

# ENTSO-E Practical implementation document for inclusion of trasmission and storage projects in the 10-year network development (TYNDP)2018

2 October 2017



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#### 1 Introduction

The present document provides guidance to project promoters on the procedural steps and administrative and technical requirements with which the project promoters need to comply with to have their projects included in the Union-wide 10-year network development plan ("TYNDP"). ENTSO-E shall adopt the TYNDP every two years pursuant to Regulation (EC) No 714/2009 of the European Parliament and of the Council of 13 July 2009 on conditions for access to the network for cross-border exchanges in electricity and repealing Regulation (EC) No 1228/2003 ("Regulation 714/2009"). These guidelines apply in the context of TYNDP 2018.

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

- Type of applicant the project promoter is;
- Technical and administrative criteria their projects will be required to meet;
- Documents and information they will be required to submit to fulfil these criteria;
- Use and circulation of the information submitted, and;
- Other use of information regarding their application, including useful contact details. By describing the TYNDP development items—including application procedure, timelines, legal and technical requirements, project promoters 'rights, access to data and confidentiality principles— these guidelines implement the Regulations (EC) No 714/2009 requirement of ensuring equal treatment and transparency of the TYNDP process.

## 2 TYNDP 2018 PROCESS

In order to ensure greater transparency regarding the entire electricity transmission network in the EU, ENTSO-E shall draw up, publish and regularly update a non-binding TYNDP.

The TYNDP is a biennial plan built upon national and regional development plans of the needs and planned developments at a pan European scale. It assesses needs for the transmission system into and within Europe and thereafter planned development projects submitted by project promoters to address these needs.

The TYNDP process is phased (Fig 1.) in its development to be able to complete by the end of 2018 the full range of work the plans creation requires.



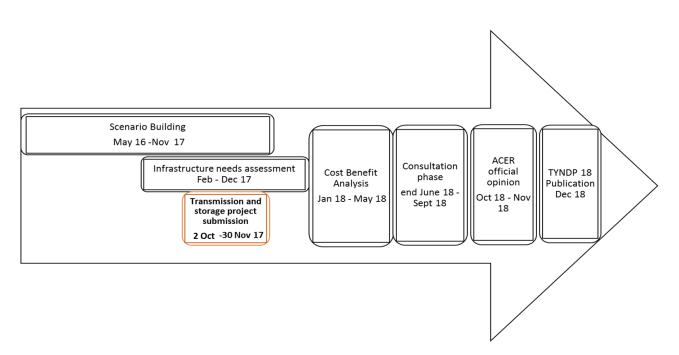


FIGURE 1: PHASES AND TIMELINE OF DEVELOPMENT OF THE TYNDP 2018

As a consequence of the necessarily tight TYNDP time planning the timely submission of projects by project promoters is essential to ensure an overall timely delivery of TYNDP 2018 in line with stakeholders' expectations and needs.

The submission will be done through an online tool which ENTSO-E will make available on the ENTSO-E website in due time.

Candidates will have to submit their project applications until the end November 2017. During this period and for the month thereafter ENTSO-E will consider these applications and their compliance with the criteria set out in section 4 below.

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 2018.

During January-February 2018 ENTSO-E will inform the promoters about their acceptance/rejection for inclusion in the TYNDP. The final ENTSO-E decision will be also made public on the ENTSO-E website in March 2018. The TYNDP 2018 projects list will be further consulted within the TYNDP 2018 package during summer 2018.

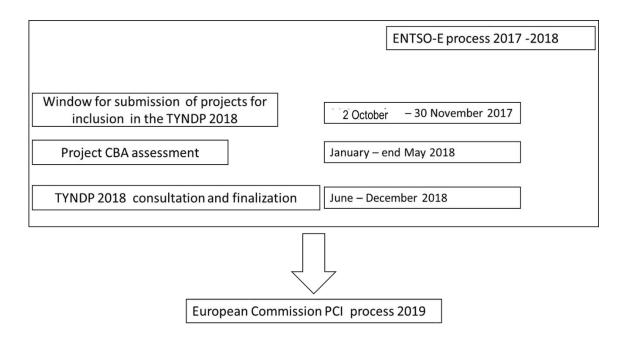
## 3 LINK BETWEEN THE TYNDP AND PCI PROCESS

In order to comply with the Regulation (EU) 347/2013 Annex III.3 (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 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 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 (CBA) 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.



