

GUIDANCE FOR APPLICANTS— TRANSMISSION AND STORAGE PROJECT PROMOTERS

Criteria for applications and their treatment in the TYNDP2020

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Final version

Table of contents

1. Introduction	3
2. TYNDP 2020 application procedure and timeline	4
3. Link between the TYNDP and PCI process	7
4. Criteria to be fulfilled for a project to be part of the TYNDP	7
4.2.1. Administrative criteria for transmission projects and required documentation	9
4.2.2. Technical criteria for transmission projects and required information	15
4.3.1. Administrative criteria for storage projects and required documentation	17
4.3.2. Technical criteria for storage projects and required information	20
5. Additional information to be provided by project promoters	23
5.1. Additional information to be provided by all projects	23
5.2. Additional information to be provided by projects selected in the TYNDP2020	23
6. Data handling, project assessment and review procedure	24
6.1. Access to and usage of the provided data and documentation	24
6.2. Project submission process and acceptance / rejection process based on administrative and technical criteria	24
6.3. Update of technical data	25
6.3.1. Requests by project promoters to update technical data	25
6.3.2. Requests by ENTSO-E to correct or complete the technical data provided	25
6.4. Access to assessment results	25
6.5. Right to request a review	26
6.5.1. Purpose and scope of the review procedure	26
6.5.2. How to request a review	26
Annex 1: TYNDP2020 submission window notification to projects promoters of categories A3, B and C from TYNDP2018	28
Annex 2: ENTSO-E contact details	29
Annex 3: Guidance on CAPEX and OPEX	30
Capital expenditure (CAPEX): guidance for promoters	30
Operating expenditure (OPEX): guidance for promoters	32
Annex 4: Studies envisaged in the TYNDP2020	33

1. INTRODUCTION

ENTSO-E shall adopt the Union-wide 10-year network development plan (“TYNDP”) every two years pursuant to Regulation (EU) 2019/943 of the European Parliament and of the Council of 5 June 2019 on the internal market for electricity. The TYNDP is a biennial plan, built upon national and regional development plans, on the needs and planned developments on a pan-European scale. It assesses needs for the transmission system within Europe and planned development projects submitted by project promoters to address these needs.

ENTSO-E invites all projects with cross-border impact which are relevant from a European perspective to apply to the TYNDP¹.

The present document provides guidance to project promoters:

- transmission and storage projects; including
 - o both new projects and projects already included in previous TYNDPs

who propose applying to ENTSO-E for the inclusion in the TYNDP 2020.

The TYNDP, in line with the above mentioned Regulations, does not currently include “Power to X” candidate projects. However, interested project promoters are encouraged to get directly in contact with ENTSO-E if they wish to explore the possibility of participating in potential discussions or modelling investigations on how these projects could be addressed in future editions. ENTSO-E will then consider performing study-case tests, but no cost-benefit analysis will be performed for power-to-X projects and power-to-X projects will not be part of the TYNDP2020. ENTSO-E’s current understanding of the definition of power-to-X refers to the conclusion of the 31st Madrid Forum of October 2018². Storage and transmission as defined in Regulation (EU) 347/2013 are not included in power-to-X.

The document provides the procedural steps and deadlines applying to each step as well as the administrative and technical criteria with which project promoters must comply to have their projects included in the TYNDP.

Project promoters are advised to read these guidelines so that they understand:

- the procedure and timeline;
- the technical and administrative criteria their projects will be required to meet;
- the documents and information they will be required to submit to fulfil these criteria;

¹ This is only a recommendation and does not constitute an obligation to apply.

² https://ec.europa.eu/info/sites/info/files/31st_mf_conclusions_final.pdf

- the use and circulation of the information submitted, and;
- other information regarding their application, including useful contact details.

The following legislation and guidelines govern the TYNDP procedure:

- REGULATION (EU) 2019/943 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 5 June 2019 on the internal market for electricity (**Regulation (EU) 2019/943**);
- REGULATION (EU) No 347/2013 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 17 April 2013 on guidelines for trans-European energy infrastructure and repealing Decision No 1364/2006/EC and amending Regulations (EC) No 713/2009, (EC) No 714/2009 and (EC) No 715/2009 (**Regulation (EC) 347/2013**);
- COMMISSION RECOMMENDATION of 24 July 2018 on Guidelines on equal treatment and transparency criteria to be applied by ENTSO-E and ENTSOG when developing their TYNDPs as set out in Annex III 2(5) of Regulation (EU) No 347/2013 of the European Parliament and of the Council (non-binding “**Commission recommendation**”);
- Long-term network development stakeholders group Terms of Reference (non-binding “[NDSG ToR](#)”).

IMPORTANT NOTICE: It should be noted that ultimately only the EU Regulations 2019/943 and 347/2013 above lay down the binding rules governing the TYNDP procedure. This guidance therefore only sets out ENTSO-E’s interpretation of the legislation and includes reference to other non-binding legal or administrative documents where applicable.

2. TYNDP 2020 APPLICATION PROCEDURE AND TIMELINE

ENTSO-E is expected to adopt the draft TYNDP2020 for submission to ACER opinion in Q4 2020. The TYNDP application has several steps with mandatory deadlines. The applications must be submitted in accordance with the technical and administrative criteria laid down in Section 4 and by the deadlines set out in Figure 1 of this Section 2.

Unless explicitly indicated otherwise in this document by ENTSO-E (Section 6.2 and 6.3), no modification to the application is allowed once the deadline for submission has elapsed. However, if there is a need to clarify certain aspects or for the correction of clerical mistakes, ENTSO-E may contact the applicant for this purpose during the evaluation process.

