112, 1210 and 1213. All of these projects are included in the draft Regional PCI/PMI lists.

NRAs were not able to assess their support to the inclusion of TYNDP projects 28, 120, 121, 285, 1216 and 1230. All of these projects are included in the draft Regional PCI/PMI lists.

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<sup>23</sup> Projects 28, 338, 1006, 1092, 1112, 1157, 1166 and 1208.

Figure 6. NRAs objection to the inclusion of the project in the final PCI Regional list



### NRAs' assessment on the inclusion of the projects in the final PCI / PMI list

In this annex reference is made only to the projects, for which NRAs indicated that they either were not able to assess their support, were opposed to, or had divergent views upon. No reference is made to projects for which NRAs supported the inclusion in the final PCI/PMI list. It is noted that proposed projects for which there is no reference in this Opinion are not objected by the involved NRAs.

#### Opinion on the draft regional list – NSOG Regional Group

- With respect to the candidate project 120, the Belgian NRA, CREG, was not able to assess its support to the inclusion of the project to the PCI list, due to the considerable increase in the cost of DC equipment. There is currently a high degree of uncertainty regarding the scope and timing of the MOG II project, which prevents the CREG from taking a position on its inclusion in the final Regional Union list.
- With respect to the candidate project 1213, there were divergent views between the involved NRAs. The Dutch NRA, ACM, does not object to the inclusion of the project in the final PCI/PMI Regional Union list, as it considers the project to meet the required criteria under the TEN-E Regulation. The German NRA, BNetzA, was not able to assess its support to the inclusion of the project to the PCI list, as it has not yet been included in their national development plan.

#### Opinion on the draft regional list – NSI West Regional Group

- With respect to the candidate project 1157, the Italian NRA, ARERA, opposes to its inclusion in the PCI list due to lack of fulfilment of criterion Art. 4(1)(c) of Regulation 2022/869 (single Member State and significant cross-border impact).
- With respect to the candidate project 285, the French NRA, CRE, was not able to assess its support to the inclusion of the project to the PCI list.
- With respect to the candidate project 247, the French NRA, CRE, opposes to its inclusion in the PCI list, as it considers that there is no economic interest in a new 2 GW interconnection project.
- With respect to the candidate project 276, there were divergent views between the involved NRAs. The French NRA, CRE, opposes to its inclusion in the PCI list, due to its lack of maturity

of the project and to the uncertainty on its value in the absence of updated costs. The Spanish NRA, CNMC, does not object to the inclusion of the project in the final PCI/PMI Regional Union list, considering the positive NPV calculated in line with the 4th draft CBA methodology for all TYNDP2024 scenarios.

- With respect to the candidate project 270, there were divergent views between the involved NRAs. The French NRA, CRE, opposes to its inclusion in the PCI list, due to its lack of maturity of the project and to the uncertainty on its value in the absence of updated costs. The Spanish NRA, CNMC, does not object to the inclusion of the project in the final PCI/PMI Regional Union list, considering the positive NPV calculated in line with the 4th draft CBA methodology for all TYNDP2024 scenarios.
- With respect to the candidate project 1068, the Spanish NRA, CNMC, opposes to its inclusion in the PCI list, as it indicates that there is no indication that the process to obtain the connection permit has been initiated.

### Opinion on the draft regional list – NSI East Regional Group

- With respect to the candidate project 1166, the Italian NRA, ARERA, opposes to its inclusion in the PCI list due to lack of fulfilment of criterion Art. 4(1)(c) of Regulation 2022/869 (single Member State and significant cross-border impact).
- With respect to the candidate project 338, despite the national approval and the “under construction” status, the Italian NRA, ARERA, has to oppose to its inclusion in the PCI list due to lack of proof of fulfilment of criterion Art. 4(1)(c) of Regulation 2022/869 (single Member State and significant cross-border impact).
- With respect to the candidate project 1112, there were divergent views between the involved NRAs. The Greek NRA, RAAEY, does not object to the inclusion of the project in the final PCI/PMI Regional Union list, noting that if the approved cost of €1.2 billion, as included in the approved national development plan, were to increase, the approval would have to be re-evaluated on the basis of a new cost-benefit analysis. The Italian NRA, ARERA, opposes to its inclusion in the PCI list, as it is not granted that project benefits will outweigh project costs.
- With respect to the candidate project 1216, the Romanian NRA, ANRE, and the Hungarian NRA, MEKH, were not able to assess its support to the inclusion of the project to the PCI list. ANRE notes that no final documents, such as a feasibility study, are available at this stage. MEKH considers the available data insufficient to assess the project's economic viability, noting low or inconsistent benefits, a benefit-cost ratio significantly below 1.0, and an unrealistic commissioning date given the early development stage and absence of permits.
- With respect to the candidate project 1105, the Romanian NRA, ANRE, was not able to assess its support to the inclusion of the project to the PCI list, due to the impossibility to confirm economic viability of this project.
- With respect to the candidate project 1240, although the Romanian NRA does not object for inclusion of the project to the PMI list, Romanian NRA was not able to assess the costs, benefits, economic viability of this project (benefit-cost ratio) and commissioning date.

## Annex II: Statistics and NRAs' assessment of Hydrogen candidate projects

This Annex is divided into two sections:

- Statistics on NRA's assessment of candidate projects and
- NRA's assessment on the inclusion of the project in the final PCI/PMI list.

The former presents an overview how the NRAs assessed different aspects of the candidate projects. The latter focuses on whether NRAs have certain reservations on the inclusion (or are not able to assess) of the projects in the final PCI/PMI list.

### Statistics on NRAs' assessment of candidate projects

In line with the provisions of Annex III, 2.(8), Regulation (EU) 2022/869, the NRAs<sup>24</sup> 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 9 May 2025 and 30 May 2025. The scope of the assessments covered the hydrogen candidate projects and project groups. The summary of the assessment results was presented to the Regional Groups on 16 June 2025<sup>25</sup>.

The assessment included the following main elements:

- Compliance with the criteria of cross-border relevance<sup>26</sup>, in line with Article 4(1)(c) of Reg. (EU) 2022/869;
- Compliance with the specific criteria<sup>27</sup>, in line with 4(3)(d) of Reg. (EU) 2022/869;
- Presence of the candidate projects in the National Development Plans of the hosting Member States;
- 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 Indicators<sup>28</sup>;
- 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 PCI/PMI list

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<sup>24</sup> Most NRAs did not have competences over hydrogen projects and did not have information, therefore couldn't have assessed the projects from any of the aspects listed in the bullet points on this page.

<sup>25</sup> ACER shared the detailed NRAs assessment information with the European Commission.

<sup>26</sup> 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.

<sup>27</sup> These are: security of supply, market integration, competition and sustainability.

<sup>28</sup> 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.

As part of the survey, NRAs were also consulted on their current competences over hydrogen infrastructure.

**Summary of the assessment**

NRAs submitted in total 110 assessments regarding 108<sup>29</sup> out of the 198 candidate projects. Out of the 108 candidates, 105 were assessed as PCIs and 3 as PMIs.

In the following table, a number of the NRAs submissions per corridor are provided<sup>30</sup>:

Table 2. NRAs assessments by corridor (in brackets number of projects belonging to multiple corridors)

	<b>Candidate projects</b>	<b>Projects assessed by NRAs</b>	<b>Assessment in coordination with other EU-NRAs</b>	<b>Coordination with non-EU country</b>
BEMIP hydrogen	25 (4)	20 (4)	11	0
HI East	52 (10)	31 (10)	6	0
HI West	135 (10)	71 (10)	0	0
<b>Total</b>	<b>198</b>	<b>108</b>	<b>25</b>	<b>0</b>

**NRAs competence over hydrogen infrastructure**

Whereas NRAs competence over electricity and natural gas infrastructure is clearly defined in national regulations, competence over hydrogen infrastructure largely differs across EU Member States. Figure 7 provides an overview of the current (July 2025) situation. This limits the capacity of NRAs to assess these projects. Moreover, the Danish NRA, DUR<sup>31</sup>, has competence only over a limited number of topics. For all hydrogen projects, where the host country is Spain, while the Directive is being transposed in Spain, CNMC is not in a position to provide further observations on the hydrogen projects.

