

TYNDP2020 2nd webinar for project promoters

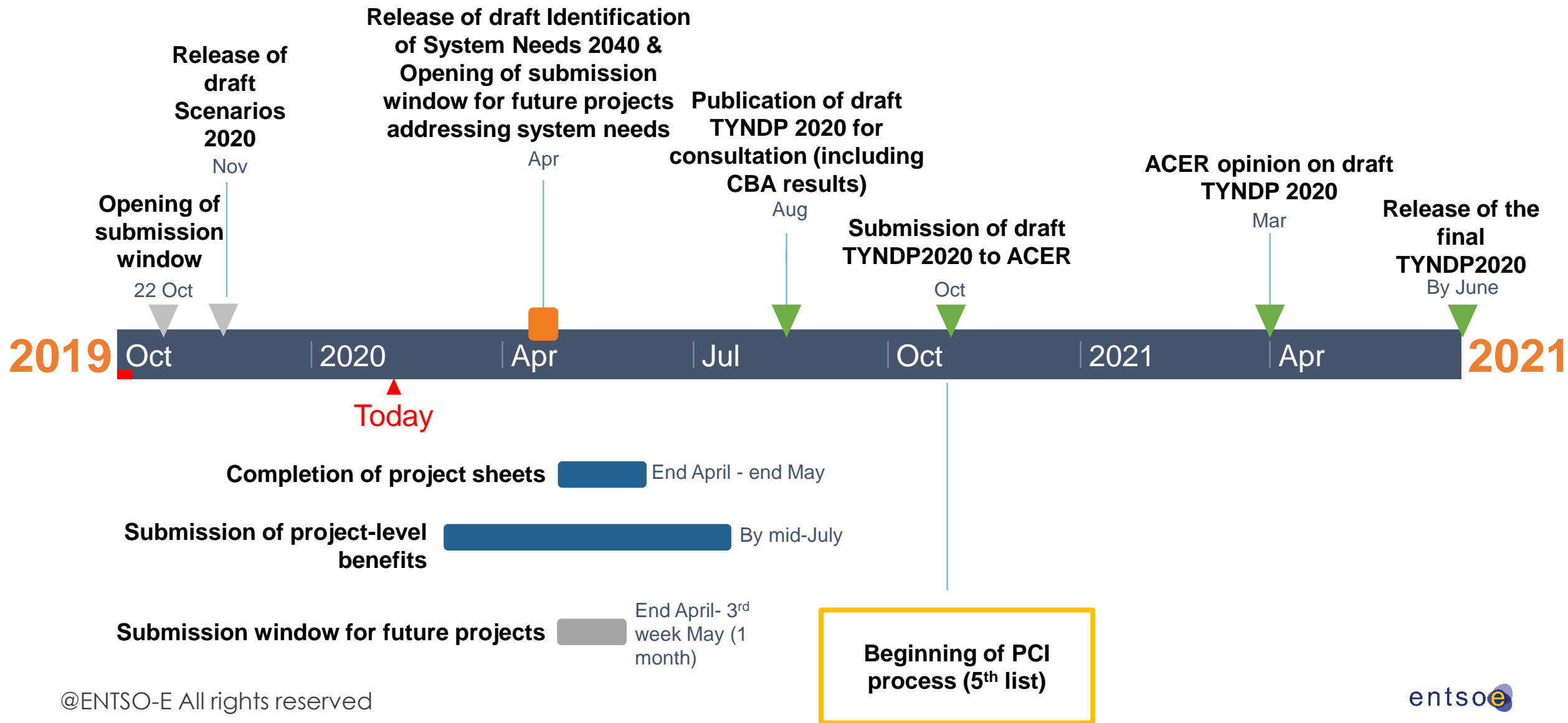
19 February 2020

Agenda

1. TYNDP2020 development timeline
2. CBA methodology and project level benefits
3. TYNDP2020 projects sheets
 - Presentation of the new format
 - Additional information required to complete the project sheets
 - System needs addressed by the projects
4. Next steps

TYNDP2020 development timeline

TYNDP 2020 development timeline



April 2020

ENTSO-E publishes the identification of system needs (IoSN) for 2040

Projects promoters specify which project needs their project addresses and are asked to submit additional information to complete the project sheets

Early May: ENTSO-E organises workshops for TYNDP 2020 project promoters to answer promoters' questions on:

- the additional information required
- the CBA methodology & project-level benefits
- the publication of projects information & of CBA results in the project sheets.