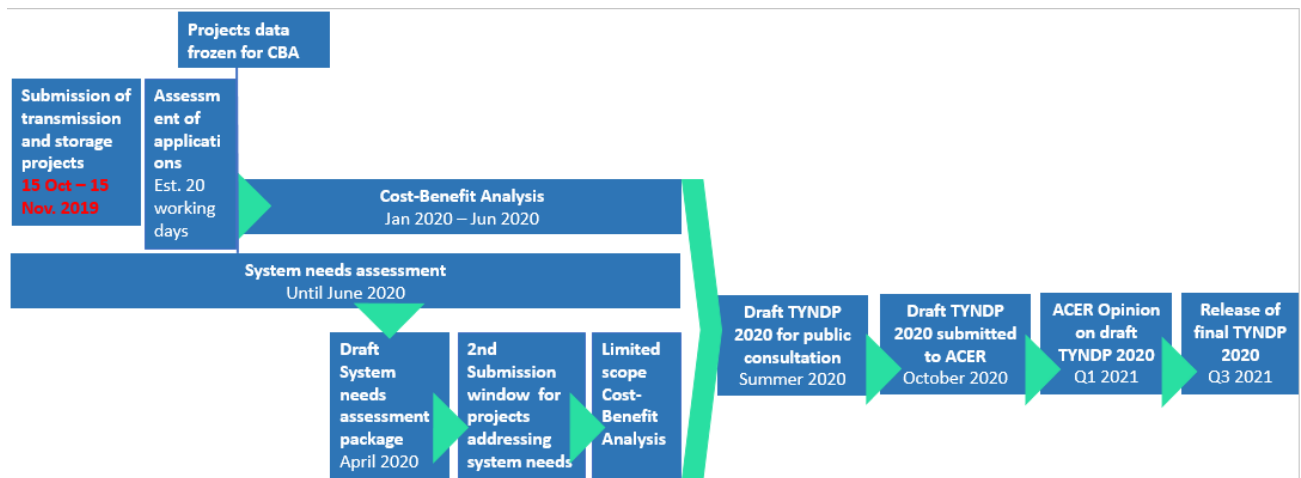


FIGURE 1: ESTIMATED PHASES AND TIMELINE OF DEVELOPMENT OF THE TYNDP 2020

Submission window

All applicants (new projects and those already included in previous TYNDP / PCI list) will have to submit their project applications from **15 October 3 pm CET until 15 November at midnight CET**.

The opening of the submission window will be announced on entsoe.eu, in ENTSO-E's newsletter and via email to all projects promoters of the TYNDP2018.

After the closure of the submission window and for a period communicated to all the applicants, ENTSO-E will consider the applications and their compliance with the criteria set out in Section 4. The assessment period is estimated to last about 20 (twenty) working days, however this is a 'best effort' estimate and the assessment might last longer in the event of a high number of applications.

Failure to provide the necessary information to meet the criteria in line with the timelines set out by ENTSO-E will result in the project not being included nor assessed in the TYNDP 2020.

For projects that are included in the TYNDP 2018, the submission form will be pre-filled with the data available to ENTSO-E at the beginning of the submission window³. Project promoters will be responsible for checking and, if needed, updating the data. This arrangement is meant to make it less time-consuming for

³ In order for this information to be as up-to-date as possible, ENTSO-E has requested in July 2019 to TYNDP 2018 projects promoters to update their data.

project promoters to apply and does not constitute an exemption for TYNDP 2018 projects from fulfilling the administrative and technical criteria specified in Section 4.

After the end of the applications assessment period, ENTSO-E will start to inform the project promoters about their acceptance/rejection for inclusion in the TYNDP. ENTSO-E will send its decision, including the reasons for it, directly to the concerned project promoter.

The provisional project list approved by ENTSO-E will be made public on the ENTSO-E website, ENTSO-E will also publish a list of projects that applied to the TYNDP 2020 but were not admitted together with a justification for the rejection. The TYNDP 2020 project list will be consulted within the TYNDP 2020 package during the Summer 2020, and may be modified in the final TYNDP 2020 if decided by ENTSO-E following either a reassessment or new information on the eligibility of projects, advice from the review process or the recommendation of ACER included in their opinion.

Selected projects with a commissioning date up until 2034 will be subject to a complete cost-benefit analysis (market and network) for the 2025 scenario and all 2030 scenarios. Projects with a commissioning date in 2035 or later will be subject to only a market-CBA, for all 2030 scenarios.

Further guidance on application assessment, data handling and review procedure is provided below in Section 6.

Submission window for projects addressing system needs identified in the draft TYNDP 2020 System Needs package

A “second window” of project collection will take place after the release of the Identification of System Needs (IoSN) package, foreseen in March 2020. The dates of opening and closing of the submission window will be announced at the time of release of the IoSN package.

This submission window will be open only to **projects under consideration to be commissioned after 2035**. The projects selected in this window should **highlight the link between the projects and the draft published needs package**. For these projects, ENTSO-E will perform a limited scope Cost-Benefit Analysis (only market analysis, on only one scenario).

The projects submitted in this window will receive a visually different project sheet than TYNDP projects selected via the main submission window.

SUBMISSION OF APPLICATIONS

It is expected that all applications, including supporting documents will be done through the [online tool on the ENTSO-E website](#) . If any user experiences technical difficulties with the online tool, the ENTSO-E contact person specified in Annex 2 should be alerted as soon as possible so that the problem is resolved or the application is submitted to ENTSO-E by alternative means.

If agreed in advance with ENTSO-E and only in the case of technical necessity linked to a possible non availability of ENTSO-E tools, applications may be submitted by email or post. Applicants are advised to check with the ENTSO-E contact person that the application has been received. “Signed for” or special delivery post is recommended.

3. LINK BETWEEN THE TYNDP AND PCI PROCESS

To comply with the Regulation (EU) 347/2013 Annex II 2 (3) electricity transmission and storage projects shall be part of the latest available TYNDP to be eligible for inclusion in the Union list of projects of common interest (PCIs). Projects wanting to obtain the status of Projects of Common Interest shall submit an application for selection as a project of common interest during the PCI candidate submission phase. The PCI selection is a process separate from the TYNDP process, under the responsibility of the EC Regional Groups led by the European Commission.

As seen from the previous PCI process, all the PCI candidates are evaluated based on the assumptions, analysis and methodology developed in the TYNDP in order to verify if the projects fulfil the eligibility criteria defined in article 4 of Regulation (EU) 347/2013 and to assess their significant contribution to the energy infrastructure priorities of the European Union. The TYNDP cost benefit analysis results grounded on the input data provided by the project promoters during the TYNDP project application phase are expected to be the basis of the PCI selection process. Data provided for the projects submitted during the TYNDP application phase have to be coherent with the PCI project candidate application.

The project input data and results of the TYNDP cost-benefit analysis will be made public. All data will be shared with the EC Regional Groups, the European Commission and ACER.

4. CRITERIA TO BE FULFILLED FOR A PROJECT TO BE PART OF THE TYNDP

This section describes the technical and administrative criteria that each project of the TYNDP 2020 shall fulfil. Failure to provide the necessary information to meet the administrative and technical criteria within the timelines laid down in Section 2, will result in the project not being included nor assessed in the TYNDP 2020. The administrative and technical criteria below are grouped based on the type of the promoter, the type of the project (transmission or storage) and the maturity of the project.

4.1. ELIGIBILITY CRITERIA

A TYNDP project promoter that falls under any of the following categories is eligible to apply in the TYNDP 2020:

- A. **Promoter of transmission infrastructure project within a regulated environment** according to Regulation (EU) 2019/943, which can be either:

A.1. a project promoter which holds a transmission operating license in a country represented within ENTSO-E (such as ENTSO-E members)

A.2. a project promoter which holds a transmission operating license and operates in a country not represented within ENTSO-E, as long as the transmission infrastructure project is entirely or in part situated in at least one country represented within ENTSO-E and is considered as of European relevance⁴; or

A.3. any other project promoter licensed to operate within a regulated environment (such as OFTOs under the Offshore Transmission Regime in Great Britain) or equivalent; and such transmission infrastructure project is entirely or in part situated in at least one country represented within ENTSO-E and is considered as of European relevance.