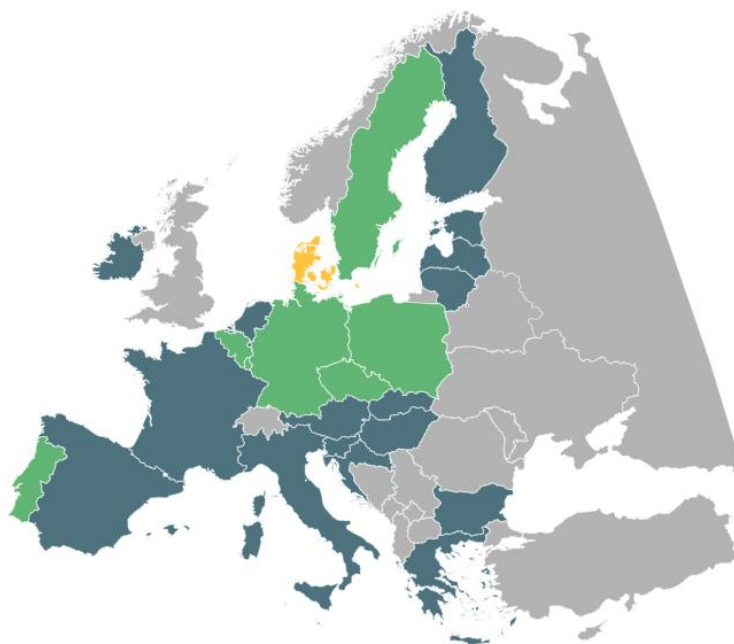
<sup>29</sup> In case of 2 candidates, i.e. project H2T-N-1310 and H2T-N-1315 double assessment was provided by different NRAs. The individual assessments of each of these 2 projects were compared and implemented as a joint assessment in this analysis.

<sup>30</sup> Project H2T-A-1205 has been considered as a single project belonging to both, HI East and HI West corridors.

<sup>31</sup> The NRA (DUR) has the competency to set allowed revenue and approve methods for access, tariffs, market rules, etc., as well as to certify the hydrogen-TSO. However, it does not have the competency to approve development plans and investments.

Figure 7. NRAs competence over hydrogen infrastructure

● No ● Other ● Yes



### Main outcome

None of the NRAs objected the inclusion of any of the projects (candidate PCI/PMI) in the final Regional Union list.

### Compliance with general criteria

For none of the projects (either PCIs or PMIs) NRAs indicated that the project does not meet any of the criteria.

In 62 cases, the NRAs were not able to assess whether the project contributes significantly to at least one of the general criteria for PCIs and PMIs according to the Art. 4.1(c).

In 2 cases (projects H2T-N-1310 and H2T-N-1315), the NRAs involved had divergent views due to the lack of capacity of one of the NRAs to assess the project.

### Compliance with the specific criteria

Concerning compliance with the sustainability specific criterion, it could not be assessed for project H2E-N-1331, as there was no available information according to the NRA.

Regarding the compliance with the specific criteria of PCIs according to Art. 4.3(d) and Art.4.3(e), 68 of the projects contribute at least to 2 of the specific criteria and 28 projects contribute to 1 of the specific criteria. For 9 projects<sup>32</sup> the corresponding NRAs were not able to assess due to the lack of information.

<sup>32</sup> Projects H2T-A-978, H2T-A-1156, H2E-N-889, H2E-N-1021, H2E-N-1024, H2E-A-1039, H2E-A-1040, H2E-N-1332 and H2E-N-1331.

### Inclusion in national development plans

16 projects are indicated to be included in the current NDPs of all countries where the project is located, while 37 projects are indicated as *not included* in any of the current national NDPs. In 55 cases projects are only included in some of the hosting MS NDP(s).

### Assessment of cost estimations and benefit calculations

The statistics regarding the identification of inconsistencies to the data and calculations included in the TYNDP 2024 regarding the projects' CAPEX and OPEX, and the benefit calculations of the different benefit indicators are presented respectively in Figure 8 and Figure 9 below.

Figure 8: NRAs assessments regarding inconsistencies to the CAPEX and OPEX data

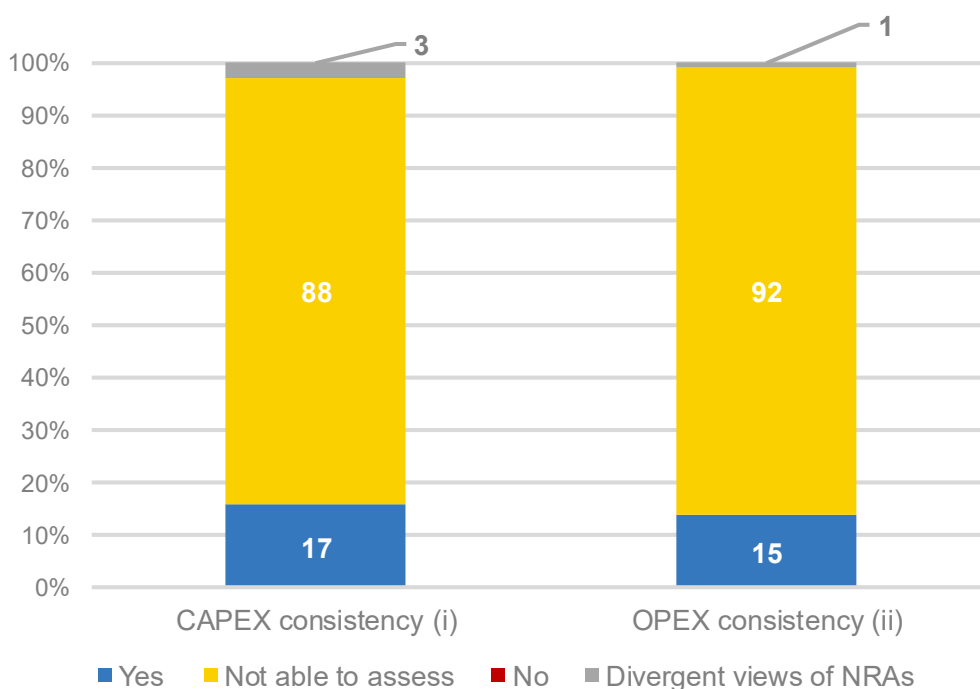
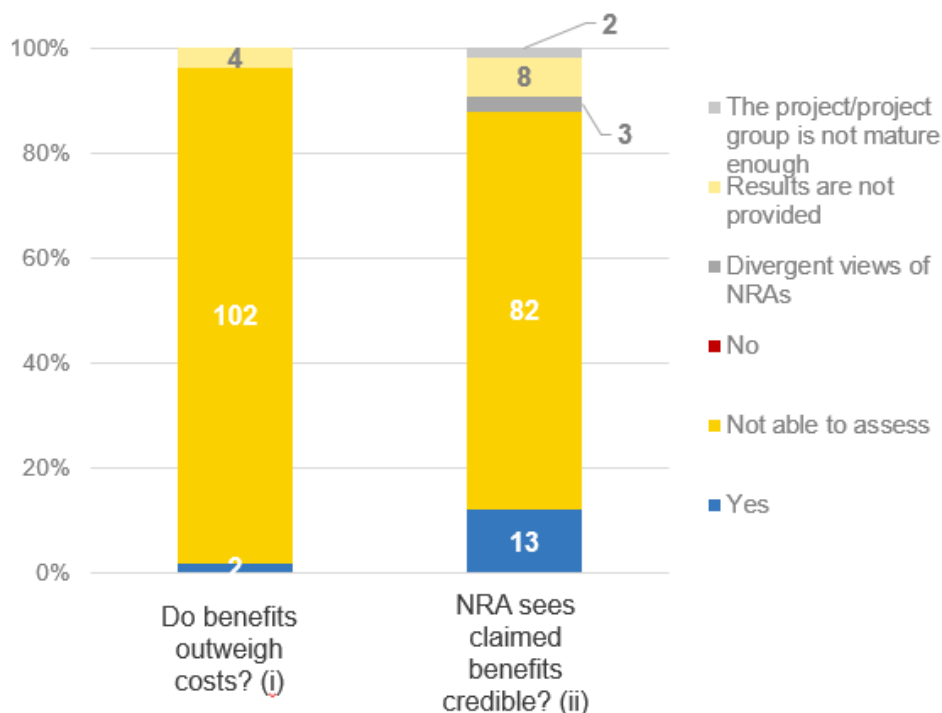


Figure 9: NRAs views on overall benefits and disagreement with claimed benefits



As shown in Figure 8 and Figure 9, NRAs have difficulties to assess cost and benefits values provided by the project promoters. Lack of data is highlighted by regulators as the main reason for not being able to assess such estimates. This shows little variation with respect to the NRA assessment in the [previous selection](#) process, in which NRAs could only assess less than 5% of the projects.