Based on the last PCI process it is highly likely that the input data and results of the TYNDP cost and benefit analysis need to be shared with the EC Regional Groups in order they can assess the contribution of a project according to the different criteria laid down in the TEN-T Regulation..

# 4 CRITERIA TO BE FULFILLED IN ORDER TO ALLOW A PROJECT TO BE PART OF THE **TYNDP**

This chapter includes the technical and administrative criteria that each project of the TYNDP 2018 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 2018.



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.

A TYNDP project promoter can fall under the following categories:

- **A.** Promoter of transmission infrastructure project within a regulated environment according to Regulation (EC) No 714/2009, which can be either:
  - **A.1.** a project promoter which holds a transmission operating license and operates 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; 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
- **B.** Project promoter of transmission infrastructure projects within a non-regulated environment: promoter of which investments can be exempted in accordance with Article 17 of Regulation (EC) No 714/2009.
- C. Project promoters of storage projects.

# 4.1 FOR THE TRANSMISSION PROJECTS

# 4.1.1 ADMINISTRATIVE CRITERIA

The following table shows the list of administrative pass-fail criteria. All must be fulfilled.

	A1	A2	A3+B
a. Unbundling	The project promoter shall already respect the European U		
(all)	time of entry into operation of the project. The project promoter shall be able at any moment in time to prove the conformity with the		
	EU legislation or the step it has taken to conform with it	(including also if any steps taken wit	h regards to the request to obtaining
	exemption).		
b.Company existence	stence The project promoter shall be a registered undertaking or a subsidiary of a registered undertaking that has been in existence for at		
(all)	least 1 year before the date of submission (for more advance projects) or less than 1 year (only for project "under consideration phase")		
<b>c.Financial strenght</b> The assets of the undertaking or its shareholders shall amount to		ount to at least 1 million euros.	
(all)			
d.Technical expertise (all)	The project promoter has the technical expertise to realize the project by its own or by using subcontractors.		

The following table shows a list of alternative 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.

	A1	<b>A2</b>	A3+B
e.PCI (all)	PCI label in the last available PCI lis	t <sup>2</sup>	
f.National plan (more advanced)	Inclusion in the last available FINALISED National Development Plan (NDP) of at least one ENTSO-E country		
<b>g.National plan (under consideration)</b> Inclusion in the last available DRAFT <sup>3</sup> National Dev		Γ <sup>3</sup> National Development Plan of	at least one ENTSO-E country
h.MS / NRA agreement (under consideration)  Project shall have a signed agreement between the competent ministries or regulators			s or regulators
i.Exemption process (more advanced)	Valid (not rejected) application for ex (EC)714/2009) or equivalent	kemption under the European regu	llations (Article17of Regulation
j.TSO agreement or processes	Signed agreement <sup>4</sup> with all the concerned TSOs members of ENTSO-E OR Positive <sup>5</sup> Feasibility study (within the validity period) performed or approved by all the concerned TSOs		
(under consideration) )			

<sup>&</sup>lt;sup>1</sup> More advance 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), or are certain to be submitted for inclusion in the next national development & completed the phase of initial studies (e.g. completed pre-feasibility or feasibility study), 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.

<sup>&</sup>lt;sup>2</sup> In case of application for inclusion in the 3<sup>rd</sup> PCI list, ENTSO-E will take into consideration its application and this criteria will be rechecked when the PCI 3<sup>rd</sup> list will be published by the European Commission – expected mid November 2017.

<sup>&</sup>lt;sup>3</sup> DRAFT national development plan means a NDP prepared by the TSO (or TSOs or responsible entity) which has not yet completed the scrutiny process in its country (e.g. it did not yet receive the MS or NRA approval, it did not yet receive the MS or NRA evaluation/opinion).