B. Project promoter of transmission infrastructure projects that is

a) exempted pursuant to Article 63 of Regulation (EU) 2019/943 or applying or intending to apply for such an exemption. This exemption criteria can apply to a project promoter of a new interconnector or to a project promoter of an existing interconnector with significant increases of capacity; or

b) yet to be regulated in accordance with Regulation (EU) 2019/943 and this project promoter is applying or is intending to apply for this regulated status / certification.

C. Project promoters of storage projects planned to be developed in a country represented within ENTSO-E and respecting the technical limitations set in Annex II of the TEN-E Regulation or any equipment or installation essential for the system to operate safely, securely and efficiently.

⁴ The project is considered of European relevance when, in the spirit of the objectives of the Regulation 347/2013 (whereas 7), namely it accelerates “the refurbishment of existing energy infrastructure and the deployment of new energy infrastructure” and contributes to the achievement of “Union’s energy and climate policy objectives.”

4.2. CRITERIA FOR TRANSMISSION PROJECTS AND REQUIRED DOCUMENTATION

4.2.1. ADMINISTRATIVE CRITERIA FOR TRANSMISSION PROJECTS AND REQUIRED DOCUMENTATION

The following table shows the list of administrative **pass-fail** criteria. Pass-fail criteria means that all projects – regardless of their advancement status (e.g. “more advanced” or “under consideration”) need to fulfil all the criteria in this section 4.2.1 a. to e. by the submission deadline. All documentation must be provided in the English language. The project promoter must provide all required documentation as a scanned copy through the online tool accessible via the ENTSO-E website.

	A1	A2	A3+B
a. Unbundling (all)⁵	a) The project promoter shall be a TSO certified in accordance with Article 52 or Article 53 of Directive (EU) 2019/944 or b) should demonstrate it has taken the steps to comply with the unbundling requirements of Directive (EU) 2019/944 and intends to apply for regulated status / certification; or c) should demonstrate any steps taken with regards to obtaining an exemption pursuant to Article 63 of Regulation (EU) 2019/943.		

⁵ “(all)” after the criteria refers to projects at any advancement level, including “more advanced” and “under consideration”.

	A1	A2	A3+B
	<p>Required documentation — on its own responsibility⁶, the project promoter shall alternatively:</p> <ul style="list-style-type: none"> a) confirm the fulfilment of the European Union unbundling rules in line with Directive (EU) 2019/944; b) if it is yet to be regulated /certified, the project promoter joins to the application a formal letter, signed by an authorised representative of the company, indicating its intention to obtain regulated status / certification according to Regulation (EU) 2019/944 and the applicable national law requirements (through license or other means specified in the letter); or c) if it is not unbundled, the project promoter joins to the application a formal letter, signed by an authorised representative of the company, indicating its intention to apply for an exemption or any steps taken with regards to obtaining exemption; or proof it has obtained the exemption in accordance with Article 63 of Regulation (EU) 2019/943. 		
b.Company existence (all)	The project promoter shall be a registered undertaking or a subsidiary of a registered undertaking that has been in existence for at least 1 year before the date of submission (for more advanced projects) or less than 1 year (only for project “ under consideration phase”)		
	Required documentation: Already available to ENTSO-E	Required documentation: The statutes of the registered undertaking	
c.Financial strength (all)	The assets of the undertaking or its shareholders shall amount to at least 1 million euros.		
	Required documentation: Already available to ENTSO-E	Required documentation: The last available balance sheets submitted to the national tax office no later than 2017. For companies younger than 1 year this information is to be proven with the company existence documentation.	
d.Technical expertise (all)	The project promoter has the technical expertise to realise the project by its own or by using subcontractors.		

⁶ Note: If requested by the European Commission or Regulatory bodies the project promoter shall be able at any moment in time to prove the conformity with the EU legislation or the steps it has taken to conform with it.

	A1	A2	A3+B
	Required documentation: Already available to ENTSO-E	Required documentation: Information on the industrial undertaking and its technical expertise, including references from other relevant projects	
e.Contact details (all)	<ul style="list-style-type: none"> a) 1 Single Point of Contact (SPOC) with email and phone number b) 2 delegated contacts: email and phone number. They are responsible for receiving TYNDP communications in the event the SPOC is not available (due to out-of-office notification or left position) 	<ul style="list-style-type: none"> a) 1 SPOC with email and phone number b) 2 delegated contacts: email and phone number. They are responsible for receiving TYNDP communications in the event the SPOC is not available (due to out of office notification or left position) c) General company contact with email, phone number and postal address for exceptional communication or letter requiring signature 	

The following table shows a list of **additional** administrative criteria: at least one must be fulfilled. There are criteria applicable for all projects and others applicable only for projects with a status under consideration or for projects with a status more advanced⁷ than under consideration.

	A1	A2	A3+B
f.PCI (all)	PCI label in the last available PCI list		
	Required documentation:		

⁷ **More advanced status** represent projects which are in the following phases of development: **planned but not yet in permitting** (meaning projects that have been included in the national development plan & completed the phase of initial studies (e.g. completed pre-feasibility or feasibility study), but have not initiated the permitting application yet , **permitting** (starts from the date when the project promoters apply for the first permit regarding the implementation of the project and the application is valid;) and **construction**.

	A1	A2	A3+B
	<p>PCI number and definition as in the last approved EC published PCI list. In case of application for inclusion in the 4th PCI list, the promoter shall specify it in the submission platform. ENTSO-E will take into consideration its application and this criteria will be rechecked when the PCI 4th list is published by the European Commission.</p>		
g.National plan (more advanced)	<p>Inclusion in the last available version of the National Development Plan (NDP) of at least one ENTSO-E country. <i>To satisfy this criteria, the project in question needs to be effectively included in the last available version of the NDP (e.g. by explicit approval (not just by reference) of the project in question into the plan.)</i></p> <p>Required documentation: The reference (e.g. project code) of the project in the last available version of the National Development Plans of at least one ENTSO-E country. In case of difference in the data indicated compared to the respective data of NDPs the explanation and justification of those differences should be provided</p>		
h. National plan (under consideration)	<p>Inclusion in the last available version of the National Development Plan (NDP) of at least one ENTSO-E country. <i>To satisfy this criteria, the project in question needs to be effectively included in the last available version of the NDP (e.g. by explicit consideration (not just by reference) of the project in question into the plan.)</i></p> <p>Required documentation: The reference (e.g. project code) of the project in the last available version of the National Development Plans of at least one ENTSO-E country. In case of difference in the data indicated compared to the respective data of NDPs the explanation and justification of those differences should be provided</p>		
i.MS / NRA agreement (under consideration)	<p>Project shall have a signed agreement between the competent ministries or regulators or a letter of support from at least one of the competent ministries or regulatory authorities.</p> <p>Required documentation: The signed agreement on the project proceeding between the ministries or between the regulators of the impacted countries, and the recent amendments for it if any; or a signed letter, from at least one of the ministries or regulatory authorities concerned, stating the explicit support for the project to be part of the TYNDP 2020.</p>		
j.Exemption process (more advanced)	<p>Valid (not rejected) application for exemption under the European regulations (Article 24 of Regulation (EC) 943/2019) or equivalent</p>		