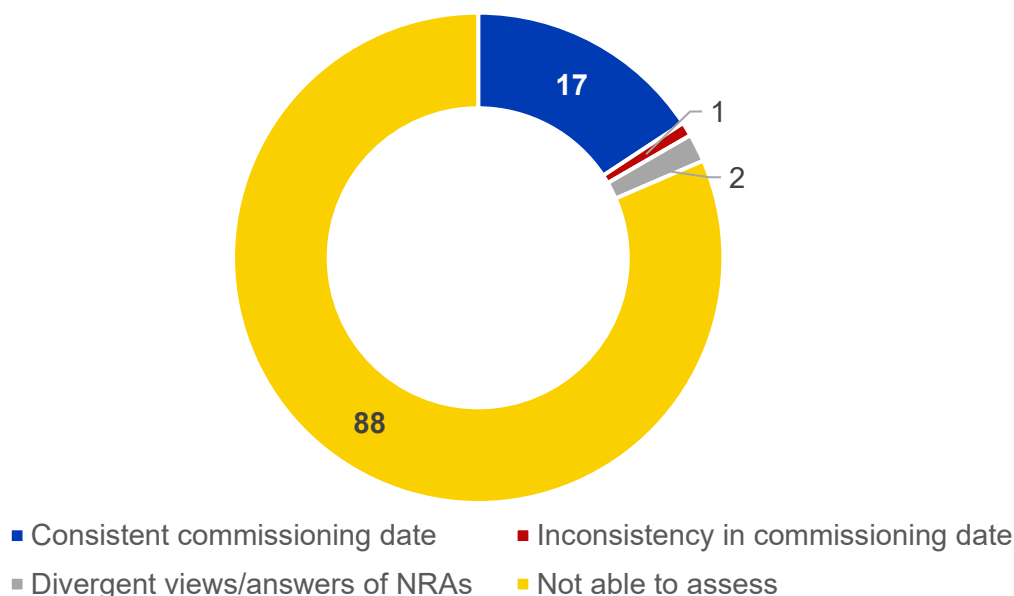
Regarding cost figures (CAPEX and OPEX), diverging views arise from the lack of capacity of at least one of the NRAs to assess them. Therefore, no strong misalignment between NRAs is found. This occurs for projects H2T-A-1237 and H2T-N-1354 (on OPEX estimates), and for H2T-N-1281 (both for CAPEX and OPEX figures).

Concerning NRAs views on claimed benefits, the situation is similar as for cost estimates. Diverging views arise from the lack of capacity of at least one of the NRAs to assess the values (projects H2T-N-1310, H2T-A-1237 and H2T-N-1354). Moreover, one NRA points at the lack of maturity of the projects as an obstacle to assess the credibility of the estimated benefits (H2S-A-1189 and H2L-N-1314).

### Plausibility of the commissioning dates

The statistics regarding the assessment of plausibility of the commissioning dates provided by the PCI/PMI promoters are presented in Figure 10 below.

Figure 10. NRAs assessments of inconsistencies to the commissioning dates of the candidate projects indicated in the current PCI/PMI selection process



In most cases (81%) NRAs are not able to assess the plausibility of commissioning dates. Lack of detailed information, being in early stages an project complexity are identified as the main reasons to not being able to assess it.

On project H2T-A-757, NRA claims that the actual commissioning date might be later than the one stated by the promoter (2029) as the commissioning date will depend on the synchronisation of FIDs along the whole value chain.

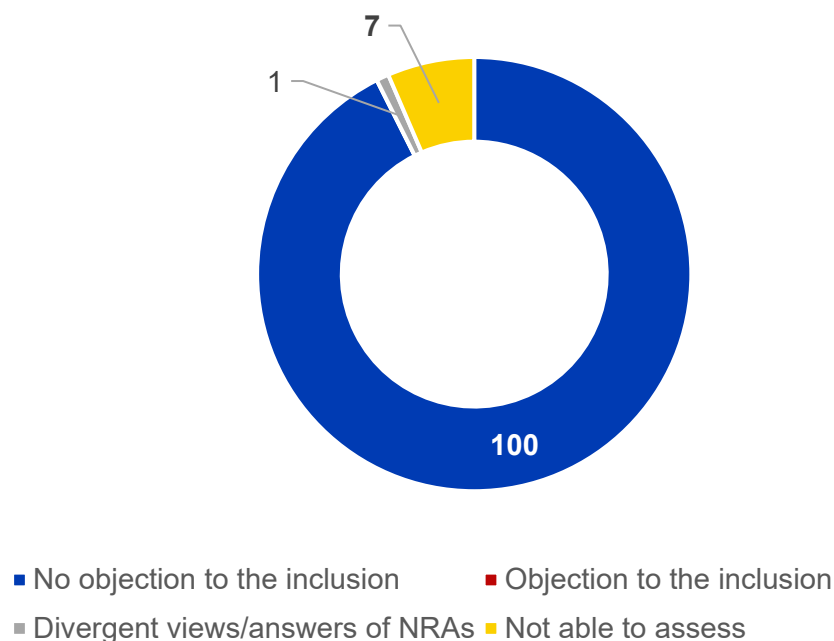
On projects H2T-A-1237 and H2T-N-1354, 2 NRAs confirm the commissioning date indicated by the promoter whereas 1 NRA indicates that it might occur later as it will depend on the synchronisation of FIDs along the whole value chain.

One NRA points at the demand side and cost recovery financing as key elements for the realisation of the project.

#### NRAs objection to the inclusion in the final PCI/PMI regional list

Finally, regarding the question “Do NRA objects to the inclusion of the project in the final PCI/PMI Regional list?”, NRAs’ answers are presented in Figure 11.

Figure 11. NRAs objection to the inclusion of the project in the final PCI/PMI Regional list



As shown above, NRAs did not raise any objections to the inclusion of the projects in the final PCI/PMI Regional list. For project H2T-N-1281, diverging views stem from the limited capacity of one of the involved NRAs to assess its inclusion. Regulators that are not able to assess their support to the inclusion of the project<sup>33</sup> refer to the lack of data as the main cause.

### NRAs' assessment on the inclusion of the projects in the final PCI / PMI list

In this annex reference is made only to the projects, which NRAs indicated that they either were not able to assess their support to the inclusion, were opposed to, or had divergent views upon. No reference is made to projects not included in the lists, for which NRAs agree to their non-inclusion. It is noted that proposed projects for which there is no reference in this Opinion are not objected by the involved NRAs.

#### Opinion on the inclusion of the projects in the final PCI/PMI list – BEMIP Regional Group

- With respect to the candidate project H2E-N-1331, the Finnish and Swedish NRAs, Energiavirasto and Energimarknadsinspektionen, respectively, were not able to assess their support to the inclusion of the project to the PCI list due to the lack of information.