<sup>&</sup>lt;sup>4</sup> 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)

<sup>&</sup>lt;sup>5</sup> 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

k.Studies (under	Resulting from an ENTSO-E	Official request or signed	Official request or signed contractual
consideration)	system needs study (IoSN or	contractual agreement with all	agreement with all the concerned TSOs
	RgIPs).	the concerned TSOs to perform a	to perform a pre- feasibility or feasibility
		pre- feasibility or feasibility	study <sup>6</sup> by 10 November 2017.
		study by 10 November 2017.	

### 4.1.2 TECHNICAL CRITERIA

The following table shows the list of technical pass-fail criteria: All must be fulfilled.

	A1	<b>A2</b>	A3+B
<b>l.Technical</b> Main equipment is:			
description	<ul> <li>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</li> <li>a high-voltage overhead transmission line designed for a transmission voltage of 220 kV or more in the case of internal infrastructure OR</li> <li>a high voltage underground/submarine transmission cable designed for a voltage of 110KV or more.</li> </ul>		
m.Location	Main equipment at least is partially located in one of the 34 countries represented within ENTSO-E		
n.Initial estimation of the Transfer capacity increase	The initial estimation of the net transfer capacity increase  - for the cross-border infrastructure: no minimum l	imit is imposed	
<ul> <li>increase - for the internal infrastructure a minimum of 100 MW increase at the bor</li> <li>o.Project network All the project characteristics necessary to model the project in the network tool</li> </ul>		ect in the network tool used by ENTS	•
modelling data	process. The detail of this data is include in the appendix under the technical data for storage.		

<sup>&</sup>lt;sup>6</sup> The list of TSOs contact can be found on the submission platform. Official request means any form of communication (e.g. email, form) that is in line with the involved TSOs process.

p.Date of	- Date of commissioning and status of the project of each of the investment items part of the project.	
commissioning,	- CAPEX and OPEX of each of the investment items part of the project.	
status and costs <sup>7</sup>	Note: the cost data will be asked from the project in Q1/2018. This data is mandatory and therefore any non-	
	compliance will result in the exclusion from the final TYNDP.	

Additionally, the project promoters will be contacted one month after the finalization of the Identification of System Needs (IoSN) report with a request to link their projects to the needs identified in the IoSN report or the latest available regional or national plans. Project promoters will have to provide this update during a dedicated submission window of one month. This link will be done through an online tool.

This additional information is not part of the pass-fail criteria for inclusion in the TYNDP, as the criteria mentioned in the table above. This additional requirement will be reflected in the published TYNDP 2018 projects sheets and is only for giving further information on the project.

#### 4.2 FOR THE STORAGE PROJECTS

#### 4.2.1 Administrative criteria

The following table shows the list of administrative pass-fail criteria: All must be fulfilled.

	С
<b>a.Company existence</b> (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 advance projects) or less
	than 1 year (only for project "under consideration phase")
b.Financial strength (all)	The assets of the undertaking or its shareholders shall amount to at least 1 million euros

<sup>7</sup> Note: - The the validity of this data will be checked by ENTSO-E based on check rule discussed with ACER against general project development (status and commissiong date) and reference costs.

c.Technical expertise (all)	The project promoter has the technical expertise to realize the project by its own or by using
	subcontractors

The following table shows a list of alternative 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
d.PCI (all)	PCI label <sup>8</sup> in the last available PCI list
e.National plan (more advanced)	Inclusion in the last FINALISED available National Development Plan (NDP) of the ENTSO-E country
	where the storage will be build
f.National plan (under consideration)	Inclusion in the last available DRAFT national plan of the ENTSO-E country where the storage will be
	build
g.TSO agreement or processes (more	Signed connection agreement with the TSO within the ENTSO-E country where the storage will be
advanced)	build
h.Studies (under consideration)	Feasibility/pre-feasibility study performed or approved by the TSO within the ENTSO-E country where the storage will be build OR official request <sup>9</sup> for performing such studies to the impacted TSO by 10 November 2017

 $<sup>^{8}</sup>$  In case of application for inclusion in the  $3^{rd}$  PCI list, ENTSO-E will take into consideration its application and this criteria will be rechecked when the PCI  $3^{rd}$  list will be published by the European Commission – expected mid November 2017.