	A1	A2	A3+B
	<p>Required documentation: The acknowledgment receipt of the application for the exemption pursuant to Art. 24 of Regulation (EC) No 943/2019 from the responsible regulatory authorities of the concerned EU countries.</p>		
k.TSO agreement or processes (under consideration))	<p>Signed agreement⁸ with all the concerned TSOs members of ENTSO-E OR A positive⁹ feasibility study (within the validity period) performed or approved by all the concerned TSOs</p>		
	<p>Required documentation: Copy of a signed agreement (electronically signed would be sufficient) by the responsible parties of the TSOs involved, stating that there is a common agreement for assessing the project under consideration and submitting it for TYNDP 2020 process.</p>	<p>Required documentation: The signed common agreement with the concerned TSO/s who is/are member/s of ENTSO-E, regarding the development of the submitted project OR All the impacted ENTSO-E TSO positive feasibility¹⁰/pre-feasibility¹¹ studies, or their signed approval on the project's study, performed by another party.</p>	<p>Required documentation: The signed connection agreement with all the concerned TSOs. All the impacted ENTSO-E TSO positive feasibility¹²/pre-feasibility¹³ studies, or their signed approval on the project's study, performed by another party</p>
l.Studies (under	Resulting from an ENTSO-E	By 15 November 2019, delivery of all relevant information to all the concerned	

⁸ Including TSOs confirmation to connect the specific infrastructure to the system (connection point and budget) or the contract with the TSOs to connect (i.e. acceptance to pay for the works).

⁹ The study should conclude that the project is compatible with the planned network and/or should propose additional network reinforcements to integrate the project in the future network

¹⁰ & ¹⁵ Feasibility study Scope: it should confirm all the results of the pre-feasibility study or amend them and confirm the physical and environmental viability not only of the project itself but also of the connection points and additional investments required.

¹¹ & ¹⁶ Pre-feasibility study Scope: it should include at a minimum the connection point/points of the project to the European transmission grid, the admissible transfer capacity in the relevant boundary, the additional investments required for a secure operation and network codes fulfilment.

	A1	A2	A3+B
consideration)	system needs study (Identification of System Needs or Regional Investment Plans) .	TSOs to facilitate a pre-feasibility or feasibility study; or signed contractual agreement with all the concerned TSOs to perform a pre-feasibility or feasibility study; or acknowledgement by all TSOs concerned of the outcome of the study performed by the promoter.	
	Required documentation: Already available to ENTSO-E	Required documentation: The proof of delivery ¹⁴ of all relevant information to all the concerned TSOs to facilitate a pre-feasibility or feasibility study; or the signed contractual agreement with all the concerned TSOs to perform a pre-feasibility or feasibility study; or a signed letter(s) by all TSOs concerned acknowledging the outcome of the study performed by the promoter and a copy of the study.	

¹⁴ Delivery by any form of communication (e.g. email, form) that is in line with the involved TSOs process. All relevant information means all the information requested by the concerned TSOs to perform a pre-feasibility or feasibility study.

4.2.2. TECHNICAL CRITERIA FOR TRANSMISSION PROJECTS AND REQUIRED INFORMATION

The following table shows the list of technical pass-fail criteria. All must be fulfilled by the submission deadline. All information must be provided in the English language. The project promoter must provide all required information through the on-line tool accessible via the ENTSO-E website.

	A1	A2	A3+B
m.Technical description	Main equipment is: <ul style="list-style-type: none"> - a high-voltage overhead transmission line designed for a transmission voltage of 110 kV or more in the case of direct cross-border infrastructure OR - a high-voltage overhead transmission line designed for a transmission voltage of 220 kV or more in the case of internal infrastructure OR - a high voltage underground/submarine transmission cable designed for a voltage of 110KV or more. 		
	Required information: <ul style="list-style-type: none"> - A brief technical description of the project - identification of the main investment item, with technology (AC/DC) and voltage level; end-substations, km of route, etc. - identification of additional investment items, with technology (AC/DC) and voltage level; end-substations, km of route, etc. 		
n.Location	Main equipment at least is partially located in one of the countries represented within ENTSO-E		
	Required information: Location of the project in the ENTSO-E map - GIS coordinates		
o.Initial estimation of the Transfer capacity increase	The initial estimation of the net transfer capacity increase (NTC) expressed in MW where: <ul style="list-style-type: none"> - for the cross-border infrastructure : no minimum limit is imposed - for the internal infrastructure: no minimum limit is imposed. If the impact on the NTC is under 100 MW, projects must be planned to ensure security of supply or load growth or to allow new generation connection. 		
	Required information: <ol style="list-style-type: none"> i. An assessment of the increase in the transfer capacity which the project will enable, expressed in MW. ii. An explanation of the use of that transfer capacity increase (cross-border impact, generation connection, and/or securing load growth) 		
p.Project network modelling data	All the project characteristics necessary to model the project in the network tool used by ENTSO-E in the assessment process		
	Required information: <ol style="list-style-type: none"> i. Electro-technical parameters of the project which are necessary to model the proposed investment in the network 		

	A1	A2	A3+B
	<p>studies:</p> <p>For an alternating current (AC) infrastructure: connection points (substations name), nominal voltage, type of conductor, nr/phases, resistance (R), reactance (X), conductance (B), thermal limit (Imax), km of the whole route (for a line/cable), km of the route to each border if the infrastructure is a tie-line;</p> <p>For a direct current (DC) infrastructure: connection points (substations name), type of conductor, type of converters (VSC/LCC), nominal voltage, capacity, km to each border if the infrastructure is a tie-line, thermal limit (Imax), Mvar capability range at terminals, bus-bar to bus-bar losses profile over MW range;</p> <p>ii. Expected yearly unavailability, differentiating between planned and forced outages, and the maximum single failure according to the design.</p> <p>In case of projects other than in the “under consideration” phase, the list and features of the internal reinforcements required to connect the project in the transmission network based on the affected TSOs analysis.</p>		
q.Date of commissioning, status and costs¹⁵	<ul style="list-style-type: none"> - Date of commissioning and status of each of the investment items part of the project. - CAPEX and OPEX of each of the investment items part of the project (see Annex 3 for guidance on CAPEX and OPEX). <p>Note: This data is mandatory and therefore any non-compliance will result in exclusion from the final TYNDP.</p> <p>Required information:</p> <ul style="list-style-type: none"> i. An estimation of the commissioning date for each investment item ii. A timeline of the implementation plan including pre-feasibility and feasibility studies, engineering design, exemption and permitting procedures, manufacturing, construction and commissioning iii. A project status for each investment item, indicating whether the investment is ”under consideration” (prefeasibility/feasibility studies), “planned, but not yet in permitting”, “in permitting” or “under construction” iv. The total investment cost (and for each investment item) at the commissioning year value and yearly operation and maintenance cost: CAPEX+OPEX. 		