#### Opinion on the inclusion of the projects in the final PCI/PMI list – HI East Regional Group

- With respect to candidate project H2T-A-1264, the Slovakian NRA, ÚRSO, was not able to assess its support to the inclusion of the project to the PCI list. The NRA indicated that long-term benefits are subject to further assessment. Nonetheless, the regulator indicates that the project contribution to decarbonization via transmission of green/low carbon hydrogen is visible.
- With respect to the candidate project H2S-A-1189, the Italian NRA, ARERA, was not able to assess its support to the inclusion of the project to the PCI list. The NRA indicated that there is

<sup>33</sup> Projects H2T-A-1264, H2S-A-1189, H2L-N-1314, H2T-A-1206, H2E-N-1018, H2T-A-1259, H2E-N-1331

very limited information on this project, and it is not possible to provide a more detailed assessment.

- With respect to the candidate project H2L-N-1314, the Italian NRA, ARERA, was not able to assess its support the inclusion of the project to the PCI list. The NRA indicated that there is very limited information on this project, and it is not possible to provide a more detailed assessment.
- With respect to the candidate project H2T-A-1206, the Hungarian NRA, MEKH, and the Slovakian NRA, ÚRSO, were not able to assess their support to the inclusion of the project to the PCI list. The NRAs indicated that, although the project would contribute to the transmission of low-carbon hydrogen and would reduce greenhouse gas emissions, we are still not able to assess the long-term overall benefits/costs of the project.
- With respect to the candidate project H2E-N-1018, the Hungarian NRA, MEKH, was not able to assess its support to the inclusion of the project to the PCI list. The NRA indicated that, due to the lack of CAPEX/OPEX cost estimations, we are not able to assess the long-term overall benefits/costs of the project.
- With respect to the candidate project H2T-A-1259, the Hungarian NRA, MEKH, and the Romanian NRA, ANRE, were not able to assess their support to the inclusion of the project to the PCI list. The NRAs indicated that, although the project would contribute to the transmission of low-carbon hydrogen and would reduce greenhouse gas emissions, we are still not able to assess the long-term overall benefits/costs of the project.
- With respect to the candidate project H2T-N-1281, the Hungarian NRA, MEKH, and the Slovenian NRA, AGENRS, indicated divergent views on the inclusion of the project to the PCI list. MEKH indicated that they cannot assess their support the project, whereas AGENRS showed no objection to the inclusion of the project to the PCI list.

Table 3. Summary of answers on the inclusion of the projects in the final PCI/PMI list (excludes projects for which NRAs explicitly stated that they had no objection)

Corridor	Project	Opinion	Country NRA(s)	Issue
BEMIP	H2E-N-1331	Not able to assess	FI, SE	
HI East	H2T-A-1264	Not able to assess	SK	
HI East	H2S-A-1189	Not able to assess	IT	
HI East	H2L-N-1314	Not able to assess	IT	
HI East	H2T-A-1206	Not able to assess	HU, SK	
HI East	H2E-N-1018	Not able to assess	HU	
HI East	H2T-A-1259	Not able to assess	HU, RO	
HI East	H2T-N-1281	Divergent views (HU: Not able to assess; SI: No objection)	HU, SI	

## Annex III: Statistics and NRAs' assessment of Smart electricity grids candidate projects

This Annex is divided into two sections:

- Statistics on NRA's assessment of candidate projects and
- NRA's assessment on the inclusion of the project in the final PCI/PMI list.

The former presents an overview how the NRAs assessed different aspects of the candidate projects. The latter focuses on whether NRAs expressed reservations about the inclusion (or are not able to assess) of the projects in the final PCI/PMI list.

### Statistics on NRAs' assessment of candidate projects

In line with the provisions of Annex III, 2.(8), Regulation (EU) 2022/869, 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 gas smart grids projects for PCI/PMI lists. The NRA checks and evaluations were carried out between 20 February 2025 and 11 April 2025. The scope of the assessments covered the candidate projects and project groups. The summary of the assessment results was presented to the Regional Groups on 21 May 2025.

The NRAs under the coordination of ACER provided their assessment and views on the following topics:

- Candidate Projects of Common Interest (PCIs) meeting the general criteria set out in *Art. 4.1.c of Reg. (EU) 2022/869* (cross border relevance);
- Contribution of the projects to the specific criteria set out in *art. 4.3.b of Reg. (EU) 2022/869* (security of supply, market integration, network security and smart sector integration);
- Identification of inconsistencies regarding the estimated benefits of the projects;
- Identification of inconsistencies regarding the provided cost data (CAPEX, OPEX);
- Identification of projects' commissioning date and status' inconsistency;
- Potential NRA objection to the inclusion in the final Regional Union list,

### Summary of the assessment

NRAs submitted in total 6 assessments regarding 6 candidate projects. All assessments were provided in coordination with several EU-NRAs.

	Candidate projects	Projects assessed by NRAs	Assessment in coordination with other EU-NRAs	Coordination with non-EU country
Smart Grid Electricity	6	6	6	0

### Main outcome

For none of the 6 projects, the NRA(s) objected to the inclusion of the projects in the final PCI/PMI list.

### Compliance with general criteria

There is a full agreement among NRAs on the compliance of all the projects with at least one criteria of the general criteria for PCIs set out in Art. 4.1(c) (i.e. regarding cross-border relevance).

### Compliance with the specific criteria

Concerning the compliance with the sustainability specific criterion in Art. 4.3(b), in 5 cases, i.e. for projects CARMEN, TUNE, Gabreta Smart Grids, Danube InGrid, and Selena, the NRAs agree on compliance with the criterion. NRAs had divergent views regarding GreenSwitch, for which they generally agreed on the compliance yet requested the following clarification from HERA and AGENRS: “It will address the problems associated with the growing number of unpredictable renewable sources by integrating new technologies and advanced functionalities with the existing electricity infrastructure”.

Regarding the compliance with the specific criteria in Art. 4.3(b), NRAs provided a positive answer for the same projects as in the paragraph above. Similarly, for GreenSwitch, the NRAs involved had divergent views<sup>34</sup>, yet none of them indicated lack of compliance with the criteria.

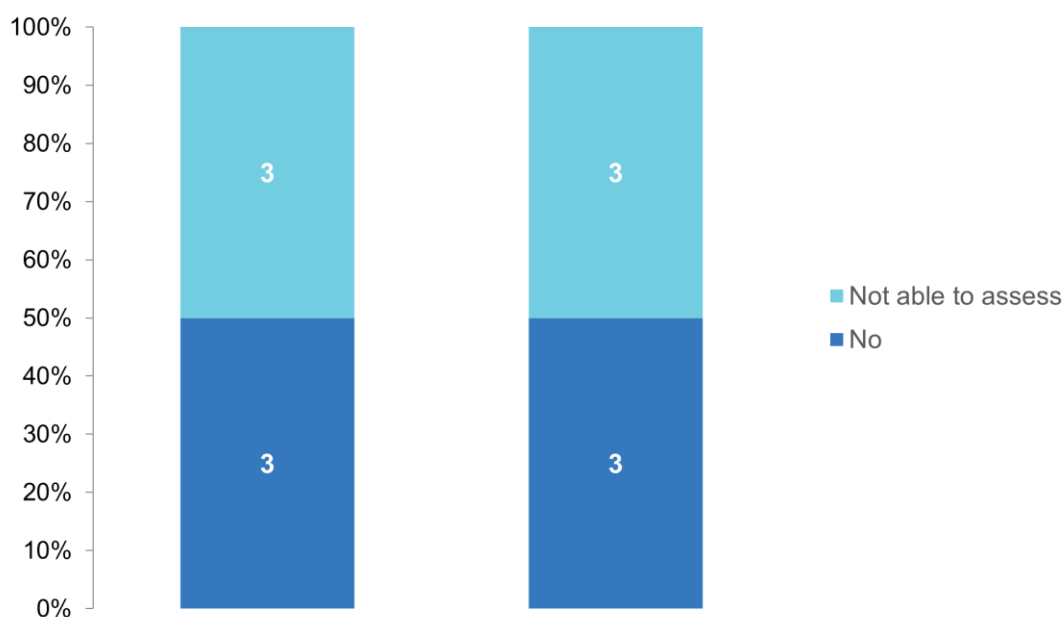
### Inclusion in national development plans

2 projects are indicated to be included in the current NDPs of all countries where the project is located, while 2 out of 6 projects are only included in some of the NDP of some of the countries where the project is located, and 2 projects are indicated as *not included* in any of the current national NDPs.

