

**RECOMMENDATION No 02/2023
OF THE EUROPEAN UNION AGENCY
FOR THE COOPERATION OF ENERGY REGULATORS**

of 22 June 2023

**on good practices for the treatment of the investment requests,
including Cross Border Cost Allocation requests,
for Projects of Common Interest**

THE EUROPEAN UNION AGENCY FOR THE COOPERATION OF ENERGY REGULATORS,

Having regard to Regulation (EU) 2019/942 of the European Parliament and of the Council of 5 June 2019 establishing a European Union Agency for the Cooperation of Energy Regulators (ACER), and, in particular, Article 6(2) thereof,

Having regard to Regulation (EU) 2022/869 of the European Parliament and of the Council on guidelines for trans-European energy infrastructure, and in particular, Article 16(11).

Having regard to the favourable opinion of the Board of Regulators of 16 June 2023, delivered pursuant to Article 22(5) of Regulation (EU) 2019/942,

Whereas:

- (1) Regulation (EU) 2022/869 of the European Parliament and of the Council of 30 May 2022 on guidelines for trans-European energy infrastructure (hereinafter also ‘TEN-E Regulation’) ¹, provides for the identification of projects of common interest (hereinafter also ‘PCIs’) and of projects of mutual interest (hereinafter also ‘PMIs’), which are necessary to implement priority corridors and areas covering electricity transmission, smart electricity grids, smart gas grids, hydrogen, electrolyzers and carbon dioxide².

¹ OJ L 152, 3.6.2022, p. 45–102.

² Article 1(2)(a) of Regulation (EU) No 2022/869.

- (2) A net negative impact³ affecting at least one country hosting⁴ a PCI/PMI constitutes a potential barrier to its development. As each PCI has an overall net positive impact at EU level, it should generally be possible to provide compensation to eliminate the country-specific net negative impact. Where possible, a harmonised approach should be applied in order to identify the TSO or the project promoter which should provide such compensation and those which should receive it.
- (3) Regulation (EU) 2022/869 facilitates investments in PCIs/PMIs by envisaging decisions by National Regulatory Authorities (hereinafter also ‘NRAs’) or by the European Union Agency for the Cooperation of Energy Regulators (hereinafter ‘the Agency’) on the allocation of the costs of such projects across borders if project promoters⁵ submit an investment request, including a request for a cross-border cost allocation (hereinafter also ‘CBCA’).
- (4) In deciding on CBCA, NRAs should allocate efficiently incurred investment costs across borders and include them in the national tariffs, and, afterwards, if relevant, determine whether their impact on national tariffs could represent a disproportionate burden for consumers in their respective Member States⁶.
- (5) As soon as such a PCI or PMI has reached sufficient maturity and is estimated to be ready to start the construction phase within the next 36 months, the project promoters, after having consulted the TSOs from the Member States which are assessed as potentially having a significant net positive impact from it, shall submit an investment request, including a request for CBCA. That investment request could include a request proposal for a cross-border cost allocation and shall be submitted to all the NRAs concerned.
- (6) Article 16(4) of Regulation (EU) 2022/869 specifies the features of the investment request to be submitted by project promoters. It requires that an investment request is accompanied by a project specific cost benefit analysis (hereinafter also ‘CBA’) consistent with the single sector methodologies drawn up pursuant to Article 11 of the same Regulation. However, Article 16(4) does not specify the level of detail of the information to be submitted by project promoters. A clarification of the details to be submitted is essential to facilitate a consistent approach among project promoters and NRAs for a given PCI or PMI. This should at the same time enable the submission of complete investment requests of adequate quality and facilitate the minimisation of delays.
- (7) There is a time gap between the initial assessment of the positive impact of a project as PCI/PMI and when the investment request is submitted. Within this period, the level of

³ See Section 2.4 this Recommendation about the term “net impact” and its calculation.

⁴ For the purpose of this Recommendation, “hosting country” is a country where the project is territorially located.

⁵ The term “project promoters” in this Recommendation applies also to the cases of PCIs/PMIs with one project promoter.

⁶ Recital (47) of Regulation (EU) 2022/869.

maturity of the project as well as various elements of the assessment framework have the potential to undergo modifications, which could consequently affect the costs and benefits associated with the project.

- (8) Because of the importance of the cross-border cost allocation process for advancing infrastructure projects of EU-wide relevance, identification of good practices for NRAs is of utmost importance to facilitate a proper treatment of the investment requests. Experience with decisions on investment requests showed that the identification of expected costs and expected benefits (and of robust scenarios for which benefits are calculated) proved to be complex over the last years.
- (9) In particular, concerning the assumptions underlying the project benefits, their assessment is based on scenarios which depict potential paths that energy demand and supply may take in the future. These scenarios are not predictions and, as such, the societal and financial consequences of a project's implementation will always carry a level of uncertainty. Additionally, different scenarios may even lead to opposite outcomes when evaluating the project's cost-benefit analysis.
- (10) The latest Agency's Monitoring Report on CBCAs⁷ reveals that, since 2013, there have been 45 decisions regarding CBCAs, covering over 40% of the eligible current PCIs (electricity and gas) and an approximate total investment cost of 16.5 billion euro. Given the expansion of the CBCA instrument to include also new project categories and the growing integration of the energy system across Europe, the importance of CBCAs is expected to increase in the future. The Agency's monitoring report also shows that the majority of CBCA decisions taken since 2013 foresee that the hosting countries will bear the costs of the projects based on the "territorial principle"⁸ while less than 30% of decisions deviate from this "traditional principle" and set cross-border payments.
- (11) In this context, the Agency already issued its Recommendation No 07/2013 regarding the cross-border cost allocation requests submitted in the framework of the first Union list of electricity and gas PCIs. It revised the document in its Recommendation No 05/2015 in the light of the experience gained with the assessment of the investment requests for the PCIs included in the first Union list and the related decision⁹. The current Recommendation, pursuant to Article 16(11) of Regulation (EU) 2022/869 and as foreseen in the Agency's Single Programming Document 2023-2025¹⁰, builds upon the previous Agency's recommendations, the results of the extensive public consultation, the

⁷ https://www.acer.europa.eu/Official_documents/Acts_of_the_Agency/Publication/2020-09_4th-ACER-CBCA-report.pdf

⁸ I.e. without any cross-border financial contributions involved.

⁹ As summarised in the accompanying summary report "Experience with Cross-Border Cost Allocation, September 2015" and forthcoming reports [<https://www.acer.europa.eu/gas/infrastructure/ten-e/cross-border-cost-allocation>]

¹⁰ European Union Agency for the Cooperation of Energy Regulators Single Programming Document 2023-2025 p. 61-62; [ACER Programming Document 2023-2025.pdf \(europa.eu\)](#)

past experience with CBCA decisions as well as taking into account the new legal provisions,

HAS ADOPTED THIS RECOMMENDATION:

1. INTRODUCTION AND SCOPE OF THIS RECOMMENDATION

Article 16 of Regulation (EU) 2022/869 applies to Projects of Common Interest and Projects of Mutual Interest falling under the energy infrastructure categories of electricity infrastructures¹¹, hydrogen infrastructures¹² and smart gas grid infrastructures¹³, as long as these projects fall under the competence of National Regulatory Authorities.

The Agency Recommendation No 05/2015, which was originally published on 18 December 2015, has been revisited in line with the provisions stated in Regulation (EU) 2022/869.

The aim of this Recommendation is to define good practices for the preparation, submission and treatment of investment requests. This Recommendation is composed of a set of general guidelines and good practices which can be applied to any infrastructure category, plus specific section for specific project categories where adequate maturity of the current methodologies and regulatory practices already exist.

For this reason, this Recommendation is addressed to project promoters submitting an investment request, which includes a request for cross-border cost allocation, as well as to National Regulatory Authorities seeking agreement on such requests.

This Recommendation does not apply to investment requests already submitted by project promoters to NRAs before the date of its publication.

This Recommendation will be regularly updated in accordance with Article 16(11) of Regulation (EU) 2022/869 and in light of the experiences gained with the future CBCAs.

¹¹ Cf. Annex II (1)(a)-(f) of Regulation (EU) 2022/869.

¹² Cf. Annex II (3) of Regulation (EU) 2022/869.

¹³ Cf. Annex II (2) of Regulation (EU) 2022/869.

2. ON THE PREPARATION AND SUBMISSION OF AN INVESTMENT REQUEST

This section covers the main elements to be considered when preparing an investment request (and potentially a CBCA proposal). It provides indications to project promoters on how to submit an investment request to the concerned NRAs, as well as on the information to be included as part of the submitted investment request.

2.1. Identification of the subject of the investment request

As part of the submitted investment request, project promoters should clearly identify which are the PCIs/PMIs and the related investment items¹⁴ subject of the investment request. Project promoters should also indicate the PCI/PMI identification code the project(s) refers to.

In certain situations, developing a PCI/PMI may have a significant impact for other PCIs/PMIs, i.e. in case of complementary or competing projects.

Projects may be considered complementary if the aggregated benefits of a joint development of the relevant PCIs/PMIs are higher than the sum of projects' benefits estimated on a stand-alone basis for each project.

Project promoters should always aim at identifying significant complementarities between projects, discuss them with the relevant TSOs and aim at preparing joint analyses. In case of significant complementarities with other PCIs/PMIs, project promoters should submit joint investment requests.

The clustering of complementary PCIs/PMIs as part of the assessment carried out by the Regional Groups should be considered by project promoters.

When clustering projects, project promoters should clearly identify, quantify and explain the significant complementarities/dependencies of each project with the rest of the cluster. Where the project cluster differs from the cluster published in the latest available Union list of PCIs/PMIs, project promoters should include in the investment request an evaluation of the differences between the original cluster and the chosen one, including a justification for diverging from the original project cluster.

¹⁴ While there are no uniform definitions in the TEN-E, an investment item can be considered as the smallest set of assets that together can be used to transmit electrical power and that effectively add transmission infrastructure capacity. An example of an investment in the electricity is a new circuit and the necessary terminal equipment.

Also, when applying clustering, project promoters should adhere to the following general principles:

- a) projects should only be clustered together if they contribute significantly to the realisation of the full potential of a main project¹⁵;
- b) if no joint investment request for all complementary PCIs/PMIs is not submitted, the individual investment requests should include references to the other complementary projects, and should explain the dependencies and the reasons for separate processes;
- c) all concerned projects need to have reached sufficient maturity (as per Section 2.3 of this Recommendation).