¹⁵ Note: The validity of this data will be checked by ENTSO-E based on check rule discussed with ACER against general project development (status and commissioning date) and reference costs.

4.3. CRITERIA FOR STORAGE PROJECTS AND REQUIRED DOCUMENTATION

4.3.1. ADMINISTRATIVE CRITERIA FOR STORAGE PROJECTS AND REQUIRED DOCUMENTATION

The following table shows the list of administrative pass-fail criteria: Pass-fail criteria means that all projects – regardless of their advancement status (e.g. “more advanced” or “under consideration”) need to fulfil all the criteria in this section 4.3.1 b. to e. by the submission deadline. All documentation must be provided in the English language. The project promoter must provide all required documentation as a scanned copy through the online platform accessible via the ENTSO-E website.

	C
b. Company existence (all)¹⁶	The project promoter shall be a registered undertaking or a subsidiary of a registered undertaking that has been in existence for at least 1 year before the date of submission (for more advance projects) or less than 1 year (only for project “ under consideration phase”)
	Required documentation: The statutes of the registered undertaking
c. Financial strength (all)	The assets of the undertaking or its shareholders shall amount to at least 1 million euros
	Required documentation: The last available balance sheets submitted to the national tax office no later than 2017. For companies younger than 1 year this information is to be taken from the company existence documentation.
d. Technical expertise (all)	The project promoter has the technical expertise to realise the project on its own or by using subcontractors.
	Required documentation: Information on the industrial undertaking and its technical expertise, including references from other relevant projects.

¹⁶ “(all)” after the criteria refers to projects at any advancement level, including “more advanced” and “under consideration”.

e.Contact details (all)	<ul style="list-style-type: none"> a) 1 SPOC with email and phone number b) 2 delegated contacts: email and phone number. They are responsible for receiving TYNDP communications in case the SPOC is not available (due to out of office notification or left position) c) General company contact with email, phone number and postal address for exceptional communication or letter requiring signature.
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The following table shows a list of additional administrative criteria: At least one must be fulfilled.

There are criteria applicable for all projects and others applicable only for projects with a status under consideration or for projects with a status more advanced than under consideration.

C	
f.PCI (all)	<p>PCI label in the last available PCI list</p> <p>Required documentation: PCI number and definition as in the last approved EC published PCI list. In case of application for inclusion in the 4th PCI list, the promoter shall specify this in the submission platform. ENTSO-E will take into consideration its application and this criteria will be rechecked when the 4th PCI list is published by the European Commission.</p>
g.National plan (more advanced)	<p>Inclusion in the last available version of the National Development Plan (NDP) of the ENTSO-E country where the storage will be built. <i>To satisfy this criteria, the project in question needs to be effectively included in the last available version of the NDP (e.g. by explicit approval (not just by reference) of the project in question into the plan). This applies to those countries where the NDP is supposed to include storage projects.</i></p> <p>Required documentation: The reference (e.g. project code) of the project in the last available version of the National Development Plans of at least one ENTSO-E country. In case of difference in the data indicated compared to the respective data of NDPs the explanation and justification of those differences should be provided.</p>
h. National plan (under consideration)	<p>Inclusion in the last available version of the National Development Plan (NDP) of the ENTSO-E country where the storage will be built. <i>To satisfy this criteria, the project in question needs to be effectively included in the last available version of the NDP (e.g. by explicit consideration (not just by reference) of the project in question into the plan). This applies for those countries where the NDP is supposed to include storage projects.</i></p> <p>Required documentation: The reference (e.g. project code) of the project in the last available version of the National Development Plans of at least one ENTSO-E country. In case of difference in the data indicated compared to the respective data of NDPs the explanation and justification of those differences should be provided</p>

i. MS / NRA agreement (under consideration)	Project shall have a signed agreement between the competent ministries or regulators or a letter of support from at least one of the competent ministries or regulatory authorities.
	Required documentation: The signed agreement on the project proceeding between the ministries or between the regulators of the impacted countries, and the recent amendments for it if any; or a signed letter, from at least one of the ministries or regulatory authorities concerned, stating the explicit support for the project to be part of the TYNDP 2020.
j.TSO agreement or processes (more advanced)	Signed connection agreement with the TSO within the ENTSO-E country where the storage will be built.
	Required documentation: The signed connection agreement with the impacted TSO.
l.Studies (under consideration)	Feasibility/pre-feasibility study performed or approved by the TSO within the ENTSO-E country where the storage will be built OR Delivery by 15 November 2019 of all relevant information to all the concerned TSOs to facilitate a pre-feasibility or feasibility study; or acknowledgement by all TSOs concerned of the outcome of the study performed by the promoter.
	Required documentation: The impacted ENTSO-E TSO feasibility ¹⁷ /pre-feasibility ¹⁸ studies, OR their signed approval, on the project's study, performed by another party OR the proof of delivery to all impacted TSOs of all relevant information to facilitate a feasibility/pre-feasibility study ¹⁹ ; OR a signed letter(s) by all TSOs concerned acknowledging the outcome of the study performed by the promoter and a copy of the study.

¹⁷ Feasibility study Scope: it should confirm all the results of the pre-feasibility study or amend them and confirm the physical and environmental viability not only of the project itself but also of the connection points and additional investments required.

¹⁸ Pre-feasibility study Scope: it should include at minimum the connection point/points of the project to the European transmission grid, the admissible transfer capacity in the relevant boundary, the additional investments required for a secure operation and network codes fulfilment.

¹⁹ Delivery by means any form of communication (e.g. email, form) that is in line with the involved TSOs process. All relevant information means all the information requested by the concerned TSOs to perform a pre-feasibility or feasibility study.

4.3.2. TECHNICAL CRITERIA FOR STORAGE PROJECTS AND REQUIRED INFORMATION

The following table shows the list of technical pass-fail criteria: Pass-fail criteria means that all projects – regardless of their advancement status (e.g. “more advanced” or “under consideration”) need to fulfil all the criteria in this section 4.3.2 j. to p. by the submission deadline. All information must be provided in the English language. The project promoter must provide all required information via the form in the on-line tool accessible via the ENTSO-E website.