<sup>&</sup>lt;sup>9</sup> The list of TSOs contact can be found on the submission platform. Official request means any form of communication (e.g. email, form) that is in line with the involved TSOs process.

# 4.2.2 TECHNICAL CRITERIA

The following table shows the list of technical pass-fail criteria: All must be fulfilled.

	С		
i.Technical description  The project shall be an electricity storage facility used for storing electrical energy into another energy in producing electricity at a later date on a permanent or temporary basis in above-ground or underground infrastructure or geological sites			
j.Capacity & Generation	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/year <sup>10</sup> ,		
<b>k.Voltage level</b> The project is directly connected to the high-voltage transmission network for a voltage of 110kV or m			
<b>1.Location</b> The project is partially located and directly connected to one of the 34 countries represented within EN			
m.Project network/market All the project characteristics necessary to model the project in the network tool used by ENTSO-E			
modelling data assessment process. The detail of this data is include in the appendix under the technical data for			
n. Date of commissioning, - Date of commissioning and status of the projects of the project.			
status of the project and costs	- CAPEX and OPEX of the project.		
	Note: the cost data will be asked from the project in $Q1/2018$ . This data is mandatory and therefore any non-compliance will result in the exclusion from the final TYNDP.		

Regulation (EU) 347/2013, Annex IV.1. (b);
 Regulation (EU) No 347/2013, Annex II.1. (c)

Additionally, the project promoters will be contacted one month after the finalization of the Identification of System Needs (IoSN) report with a request to link their projects to the needs identified in the IoSN report, or the latest available regional or national plans. Project promoters will have to provide this update during a dedicated submission window of one month. This link will be done through an online tool.

This additional information is not part of the pass-fail criteria for inclusion in the TYNDP, as the criteria mentioned in the table above. This additional requirement will be reflected in the published TYNDP 2018 projects sheets and is only for giving further information on the project.

#### 5 DATA HANDLING AND ACCESS TO THE PROJECT ASSESSMENT

#### 5.1 ACCESS TO AND USAGE OF THE PROVIDED DATA AND DOCUMENTATION

Project promoters shall deliver to ENTSO-E information needed to assess the project (see technical data chapter). By default all the information submitted to ENTSO-E is considered non-confidential with the exception of the documentation submitted to prove the fulfilment of the administrative criteria (excluding references to the National Development Plans and PCI list).

All the technical data necessary to run a CBA assessment and the outcomes of such of assessment are deemed public.

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

#### 5.2 UPDATE OF TECHNICAL DATA

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

In case of incomplete submission of information during the application period, ENTSO-E will send a formal request to the Project promoter to complete the missing information within a specific window of submission. If the missing information does not allow a full CBA calculation of the project, this specific projects will be disregarded, and not included and assessed in the TYNDP.

Updates of project information shall be dealt with in the following manner:

- In case of incorrect information, submitted within the submission window (2 October- 30 November 2017) the promoter shall inform ENTSO-E of this error. The updated data shall be send to ENTSO-E no later than mid-January.
- During the assessment phase (January-June 2018) no data update will be accepted by ENTSO-E.
- If the project information changes from the moment of confirmation of acceptance in the TYNDP and the start of the TYNDP consultation, the promoter can update the project information during the

TYNDP consultation phase. This update will be included in the respective TYNDP project sheet and 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.

Further, during Q1-Q2/2018 ENTSO-E will invite the promoters to deliver additional information within a clearly mentioned period, which will be used to complete, aside of the ENTSO-E CBA assessment, their respective project sheets. This information is:

- Linking the project with the system needs after the availability of the ENTSO-E report on infrastructure needs IoSN and the regional investment plans, project promoters will be requested to indicate which infrastructure need(s) their project contributes to. Promoters will explain the motivation for the project, including a qualitative description of the investment need that the project addresses giving reference to TYNDP assessments or other studies, and the project's role in supporting at least one of the 3 pillars of EU energy policy (market integration, sustainability, secure system operation.
- Deliver the cost of the project (CAPEX and OPEX at the investment level) and the cost justification in line with the Cost Benefit Methodology into force.
- Deliver the project code and page number of the project in the last available National Development Plans for all the ENTSO-E countries directly concerned and if currently not part of any NDP to justify why not and what are steps the promoter intends to follow in this respect.
- 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.