In line with the above recommendations, for hybrid and multi-purpose projects¹⁶ across multiple countries, project promoters are encouraged to submit a shared cost-benefit analysis and shared investment request, to ensure that the project accurately accounts for the impacts to all countries involved, and that all sides are aligned in their approach, definitions and scope.

It is also important to note that a CBA provided for (any) cluster of projects only is not suitable for deciding on a cross-border cost allocation. Therefore, the CBA accompanying the investment request for complementary projects (see Annex I) should be completed by evidence about the benefits and the necessity of each individual project.

2.2. Competing projects

Project promoters should aim at identifying any project competing with the projects subject of the submitted investment request.

Competing projects are projects that fully or partially address the same identified infrastructure gap or regional infrastructure need. Projects may be considered competing if the added value of one project is significantly reduced by the presence of the other project (e.g. if they address

¹⁵ Projects that only marginally contribute to the realization of the full potential of a main project should not be clustered together.

¹⁶ According to ENTSO-E TYNDP 2022 System Needs Study, hybrid projects are solutions that serve dual (or even multi-) purposes such as the connection function of offshore RES to demand centres and by interconnecting countries or bidding zones to facilitate trade, which then enables price convergence and indirect RES connection. Hybrid interconnection projects are mainly expected offshore and are linked to the European Offshore RES strategy but, in theory, onshore cases could also exist. The main difference between a radial interconnection and a hybrid project or a multi-purpose interconnection is that the grid has a dual functionality combining electricity interconnection between two or more Member States, and transportation of offshore renewable energy, to its sites of consumption.

the same investment need, and the realisation of both of them would result in a lower overall net impact than implementing only one).

Competing projects should always be identified and never be clustered together.

2.3. Sufficient Maturity

As soon as the project has reached sufficient maturity, and it is estimated to be ready to start the construction phase within the next 36 months, Article 16(4) of Regulation (EU) 2022/869 allows project promoters to submit an investment request including a request for cross border cost allocation.

In the Agency's view, a "sufficiently mature" project is a project fulfilling all of the following conditions:

- a) sufficient certainty about the costs assessed by the project-specific CBA;
- b) good knowledge of the factors affecting expected costs and their ranges;
- c) as regards investment costs, a cost uncertainty range should be identified. The maximum investment cost should not exceed the minimum investment cost by more than 20%. If cost uncertainty is higher, the project promoters should illustrate the underlying uncertainty factor(s) and justify why they do not adversely affect the maturity of the project;
- d) reasonable foresight of the benefits assessed by the project-specific CBA as described in Annex I to this Recommendation;
- e) reasonable knowledge of factors affecting benefits and their ranges, also with regard to different scenarios and sensitivity analyses;
- f) permitting procedures having started in all hosting countries. Where required, the project promoters should already have notified in writing the project(s) to all competent authorities of the Member States hosting the project(s), pursuant to Article 10(3) of Regulation (EU) 2022/869, and the competent authorities should have acknowledged in writing the notifications, confirming that they consider the project(s) mature enough to enter the permit granting process;

- g) commissioning to be achieved indicatively within 60 months from the date of submission of the investment request¹⁷. If the expected commissioning date is beyond such a period, project promoters should justify the underlying reason(s).

2.4. Calculation of national net impacts

Pursuant to Annex V(7) of Regulation (EU) 2022/869, the CBA Methodology used for the CBCA shall ensure that the Member States on which the project has net positive impacts (beneficiaries) and those Member States on which the project has a net negative impact (cost bearers), which may be Member States other than those on which the infrastructure is constructed, are identified. The Agency recommends that in addition to the Member States any other significantly net impacted country is identified.

In the Agency's view, for the identification of net beneficiary countries and net cost-bearers countries, the calculation of the national net impact applicable to each of the countries¹⁸ affected by the project should consist of three steps:

- a) an analysis of the costs assessed by the project-specific CBA;
- b) an analysis of the benefits assessed by the project-specific CBA;
- c) an analysis of other cross-border monetary flows (as listed in Annex II to this Recommendation).

The concept of “benefits” (which potentially include negative effects) is used to measure (in monetary terms) all advantages (or disadvantages) of a project to society or to parts of society, such as TSOs. Some – but not necessarily all - of the economic benefits (or negative effects) can translate into cash flows. When this is not the case, they constitute externalities.

The first two steps described above are instrumental for a system-wide CBA (where monetary flows across countries are neglected, because they offset each other), while the third step completes the calculation with an analysis of how the cross-border monetary flows associated with the project affect the net impact per country. If not already included in the benefits from

¹⁷ The timeline for the expected commissioning date may change depending on the complexity of the project. According to the data collected through the Agency's PCI monitoring exercise, the average duration for completing a transmission project from the start of construction to commissioning is approximately 48 months. When duly justified, NRAs might decide to extend the 60-months limit. To ensure that the evaluated benefits and costs do not become excessively outdated, the Agency recommends limiting such extension to a maximum of 24 months.

¹⁸ Including non-Member States.

the system-wide CBA, these cross-border monetary flows may concern revenues or payments related to capacity bookings, to Entry-Exit tariffs including surcharges resulting from auctions in gas (or hydrogen), to congestion rents, to the ITC mechanism in electricity, to grants and to other charges.

A country is a net beneficiary if the present value of the net benefit is positive.
 A country is a net cost-bearer if the present value of the net benefit is negative.

For each concerned country, the calculation of the net impacts can be described by the following formula.

$$\sum_{t=f}^{c+(x-1)} \frac{B_t + F_t - C_t}{(1+r)^{(t-y)}}$$

Where,

- *f* is the first year where costs are incurred
- *c* is the first full year of operation of the project (or project cluster)
- *x* is the years considered for the assessment time horizon (see Annex I)
- *y* is the year of the analysis (i.e. the year of the submission of the investment request)
- *r* is the discount rate used to discount benefits and costs
- *B* are all the benefits assessed by the project-specific CBA
- *F* are all the benefits assessed in the analysis of other cross-border monetary flows
- *C* is the sum of costs (see Annex II)

The calculation of the national net impacts should avoid double-counting the effects.

Furthermore, national monetary transfers (e.g. payments of taxes and national grants) should not be considered, as these are offset inside the respective country. The recognition of the financing costs is dependent on the respective national regulatory systems¹⁹, but they should not be counted as affecting the net impact per country. Potential grants (i.e. not already awarded as of the date of the submission of the investment request) are not to be counted in the net impacts calculation, but the project promoters should inform the NRAs of any potential grant and notify them without delay if a grant is actually awarded thereafter.

¹⁹ Financing costs until commissioning of a project may be treated as investment costs under some regulatory systems.

2.5. The choice of the scenarios for the calculation of net impacts

According to Article 16(4)(a) of Regulation (EU) 2022/869, as part of the investment request, project promoters shall provide an up-to-date project-specific cost-benefit analysis by considering at least the joint scenarios established by the European Network of Transmission System Operators for Gas (hereinafter also ‘ENTSO-G’) and the European Network of Transmission System Operators for Electricity (hereinafter also ‘ENTSO-E’) for network development planning. Where additional scenarios are used, those shall be consistent with the Union’s 2030 targets for energy and climate and its 2050 climate neutrality objective and be subject to the same level of consultation and scrutiny as the scenarios jointly developed for network development planning.

Article 12 of Regulation 2022/869 requires the Agency to publish and regularly update framework guidelines²⁰ for the joint scenarios to be developed by ENTSOG and ENTSO-E. The Framework Guidelines establish criteria for a transparent, non-discriminatory and robust development of scenarios and criteria to ensure their compliance with the energy efficiency first principle and with the Union’s 2030 targets for energy and climate and its 2050 climate neutrality objective.

In this respect, the Agency recommends that any additional scenario used by project promoters for the project-specific cost-benefit analysis follow the principles and the criteria established in the Agency’s Scenario Framework Guidelines.

When submitting the investment request to the NRAs, project promoters should provide a thorough explanation of the reasoning behind the choice of any additional scenario. The project promoters should also provide clear evidence of how the additional scenarios used and the process to develop such scenarios, are compliant with the Agency’s Scenario Framework Guidelines. When choosing additional scenarios, project promoters are also encouraged to take into account the relevant Agency’s Opinions on scenarios and TYNDPs²¹.

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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

²¹ E.g. the Agency’s Opinion on TYNDP 2022 scenarios is available at this link:

https://www.acer.europa.eu/sites/default/files/documents/Official_documents/Acts_of_the_Agency/Opinions/Opinions/ACER%20Opinion%2006-2022%20on%20draft%20TYNDP%202022%20Scenario%20Report.pdf

2.6. TSO consultation

Pursuant to Article 16(4) of Regulation (EU) 2022/869, prior to submitting an investment request, project promoters should have duly consulted the TSOs from the Member States to which the project provides a significant net positive impact. The assessment of the significant net positive impact should be based on the project-specific CBA subsequently (potentially) updated and submitted as part of the investment request. The Agency recommends that project promoters also consult the TSO (if any) of each of the non-EU countries for which a significant net positive impact is identified.

For the purpose of the consultation with the TSOs, the Agency recommends that all countries above a specific significance threshold (see Section 3.9 of this Recommendation) should be deemed as being subject to a significant net positive impact by the project. In the Agency's view, all TSOs of such countries (including non-Member States) should be consulted, in order to favour adequate quality of the project-specific CBA.

In case of doubts concerning the presence of a "significant net positive impact" for a Member State, the Agency recommends that project promoters consult also the TSOs of such a Member State, so as to ensure that the consultation requirement established by Article 16(4) of Regulation (EU) 2022/869 is fulfilled if the project turned out to provide a significant net positive impact to such a Member State, as well as not to unduly hinder the decision-making process.

The Agency recommends that the project promoters consult the TSOs of the concerned countries to which the project provides a significant net positive impact also on the project promoters' CBCA proposal, if any, based on the net positive impacts identified by the project promoters.

The consultation requirement, should be considered as fulfilled, if the consultation meets all the following conditions:

- a) the project promoters have formally informed the TSOs of the Member States to which the project provides a significant net positive impact that they are being consulted for an investment request under Article 16 of Regulation (EU) 2022/869;
- b) the project promoters have provided the TSOs with a detailed technical description of the project and a project-specific CBA (including scenarios used, input data and calculations) as well as a description of other cross-border monetary flows;
- c) the project promoters have allowed the TSOs a sufficient period of time to evaluate and provide written feedback to them on the robustness and plausibility of the scenarios used as well as on the project-specific CBA. The sufficiency of the period of time for consultation depends on a series of relevant factors, such as the complexity of the project, the previous cooperation at European, regional and bilateral level and the

degree of previous knowledge of the project. The Agency recommends that the project promoters strive for a consultation period lasting indicatively from 4 to 8 weeks;

- d) after having provided to TSOs sufficient time to provide feedback and after having accordingly adapted the net impacts calculation, the project promoters have provided the TSOs with a detailed description of how the provided feedback was considered (or the reason why they were not considered) in the updated project-specific CBA;
- e) the project promoters have ensured appropriate coordination, exchange of (potentially different) views and a thorough discussion during and soon after the consultation period in order to improve the project-specific CBA and, if any, the CBCA proposal, before the submission of the investment request.