### Assessment of cost estimations and benefit calculations

The statistics regarding the identification of inconsistencies to the data and calculations included in the TYNDP 2024 regarding the projects’ CAPEX and OPEX are presented respectively in Figure 12.

Figure 12. NRAs assessment regarding the inconsistencies to the CAPEX and OPEX data

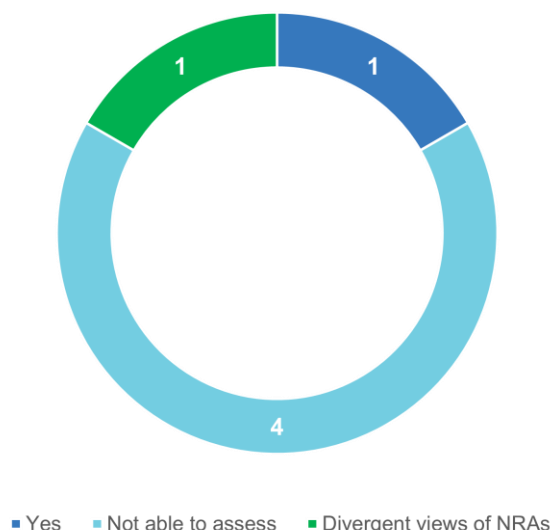


As shown above, no inconsistencies have been identified by NRAs, but the values could not be assessed for half of the projects. NRAs indicated that the projects are planned at a lower voltage (distribution level) and are therefore not included in the NDPs. They also noted that they are unable to assess non-regulated companies.

<sup>34</sup> The Austrian NRA (E-Control), the Slovenian NRA (AGENRS) and the Croatian NRA (HERA) indicated diverging views on the specific criteria met by the project.

The following figure presents the assessment of NRAs whether the projects “overall benefits outweigh the costs”:

Figure 13. Do potential overall benefits outweigh its costs?



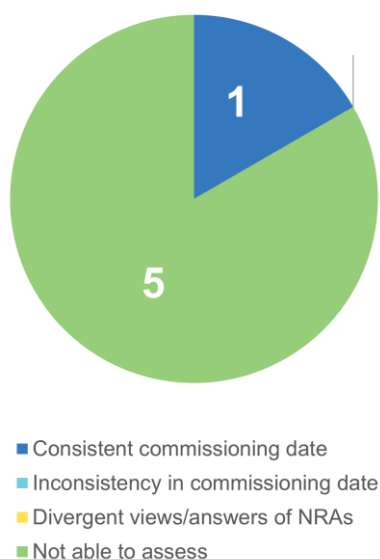
Regarding the project for which NRAs have divergent views (GreenSwitch), this arises from different capacities among NRAs to assess the project.

We can notice that for more than half of the projects, NRAs were not able to assess whether the projects’ overall benefits outweigh the costs. Lack of available data, non-inclusion in the NDP (planned on a lower voltage), and the difficulty of assessing an early-stage project are the reasons highlighted by the NRAs.

**Plausibility of the commissioning dates**

The statistics regarding the assessment of plausibility of the commissioning dates provided by the PCI promoters are presented in Figure 14. NRAs assessments of inconsistencies to the commissioning dates of the candidate projects indicated in the draft TYNDP 2024 below.

Figure 14. NRAs assessments of inconsistencies to the commissioning dates of the candidate projects indicated in the draft TYNDP 2024



It is noted that in the cases where NRAs were not able to assess, i.e. in 5 cases<sup>35</sup>, it was not possible for NRAs to determine the commissioning date for non-regulated energy projects.

#### **NRAs objection to the inclusion in the final PCI/PMI regional list**

Finally, regarding the question “Do NRA objects to the inclusion of the project in the final PCI/PMI Regional list?”, NRAs showed no opposition.

#### **NRAs’ assessment on the inclusion of the projects in the final PCI/PMI list**

NRAs have not expressed opposition to any of the Smart Grid Electricity projects. They have neither indicated an inability to assess their support for the inclusion nor expressed any divergent views. Thus, no project requires particular attention this section.

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<sup>35</sup> TUNE, Gabreta Smart Grids, GreenSwitch, Danube InGrid and Selena.

## Annex IV: Statistics and NRAs' assessment of Smart gas grids candidate projects

This Annex is divided into two sections:

- Statistics on NRA's assessment of candidate projects and
- NRA's assessment on the inclusion of the project in the final PCI/PMI list.

The former presents an overview how the NRAs assessed different aspects of the candidate projects. The latter focuses on whether NRAs have certain reservations on the inclusion (or are not able to assess) of the projects in the final PCI/PMI list.

### Statistics on NRAs' assessment of candidate projects

#### Statistics on NRAs' assessment of candidate projects

In line with the provisions of Annex III, 2.(8), Regulation (EU) 2022/869, 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 gas smart grids projects for PCI/PMI lists. The NRA checks and evaluations were carried out between 20 February 2025 and 11 April 2025. The scope of the assessments covered the candidate projects and project groups. The summary of the assessment results was presented to the Regional Groups on 13 June 2025<sup>36</sup>.

The assessment included the following main elements:

- NRAs competence over hydrogen infrastructure;
- Compliance with the criteria of cross-border relevance<sup>37</sup>, in line with Article 4(1)(c) of Reg. (EU) 2022/869;
- Compliance with the specific criteria (sustainability, network security, market functioning and smart energy sector integration), in line with 4(3)(f) of Reg. (EU) 2022/869;
- Presence of the candidate projects in the National Development Plans of the hosting Member States;
- 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;
- Credibility of the estimated benefits of the projects;
- NRAs' own assessment of the realism of the indicated commissioning date; and
- Objections (if any) to the inclusion of the candidate project in the PCI/PMI list.

#### Summary of the assessment

NRAs submitted in total 2 assessments regarding 2 out of the X candidate projects, being both assessments coordinated between two NRAs. All projects were assessed as PCIs. The concerned projects for which NRAs have provided an assessment are Croatia and Slovenia Smart Gas Grid (CSSSG) Project and GreenConnect. CSSSG's assessment was provided by the Croatian NRA, HERA,

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<sup>36</sup> ACER shared the detailed NRAs assessment information with the European Commission.

<sup>37</sup> 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.

and the Slovenian NRA, AGENRS. GreenConnect’s assessment was provided by the French NRA, CRE, and the Danish NRA, DUR.

In the following table, the statistics of the NRAs submissions are provided:

	Candidate projects	Projects assessed by NRAs	Assessment in coordination with other EU-NRAs	Coordination with non-EU country
Smart Gas Grids	3	2	2	0

Table 1. NRA assessments by corridor Table 1 shows NRA assessment of each smart gas grid candidate project.

Table 1: NRAs assessments of projects

	Croatia and Slovenia Smart Gas Grid (CSSSG)	GreenConnect
Compliance with general criteria	●	●
Compliance with the sustainability specific criterion	●	●
Compliance with the specific criteria	●	●
Inclusion in national development plans	●	●
Assessment of cost estimations and benefit calculations	●	●
Plausibility of commissioning dates	●	●
Objection	●	●

● No objection/Yes; ● Not able to assess; ● No

**Main outcome**

None of the NRAs objected the inclusion of any of the projects (candidate PCI/PMI) in the final Regional Union list.

### **Compliance with general criteria**

For CCSSG, the NRAs indicated that the project is compliant with the general criteria<sup>38</sup>, whereas for GreenConnect NRAs were not able to assess its compliance<sup>39</sup>.

### **Compliance with the specific criteria**

NRAs confirmed the compliance of both projects with the sustainability specific criterion and with all of the specific criteria (network security and quality of supply, market functioning and customer services, and facilitating smart energy sector integration<sup>40</sup>).

### **Inclusion in national development plans**

Only CCSSG is included in the national development plans of the hosting countries. GreenConnect is not included neither in the French nor in the Danish NDPs.

### **Assessment of cost estimations and benefit calculations**

NRAs were not able to assess the consistency of cost (CAPEX and OPEX) nor benefits figures. The lack of national data on those parameters was highlighted as the main reason.