C	
j. Technical description	<p>The project shall be an electricity storage facility used for storing electrical energy into another energy form for producing electricity at a later date on a permanent or temporary basis in above-ground or underground infrastructure or geological sites.</p> <p>Required information: Brief technical description of the storage project: type of storage (hydro, pure pumping or including natural inflow; battery, type of technology used; etc.)</p>
k. Capacity & Generation	<p>The project shall provide at least 225 MW installed capacity and has a storage capacity that allows a net annual electricity generation of 250 GWh/year²⁰.</p> <p>Required information:</p> <ul style="list-style-type: none"> i. Installed electric generating capacity²¹, including maximum active power (MW) and reactive power (Mvar), and minimum values different from zero. ii. Total storage capacity²², and installed electric storing capacity including maximum active power (MW) and reactive power (Mvar), and minimum values different from zero.

²⁰ Regulation (EU) 347/2013, Annex IV.1. (b);

²¹ Must be higher than 225 MW - As requested by Regulation (EU) 347/2013, annex IV, Art. 1(b);

²² Storage capacity should be defined as total energy delivered to the grid when reservoir is totally emptied, starting at reservoir full condition.

I.Voltage level	<p>The project is directly connected to the high-voltage transmission network for a voltage of 110kV or more²³</p> <p>Required information: The connection point to the transmission infrastructure, the voltage at the connection point ($\geq 110\text{kV}$)</p>
m.Location	<p>The project is partially located and directly connected to one of the countries represented within ENTSO-E</p> <p>Required information: Location of the project in the ENTSO-E map and GIS coordinates</p>
n.Project network/market modelling data (ENTSO-E might require or specify further technical data for modelling needs during the Cost-Benefit Analysis assessment for TYNDP 2020)	<p>All the project characteristics necessary to model the project in the network tool used by ENTSO-E in the assessment process.</p> <p>Required information:</p> <ul style="list-style-type: none"> - Storage Capacity [GWh] - Roundtrip efficiency [%] - Maximum and Minimum Total Turbining/generating Capacity [MW] - Maximum and Minimum Total pumping/compressor Capacity of pump storage [MW] - Generating hours [h] (for Compressed-Air-Energy-Storage projects only) - Pumping/Charging hours [h] (for Compressed-Air-Energy-Storage projects only)
o. Date of commissioning, status of the project and costs	<ul style="list-style-type: none"> - Date of commissioning and status of the project. - CAPEX and OPEX of the project (see Annex 3 for guidance on CAPEX and OPEX). <p>Note: This data is mandatory and therefore any non-compliance will result in exclusion from the final TYNDP.</p> <p>Required information:</p> <ol style="list-style-type: none"> i. An estimation of the commissioning date ii. A timeline of the implementation plan including pre-feasibility and feasibility studies, engineering design, exemption and permitting procedures, manufacturing, construction and commissioning iii. A project status, indicating whether the project is under consideration” (prefeasibility/feasibility studies), “planned, but not yet in permitting”, “in permitting” or “under construction”; iv. The total investment cost of the project at the commissioning year value, and the annual operation and maintenance costs (including the cost for the purchase of energy): CAPEX+OPEX. The OPEX requested of promoters for storage projects must not include the cost for the purchase of energy.

23 Regulation (EU) No 347/2013, Annex II.1. (c)

p. Natural Inflow	The promoter indicates whether the project presents a natural inflow (for PHES) (yes/no answer)

5. ADDITIONAL INFORMATION TO BE PROVIDED BY PROJECT PROMOTERS

5.1. ADDITIONAL INFORMATION TO BE PROVIDED BY ALL PROJECTS

In the main submission window, and in addition to the administrative criteria listed in Section 4, all projects which are included in a National Development Plan(s) (final or draft), shall deliver to ENTSO-E the reference (i.e. project code and page number) of the project in the last available National Development Plans for all the ENTSO-E countries directly concerned.

NB: This does not constitute a requirement for projects to be included in a National Development Plan, but merely a requirement to inform ENTSO-E when it is the case. This requirement applies indifferently of the additional administrative criteria for which the promoter chooses to deliver proof of compliance.

5.2. ADDITIONAL INFORMATION TO BE PROVIDED BY PROJECTS SELECTED IN THE TYNDP2020

In Q1-Q2 2020 ENTSO-E will contact projects accepted into the TYNDP2020 with request for additional information. This additional information will be reflected in the projects sheets published on entsoe.eu and serves only to provide further information on the project. The window for submission of additional information is provisionally foreseen to extend from March to May 2020. Exact dates will be announced in Q1 2020. Workshops and/or webinars will be organised to answer project promoters' questions.

The additional information that will be requested includes, but is not limited to, the following items:

- Project promoters will be contacted after the finalisation of the Identification of System Needs (IoSN) report with a request to link their projects to the needs identified in the IoSN report. Project promoters will have to provide this update during a dedicated submission window of one month.
- Deliver the cost justification in line with the Cost Benefit Methodology into force.
- Deliver any other explanation in line with the Cost Benefit Analysis Methodology which will enhance the description of the project benefits in the TYNDP report.

6. DATA HANDLING, PROJECT ASSESSMENT AND REVIEW PROCEDURE

6.1. ACCESS TO AND USAGE OF THE PROVIDED DATA AND DOCUMENTATION

The administrative documents provided by the project promoters during the submission phase and referring to their legal status, financial capability and technical expertise should be solely used by ENTSO-E to ensure compliance with the administrative criteria defined in their practical implementation documents and should be treated as confidential by ENTSO-E.

The technical input provided by the project promoters and the benefits of the projects assessed in accordance with the CBA methodology should be made public by ENTSO-E.

The cost data submitted by the project promoters for the projects to be included in the TYNDP will be made public by ENTSO-E.

By default, all the data and documentation provided by the promoter will be accessible to the European Commission and the Agency for the Cooperation of Energy Regulators (ACER).

6.2. PROJECT SUBMISSION PROCESS AND ACCEPTANCE / REJECTION PROCESS BASED ON ADMINISTRATIVE AND TECHNICAL CRITERIA

The project promoter is fully responsible for the correctness and completeness of the information that it provides in the TYNDP procedure.

In case of incomplete and/or inconsistent submission of information during the application period, ENTSO-E will send a formal request to the project promoter to complete and/or correct the missing/inconsistent information. With this request the promoter is informed that failure to provide the required information will result in exclusion from the TYNDP project list. Acknowledgement of this request from the promoter has to be received within five working days after ENTSO-E's request. If the promoter fails to acknowledge the request within five working days and/or fails to submit the requested data within the fixed deadline included in the request, the project is rejected and the project promoter can pass to review phase (detailed in section 6.5).