For the sake of facilitating the NRAs' planning and later decision-making process, the Agency recommends that project promoters inform the NRAs of the Member States whose TSOs are consulted and provide them with the consultation documents, as soon as those are distributed to or received from the TSOs.

2.7. Addressees and language of the investment request

The Agency recommends that project promoters address the investment request to the NRAs of:

- a) the Member State(s) hosting the project; and
- b) any other Member State(s) having a potentially significant overall net positive impact based on the project-specific CBA (i.e. the NRAs of the Member States whose TSOs should be consulted by the project promoters).

The investment request and the accompanying documents should be submitted:

- a) in the official languages of the addressed NRAs, if so required by the law of the respective Member State; and
- b) in English, being the internal working language of the Agency²².

²² Decision AB No 15/2014 of the Administrative Board of the European Union Agency for Cooperation of Energy Regulators of 18 December 2014 on the internal language regime of the European Union Agency for the Cooperation of Energy Regulators.

2.8. Information to be provided with the investment request

The Agency recommends that an investment request submitted by project promoters provides the following information and, where appropriate, supporting evidence (in electronic form and, where required at national level, in hard copy):

- a) a detailed technical description of the project, including a description of the rationale behind the choice of the technology, and a map of the planned route of the project in case of transmission projects;
- b) a detailed implementation plan of the project, which should provide substantial information about the progress achieved in the development of the project and its status, as well as a (probability) assessment of the critical and risk factors for the project and the risk mitigation measures adopted in relation to those factors which could have the most negative impact. The Agency recommends that, in the detailed implementation plan, the project progress and status are described with reference to the main progress steps in the development of the project, with an indication of the start and end dates for each step. Dates could be either actual, as some of the steps will already have been completed or expected. In line with the Agency's infrastructure monitoring activities, the following progress steps, which include the four stages outlined in Article 5(1) of Regulation (EU) 2022/869, are identified in the development of projects of EU-wide importance, and should be used as reference for the detailed implementation plan²³:
 - i. under consideration: planning of studies (power flow and hydraulic simulations, pre-feasibility and feasibility, including the techno-economic analysis of the project) and consideration for inclusion in the national development plan(s) (NDPs), regional plans and the TYNDPs of ENTSOG and of ENTSO-E;
 - ii. planning approval, but not yet in permitting: planning approval is the approval (at the level of national development planning) by the NRA, by the competent Ministry or by any other national competent authority, as foreseen in the national law of each country. The planning approval may "start" with the inclusion of the project in the draft NDP (e.g. release of the draft NDP, submission to the NRA for approval, etc.) and "end" with the approval of the NDP;
 - iii. preliminary design studies, which would include basic engineering design, etc.;
 - iv. environmental assessment, date of the request of the environmental assessment and the (expected) approval date of the environmental assessment;

²³ The steps are not strictly time-sequential, rather they usually partly overlap.

- v. expected start and end dates of market test²⁴ (for gas and hydrogen PCIs/PMIs only);
 - vi. preliminary investment decision²⁵ (if applicable);
 - vii. public consultation under Article 9(4) and 9(5) of Regulation (EU) 2022/869;
 - viii. permit granting process (including a pre-application procedure²⁶ and a statutory permit granting procedure²⁷ when provisions of Chapter 3 of Regulation (EU) 2022/869) apply;
 - ix. expected start and end dates of cross-border cost allocation;
 - x. exemption from third party access (if applicable);
 - xi. expected date of the final investment decision²⁸;
 - xii. expected start and end dates of detailed engineering design;
 - xiii. expected start and end dates of tendering (if foreseen), from call for tenders to contract award(s);
 - xiv. expected start and end dates of construction;
 - xv. expected date of commissioning;
 - xvi. expected date on decision on the financing scheme.
- c) a preliminary investment decision (e.g. a - possibly conditional - board decision on intended investment), if applicable;
- d) a short description of the status of the project permitting process in all hosting countries, including a detailed schedule (in line with Article 10(6) and Annex VI(2) of Regulation (EU) 2022/869) and corresponding evidence;

²⁴ The market test is an open, transparent and non-discriminatory procedure which is carried out by the concerned Transmission System Operator to assess the market demand through a non-binding phase where interested parties may submit non-binding demand indications for new/incremental capacity, followed by a binding phase as a result of which investment decisions are taken to proceed with the expansion of transmission infrastructure.

²⁵ Please, see footnote 36.

²⁶ The pre-application procedure start date is the date of signature of the acknowledgement by the competent authority of the project promoter's last notification.

²⁷ The statutory procedure end date is the date of taking of the comprehensive decision pursuant to Article 10(1) of Regulation (EU) No 2022/869.

²⁸ According to Article 2(3) of Regulation (EC) 256/2014, "final investment decision" means the decision taken at the level of an undertaking to definitively earmark funds for the investment phase of a project. It is therefore the point in the project planning when the decision to make (major) financial commitment is taken.

- e) information and evidence about the sufficient maturity of the project (see Section 2.3 of this Recommendation);
- f) information on TSO consultations and the results of the consultations (see Section 2.6 of this Recommendation). The information should describe the documents shared, the feedback (the elements on which TSOs agreed and did not agree and the reasons for agreement/disagreement) of the consulted TSO(s), and explain in sufficient detail how their comments were accepted and implemented or why they were rejected;
- g) a project-specific CBA (see Annex I), consistent with the single sector energy system-wide CBA methodologies drawn up pursuant to Article 11 of Regulation (EU) 2022/869, for all scenarios established for TYNDP and any other additional scenario. The project-specific CBA should also include:
 - i. a sensitivity analysis and accompanying studies (for more details see Annex I to this Recommendation);
 - ii. an assessment showing that the project fulfils a proven infrastructure need and that no lower cost/impact alternative is available;
 - iii. a detailed assessment of the efficiency of the expected costs of the project, including their comparison with unit investment costs or other information (standard costs, historical costs) available at national, European or international level and an explanation for any deviations;
 - iv. an analysis of the expected impact of the project on the Inter-TSO Compensation (ITC) revenues and payments (for electricity PCIs/PMIs only);
 - v. an analysis of any other revenues/charges; and
 - vi. a summary of national net impacts for each country.
- h) for the scenarios which are considered in addition to the ones developed for the TYNDPs, a detailed explanation of the compliance with both European 2030 and 2050 targets, as well as with the Agency's Scenario Framework Guidelines (see Section 2.5 of this Recommendation);
- i) a business plan including a description of the chosen financing solution (including tariffs), and information on grants and loans (awarded, applied for and expected), also differentiating between national, European and other sources, as well as on the estimated financing costs (indicating an estimation of the part of financing costs to be incurred until commissioning of the project). In Members States where the tariff calculation is carried out by TSOs, a description of the respective applicable national methodologies for tariff calculation and of the project's impact on network tariffs should be provided in sufficient detail (for more details, see Annex III to this Recommendation);
- j) a substantiated proposal for cross-border cost allocation (if agreed by the project promoters).

In addition, the Agency recommends that project promoters use a summary data template (only in English) for submission of each investment request to the NRAs (see Annex IV to this Recommendation).

3. ON THE TREATMENT OF AN INVESTMENT REQUEST

This section provides guidelines to NRAs (and the Agency in case of acting as a residual decision taker for a CBCA decision) on the elements to be considered when assessing project promoters' investments requests and cross-border cost allocation proposals.

3.1. Cooperation and coordination between NRAs

To ensure a timely and efficient treatment of an investment request, the NRAs receiving such a request should jointly define a single "coordinating NRA". The coordinating NRA should be preliminarily identified as follows:

- a) for projects situated in one Member State, the NRA of that Member State;
- b) for cross-border projects, the NRA of the Member State in which the highest investment costs are estimated based on the investment request submitted by the project promoters to the concerned NRAs.

Unless otherwise required under national law, the coordinating NRA should:

- a) serve as a single point of contact for project promoters and TSOs, while circulating all documents to all other involved NRAs;
- b) identify and collect NRAs' needs for further information, and if necessary, request it from the relevant parties (e.g. from project promoters and TSOs);
- c) propose a process (timing, meetings, consultation, etc.) for NRA's treatment of the investment request and the drafting of an agreement on the investment request;
- d) organise consultation of project promoters in cooperation with the other involved NRAs, per Article 16(5) of Regulation (EU) 2022/869.

All involved NRAs should:

- a) cooperate fully among themselves, in particular in relation to requests for further information;
- b) endeavour to meet any timeline or deadline agreed upon the proposal of the coordinating NRA;
- c) keep the other involved NRAs informed of progress on the timetable for delivering an agreement on the investment request.

3.2. Treatment of complementary and competing projects

As mentioned in Section 2.1, project promoters should aim at identifying all relevant interdependencies among projects, also with projects not subject of the investment request.

Before identifying the costs to be allocated, NRAs should evaluate whether all relevant interdependencies have been considered by the project promoters when submitting the investment request.

When competing projects are recognised by the NRAs, after receiving the investment request, the Agency recommends that NRAs invite all project promoters of projects competing with the one(s) for which the investment request was submitted, to provide their observations regarding the investment request and any relevant information required by the NRAs on their projects to make a well informed decision.

3.3. Completeness of the investment request

Given that the completeness of the investment request constitutes an essential element for timely decisions, it is essential that an investment request includes all information listed in Section 2.8 of this Recommendation.

The Agency recommends that NRAs conduct a preliminary assessment regarding the completeness of the investment request, indicatively within one month of its receipt by the last NRA. If the investment request lacks any of the required information listed in Section 2.8 of this Recommendation, the Agency recommends that the NRAs jointly request, through the coordinating NRA, the project promoters to provide the missing information within a reasonable period of time, to be set on a case-by-case basis in relation to the volume and the nature of the missing information.