### **Plausibility of commissioning dates**

Concerned NRAs do not have any objection on the claimed commissioning date of CCSSG<sup>41</sup>. CRE and DUR indicate that they are not able to assess the commissioning date of GreenConnect.

### **Objection**

None of the NRAs object the inclusion of any of the project. However, CRE declares itself unable to assess GreenConnect, as the cross-border nature of this project remains to be demonstrated.

### **NRAs' assessment on the inclusion of the projects in the final PCI / PMI list**

In this annex reference is made only to the projects, which NRAs indicated that they either were not able to assess their support, were opposed to, or had divergent views upon. No reference is made to projects not included in the lists, for which NRAs agree to their non-inclusion. It is noted that proposed projects for which there is no reference in this Opinion are not objected by the involved NRAs.

### **Opinion on the draft regional list – Smart Gas Grids**

- With respect to the candidate project GreenConnect, the French and Danish NRAs, CRE and DUR, respectively, were not able to assess their support to the inclusion of the project to the PCI list. CRE indicated that they cannot demonstrate the cross-border nature of the project.

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<sup>38</sup> NRAs indicate that the project involves at least two Member States by directly crossing the border of two or more Member States.

<sup>39</sup> CRE indicates that the cross-border nature of the project remains to be demonstrated.

<sup>40</sup> Specific criteria Art.4.3.(f): (i) Network security and quality of supply by improving the efficiency and interoperability of gas transmission, distribution or storage systems in day-to-day network operation by, inter alia, addressing challenges arising from the injection of gases of various qualities; (ii) market functioning and customer services; (iii) facilitating smart energy sector integration through the creation of links to other energy carriers and sectors and enabling demand response.

<sup>41</sup> NRAs indicate that the project impact will be visible in 2026 with the procurement of ethane emissions control and monitoring equipment. The first volumes of H2 will be able to enter gas network in 2026.-2028. period when chromatographs are replaced, while the whole smart gas grid project will be fully operational in 2035.

## Annex V: NRAs' comments on the Draft Regional PCI/PMI lists

*Changes compared to the previous NRA assessments presented in Annexes I-IV.*

[version: 2 July 2025, for ACER opinion]

### Priority Corridor North-South electricity interconnections in Western Europe ('NSI West Electricity')

#### NSI West electricity transmission projects (PCI candidates)

Project name	NRA Comments
Portugal - Spain interconnection between Beariz - Fontefria (ES), Fontefria (ES)- Ponte de Lima (PT) and Ponte de Lima - Vila Nova de Famalicao (PT), including substations in Beariz (ES), Fontefria (ES) and Ponte de Lima (PT)	
Interconnection between Gatica (ES) and Cubnezais (FR) [currently known as "Biscay Gulf"]	
Interconnection between La Martyre (FR) and Great Island or Knockraha (IE) [currently known as "Celtic Interconnector"]	
Internal line from Emden-East to Osterath (DE) to increase capacity from Northern Germany to the Rhineland [currently known as "A-Nord"]	
Internal line in Germany between Brunsbüttel/Wilster and Großgartach/Bergrheinfeld West (DE) to increase capacity at Northern and Southern borders [currently known as "Suedlink"]	
Internal line between Osterath and Philippsburg (DE) to increase capacity at Western borders [currently known as "Ultranet"]	
Interconnection between Navarra (ES) and Landes (FR) [currently known as "Pyrenean crossing 1"]	CNMC: This project has divergent views (CRE and CNMC). The Spanish NRA (CNMC) supports this project and considers that it is very important to focus on this interconnector and to continue analyzing the required internal reinforcements in the French part to ensure that this interconnector will be included in the French NDP as "planned but not yet permitting". The inclusion in the French NDP as "under consideration" status should not be a barrier to achieve the European objectives since the

	Iberian Peninsula is still far from the 15% interconnection rate.
Interconnection between Aragón region (ES) and Marsillon (FR) [currently known as "Pyrenean crossing 2"]	CNMC: This project has divergent views (CRE and CNMC). The Spanish NRA (CNMC) supports this project and considers that it is very important to focus on this interconnector and to continue analyzing the required internal reinforcements in the French part to ensure that this interconnector will be included in the French NDP as "planned but not yet permitting". The inclusion in the French NDP as "under consideration" status should not be a barrier to achieve the European objectives since the Iberian Peninsula is still far from the 15% interconnection rate.
Interconnection between Lonny (FR) and Gramme (BE)	
Internal lines at the Belgian north border between Zandvliet and Lillo-Liefkenshoek (BE), and between Liefkenshoek and Mercator (BE), including a substation in Lillo (BE) [currently known as "BRABO II + III"]	
Interconnection between mainland Italy - Corsica (FR) and Sardinia (IT) [currently known as "SACOI 3"]	
Internal line between Bordeaux area and Nantes area (FR) [currently known as "GiLA"]	
Internal line between Montalto and Avenza (IT) ["HG North Tyrrhenian Corridor"]	
Interconnection between La Spezia (IT) and Ramis (ES) [currently known as "APOLLO-LINK"]	The Spanish NRA (CNMC) is not able to assess this project due to the lack of maturity and because it is not included in the current Spanish NDP. Nevertheless, its inclusion in the PCI list could be interesting to facilitate further studies on the project.
Internal line between Ovelgönne/Rastede/Wiefelstede/Westerstede and Bierstadt and Marxheim (Taunus) (DE) [currently known as "Rhine-Main-Link"]	

**NSI West electricity transmission projects (PMI candidates)**

Project name	NRA Comments
Interconnection between Sicily (IT) and Tunisia node (TN) [currently known as "ELMED"]	
Interconnection between Zeebrugge area (BE) and Kemsley, Kent (UK) [currently known as "Cronos"]	
Interconnection between Niederlangen (DE) and East Anglia (UK) [currently known as "Tarchon"]	
Interconnection between Woodland (IE) and Turleenan	

(UK) [currently known as "North-South interconnector"]	
Interconnection between Maynooth (IE) and Bodelwyddan (UK) [currently known as "MaresConnect"]	
Interconnection between La Spezia (IT) and Annaba (DZ) and between Suvereto (IT) and Marsa Dhib (TN) [currently known as "Medlink"]	

**NSI West electricity storage projects (PCI candidates)**

Project name	NRA Comments
Kaunertal Storage Extension Project (AT)	
Purifying-Pumped Hydroelectric Energy Storage NAVALEO (ES)	
Silvermines Pumped Hydroelectric Energy Storage (IE)	
Pumped Hydroelectric Energy Storage RIEDL (DE)	
Green Hydrogen Hub Denmark Compressed Air Energy Storage (DK)	
Pumped Hydroelectric Energy Storage WSK PULS (DE)	
Reversible Hydraulic Pumped Energy Storage AGUAYO II (ES)	
Online Grid Controller "PSKW-Rio" (DE)	
Pumped Hydroelectric Energy Storage CHR IRENE (ES)	
Pumped Hydroelectric Energy Storage PSP CONSO II (ES)	
Hydro-pumped electricity storage GIRONÉS & RAÍMATS (ES)	
Pumped Hydroelectric Energy Storage Villarosa (IT)	
Pumped Hydroelectric Energy Storage Taccu Sa Pruna (IT)	
Pumped Hydroelectric Energy Storage Favazzina (IT)	
Pumped Hydroelectric Energy Storage Serra Del Corvo (IT)	
Compressed Air Energy Storage "CAES Ahaus, Germany" (DE)	

**Priority Corridor North-South electricity interconnections in Central Eastern and South Eastern Europe ('NSI East Electricity')**

**NSI East electricity transmission projects (PCI candidates)**

Project name	NRA Comments
Inerconnection between Isar/Altheim/Ottenhofen (DE) - St.Peter (AT)	
Internal line between Westtirol - Zell/Ziller (AT)	
Interconnector between Pleinting (DE) - St.Peter (AT)	
Internal line between Wolmirstedt and Isar (DE) [currently known as "SuedOstLink"]	
Internal line between Přeštice, Kocin and Mírovka (CZ) [currently known as "CZ Southwest-east corridor"]	
Interconnector between Würmlach (AT) - Somplago (IT)	