6.3. UPDATE OF TECHNICAL DATA

6.3.1. REQUESTS BY PROJECT PROMOTERS TO UPDATE TECHNICAL DATA

Requests by project promoters to update project information shall be dealt with in the following manner:

- In case of incorrect information submitted within the submission window, the promoter shall inform ENTSO-E of this error. The updated data shall be sent to ENTSO-E by the end of ENTSO-E's application review period which will be communicated to all the applicants once the submission window is expired. After this period the data will be considered frozen for the purposes of the CBA Assessment.
- During the data processing phase and the assessment phase (December 2019 - June 2020) no data update request by project promoters will be accepted by ENTSO-E for the purpose of the CBA Assessment.
- If the project information changes from the moment of confirmation of acceptance in the TYNDP and the start of the TYNDP consultation, the promoter will have the opportunity to update the project information during the TYNDP consultation phase. This update will be included in a dedicated section of the TYNDP project sheet and will be clearly labelled with the date of information submission and the disclaimer that this update is not reflected in the CBA assessment results published in the TYNDP. The technical data used for the CBA assessment will in any case be published and labelled as input data for the CBA assessment.

6.3.2. REQUESTS BY ENTSO-E TO CORRECT OR COMPLETE THE TECHNICAL DATA PROVIDED

ENTSO-E reserves the right to ask a project promoter to correct or confirm the technical data provided at any time. The project promoter will then be asked to provide the corrected technical data within five (5) working days.

If the project promoter fails to provide the requested data within 5 (five) working days, and the missing/inconsistent data does not allow for a full CBA calculation of the project, this specific project will be disregarded, and not included and assessed in the TYNDP.

6.4. ACCESS TO ASSESSMENT RESULTS

ENTSO-E recognises the importance of the project assessment results to the overall quality and acceptance of the TYNDP and to individual promoters' projects.

Therefore, ENTSO-E will send to project promoters' single point of contact, at least two weeks in advance of the public consultation on the TYNDP 2020, the specific assessment results for their project[s].

Upon review of these results, project promoters may have questions or queries. A request can be made to the ENTSO-E TYNDP project team for a bilateral meeting by sending a request for a meeting to the point of

contact set out in Annex 2 of this document. This request should include a brief description of the topics and issues that the project promoter wishes to discuss and the project promoter's upcoming availability.

In conjunction with project promoters and stakeholders, ENTSO-E will host public workshops at key stages in the development of the TYNDP to consult on associated methodologies and results. Project promoters are strongly advised to make themselves aware and contribute through these workshops to the ongoing development of the TYNDP. These workshops will be announced with a brief synopsis and registration details at: <https://www.entsoe.eu/news-events/events/Pages/default.aspx>.

6.5. RIGHT TO REQUEST A REVIEW

ENTSO-E shall treat all applications, including supporting documents, in line with the procedure laid down in Sections 6.

In the event of disagreement with ENTSO-E's initial decision to reject a project from the provisional list, the concerned project promoter has a right to ask ENTSO-E to review its rejection decision in accordance with the review procedure outlined in this Section 6.5.

6.5.1. PURPOSE AND SCOPE OF THE REVIEW PROCEDURE

The purpose and scope of the review procedure is to hear evidence as to why the applicant considers that the initially rejected project in question complies with the eligibility, administrative and technical criteria and the procedure laid down in this document, and should therefore be included in the TYNDP 2020.

The review procedure is carried out before the Network Development Stakeholder Group (NDSG) which is a voluntary group consisting of members from generator, distributor, trader, consumer, NGO etc. interest groups; with the Commission and ACER as permanent observers and chaired by ENTSO-E as further specified in the NDSG Terms of Reference ([ToR](#)).

6.5.2. HOW TO REQUEST A REVIEW

Where ENTSO-E has issued a rejection decision to a candidate, the decision document provides the rejected project promoter ten (10) working days from the date of the decision document to send a review request to ENTSO-E, via email to the point of contact indicated in Annex 2 of this document.

The applicants review request must indicate the decision challenged, the reasons for the challenge and contain the necessary supporting evidence.

Hearings are organised before the NDSG and are followed by the NDSG issuing a non-binding recommendation to ENTSO-E who will adopt the final decision in the matter.

Any time during the review procedure, ENTSO-E may consult the Commission and ACER. If deemed necessary, the authorities may also consult the relevant stakeholders on an ad-hoc basis when considering the project promoters' justifications. When taking its final decision, ENTSO-E considers – but is not bound by – the expressed views, in addition to the non-binding NDSG recommendation.

The following elements - considered as having been already consulted with stakeholders earlier in the process, agreed upon and finalised – are not to be open for discussion within this review phase: scenario assumptions and data, CBA methodologies in force and project data submitted within the process.

Detailed review procedure steps will be provided in ENTSO-E’s rejection notification, but the main elements will be according to Figure 2.

	ENTSO-E issues a rejection notification
By 10 working days after the rejection notification	Project promoter issues a review request
At least 3 weeks after ENTSO-E’s rejection notification	Hearing before NDSG takes place, in person or by web conference. ENTSO-E will share with the NDSG, at the latest one week before the hearing,: <ul style="list-style-type: none"> - the review requests received from project promoters; - the related rejection notifications, containing the justification for ENTSO-E’s initial rejection decision; - an overview of the review procedure with the timeline and deadline for each step.
By two weeks after the hearing	NDSG informs ENTSO-E of their non-binding opinion (or decision not to provide an opinion) in writing.
By 5 weeks after reception of the NDSG’s recommendation	The System Development Committee of ENTSO-E adopts a decision. ENTSO-E notifies the project promoter of its decision, including the reasons for it.

Figure 2. Provisional timeline for the review process

ANNEX 1: TYNDP2020 SUBMISSION WINDOW NOTIFICATION TO PROJECTS PROMOTERS OF CATEGORIES A3, B AND C FROM TYNDP2018

To ensure that the project promoters belonging to the categories A3 + B + C, and who have been involved in the TYNDP 2018, are duly informed about the submission window for the TYNDP 2020, ENTSO-E will adhere to the following steps:

1. On the opening of the submission window (October 2019), ENTSO-E announces the opening publicly on entsoe.eu and sends an e-mail to inform all project promoters of categories A3, B and C who were included in the TYNDP 2018 of the opening of the process – using contacts made available by promoters in the TYNDP platform and PCI submission platform. ENTSO-E asks project promoters to acknowledge good reception by e-mail within 5 working days.
2. A reminder is sent by email after 3 working days.
3. Project promoters who did not send an acknowledgement are contacted by phone (if a phone number has been provided through the TYNDP and PCI platform).
4. After the 5 working days are expired, ENTSO-E sends per email to EC and ACER the list of A3, B and C project promoters who did not send an acknowledgement and asks for alternative contact points. Promoters are then contacted with the alternative contact details, if available.
5. At the closure of the submission window, ENTSO-E sends a letter to A3, B and C project promoters who did not apply to inform them that they will not be included in the TYNDP 2020, copy to EC and ACER.
6. In Q1-2020 ENTSO-E publishes on its public website a list of the TYNDP 2018 projects with an indication of whether they have applied for the TYNDP 2020.