The Agency recommends that, if the preliminary assessment reveals that some required information has not been provided with the investment request, NRAs consider the date of receipt of the last piece of missing information (to complete the required information as specified in Section 2.8 of this Recommendation) by the last concerned NRA as the date of receipt of the investment request pursuant to Article 16(5) of Regulation (EU) 2022/869 and subsequently the start of the six-month period to take the coordinated cross-border cost allocation decisions. If all requested data cannot be provided by the project promoters within the given period of time, the investment request may be treated as incomplete. An incomplete request should not lead to a cross-border cost allocation decisions.

In particular, when a cluster of PCIs/PMIs is the subject of the investment request (see Section 2.1 of this Recommendation), it is possible for NRAs to collectively decide to exclude one or more projects from the cluster if the project promoters do not provide enough evidence of complementarities. Conversely, NRAs can also collectively agree on the need to include projects that were not originally part of the cluster but show complementarities with the

clustered projects. In both situations, NRAs should invite all relevant project promoters to resubmit an investment request that includes all relevant complementary projects.

In addition to the information to be provided by project promoters in line with Section 2.8 of this Recommendation, NRAs may jointly request additional information without effects on the six-month period to take coordinated cross-border cost allocation decisions.

3.4. Quality of the information provided with the investment request

It is essential that an investment request is of an adequate quality to enable NRAs to take well-informed and robust decisions. NRAs should assess the robustness of the scenario analysis and the quality of the CBA submitted by project promoters.

The Agency recommends that, if the involved NRAs agree that the information provided by the project promoters is not of adequate quality²⁹ and that, therefore, the investment request needs to be updated with regard to certain elements, the coordinating NRA requests the project promoters to provide the required information (i.e. update the investment request) accordingly, and project promoters do so. Additionally, the Agency recommends that project promoters propose an update of the information provided with the investment request in case developments become known which have a substantial impact on the investment request.

An update of the investment request does not affect the six-month period to take coordinated cross-border cost allocation decisions unless it is significant.

The Agency recommends that in case of a significant update of the investment request the six-month period to take coordinated cross-border cost allocation decisions should start from the date of receipt of the significant update by the last NRA, and thus be considered as the date of receipt of the investment request pursuant to Article 16(5) of Regulation (EU) 2022/869. In the Agency's view, an update of the investment request should be considered as significant if it reflects one or more of the following developments:

- a) a significant variation in total costs (i.e. exceeding the cost uncertainty range identified in Section 2.8 of this Recommendation);
- b) a significant change in the national net impacts calculated in the project-specific CBA such that the latter attributes a significant net impact to a Member State which was not identified in the initial investment request;
- c) a change in the project cluster composition initiated by project promoters or by NRAs;

²⁹ E.g. the information is not correct, not accurate or misleading.

- d) an update of the information provided with the investment request deemed to be significant by all NRAs.

3.5. Identification of costs to be allocated

Article 16(1) of Regulation (EU) 2022/869 states that the efficiently incurred investment costs, which exclude maintenance costs, shall be borne by the relevant TSOs (or the project promoters) of the transmission infrastructure of the Member States to which the project provides a net positive impact.

Whereas a project-specific CBA accompanying an investment request has to take into account the total costs of a project³⁰, the cross-border cost allocation decisions need only to consider³¹, as a basis for the allocation, the “efficiently incurred” investment costs of the project subject of the investment request.

Investment costs usually cover items related to the development, construction and commissioning of projects, such as those listed in the first four rows of the table in Annex II to this Recommendation. Replacement costs during the lifetime of the project are not to be considered for cross-border cost allocation purposes.

Only investment costs which are related to the project(s) subject of the investment request, and which are considered in the respective Regulatory Asset Base (hereinafter also ‘RAB’) are to be included in the basis for cost allocation.

“Efficiently incurred” refers to two aspects:

- a) the presence of an actual infrastructure need for the PCI(s) subject of the investment request, as well as the absence or non-feasibility of any alternative project which would be able to fulfil the same infrastructure need at a lower total cost. The infrastructure need can be assessed by comparing the key features of the project (e.g. increase of transmission capacity between zone A and zone B and unit cost expressed e.g. in Meuro/MW) to the results of ‘infrastructure gaps/needs’ studies carried out at European, regional or national level;
- b) the comparison with the comparable costs of an efficient TSO. In fact, the more precise level of the efficiently incurred investment costs can only be evaluated after the realisation of the project. Therefore, a preliminary evaluation of expected efficient investment costs should be conducted during the evaluation of an investment request

³⁰ Cf. Annex V(8) of Regulation (EU) 2022/869.

³¹ Cf. Article 16(1) of Regulation (EU) 2022/869.

based on published (reference) values for unit investment costs³², historic costs, or studies of the planned costs, taking into account the regulatory framework applicable in each country. The outcome of the preliminary evaluation does not prejudice that an evaluation of the efficiently incurred investment costs after the realisation of the project is carried out in line with the legislative and regulatory framework applicable in the relevant Member State.

In case of hybrid interconnection projects which include also investment in generation projects (e.g. offshore wind generation), the NRAs, together with the project promoters, should be able to identify the costs related to the generation assets separately from the costs related to the transmission assets before allocating the relevant investment costs to the transmission projects, the latter being the category eligible for CBCA under Article 16(1) and Article 16(2) of Regulation (EU) 2022/869.

3.6. The evaluation of the scenarios in allocating costs across borders

Article 16(5) of Regulation 2022/869 states that in allocating costs across borders, the relevant NRAs, after consulting the TSOs concerned, shall seek a mutual agreement based on, but not limited to, the information specified by the project promoters in the submitted investment request (see Section 2.5, Section 2.8 and Section 3.3 of this Recommendation).

According to the same Article, the NRAs' assessment shall consider all scenarios jointly developed by the ENTSOs for the TYNDPs and potentially other scenarios for network development planning. Where additional scenarios are used, they shall be consistent with the Union's 2030 targets for energy and climate and its 2050 climate neutrality objective and be subject to the same level of consultation and scrutiny as the process provided for the scenarios jointly developed by the ENTSOs.

Scenarios depict potential paths that energy demand and supply may take in the future. These scenarios are not predictions and, as such, the societal and financial consequences of a project's implementation will always carry a level of uncertainty. Additionally, different scenarios may even lead to opposite outcomes when evaluating the project's cost-benefit analysis.

The Agency's Scenario Framework Guidelines adopted on 25 January 2023 request ENTSOG and ENTSO-E to build a set of scenarios which shall include, at least, a best-estimate central scenario (based on National Energy and Climate Plans, 'NECPs') and low-economy and high-economy variants (as a stress test on network and project development).

³² According to Article 11(9) of Regulation (EU) 2022/869, every three years, the Agency shall establish and publish a set of indicators and corresponding reference values for the comparison of unit investment costs for comparable projects of the energy infrastructure categories included in Annex II of Regulation (EU) 2022/869.

In the Agency's view, benefit results significantly depend on the input scenarios and related assumptions. The quality of the scenarios used for project assessment is a critical element for a robust allocation of costs among countries. Therefore, it is essential that NRAs consider uncertainties, especially with regard to long-term scenarios, and take them into account when taking decisions.

In line with Article 16(5) of Regulation (EU) 2022/869, the Agency recommends that the involved NRAs, before taking a decision on how to allocate costs across-borders, duly assess the project(s)'s costs and benefits from all scenarios used by the project promoter(s) in accordance with Section 2.5 of this Recommendation.

3.7. The choice of the scenarios in allocating costs across borders

In line with the provisions of Regulation (EU) 2022/869, consideration of additional scenarios to the ones developed according to Article 12 of Regulation (EU) 2022/869 can be necessary to ensure proper robustness of the CBCA decision. For example, this could be the case when certain drivers behind the evaluation of projects are more relevant at regional-level than at pan-European-level, or when more updated information becomes available compared to when the scenarios for TYNDPs were prepared or there are significant changes in some of the parameters considered.

When considering additional scenarios (including those instances where the scenarios for TYNDPs are updated for one or more input parameters) than the ones used by the project promoter(s) for the submitted investment request, NRAs should provide an explanation of the reasoning behind such choice. Within this framework, when allocating costs across borders, NRAs could jointly agree to attribute different weights to the CBA results and identified country impacts based on the different scenarios. The cross-border cost allocation decisions should contain a thorough explanation of the reasoning behind the weights attributed to the different impacts.

Without prejudice to the provisions in Article 16(4) regarding the use of scenarios for the purpose of cross-border cost allocation, the Agency recommends that concerned NRAs agree on how to take into account, for the purpose of consistent calculation of the benefits and of the subsequent cross-border cost allocation, each robust and plausible scenario.

In case NRAs cannot agree on how to take into account each of the robust and plausible scenarios for the purpose of consistent calculation of the country impacts and of the subsequent cross-border cost allocation, the Agency recommends NRAs to base the decision on the investment request and the cost allocation at least on the TYNDPs' best-estimate central scenario as defined in the Agency Scenario Framework Guidelines, as long as such scenario is deemed robust and plausible by the concerned NRAs. If NRAs agree, they may base the decision on additional robust and plausible scenarios.

3.8. The allocation of costs

The Agency is of the opinion that the following considerations should be taken into account:

- a) Regulation (EU) 2022/869 aims at enabling investments with a cross-border impact;
- b) any benefit analysis encompasses uncertainties with respect to the future benefits per country, especially with respect to different scenarios and CBA indicators, and
- c) a pragmatic and workable approach is needed in deciding on investment requests.

Therefore, unless NRAs agree otherwise, the Agency recommends that, once NRAs have jointly agreed on the scenarios, compensations are provided if:

- a) at least one Member State hosting the project has an overall net negative impact as per Section 3.7, *and*;
- b) each of the identified contributing countries has an overall net positive impact as per Section 3.7.

In case the NRAs cannot agree on the level of compensation, the Agency recommends NRAs to compensate the net negative impact in the relevant Member States, so that they become neutral. Agreements that go beyond the compensation of the net negative impact, taking into account the uncertainties in the analysis of benefits or unreasonably different net impacts across Member States after cost allocation, are possible.

If the net negative impact is higher than the total amount of the expected efficient investment costs³³, the cross-border cost allocation decisions should compensate the net negative impact up to the maximum amount of the expected efficient investment costs.

When deciding on cross-border cost allocation, in line with Article 16(5) of Regulation (EU) 2022/869³⁴, NRAs should allocate 100% of the expected efficient investment costs in accordance with calculation of national net impacts in Section 2.4 of this Recommendation and with the principles explained in this Section.

³³ This may be the case if a project has significant operational costs.

³⁴ Recital (47) of Regulation 2022/869.