Interconnector between Hungary and Romania	
Interconnector between Greece, Cyprus and Israel [currently known as "Great Sea Interconnector"]	
Interconnector between Otrokovice (CZ) - Ladce (SK)	
Interconnector between Lienz (AT) - Veneto region (IT)	
Internal line between Villanova and Fano (IT) [currently known as "Adriatic HVDC link"]	
Internal line between Lienz Malta and Obersielach (AT)	
Interconnection between Hradec (CZ) and Röhrsdorf (DE)	
Interconnection between Galatina (IT) and Thesprotia (EL) [currently known as "GRITA 2"]	
Internal line between St. Peter and Dürnröhr (AT)	
Internal line between Foggia and Forli (IT) [currently known as "HG Adriatic Corridor"]	
Interconnection between Sajóvátka (HU) - Rimavská Sobota (SK)	

**NSI East electricity transmission projects (PMI candidates)**

<b>Project name</b>	<b>NRA Comments</b>
Interconnector between Subotica (RS) and Sándorfalva (HU) [currently known as "Pannonian Corridor"]	
Interconnection between Sidi Barrani shore (EG) and Mesogeia/St Stefanos (EL) [currently known as "GREGY Interconnector"]	
Interconnection between Villanova (IT) and Lastva (ME)	ARERA: for candidate project 28 Italy – Montenegro, after the assessment round, the Italian NRA, ARERA, informed that the project was positively verified by its opinion 391/2025 of 5 August 2025.
Interconnection between Bobov Dol (BG) and Leskovac 2 (RS) [currently known as the "Central Balkan Corridor"]	
Interconnection between Anaklia (GE) and Constanta Sud (RO) [currently known as "Black Sea interconnection cable"]	ANRE: for candidate project 1105, Romanian NRA was not able to assess its support to the inclusion of the project to the PCI list, due to the impossibility to confirm economic viability of this project.
Interconnection between Mukacheve (UA) and Veľké Kapušany (SK)	
Interconnection between Artsyz (UA) and Isaccea (RO)	ANRE: for candidate project 1240, although the Romanian NRA does not object for inclusion of the project to the PMI list, the NRA was not able to assess the costs, benefits, economic viability of this project and commissioning date.

**NSI East electricity storage projects (PCI candidates)**

Project name	NRA Comments
Hydro-pumped storage in Amfilochia (EL)	
Modernisation of Pumped Hydroelectric Energy Storage in Čierny Váh (SK) [currently known as "SE Integrator"]	
Hydro-pumped storage in Yadenitsa (BG)	
Hydro-pumped storage in Kozjak (SI)	
Hydro-pumped storage in Batak (BG)	
Hydro-pumped storage Dospat (BG)	
Ptolemaida Battery Energy Storage System (EL)	

**Priority Corridor Baltic Energy Market Interconnection Plan in electricity ('BEMIP Electricity')**

**BEMIP electricity transmission projects (PCI candidates)**

Project name	NRA Comments
Integration and synchronisation of the Baltic States' electricity system with the European networks (EE, LV, LT, PL)	
Fourth interconnection between Finland and Sweden [currently known as "Aurora line 2"]	
Interconnection between Finland and Estonia [currently known as "Estlink 3"]	
Interconnection between Finland and Sweden [currently known as "Fenno-Skan 3"]	
Interconnection between Sweden and Denmark [currently known as "Upgrade to Konti-Skan"]	DUR – Not able to assess
Latvia and Lithuania cross-border strengthening project	

**BEMIP electricity storage projects (PCI candidates)**

Project name	NRA Comments
Hydro-pumped electricity storage in Estonia	
Hydro-pumped electricity storage in Finland "Kemijoki PSP"	

**Priority Corridor Northern Seas offshore grid ('NSOG')**

**NSOG electricity transmission projects (PCI candidates)**

Project name	NRA Comments
Offshore hybrid interconnector between Belgium and Denmark [currently known as "Triton Link"]	DUR – Not able to assess
High voltage offshore substation and connection to Menuel (FR) [currently known as "Offshore Wind connection Centre	

Manche 1"]	
High voltage offshore substation and connection to Tourbe (FR) [currently known as "Offshore Wind connection Centre Manche 2"]	
Offshore Wind Connection Fecamp-Grand Large 1 (FR)	
Offshore Wind Connection Fecamp-Grand Large 2 (FR)	
Offshore hybrid Interconnector between Germany and the Netherlands	

**NSOG electricity transmission projects (PMI candidates)**

Project name	NRA Comments
Multi-purpose interconnector between Princess Elisabeth Island (BE) and Kent (UK) [currently known as "Nautilus"]	
Multi-purpose HVDC interconnection between Great Britain and the Netherlands [currently known as "LionLink"]	
Offshore hybrid interconnector between the United Kingdom and Germany [currently known as "HansaLink - Phase I"]	

**Priority Corridor Baltic Energy Market Interconnection Plan offshore grids ('BEMIP offshore')**

**BEMIP offshore electricity transmission projects (PCI candidates)**

Project name	NRA Comments
Latvia and Estonia Hybrid Offshore interconnector	
Bornholm Energy Island (BEI) Hybrid Offshore interconnector between Denmark and Germany	DUR – Not able to assess

**Priority Corridor South and West offshore grids ('SW offshore')**

**SW offshore electricity transmission projects (PCI candidates)**

Project name	NRA Comments
Offshore Wind Connection Occitanie (FR)	
Offshore Wind Connection PACA (FR)	
Offshore Wind Connection Golfe de Lion Centre (FR)	

**Priority Corridor South and East offshore grids ('SE offshore')**

No PCI/PMI candidate has been submitted.

**Priority Corridor Atlantic offshore grids**

**Atlantic offshore electricity transmission projects (PCI candidates)**

Project name	NRA Comments
Offshore Wind Connection South Brittany (FR)	
Offshore Wind Connection South Atlantic Oleron 1 (FR)	
Offshore Wind Connection South Atlantic Oleron 2 (FR)	
Offshore Wind Connection Golfe de Gascogne Sud (FR)	
Offshore Wind Connection Bretagne Nord-Ouest (FR)	

## Hydrogen and electrolyser projects

### Hydrogen interconnections in Western Europe (HI West)

NOTE: For all hydrogen projects, where the host country is Spain, included on the draft PCI-PMI list:

At this stage, while the Directive is being transposed in Spain, CNMC is not in a position to provide further observations on the PCI projects.

### HI WEST Hydrogen transmission projects (PCI candidates)

PCI candidate - Project name	NRA Comments
Corridor Portugal - Spain - France - Germany <ul style="list-style-type: none"> <li>Internal infrastructure in Portugal</li> <li>Interconnection Portugal - Spain</li> <li>Internal infrastructure in Spain</li> <li>Interconnection Spain - France (currently known as BarMar)</li> <li>Internal infrastructure in France connecting to Germany (currently known as HyFen)</li> <li>Internal infrastructure in Germany connecting to France (currently known as H2Hercules South-West)</li> </ul>	
France-Germany cross-border hydrogen valleys: <ul style="list-style-type: none"> <li>Interconnection France-Germany (currently known as RHYn)</li> <li>Interconnection France-Germany (currently known as Mosahyc)</li> </ul>	
Internal infrastructure in Belgium	
Internal infrastructure in the Netherlands	
Internal infrastructure in France at the border to Belgium (currently known as Franco-Belgian H2 corridor): <ul style="list-style-type: none"> <li>cluster Mons-Valenciennes</li> <li>interconnection at Blaregnies</li> </ul>	
German offshore pipeline (currently known as AquaDuctus)	
Interconnection Denmark - Germany (currently known as West DK hydrogen system; HyperLink III)	DUR – Not able to assess
Interconnections Netherlands - Germany, German part: <ul style="list-style-type: none"> <li>in Oude (currently known H2ercules North)</li> </ul>	