ANNEX 2: ENTSO-E CONTACT DETAILS

ENTSO-E can be contacted by using the following contact details:

- Email: lea.dehautt@entsoe.eu
- Phone: +32 2 741 86 29
- Address: Lea Dehautt, Av. Cortenbergh 100, 1000, Brussels, Belgium

ANNEX 3: GUIDANCE ON CAPEX AND OPEX

CAPITAL EXPENDITURE (CAPEX): GUIDANCE FOR PROMOTERS

The following costs are considered to be CAPEX:

- Expected costs for permits, feasibility studies, design and land acquisition;
- Expected cost for equipment, materials and execution costs (such as towers, foundations, conductors, substations, protection and control systems);
- Expected costs for temporary solutions which are necessary to realise a project (e.g. a new overhead line has to be built in an existing route, and a temporary circuit has to be installed during the construction period);
- Expected environmental and consenting costs (such as costs to avoid environmental impacts or compensated under existing legal provisions, cost of planning procedures);
- Expected costs for devices that have to be replaced within the given period (consideration of project life-cycle); and
- Dismantling costs at the end of the equipment life-cycle.

CAPEX figures must be declared as **real values (i.e. not taking into account inflation) for each investment. The values are to be expressed as constant values in the TYNDP year.** For example, for TYNDP 2020-30 the values are to be represented in constant 2020 values.

Example:

- **For each investment the promoter should provide the aggregated real value (i.e. excluding inflation rate) of the expected capital expenditure for the investment and the year that the investment is to be commissioned.** This is illustrated by Project X, which is a cluster of three investments: investment A, investment B and investment C. Investment A is expected to be commissioned in 2022, whereas investment B and C are expected to be commissioned in 2023 and 2024 respectively.
- The assumption for Project X is that capital expenses for each investment are aggregated and represented as a single value in the year of its commissioning. Thus, the input the promoter should provide is given below:

CAPEX [M€]		COMMISSIONING YEAR
INVESTMENT A	40*	2022
INVESTMENT B	10*	2023
INVESTMENT C	20*	2024

TABLE: ILLUSTRATION OF CAPITAL EXPENDITURE INFORMATION TO BE PROVIDED BY PROJECT PROMOTERS

[Note*: the investment costs are real values in 2020 (for TYNDP2020-30) terms]

The provision of the CAPEX expenses in this way permits comparison of the project with other projects, as they can be discounted using common assumptions to the point in time for which the assessment is needed (the year in which the study is performed). **This step is not requested of the promoter.**

The costs shall be reported according to the investment status and related uncertainties, in the following manner:

- **For mature investments in the permitting or under construction status:**

Costs should be reported based on the current data of project promoters together with a transparently explained uncertainty range²⁴.

- **For non-mature investments in the planned but not yet in permitting or under consideration status**

1. if detailed project costs information is available: this should be used and applied with the same principle as for mature investments.
2. if detailed project costs information is not usually available, project promoters will multiply a set of standard investment costs (to be provided by ENTSO-E in the context of the TYNDP) with a defined project-specific complexity factor. Regarding the definition of the complexity factor, three situations should be applied:
 - a. giving a range for the standard costs per group of assets that includes a maximum and minimum value according to his expectations without project promoter explanation (see table below²⁵);
 - b. in case the project promoter according to his expectations chooses a complexity factor that exceeds the previous ranges, this choice should be explained using, for example, the description of project characteristics: e.g. terrain, routing, presence of historical landmarks, presence of other infrastructure, population density, special materials and designs, protected areas, etc.
 - c. in case the project promoter does not know anything about the project investments costs in this non-mature phase (including the effect of possible impacts of project characteristics), the costs should be equal to the standard investment costs using a complexity factor equal to 1.0²⁶.

Finally, the investment costs will be one value to which an uncertainty range is applied.

The table of maximum and minimum complexity factor per group of assets is presented below:

²⁴ For example, information presented on National Investment Plans.

²⁵ Taken for example from the ACER report according with minimum and maximum interquartile.

²⁶ This information will be updated in future TYNDP when project promoters have more detail.

Investment type	Maximum CF	Minimum CF
AC Onshore Overhead Lines (OHL)	1.30	0.50
AC Onshore Cable	1.20	0.70
Subsea Cables	1.10	0.90
AC Substation	1.30	0.60
Transformer	1.30	0.70
HVDC Converter Station	1.20	0.90

TABLE OF MAXIMUM AND MINIMUM COMPLEXITY FACTOR PER GROUP OF ASSETS

OPERATING EXPENDITURE (OPEX): GUIDANCE FOR PROMOTERS

The following costs are to be considered as OPEX:

- Expected annual maintenance costs; and
- Expected annual operation costs.

These values are real values and are to be reported as an annual average figure in constant TYNDP year (e.g. 2020 euros).

It is important to highlight what can be mistakenly considered as a component of the OPEX but **does not fall into this category**:

- system losses: they are considered in a dedicated indicator
- the cost of purchasing energy for storage investments: this is an internal variable for the SEW computation.

ANNEX 4: STUDIES ENVISAGED IN THE TYNDP2020

Project submitted in...	Project commissioning date is...	Studies performed		
		Time horizon	Scenarios	Analysis
Main submission window	Until 2034 included	2025	National Trends	Full CBA including network computations (losses)
		2030	National Trends	Full CBA including network computations (losses)
			Distributed Energy, Global Ambition	Market only CBA
	In 2035 and later	2030	National Trends, Distributed Energy, Global Ambition	Market only CBA
Submission window for future projects	After 2035	2030	National Trends	Market only CBA

The following table summarises the studies envisaged in the TYNDP 2020, including the identification of system needs study.

Time horizon	Role in TYNDP	Scenario	Scenario characteristics	Studies performed in TYNDP 2020
2025	Central scenario	National Trends	Best estimate for MAF and TYNDP	Market CBA Network computation (losses)
2030	Central scenario	National Trends	Aligned with NECPs (September 2019 data latest)	System Needs analysis (including optimal grid, boundaries analysis, no grid analysis) Full CBA including network computations (losses)

	Variance scenarios	Distributed Energy	Top Down scenarios using “carbon budget” approach	Market only CBA
		Global Ambition		
2040	Central scenario	National Trends	Bottom-up scenario. Data collected end 2018	System Needs Analysis 2040
	Variance scenarios	Distributed Energy	Top-down scenarios using climate budget approach	Not used in TYNDP 2020
		Global Ambition		