3.9. Significant threshold when allocating costs

In general, countries to which a project provides a net positive impact should provide compensation. However, it is possible that not every expected net positive impact for a country actually justifies that this country provides compensation. This may be the case where small contributions would be required from a large number of countries, thus causing significant negotiation and administrative costs. Involvement of countries with small net positive impacts would unnecessarily increase the complexity of the procedure for the cross-border cost allocation.

As Article 16(4) of Regulation (EU) 2022/869 states that an investment request shall be submitted after the project promoters have consulted the TSOs from Member States³⁵ to which the project provides a significant net positive impact, the Agency recommends that a ‘significance threshold’ is applied such that only countries with an overall net positive impact exceeding the significance threshold provide compensation.

In this context, the significance threshold should be, in principle, equal to 10% of the sum of net positive impacts accruing to all beneficiary countries.

The Agency recommends that, for the countries whose net positive impact exceeds the significance threshold, the required compensation is allocated proportionally to the following Compensation Indicator (CI): [overall net positive impact exceeding the significance threshold for the country] / [sum of overall net positive impacts exceeding the significance threshold for all countries whose overall net positive impacts exceed the significance threshold].

The CI ensures that the compensation is divided proportionally between the countries with significant net positive impacts according to their shares of the overall net positive impacts exceeding the significance threshold. For equal treatment of countries below and above the threshold, the CI should be applied only to the absolute value corresponding to the overall net positive impacts exceeding the significance threshold.

If the net positive impacts of the contributing Member States above the 10% significance threshold are not sufficient to cover the compensation required, the significance threshold should be lowered step-wise by 1% per step, until the sum of net positive impacts accruing to all beneficiary Member States is sufficient to cover the required compensation.

NRAs may, upon joint agreement, apply a significance threshold that differs from the 10% threshold defined above. Also, NRAs may, upon joint agreement, establish a minimum significance threshold to limit the step-wise reduction or take other appropriate measures. This

³⁵ In line with Section 2.6, this Recommendation suggests that project promoters also consult the TSO of each of the non-EU countries for which a significant net positive impact is identified.

might be particularly relevant in cases in which the significance threshold leads, in terms of contribution/cost allocation, to unreasonable results or to an excessive fragmentation across Member States and/or in the case the uncertainties associated to the CBA benefits justifies it. If a minimum significance threshold is considered, in line with its previous Recommendation, the Agency recommends a minimum significance threshold of 5%.

3.10. Treatment of uncertainties and mechanisms for the adjustments of the cost allocation

Uncertainty can describe a situation where the outcome of an event or of a decision is not (completely) known, and the probability of different outcomes is unclear or unpredictable.

To facilitate the implementation of PCIs/PMIs, a stable and predictable regulatory framework is key for legal certainty and clarity for all involved parties.

Cross-border cost allocation decisions should clearly specify ex-ante the conditions and terms under which pre-defined adjustments of the cost allocation should be implemented after the commissioning of the project. The Agency therefore recommends that all mechanisms to deal with uncertainty should be agreed ex-ante in the CBCA decision.

To achieve this, when preparing and evaluating a CBCA request, it is necessary to address uncertainties which concern at least:

- a) the scenarios used and the related assumptions;
- b) the benefits delivered by the actual availability of the infrastructure and the input used to monetise those benefits;
- c) the variation in the investment cost estimates;
- d) future public funding.

While some adjustment may be useful to foresee, NRAs should aim at limiting the number of cases and the complexity of adjustment payments.

3.10.1. Uncertainties related to scenarios assumptions and scenarios evolution

By jointly agreeing on the relevance of the scenarios in the CBCA decision process, NRAs strive at ensuring a long-term predictability of the identified net impacts. In case of new TYNDP scenarios would be available after the CBCA decision has been taken, the already

agreed cost allocation among the concerned countries should not be subject to ex-post revisiting (unless this has been agreed in the CBCA decision).

3.10.2. Uncertainties related to benefits and their monetisation

Benefits uncertainty can also refer to delays in the implementation of the project or to the actual technical availability of the infrastructure the beneficiary countries are contributing to through their respective cost-compensation share. This could be particularly relevant for CBCAs involving also countries where the infrastructure is not located (i.e. non-hosting countries). Different circumstances could lead to delays in the realisation of the project or the unavailability of the infrastructure (like for example in the case of a prolonged outage).

It is therefore recommended that project promoters and NRAs evaluate the risks (and related probabilities) affecting delays in the realisation of a project as well as affecting the availability of the infrastructure(s), subject of the investment request, once commissioned. The outcomes of such analysis, if not already considered when calculating the different countries net impacts, should be used to identify those conditions under which the infrastructure(s) realisation delays or its (temporary) unavailability would justify adjustments of the cost-compensation or other forms of mechanisms (e.g. periodic payments related to the progress of the project; refunding mechanisms if certain infrastructure availability criteria are not met; etc.). The mechanisms and the circumstances when to apply those should be agreed and defined in the CBCA decision.

For gas projects³⁶ creating bookable capacity, the Agency³⁶ recommends that NRAs define in their coordinated cross-border cost allocation decisions adjustments of the cost allocation in relation to the updated estimate or actual amount of revenues from capacity bookings.

The assumptions used to monetise benefits can also influence the level of uncertainty around the identified net impacts. The assumptions used to monetise benefits and the complementing sensitivity analyses (see Annex I) should be properly scrutinised at the stage of the preparation of the CBCA (by project promoters) and at the stage of the assessment of the investment request (by NRAs). Changes in the reference input³⁷ used to monetise benefits should not justify the reopening of the agreed cross-border cost allocation.

³⁶ Article 24 of Regulation 2022/869 includes derogation for PCI gas interconnections for Cyprus and Malta.

³⁷ Changes in the reference input used to monetise benefits could for example happen in case of the availability of updated CBA Methodologies and related Implementation Guidelines, since the analysis included in the investment request has to be consistent with those. See also Annex I of this Recommendation.

3.10.3. Uncertainties related to costs variations

At the time of the submission of the investment request, the project promoter(s) has to provide an estimation of the expected costs to be incurred as well as an estimation of the uncertainty range concerning such costs (see Section 2.8 of this Recommendation). This element of uncertainty should therefore already be included in the investment request and in the CBCA proposal (if any).

However, investment costs could experience unexpected significant variations exceeding the cost uncertainty range initially provided by the project promoter(s).

The Agency recommends that NRAs incorporate ex-ante into the CBCA decision, adjustment mechanisms which would enable predefined adjustments to the agreed cost allocation or other provisions on how to treat cost variations beyond the scope of the adjustment mechanism.

In case of cost variations, adjustment mechanism that are pre-defined should only address additional costs that are caused by external factors beyond the control of project promoters and respective NRAs and other relevant national authorities³⁸.

For cost variations which occur in a country hosting the project and facing a net negative impact, those adjustment mechanisms should take into account that:

- a) if the actual amount of efficient investment costs turns out to be lower than the expected costs at the time of the cross-border cost allocation decisions, the sum of the compensations from the contributing countries should be decreased by the corresponding amount and the individual compensations reduced proportionately;
- b) if the actual amount of efficient investment costs turns out to be higher than the expected costs at the time of the cross-border cost allocation decisions, except if NRAs agree otherwise, the sum of the compensation from the contributing countries should be increased according to the same cost-allocation key and up to a specific threshold defined in the cross-border cost allocation decisions (e.g. based on the expected inflation growth). Beyond such threshold the additional incurred costs should be allocated among the concerned countries according to the territorial principle³⁹.

³⁸ If, for instance, the competent authority decides on a more expensive solution for the project than the one initially proposed by the project promoter, such as underground lines instead of overhead lines because crossing potentially sensitive areas, any increase in cost should be solely covered by the country where the project is being hosted.

³⁹ For offshore interconnection concerning two countries, the territorial principle would be reflected in 50%/50% split of the costs.

For cost variations which emerge in a country hosting the project and facing a positive or zero net impact, the Agency recommends the adjustment mechanisms to take into account that:

- a) if the actual amount of investment costs turns out to be lower than the expected costs at the time of the cross-border cost allocation decisions, the compensations from the contributing countries should be adjusted applying the same principles adopted for cost allocation in the cross-border cost allocation decisions;
- b) if the actual amount of investment costs turns out to be higher than the expected costs at the time of the cross-border cost allocation decisions, except if NRAs agree otherwise, the sum of the compensation from the contributing countries should be increased according to the same cost-allocation key and up to a specific threshold defined in the cross-border cost allocation decisions. Beyond such threshold the additional incurred costs should be allocated among the concerned countries according to the territorial principle.

3.10.4. Public funding

To ensure legal certainty and clarity for all involved parties, cross-border cost allocation decisions should not be conditional on potential future public funding.

However, it should be clear from the CBCA decision how potential future public funding impacts the allocated amounts of payments. In addition, as described in Section 2.8, project promoters should indicate at the moment of the investment request if they have applied for grants and the expected pending amount.

4. AGREEMENT ON THE INVESTMENT REQUEST AND ADDRESSEES OF COORDINATED DECISIONS

In line with Article 16(5) of Regulation (EU) 2022/869, NRAs should reach an agreement on the investment request, to be implemented by taking coordinated cross-border cost allocation decisions after consultation of the project promoters.

The Agency recommends that the agreement on the investment request forms a solid basis for coordinated national cross-border cost allocation decisions. This agreement should:

- a) identify the Member States facing significant net positive impact, and their respective TSOs;
- b) summarise and justify the outcomes of the evaluations covered by Sections 3.5 to 3.10 of this Recommendation;
- c) be accompanied by a “relevant information” document, including the elements in points (a) to (d) of Article 16(6) of Regulation (EU) 2022/869 (about the evaluation of the impacts on network tariffs, see Annex III to this Recommendation).

The agreement on the investment request may include other relevant elements, such as rules:

- a) for promoting a timely implementation of the project; *and*
- b) for ensuring technical performance (e.g. about availability rates).

Each NRA should address its coordinated decision to the project promoters and TSOs of its own Member State.

Pursuant to Article 16(6) of Regulation (EU) 2022/869 the cost allocation decision shall be published. The Agency recommends each concerned NRA to publish a copy of the relevant coordinated decision on its own website together with an English translation.

5. PAYMENTS FOR IMPLEMENTATION OF THE COST ALLOCATION

Any cross-border compensation should be expressed in monetary values of the year of the expected payment. Therefore, payments should be projected by using an appropriate rate (see Annex I to this Recommendation).