#### 5.3 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 promoter's projects.

Therefore ENTSO-E will send to project promoter's single point of contact at least one months in advance of public consultation of the TYNDP the specific assessment results for their project[s]. If deemed necessary and upon promoters request ENTSO-E will organize a meeting with ENTSO-E experts and promoter's one in order to clarify the outcomes of the assessment.

On review of these results, project promoters may have questions or queries with regard to the results. 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 may wish to discuss, including the project promoters upcoming availability.

In conjunction and in preparation for project promoters and stakeholders, ENTSO-E will be hosting 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 are published with a brief synopsis and registration details at: <a href="https://www.entsoe.eu/news-events/events/Pages/default.aspx">https://www.entsoe.eu/news-events/events/Pages/default.aspx</a>.

Further information on the development and content of the TYNDP2018 can be found at: <a href="http://tyndp.entsoe.eu/tyndp2018/">http://tyndp.entsoe.eu/tyndp2018/</a>.

#### 5.4 RIGHT TO REQUEST A REVIEW

All information submitted in the ENTSO-E template for project promoters to apply for their projects to be included in the TYNDP 2018, shall be treated in line with section 5.1 above.

In case of disagreement with the ENTSO-E assessment and/or decision on a project, the concerned project promoter shall inform by email ENTSO-E.

Within this review phase, the ENTSOs may consult the Commission and the Agency and if deemed necessary, they may also consult on an ad-hoc basis the relevant stakeholders when considering the project promoters' justifications. When taking its final decision, the competent ENTSO should duly take into account the expressed views.

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.

# 6 APPENDIX: REQUIRED DOCUMENTATION TO PROVE THE FULFILMENT OF ADMINISTRATIVE AND TECHNICAL CRITERIA

#### 6.1 TRANSMISISON PROJECTS

#### 6.1.1 ADMINISTRATIVE DOCUMENTATION

Information requested to fulfill the administrative pass-fail criteria:

	<b>A1</b>	A2	A3+B
a. Unbundling (all) On its own responsibility <sup>12</sup> the promoter shall confirm/not the fulfillment of the European Un Energy Package or, its commitment to comply with the unbundling EU requirements latest by project.			
b.Company existence	Already available to	The statutes of the registered undertak	king
(all) c.Financial strength (all)	ENTSO-E Already available to ENTSO-E		nitted to the national tax office no later than 2015. is information is to be proven with the company existence

<sup>&</sup>lt;sup>12</sup> 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 taking to conform to it.

d.Technical expertize	Already available to	Information on the industrial undertaking and its technical expertise, including references from other
(all)	ENTSO-E	relevant projects

Information requested to fulfill the administrative alternative criteria:

	<b>A1</b>	A2	A3+B
e.PCI	PCI number and definition as in the last approved EC published PCI list.		
(all)	In case of application for inclusion in the 3rd 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 PCI 3rd list <sup>13</sup> will be published by the European Commission.		
f.National plan	The reference (e.g. project code) of the project in the last available National Development Plans (validated by the		
(more advanced)	corresponding NRAs) 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		
g.National plan	The reference (e.g. project code) of the project in the last available Draft National Development Plans of at least one ENTSO-E		
(under consideration)	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		
h.MS / NRA	The signed agreement on the project proceeding between the ministries or between the regulators of the impacted countries,		
agreement (under	and the recent amendments for it if any.		
consideration)			
i.Exemption process	The acknowledgment receipt of the application for the exemption pursuant to Art. 17 of Regulation (EC) No 714/2009 from		
(more advanced)	the responsible regulatory authorities of the concerned EU countries.		
j.TSO agreement or	Already available to	The signed common agreement with the	The signed connection agreement with all the
processes	ENTSO-E	concerned TSO/s who is/are member/s of	concerned TSOs,
(under consideration)		ENTSO-E, regarding the development of the	
		submitted project OR	