<ul style="list-style-type: none"> <li>• Interconnection GER-NL 2: Hyperlink</li> <li>• in Zevenaar/Elten (currently known as H2ercules North-West)</li> </ul>	
<ul style="list-style-type: none"> <li>• in Vlieghuis (currently known as Vlieghuis - Ochtrup)</li> <li>• Delta Rhine Corridor H2 - Germany</li> </ul>	
Interconnection Germany - Belgium: German part (currently known as H2ercules Network West)	
Interconnection France - Luxembourg - Belgium (currently known as Hy4link (FR), Hy4link (LU))	
Infrastructure Southern France - grid from Bordeaux to Mediterranean coast: <ul style="list-style-type: none"> <li>• MidHY</li> <li>• HySoW Mediterranean</li> <li>• HySoW Atlantic</li> </ul>	

PMI candidate - Project name	NRA Comments
Undersea pipeline Belgium - United Kingdom	
South-eastern import route - Italy -Switzerland - Germany: <ul style="list-style-type: none"> <li>• [PCI] IT backbone - section Poggio Renatico - Swiss border</li> <li>• [PMI] Alpine H2 corridor</li> <li>• [PCI] Alpine HyWay</li> </ul>	

**HI WEST reception facilities PCI candidates**

PCI candidate - Project Name	NRA Comments
Ammonia reception facility Antwerp (Fluxys) (BE)	
Ammonia reception facility Amplifhy Antwerp (BE)	
Zeebrugge New Molecules development ammonia reception facility (BE)	
Ammonia reception facility Dunkerque (FR)	
Ammonia reception facility Amplifhy Rotterdam (NL)	
Ammonia reception facility Wilhelmshaven (Uniper) (DE)	
Ammonia reception facility Terminal Brunsbüttel (DE)	
H2 terminal Antwerp VEPA (BE)	

**HI WEST electrolyser projects PCI candidates**

PCI candidate - Project Name	NRA Comments
Project Esbjerg electrolyser (DK)	DUR – Not able to assess
Electrolyser Rheinfelden electrolyser (DE)	
Project Hela electrolyser (DK)	DUR – Not able to assess

ScheldeH2 electrolyser (NL)	
Project Vidar electrolyser (DK)	DUR – Not able to assess
Barcelona Large Scale Electrolyzer (ES)	
GHYga H2 electrolyser (FR)	
Casa del Olmo H2 electrolyser (ES)	
H2Austria&Bavaria+Store electrolyser (AT)	E-Control is not competent for electrolyzers.
CHYMIA electrolyser (BE)	
ValdoEume electrolyser (ES)	
H0ST PtX Esbjerg (Formerly Jyske Banke Nord PtX) electrolyser (DK)	DUR – Not able to assess
Steyerberg Electrolysis electrolyser (DE)	
GreenRoot 2024new electrolyser (DE)	
H2V 59 electrolyser (FR)	
Catalina electrolyser (ES)	
ErasmusPower2X electrolyser (ES)	
Plug Idomlund electrolyser (DK)	DUR – Not able to assess
AsturiasH2Valley electrolyser (ES)	
Valle andaluz del hidrógeno verde electrolyser - Huelva (ES)	

**HI WEST Hydrogen storage projects**

PCI candidate - Project Name	NRA Comments
DK Hydrogen storage (DK)	DUR – Not able to assess
EWE Hydrogen Storage Huntorf (DE)	
SaltHy Harsefeld (DE)	
SaltHy Harsefeld II A+B (DE)	
RWE H2 Storage expansion Gronau-Epe (DE)	
RWE H2 Storage Gronau-Epe - 2nd expansion (DE)	
UST Hydrogen Storage Epe (DE)	
H2 storage North-I (ES)	
H2 storage North- 2(ES)	
UST Hydrogen Storage Krummhom (DE)	
HyPSTER_3 (DE)	
HySoW storage (Hydrogen Southwest corridor of France storage)+ HySoW Atlantic (Lacq - Lussagnet)	
NWKG H2 Storage (DE)	
GeoH2 storge and connexion HY-FEN-GeoH2 (FR)	
Hystock Opslag H2 (NL)	
EWE Hydrogen Storage Jemgum (DE)	
Gasunie SpHyGER Etzel (GSE) (DE)	

## Hydrogen interconnections in Central Eastern and South Eastern Europe (HI East)

### HI EAST Hydrogen transmission projects

PCI candidate - Project Name	NRA Comments
Hydrogen interconnection Slovakia - Hungary <ul style="list-style-type: none"> <li>• SK-HU hydrogen corridor</li> <li>• HU-SK hydrogen corridor</li> </ul>	
Czech - German Hydrogen Interconnection <ul style="list-style-type: none"> <li>• Flow East - Making Hydrogen Happen</li> <li>• Czech H2 Backbone West</li> <li>• H2ercules Network South-East</li> </ul>	
Central European Hydrogen Corridor: <ul style="list-style-type: none"> <li>• [PMI] Ukrainian - Slovak interconnection (Ukrainian section)</li> <li>• [PCI] Slovak Hydrogen Backbone</li> <li>• [PCI] Czech Hydrogen Backbone North</li> </ul>	
SouthH2 Corridor between Tunisia, Italy, Austria and Germany: <ul style="list-style-type: none"> <li>• [PMI] North Africa Hydrogen Corridor (offshore section Cap Bon-Mazara del Vallo)</li> <li>• [PCI] Italian Hydrogen Backbone</li> <li>• [PCI] H2 Readiness of the TAG pipeline system [PCI] H2 Backbone WAG + Penta West</li> <li>• [PCI] Hy Pipe Bavaria-The Hydrogen Hub</li> </ul>	
Hydrogen Interconnections from Greece to Bulgaria and Italy: <ul style="list-style-type: none"> <li>• Internal hydrogen infrastructure in Greece towards the Bulgarian border</li> <li>• H2 transmission system in Bulgaria</li> <li>• Connection of DESFA's transmission system with the H2 Poseidon pipeline (section Komnina - Florovouni)</li> <li>• H2 Poseidon pipeline</li> </ul>	

### HI EAST hydrogen reception terminal projects

PCI candidate - Project Name	NRA Comments
Ionian Energy Terminal (EL)	

### HI EAST hydrogen electrolyser projects

PCI candidate - Project Name	NRA Comments
Thalis 1 (EL)	

**HI EAST hydrogen storage projects**

PCI candidate - Project Name	NRA Comments
EWE Hydrogen Storage Ruedersdorf (DE)	
Fiume Treste Livello Underground Hydrogen Storage (IT)	

**Baltic Energy Market Interconnection Plan in hydrogen (BEMIP Hydrogen)**

**BEMIP Hydrogen transmission projects**

PCI candidate - Project Name	Comments
H2 interconnections Germany - Poland: Pomeranian Green Hydrogen cluster	
H2 interconnections Finland - Sweden: <ul style="list-style-type: none"> <li>Nordic Hydrogen Route (NHR) - Bothnian Bay - Finnish section</li> <li>Nordic Hydrogen Route (NHR) - Bothnian Bay - Swedish section</li> </ul>	
H2 interconnections Finland to Germany via Baltic States and Poland cluster [NBHC]: <ul style="list-style-type: none"> <li>Nordic-Baltic Hydrogen Corridor - FI section</li> <li>Nordic-Baltic Hydrogen Corridor - EE section</li> <li>Nordic-Baltic Hydrogen Corridor - LV section</li> <li>Nordic-Baltic Hydrogen Corridor - LT section</li> <li>Nordic-Baltic Hydrogen Corridor - PL section</li> <li>Nordic-Baltic Hydrogen Corridor - DE section</li> </ul>	
Baltic Sea Hydrogen Collector [BHC] <ul style="list-style-type: none"> <li>Baltic Sea Hydrogen Collector - Offshore Pipeline - Finland</li> <li>Baltic Sea Hydrogen Collector - Offshore Pipeline - Sweden</li> </ul>	

**BEMIP Hydrogen storage projects**

No PCI/PMI candidate.

**BEMIP electrolyser facilities**

PCI candidate - Project Name	NRA Comments
Porvoo Phase 2 (FI)	
CrHySALiS (SE)	
Project FOX (FI)	
Plug Power Kristinestad project (FI)	