In the Agency's view, a lump-sum payment shortly after commissioning of the project should be considered as the default option. After having discussed with the concerned project promoters, NRAs may implement different payment methods by taking into account at least the following elements:

- a) the risk associated with the realisation of the project;
- b) the size of the overall compensation;
- c) the number of involved countries in the cross-border payments;
- d) the need to ensure a stable financing framework (as per Article 16(5) of Regulation (EU) 2022/869), by also considering possible financial risks for the involved parties that different payment methods could lead to;
- e) the time-lag for the cost recovery;
- f) the financial sustainability of the companies involved.

6. INCLUSION OF ALLOCATED COSTS IN TARIFFS

As set out in Article 16(1) of Regulation (EU) 2022/869, the efficiently incurred investment costs, to the extent not covered by congestion rents or other charges, shall be paid for by network users through tariffs for network access. The Agency notes that NRAs should avoid the risks of double support for projects⁴⁰ by remunerating for costs which are already recovered via other means. Therefore, the Agency recommends carefully to consider any possible risk of double remuneration, including if also due to any other contributions from third parties, to the (positive net) revenues deriving from the ITC mechanism in electricity (where relevant) and to the revenues from Entry-Exit tariffs including premiums resulting from auctions in gas.

The Agency recommends that NRAs take timely decisions on the inclusion of the allocated investment costs in tariffs in line with Article 16(5) of Regulation (EU) 2022/869. The Agency recommends that the allocated investment costs are included in tariffs of the respective Member State, in line with the applicable legislative and regulatory framework for transmission network elements in that Member State. The concrete way of how they are reflected in tariffs is the responsibility of the respective NRAs.

After having included the efficiently incurred investments costs in tariffs, NRAs shall assess, where appropriate, whether any affordability issues might arise and determine whether the impact on tariffs could represent a disproportionate burden for consumers in their respective Member States⁴¹.

⁴⁰ Recital (47) of Regulation (EU) 2022/869.

⁴¹ Recital (47) of Regulation (EU) 2022/869 and Article 16(5) of Regulation 2022/869.

7. INFORMATION TO BE PROVIDED BY NRAS TO THE AGENCY

Article 16(4) of Regulation (EU) 2022/869 requires NRAs to inform the Agency about investment requests and to transmit a copy of each investment request to the Agency for information without delay.

The Agency expects that NRAs also keep the Agency informed about the treatment of the investment requests. In particular, NRAs should inform the Agency without delay about:

- a) the receipt of an investment request and the date in which it was received by each NRA;
- b) the date in which NRAs consider the six-month period pursuant to Article 16(5) of Regulation (EU) 2022/869 to have started; *and*
- c) requests for information, as referred to in Sections 3.3 and 3.4 of this Recommendation, sent to project promoters and the project promoters' responses to such requests, including the relevant dates and their consequences on the treatment of the investment request.

Pursuant to Article 6(6) of Regulation (EU) 2022/869, in case NRAs took coordinated cross-border cost allocation decisions, each involved NRA shall notify without delay to the Agency its own cross-border cost-allocation decision, together with all the relevant information with respect to the decision.

In case NRAs cannot reach an agreement within six months⁴², or in case of a joint request from the NRAs, the Agency recommends that NRAs submit to the Agency a joint referral report explaining:

- a) their treatment of the investment request;
- b) their concerns and potential agreement at least with regard to the assumptions underlying the CBA, scenarios and results;
- c) the reasons behind the inability to reach an agreement and on what aspects or the reason behind the NRAs joint request to the Agency to decide on the investment request.

⁴²The Agency notes that there are various reasons which may hinder an agreement. (e.g. conflicting views on maturity of the PCI/PMI or the completeness of the investment request).

8. ON REPORTING REQUIREMENTS OF PROJECT PROMOTERS

In line with Article 16(3) of Regulation (EU) 2022/869, if at least one project promoter requests NRAs to apply the provisions of Article 16, project promoters shall keep NRAs regularly informed, at least once per year.

The Agency recommends that, by 31 December of each year from the date of the cross-border cost allocation decisions until the commissioning of the project, project promoters submit to the NRAs which took coordinated decisions:

- a) the annual report submitted to the competent authorities and to the Agency, pursuant to Article 5(4) of Regulation (EU) 2022/869;
- b) the disaggregation of the information about expected costs and incurred costs per country and the amounts of grants awarded;
- c) if relevant for adjustments of the cost allocation, for gas (or hydrogen) projects creating bookable capacity only, an update of the expected revenues from capacity bookings, taking into account updates of users' commitments in the previous year.

After commissioning, project promoters should communicate to the NRAs and TSOs of the Member States to which costs have been allocated by the cross-border cost allocation decisions,

- a) the amount of the incurred investment costs, as well as provide the appropriate supporting evidence;
- b) the evidence and explanations concerning deviations from the investment costs expected in the cross-border cost allocation decisions; *and*
- c) a validated proof of commissioning of the PCI/PMI.

During the operational lifetime of the PCI/PMI, project promoters may be subject to additional reporting requirements set by NRAs to ensure a smooth implementation of the cross-border cost allocation decisions and any adjustment which is defined by them.

This Recommendation is addressed to National Regulatory Authorities and project promoters. NRAs and project promoters are invited to take the necessary measures to ensure that investment requests are in line with this Recommendation.

Done at Ljubljana, on 22 June 2023.

- SIGNED -

For the Agency
The Director
C. ZINGLERSEN

Annex I – Project-specific Cost-Benefit Analysis

Annex I.1– Common recommendations for all project categories

Article 16(4) of Regulation (EU) 2022/869 allows project promoters to submit an investment request to NRAs, which shall include, among others, a project-specific CBA consistent with the CBA methodology and which takes into account benefits beyond the borders of the Member State concerned.

To be the basis for proper cross-border cost allocation decisions, the CBA needs to be comprehensive and comprehensible, and use comparable and monetised information on costs and benefits and relevant cross-border monetary flows, disaggregated per country. It is of utmost importance that input data, assumptions etc. used to derive the CBA of a project for different purposes (i.e. TYNDP, PCI/PMI selection, TSO consultation, investment request) are consistent unless there exists a reasoned justification.

The project-specific CBA (submitted to TSOs during the TSO consultation, as well as submitted to NRAs as part of an investment request) needs to comply with the principles laid down in Annex V of Regulation (EU) 2022/869 and be consistent with the rules and indicators set out in its Annex IV. In addition, the Agency recommends that the project-specific CBA includes the following:

- a) information on input data and assumptions;
- b) details underlying cost estimations;
- c) details underlying benefit determination;
- d) details underlying estimations of relevant cross-border monetary flows;
- e) detailed calculations in spreadsheet format (for calculation of national net impacts);
- f) summary of results (disaggregated by country): cost per cost category, benefits per benefit category other cross-border monetary flows, national net impact identifying the member State as beneficiary or cost bearer; and
- g) sensitivity analysis (please see specifications below).

- Complementary and competing projects

As also mentioned in Section 2.1 and Section 2.2, the benefits of a project can be influenced by the potential development of other infrastructures. In light of this, project promoters should provide additional information together with the project specific CBA concerning:

- a) the reference network(s) and PS-CBA counterfactual framework used, by providing sufficient description of the infrastructures (and related capacities) considered in place when assessing the project;
- b) complementary projects, the CBA accompanying the investment request for complementary projects should be completed by evidence about the benefits and the necessity of every individual project;
- c) competing projects, for the case of competing projects (where project promoters are likely different), the results of the CBA may be significantly affected by the

- Benefits related to sustainability

Regulation (EU) 2022/869 requires all potential PCIs/PMIs to meet mandatory sustainability criteria.

While it is vital to ensure that the project-specific cost-benefit analyses are properly designed to capture sustainability benefits, attributing these benefits among countries can be a complex task, particularly given the regional or pan-European⁴⁴ nature of some of these benefits and/or the uncertainty related to the assumptions used for their monetisation (e.g. the value of the social cost of carbon).

For the purpose of CBCA, it is crucial to determine the scope of the sustainability impacts and to distinguish between types of emissions, whether they have a global impact (such as carbon dioxide or other greenhouse gas emissions)⁴⁵ or a primarily localized impact (such as nitrogen dioxide, sulfur dioxide, and particulate matter)⁴⁶.

The Agency recommends for the sustainability benefits calculated in the project CBAs in terms of reduction in CO₂/GHG emissions⁴⁷ and other non-GHG emissions:

- a) to be split, to the extent possible, between benefits as reduction of emissions with global impact and benefits as reduction of emissions with local impact;
- b) if having (mainly) a global impact, those benefits should be carefully considered by NRAs when allocating the projects' costs among countries (see Section 3.8) and included in the CBCA only when NRAs consider reasonably certain that a specific country will result being positively or negatively impacted by the variation in the emissions;
- c) to be monetised taking into account the reference emission market prices (e.g. ETS prices for CO₂) from the scenarios considered by project promoters in the submitted investment request, as well as from the additional scenarios considered by NRAs when assessing the investment request and the related sensitivities;
- d) not to be monetised using the societal cost of carbon, unless agreed among the concerned NRAs, due to the difficulties and the uncertainties related to the attribution of such benefits among countries as well as due to the uncertainties concerning the value of the societal cost of carbon itself.

⁴⁴ For example, an instance could occur where the advantages resulting from the decrease in CO₂/GHG emissions, as evaluated in the CBA, are merely a reallocation of savings among Member States within and beyond the analysed area, resulting in practically insignificant (if not zero) overall benefits.

⁴⁵ For electricity projects and hydrogen projects, those type of emission savings are captured in the respective methodologies with indicator B2.

⁴⁶ For electricity projects and hydrogen projects, those type of emission savings are captured in the respective methodologies with indicator B4.

⁴⁷ It is also important to stress that, depending on the indicators considered, the CO₂/GHG reduction might be already accounted and monetised as part of other indicators (e.g. SEW indicator for electricity infrastructures).

- Sensitivity analyses

In line with Annex V(2) of Regulation (EU) 2022/869 sensitivity analyses on the key assumptions and “critical” parameters of the CBA (i.e. such parameters whose variations, positive or negative, have the greatest impact on a project’s economic performance, e.g. commissioning date, investment costs, demand forecast, fuel prices, CO₂ price) need to accompany an investment request. In comparison to scenario analysis, which studies the impact of combinations of values taken by the critical parameters, sensitivity analysis is carried out by varying one parameter at a time and determining the effect of that variation on the national net impacts⁴⁸.

The Agency recommends that an uncertainty range (-x%; +y%) with respect to the expected costs and benefits in each country is presented. A narrative description of reasons underlying the possible variations has to accompany the uncertainty range.