		All the impacted ENTSO-E TSO positive feasibility <sup>14</sup> /pre-feasibility <sup>15</sup> studies, or their signed approval on the project's study, performed by another party	All the impacted ENTSO-E TSO positive feasibility <sup>16</sup> /pre-feasibility <sup>17</sup> studies, or their signed approval on the project's study, performed by another party
k.Studies (under consideration)	Already available to ENTSO-E	The official request to all the impacted TSO <sup>18</sup> to perform a pre-feasibility/feasibility study by 10 <sup>th</sup> November 2017.	

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<sup>&</sup>lt;sup>14</sup> 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.

<sup>&</sup>lt;sup>15</sup>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.

<sup>&</sup>lt;sup>16</sup> 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.

<sup>&</sup>lt;sup>17</sup>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.

The list of TSOs contact can be found on the submission platform. Official request means any form of communication (e.g. email, form) that is in line with the involved TSOs process. The written information sent to the impacted TSOs shall include as minimum the purpose the project, the need it addresses, the location and overall project planning including when the promoter intends to interact with the TSO/s and the national regulators, and the evidence to have entered into a contractual agreement with all the impacted TSOs to perform a prefeasibility or feasibility study.

# 6.1.2 TECHNICAL DOCUMENTATION

Information requested to fulfill the technical pass-fail criteria:

		A1	A2	A3+B
1.Technical description		f technical description of the projects: hnology (AC/DC) and voltage level; en		additional investment items, with
m.Location	Locati	on of the project in the ENTSOE map	- GIS coordinates	
n. Initial estimation of the	i.	An assessment of the increase in the	transfer capacity which the project wi	ll enable, expressed in MW.
Transfer Capacity increase	ii.	An explanation of the use of that tranand/or securing load growth)	nsfer capacity increase (cross-border i	mpact, generation connection,
o. Project network modelling data	i.	electro-technical parameters of the p network studies:	roject which are necessary to model the	ne proposed investment in the
		type of conductor, nr/phases, resistant	<b>afrastructure:</b> connection points (subnece (R), reactance (X), conductance (R)	3), thermal limit (Imax), km of the
			the route to each border, if the infras ENTSO-E website at the date of public	
		For a direct current (DC) infrastr	ucture: connection points (substations tage, capacity, km to each border if the	s name), type of conductor, type of
			y range at terminals, bus-bar to bus-ba	
	ii.		rentiating between planned and forced	
		failure according to the design		
	iii.		'under consideration" phase the list an	
			he project in the transmission network	based on the affected TSO analysis
	iv.	Main environmental impact		
p.Date of commissioning, status	i.	A estimation of the commissioning of		
and the cost of the project	ii.		an including pre-feasibility and feasibi	
			s, manufacturing, construction and co	
	iii.		item, indicating whether the project is	
		(prefeasibility/feasibility studies), "p construction"	lanned, but not yet in permitting", "in	permitting" or "under
	iv.	The total investment cost (and for ear operation and maintenance cost: CA	sch investment item) at the commission APEX +OPEX	ning year value and yearly

Note: the cost data will be asked from the project in Q1/2018. This data is mandatory and therefore any non-compliance will result in the exclusion from the final TYNDP.

Important: every project which is currently present in the National Development Plans (final or draft) or currently not (and in this case to justify why not), indifferent of the administrative criteria the promoter delivers prove of compliance for, 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. This information will be requested in Q1/2018 together with linking the project with the system needs.