- Assessment period, residual value and discount rate

Without prejudice to any business plan accompanying the investment requests from project promoters, and in line with the Agency Position Paper “*towards greater consistency of cost-benefit analysis methodologies*”⁴⁹, the Agency recommends the following assumptions to be used in the project-specific CBA:

- a) the assessment period should be the minimum between the longest technical lifetime of any equipment and a period of 25 years (from the commissioning)
- b) a residual value of zero;
- c) a standardised social discount rate (4% real) should be used for the calculation of discounted benefits and costs.

- Interlinkages between sectors

Regulation (EU) 2022/869, Articles 11(1) and 11(8) refers to single-sector methodologies while Article 11(5) mandates the ENTSOs to develop by June 2025 “*a consistent and progressively integrated model that will provide consistency between single sector methodologies based on common assumptions including electricity, gas and hydrogen transmission infrastructure as well as storage facilities, liquefied natural gas and electrolyzers, covering the energy infrastructure priority corridors and areas set out in Annex I drawn up in line with the principles laid down in Annex V.*”.

⁴⁸ Further information and examples for sensitivity analysis in the context of CBAs for infrastructure projects can be found in “Guide to Cost-Benefit Analysis of Investment Projects - Economic appraisal tool for Cohesion Policy 2014-2020”, December 2014, EC, chapter 2.9.1. on sensitivity analysis, p. 56 ff.

⁴⁹ [ACER Consistency of CBA methodologies.pdf \(europa.eu\)](https://ec.europa.eu/energy/eia/consistency_of_cba_methodologies.pdf)

As stated in the Agency Position Paper “*towards greater consistency of cost-benefit analysis methodologies*”⁵⁰, an accurate assessment of certain indicators would require a detailed modelling beyond the single sector approach, considering at least gas, hydrogen and the electricity sectors. Such approach would allow to capture interactions among projects which are not captured by common input data and common assumptions as well as limit the risk of double counting the benefits.

Promoters having submitted an investment request, should indicate which CBA result (if any), has been carried out considering an ‘interlinked’ approach. Project promoters should provide all related assumptions and methods applied.

⁵⁰ [ACER_Consistency of CBA methodologies.pdf \(europa.eu\)](#)

Annex I.2 – Project-specific Cost-Benefit Analysis – Electricity infrastructure

This section focuses in particular on the electricity project category as defined in Annex II(1) of Regulation (EU) 2022/869, when under the competence of NRAs.

Future editions of this Agency Recommendation may include specific sections dedicated to other project categories, for which, at the time of the drafting of this Recommendation, the respective CBA methodologies were still under development.

The current ENTSO-E CBA methodology⁵¹ includes a list of 8 benefit components⁵².

From this list, the Agency recommends that at least the following benefits are monetised and separately presented:

- a) socio-economic welfare (SEW) due to the following causes:
 - SEW related to capacity increases on cross-border boundaries (calculated by a European market study);
 - SEW related to capacity increases on internal boundaries (calculated by a local market study);
 - SEW related to the benefits due to avoided re-dispatch or generation curtailments beyond those captured by the market studies (calculated by network studies);
- b) variation in losses (calculated by network studies);
- c) security of supply (adequacy) (calculated by network studies).

In case of non-zero values for losses benefit, the assumption on the value of losses (€/MWh) has to be indicated.

In case of non-zero values for Security of Supply (SoS) benefit, the assumption on the value of lost load (€/MWh not supplied) has to be indicated.

Furthermore, market-study simulation tools should be able to identify the variation of SEW benefit in each country. They should be designed to produce estimates of benefits for specific stakeholder groups within a country (variation of producer surplus PS, variation of consumer surplus CS and variation of congestion rents CR). In particular, the estimated variation of congestion rents across each relevant border should be separately presented (i.e. no 50%-50% allocation of CR variation to compute national benefits).

Network-study simulation tools should be able to identify the network busses where security of supply is at risk, with potential Expected Energy Not Supplied (EENS), and to identify the

⁵¹ 3rd ENTSO-E Guideline for Cost Benefit Analysis of Grid Development Projects- 27 October 2022.

⁵² Indicators B1-B9, except for indicator B3, the economic effects of which (in terms of variable generation costs and CO2 emissions) are fully captured in indicators B1 and B2, respectively.

network elements (lines and transformers) where variations of losses take place with and without the project under analysis. This would allow project promoters to provide country-disaggregated values for SoS benefit and for losses benefit (only when such benefits are significant).

The Agency recommends that every benefit component is disaggregated at national level for each year of analysis. A higher level of disaggregation (PS, CS, CR) is required for the SEW benefit.

Mitigation of negative externalities, such as loop flows, may not be regarded as cross-border benefit⁵³.

⁵³ Article 16(6) of Regulation (EU) 2022/869.

Annex II – Calculation of national net impacts

This section explains how the elements pertaining costs and benefits should be considered when calculating the countries net impacts.

- Costs

Description	Treatment for calculation of national net impacts
Development costs (e.g. studies, rights of way, environmental planning) and project management costs	Negative
Material and assembly cost, including installation and commissioning	Negative
Other construction costs, including temporary solutions, waste management and environmental costs ⁵⁴	Negative
Consenting costs ⁵⁵	Negative
Maintenance costs	Negative
Replacement costs during life cycle	Negative
Financing costs	Not to be counted
Cost for taxes	Not to be counted
Decommissioning costs where relevant	Negative
Cost of variation of losses	Already counted as benefit

- Benefits

Expected benefits, including losses variation, can differ between project categories. Benefits should be counted as positive or negative (e.g. in case of a losses increase), depending on the sign of their variation with and without the project.

⁵⁴ Environmental costs are endogenous to the project. They may include costs for mitigating visual impact of overhead lines and for landscape integration of power stations.

⁵⁵ Consenting costs are exogenous to the project and may be incurred also shortly after commissioning of the project. They may include dismantling costs of other infrastructures at the end of lifetime, compensation costs for land use.

- Cross-border monetary flows

Description	Treatment for calculation of national net impacts
Expected congestion rents for electricity PCIs/PMIs	Already counted in SEW benefit
Expected revenues (payments) of ITC mechanism for electricity PCIs/PMIs	Positive (negative)
Expected income (payments) for other charges	Positive (negative), if not already counted
Awarded non-national grants	Positive
Awarded national grants	Not to be counted
Potential grants	Not to be counted
Expected revenues (payments) related to capacity bookings for gas and hydrogen PCIs/PMIs	Positive (negative) ⁵⁶

⁵⁶ As long as effects related to revenues from capacity bookings are not already counted in the calculation of benefits.

Annex III – Evaluation of impacts on network tariffs

The Agency recommends that the impact of the project implementation on network tariffs is assessed in line with the relevant national regulatory framework and provided for each Member State hosting the project and/or contributing to its financing.

In Members States where the tariff calculation is carried out by TSOs, NRAs are recommended to i) evaluate that the project promoters' tariff assessment is done in line with the regulatory framework; ii) if appropriate, request clarifications or modifications in project promoters' assumptions. In other cases, NRAs are recommended to directly assess tariff impacts.

In particular, the assessment of the impact on tariffs should comprise the following elements:

- a) main characteristics of the applicable regulatory framework and how it applies to the project under consideration;
- b) main characteristics of the tariff methodology as applicable to electricity projects: integrated tariff vs. network tariff, socialisation of costs in pursuit of lower network tariff levels, etc.;
- c) main characteristics of the tariff methodology as applicable to gas projects:
 - i. input to the methodology: does the methodology take into account existing costs, or potential future costs (Long Run Marginal Costs)?;
 - ii. main cost allocation features: Entry-Exit split (revenue collected at entry points compared to revenue collected at exit points), capacity commodity split (revenue collected from charges applied to capacity, and revenue collected from charges applied to commodity), level of multipliers (seasonal and daily differentiation of the reserve price as compared to the annual reference price);
 - iii. main result of the cost allocation: domestic/cross-border split (revenue collected from domestic points compared to revenue collected from interconnection points).
- d) estimated increase of allowed revenues:
 - i. eligible investment costs and operating costs.⁵⁷
 - ii. regulatory rate of return on assets: parameters and principles behind the composition of the applicable regulatory rate of return.
- e) in electricity, the effect of an investment on existing congestion rents or other charges, revenues (i.e. sum of payments and receipts) stemming from the ITC mechanism established under Article 49 of Regulation (EU) 2019/943. This comprises congestion rents and its main assumptions in regards to the estimation and any obligatory use of congestion rents as well as the time horizon assumed;
- f) in gas, estimated revenues deriving from capacity bookings. Main assumptions with regard to the estimation of revenues (e.g. capacity bookings from a market test,

⁵⁷ Please see also Section 2.4 of this Recommendation. Note that, different from CBA, losses may be an operating cost in some regulatory frameworks.

- evaluation of commitments or expression of interest declared by market players, and the respective regulated transmission tariff, as well as its calculation).
- g) time horizon of the tariff impact calculation, which should include:
- i. an explanation of the timing of the inclusion of allocated costs into tariffs, e.g. at the time of occurrence or commissioning vs. disbursement over the lifetime of an asset/regulatory period, any assumptions in regards to a potential time lag for the revenues assumed and the reasoning, *and*
 - ii. an explanation of both the year-on-year annual tariff impact and the impact over the entire assessment period. The assessment period is related to the regulatory lifetime (depreciation) of the assets and the corresponding regulatory remuneration. Depreciation methodology for different groups of assets should be explicit and in line with the relevant national regulatory framework.

The Agency recommends that the tariff impact is presented both in relative terms (in %) and in absolute terms (total variation per unit cost of transportation).

All allocated costs should be considered in the tariff assessment as the reference scenario.

Additionally, the effect of potential external funding (e.g. grants or other financial support) on the estimated tariff impact can be presented for informative purposes. NRAs can indicate in their cross-border cost allocation decisions the possible need for financial support for the project to be implemented.

Any grants already received should be deducted from the investment costs to be considered in the tariff calculations to make sure that any double counting or remuneration is avoided. All the calculations should be presented both net of taxes and including taxes, where all the components and applicable tax rates should be set out.

Tariff assessment should be focused on the incremental impact on network tariffs of the project for which a request is submitted and which is subject of the cross-border cost allocation decisions. The effect on network tariffs of infrastructure developments other than the one(s) subject to the investment request should not be included in the tariff assessment of the project subject of the investment request, but it may be presented as complementary information.

Annex IV – Summary data relevant for investment requests⁵⁸

The Agency recommends the filling of this template for each investment request (in English).

In case the investment requests concern multiple PCIs/PMIs, each PCI/PMI should submit a separate investment request template for each project. All templates should be submitted to all concerned NRAs.

> Part I: projects subject of the investment request

Table-1

Project promoter	Project Name	Description of the project

In Table-2 below, please elaborate on the “significant” interdependencies of the projects included in the submitted joint investment request (see Section 2.1 of this Recommendation).

Table-2

Reason for a joint investment request (in case of project clusters)

> Part II: the project promoters and the consulted TSOs

Table-4

Project promoter	Country	Address and contact details

- *Note:* insert all project promoters.

Table-5

⁵⁸ Wherever possible, please provide numerical information in spread sheet format.

Consulted TSO	Country	Date of submission of all CBA data and results	Date of feedback and reasons for disagreement (if any)

- *Note:* insert all TSOs with significant net positive impact (excluding project promoters).

Table-6

Consulted TSO	Country	Date of submission of preliminary CBCA proposal (if any)	Date of feedback and reasons for disagreement (if any)

- *Note:* insert all TSOs with significant net positive impact (excluding project promoters).

> Part III: the concerned NRAs as identified by the project promoter(s)

Table-7

NRA	Country	Reasons for being concerned (hosting the project / having significant net positive impact)

- *Note:* fill NRAs of countries of project promoters first and then other concerned countries, if any.

> Part IV: the detailed implementation plan for the project

Table-8

Project step	(expected) start date	(expected) end date
“under consideration”		
Planned but not yet in permitting		
Preliminary design studies		
Market test (for gas/hydrogen)		
Preliminary investment decision		
Public consultation process		
Permit granting process		
Financing		
Cross border cost allocation		
Exemption from third party access		
Final investment decision		
Detailed design		
Tendering		
Construction		
Commissioning		

> Part V: scenarios for the assessment of project’s benefits

Table-9

Name of the scenario	Assessed Year(s)	Is it a TYNDP scenario?	Weight attached to the scenario	Source of the scenario and relevant links

- *Note1:* insert rows as needed.
- *Note2:* under the column “Assessed Year(s)” please include all years assessed under that specific scenario (e.g. 2030/2040/2050).
- *Note3:* under the column “Is it a TYNDP scenario?” please include (1) “Yes” if the same storyline and data from a TYNDP scenario were used; (2) “No” if the scenario used is not a TYNDP scenario; (3) “Partially” if the basis for the scenario used was a TYNDP scenario and the data have been changed by the project promoters.
- *Note4:* under the column “Weight attached to the scenario” please include the “weight” attributed to each scenario when computing the CBA benefits for the identification of each country overall net impact.

For each non-TYNDP scenario⁵⁹, please provide in Table-10 the description, the difficulties and the reasons for not choosing the same TYNDP scenario as published by ENTSOG and ENTSO-E.

Table-10

Name of the scenario	Description, difficulties, reasons for not choosing the TYNDP scenario

Note: insert rows as needed

For each non-TYNDP scenario, please provide below the description of its compliance with the following:

- Consistency with EU 2030 targets for energy and climate
- Consistency with 2050 climate neutrality objective
- Adequate level of consultation and scrutiny
- ACER Scenario Framework Guidelines

Table-11

Name of the scenario	Description of the scenario compliance with the elements listed above

Note: insert rows as needed

> Part VI: the project-specific cost benefit analysis

In case the investment request concerns a cluster of projects, please fill in all the tables of this section related to costs and benefits, for the **project cluster with and without each single project included in the cluster**, (by duplicating and filling in the different tables).

Part VI.1 – money, currency and discounting method

The discounting method is in line with the Agency’s Recommendation.

The monetary values are expressed in Euro, in constant (real) prices, and referred to the year of the submission of the investment request.

(If applicable) the following assumptions about exchange rates are used: .

⁵⁹ For non-TYNDP scenarios it is meant all scenarios for which project promoters have indicated “No” or “Partially” in Table-9.

Table-12

Country and currency	Year(s)	Assumption on exchange rate vs. Euro

Note: insert rows as needed

Part VI.2 - COSTS - expected figures

In the tables below, please provide single values, expressed in Million Euro, in constant (real) prices, referred to the year of the submission of the investment request.

In case the project realisation foresees costs in more than one country, duplicate the table and fill in a table **for each of the concerned countries**.

Values in Table-13 and Table-14 should be discounted (see Annex I of this Recommendation)

Table-13

Country	<i>add country name</i>	
	Present value of costs [MEuro]	
Cost component	Before commissioning	After commissioning
Development costs		
Project management costs		
Materials and assembly costs		
Temporary solutions		
Environmental costs		
Consenting costs		
Sub-total (investment costs)		
Maintenance		
Replacement of devices		
Decommissioning		
Total		

Table-14

Country	<i>add country name</i>			
Expected costs variations	Value of costs [MEuro]	Downward variation [%]	Upward variation [%]	Reason(s)

Being a disaggregation of the costs across the years, the values in Table-15 below should be provided as non-discounted.

Table-15

Country	<i>add country name</i>				
Yearly disaggregation of costs before commissioning [MEuro]	Year:	Year:	Year:	Year:	Year:
Total					

Part VI.3e - BENEFITS (electricity) - expected figures

In Table-16, please provide single values, expressed in Million Euro, in constant (real) prices, referred to the year of the submission of the investment request. Values should be discounted. Please fill in one table for **each scenario** considered and for **each impacted country** (duplicate and fill as many tables as needed).

Please fill VI.4 below for ranges and variations.

Table-16

Scenario	<i>add scenario name</i>
Country	<i>add country name</i>
Benefit type	Present value of net⁶⁰ benefits [MEuro]
Benefit component	
SEW (EU-wide market study) – producer surplus	
SEW (EU-wide market study) – consumer surplus	
SEW (EU-wide market study) – congestion rent	
National constraints (SEW local study)	
Sustainability (global benefits)	
Sustainability (local benefits)	
Variation of generation curtailments	
Variation in losses	
Security of supply (load)	
Other benefits	
Total	

⁶⁰ For “net benefit” it is always meant the sum of positive and negative effects.

Given the value of congestion rent provided in Table-16 as part of the SEW, please indicate in Table-17 the assumed share of congestion rent and relative discounted value.

Table-17

Scenario	<i>add scenario name</i>	
Country	<i>add country name</i>	
Congestion rent at relevant border	Congestion rent sharing	Present variation of net⁶¹ congestion rent [MEuro]
Border:	<i>please specify X:Y</i>	
Border:		
Border:		
Border:		

The other benefits indicated (if applicable) correspond to these benefit components in the Agency’s Position on the ENTSO-E ‘Guideline to Cost Benefit Analysis of Grid Development Projects’:

- The value of losses (if applicable) is [MEuro]
- The value of lost load (if applicable) is [MEuro]

In Table-18, fill in the year of the assessment for short-term / mid-term / long-term periods in the dedicated space and the benefits in MEuro assessed in that specific assessment year. Since referring to a specific assessment year, the values for both producer surplus and consumer surplus in Table-18 should be non-discounted and non-interpolated.

Table-18

Scenario	<i>add scenario name</i>					
	Short-term period: Year ____ [MEuro/year]		Mid-term period: Year ____ [MEuro/year]		Long-term period: Year ____ [MEuro/year]	
Benefit component	Producer surplus	Consumer surplus	Producer surplus	Consumer surplus	Producer surplus	Consumer surplus
SEW (EU-wide)						
National constraints						
G curtailments						
Variation in losses						
Security of supply						
Other benefits						

⁶¹ For “net benefit” it is always meant the sum of positive and negative effects.

Part VI.3o - BENEFITS (other project categories than electricity) - expected figures

In Table-19, please provide single values, expressed in Million Euro, in constant (real) prices, referred to the year of the submission of the investment request. Values should be discounted. Please fill in one table for **each scenario** considered (duplicate and fill as many tables as needed). Please indicate in the columns “Country” the name of the impacted country. Please fill VI.4 below for ranges and variations.

Table-19

Scenario	<i>add scenario name</i>		
	Present value of net⁶² benefits [MEuro]		
Benefit component	Country 1	Country 2	Country 3
Market integration			
Competition			
Security of supply and flexibility			
Sustainability (global)			
Sustainability (local)			
Other benefits (to be justified)			
Total			

- *Note:* insert columns as needed.

Part VI.4 - BENEFITS - expected variations (for all project categories)

Please fill in one table for **each scenario** considered.

Table-20

Scenario	<i>add scenario name</i>			
Country	Total present value of net⁶³ benefits [MEuro]	Downward variation [%]	Upward variation [%]	Reason(s)

- *Note:* insert rows as needed.

Part VI.5: other cross-border monetary flows (revenues, ITC, other charges, grants)

In Table-21, please provide single values, expressed in Million Euro, in constant (real) prices, referred to the year of the submission of the investment request. Values should be discounted. Please fill in one table for **each scenario** considered (duplicate and fill as many tables as needed). Please indicate in the first columns “Country” the name of the impacted countries.

Table-21

Scenario	<i>add scenario name</i>
ITC (electricity)	Present value of net⁶⁴ ITC impact [MEuro]
Country 1	
...	

Note: please specify whether net revenues or net payments.

Table-22

Scenario	<i>add scenario name</i>
Market test results (gas/hydrogen)	Present value of expected revenues from network users' long-term commitments (regulated tariff + share of potential auction premium due potential congestions) [MEuro]
Country 1	
...	

Note: please specify whether net revenues or net payment.

Table-23

Scenario	<i>add scenario name</i>	
Description of other charges	Country	Present value amount [MEuro]

Note: please specify whether net revenues or net payment.

Table-24

Scenario	<i>add scenario name</i>	
Country	<i>add country name, if relevant</i>	
Description of grants (national / international)	Status (awarded and received / awarded and still to be received / requested / potential future request)	Present value of the amount granted [MEuro]

⁶² For “net benefit” it is always meant the sum of positive and negative effects.

⁶³ For “net benefit” it is always meant the sum of positive and negative effects.

⁶⁴ For “net benefit” it is always meant the sum of positive and negative effects.

> Part VII: overall net impact

Based on the information provided in Part V and Part VI, please indicate in Table-25 below the resulting **overall net-impact for each impacted country**.

In case the investment request concerns a cluster of projects, indicate below the net impacts, which is created by the realisation of the project cluster with and without each single project included in the cluster (by duplicating and filling in the different tables).

Table-25

Description:	<i>Describe whether the table refers to the whole project cluster or to the project cluster without project XYZ</i>	
Country	Indicate if the country is “Hosting” or “Non-hosting” the project	Present value of overall net impacts (positive / negative) [MEuro]

> Part VIII: accompanying documents

Please include in Table-26 number, scope and title of every accompanying document.

Table-26