#### 6.2 STORAGE PROJECTS

#### 6.2.1 ADMINISTRATIVE DOCUMENTATION

Information requested to fulfill the administrative pass-fail criteria:

	С
a.Company existence (all)	The statutes of the registered undertaking
b.Financial strength (all)	The last available balance sheets submitted to the national tax office no later than 2015. For companies younger than 1 year this information is to be taken from the company existence documentation.
c.Technical expertize (all)	Information on the industrial undertaking and its technical expertise, including references from other relevant projects

Information requested to fulfill the administrative alternative criteria:

C

d.PCI	PCI number and definition as in the last approved EC published PCI list.
(all)	In case of application for inclusion in the 3rd 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 PCI 3rd list <sup>19</sup> will be published by the
	European Commission.
e.National plan (more advanced)	The reference (e.g. project code) of the project in the last available National Development Plans (validated by the corresponding NRAs) 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
f.National plan (under consideration)	The reference (e.g. project code) of the project in the last available Draft National Development 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
g. TSOs agreement	The signed connection agreement with the impacted TSO.
and processes agreement	
(more advanced)	
h.Studies (under consideration)	The impacted ENTSO-E TSO feasibility <sup>20</sup> /pre-feasibility <sup>21</sup> studies, OR their signed approval, on the project's study, performed by another party OR the official request <sup>22</sup> to all impacted TSO <sup>23</sup> s, by 10 <sup>th</sup> November 2017, to perform a feasibility/pre-feasibility study

<sup>&</sup>lt;sup>20</sup> 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.

<sup>&</sup>lt;sup>21</sup> 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.

<sup>&</sup>lt;sup>22</sup> The list of TSOs contact can be found on the submission platform. Official request means any form of communication (e.g. email, form) that is in line with the involved TSOs process

<sup>&</sup>lt;sup>23</sup> the written information sent to the impacted TSOs shall include as minimum the purpose the project, the need it addresses, the location and overall project planning including when the promoter intends to interact with the TSO/s and the national regulators, and the evidence to have entered into a contractual agreement with all the impacted TSOs to perform a prefeasibility or feasibility study.

# 6.2.2 TECHNICAL DOCUMENTATION

Information requested to fulfill the technical pass-fail criteria:

	С	
i.Storage facility	Brief technical description of the storage project: type of storage (hydro, pure pumping or including natural inflow; battery, type of technology used; etc.),	
j.Capacity & Generation	<ul> <li>i. Installed electric generating capacity<sup>24</sup>,including maximum active power (MW) and reactive power (Mvar), and minimum values different from zero.</li> <li>ii. Total storage capacity<sup>25</sup>, and installed electric storing capacity including maximum active power (MW) and reactive power (Mvar), and minimum values different from zero.</li> </ul>	
k.Voltage level	The connection point to the transmission infrastructure, the voltage at the connection point (>=110kV)	
<b>l.Location</b>	Location of the project in the ENTSOE map and UTM coordinates	
m.Date of commissioning, status and the	i. A estimation of the commissioning date	
cost of the project	<ul> <li>ii. A timeline of the implementation plan including pre-feasibility and feasibility studies, engineering design, exemption and permitting procedures, manufacturing, construction and commissioning</li> <li>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";;</li> <li>iv. The total investment cost of the project at the commissioning year value, and the annual operation and maintenance costs (including the cost of purchase of energy): CAPEX+OPEX</li> <li>Note: the cost data will be asked from the project in Q1/2018. This data is mandatory and therefore any non-compliance will result in the exclusion from the final TYNDP.</li> </ul>	

Must be higher than 225 MW - As requested by Regulation (EU) 347/2013, annex IV, Art. 1(b);
 Storage capacity should be defined as total energy delivered to the grid when reservoir is totally emptied, starting at reservoir full condition.
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Important: every project which is currently present in the National Development Plans (final or draft) or currently not (and in this case to justify why not), indifferent of the administrative criteria the promoter delivers prove of compliance for, 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. This information will be requested in Q1/2018 together with linking the project with the system needs.

# 1 ANNEX 2: ENTSO-E CONTACT DETAILS

ENTSO-E can be contacted for this specific topic by using the following contact details:

- Email: <u>TYND2018@entsoe.eu</u>

- Phone: + 32 27410962 or +32 27410979

- Address: Av. Cortenbergh 100, 1000, Brussels, Belgium