June 2020

June - July : ENTSO-E shares the CBA results with project promoters

August 2020

ENTSO-E releases the projects sheets, including the CBA results, as part of the draft TYNDP2020 package for public consultation

CBA methodology & project-level benefits

Draft 3rd CBA Guideline v after consultation

ENTSO-E has recently published the draft 3rd CBA Guideline in its version:

- after consultation
- for ACER submission

This new version of the draft CBA Guideline accompanied with consultation answers & consideration on the inclusion of stakeholders' input is available at [this link](#).

The 3rd CBA Guideline learns from the TYNDP 2018 Missing Benefits experience and introduce the concept of Project level indicators based on promoters' input ([Guideline chapter 3.4 and 6.26](#)):

These indicators represent benefits or costs of a project (transmission or storage), which have been identified as important for a complete Cost-Benefit Analysis, but that ENTSO-E is not able to assess at a Pan-European level within the TYNDP process. For these indicators the 3rd CBA guideline provides a definition, a clear perimeter of application and a methodology that must be followed in order to properly assess them.

Although the Pan-European nature of these indicators is recognized, it is acceptable to assess them relying on a regional or even national perimeter to deal with their inherent complexity.

The 3rd CBA guideline then includes the possibility, within the TYNDP process, to include the submission of these indicators by the competent project promoter until TYNDP ENTSO-E processes are able to provide a Pan-European assessment

Project-level benefits

In light blue you will find in which chapter of the 3rd CBA Guideline the indicator and the requested methodology for its computation is described

Indicators for transmission:

- B7.1 Security of supply - System flexibility – Balancing energy exchange (**chapter 6.10**)
- B8 Frequency stability (**chapter 6.11**)
- B8.2 Blackstart services – Specific application: Synchronization with Continental Europe (**chapter 6.11**)
- B9 Avoidance of the Renewal/Replacement Costs of Infrastructure (**chapter 6.12**)
- B10 Reduction of Necessary Reserve for Redispatch Power Plants (**chapter 6.13**)

Indicators for storage:

- B7 Security of supply - System Flexibility (**chapter 6.10**)
- B8 1 Frequency stability (**chapter 6.20**)
- B9 Avoidance of the Renewal/Replacement Costs of Infrastructure(**chapter 6.12**)
- B10 Reduction of Necessary Reserve for Redispatch Power Plants(**chapter 6.13**)

N.B. Re-dispatch computation for other market CBA indicators is possible only for internal projects within the TYNDP 2020 framework

Principles and rules to declare a project-level benefit

- Submission of one or several project-level benefit(s) is optional. You are free not to submit any.
- Submitted benefits must comply with the draft CBA Guideline 3.0.
- Submitted benefits should be preferably based on ENTSO-E TYNDP 2020 Scenarios.
- No qualitative assessment will be accepted: all submitted benefits must be backed by a study and must be quantified or monetized.
- The study must be regarding the specific project at hand. Benefits based on generic studies (e.g. assessing the technology) will not be accepted.
- In principle, the value of the benefit will be published in the projects sheets. You may only submit benefits which ENTSO-E can publicly display. The study and dataset on which the declared benefit is based will not be published, but may be shared with the EC and ACER in the context of the PCI process.
- The mere submission of the project level benefit does not guarantee that the indicator submitted is considered valid. The validity of the project level benefit will be verified by ENTSO-E during the Public Consultation period.

How to submit a project-level benefit? (1)

In general, here is the information that will be requested for each indicator	Published in the project sheet?
Statement by the promoter that the study performed complies with the draft CBA Guideline 3.0, and explanation on how the compliance is respected.	Yes
Promoter's statement that the study has specifically assessed the selected indicator for the project	No
Is the benefit quantified (specify the unit) or monetised (in Meuro)? → If the unit of the quantified value has been already specified in the 3 rd CBA Guideline this has to be confirmed and respected	Yes
[If the study is based on ENTSO-E NT scenarios] Value of the benefit for NT2030 (compulsory) and NT2025 (optional) in Meuro or in the unit selected	Yes
[If the study is based on another scenario] Value of the benefit for each scenario (max 2 with 2030 and 2025 time horizon) + Name and description of the scenario (including data source); upload of scenario dataset; justification for the use of another scenario; to which ENTSO-E scenario among 2030 NT and 2025 NT can the scenario be associated to, and why?	Only the value of the benefit is published
Description on the study's assumptions and justification for the assumptions taken and data source	Yes
Upload of the assumption datasets if extra assumptions, beyond the scenarios, are needed to compute the specific indicator	No

How to submit a project-level benefit? (2)

In general, here is the information that will be requested for each indicator	Published in the project sheet?
Upload of the study in English	No
Year of the study	Yes
Entity who performed the study	No
Indicate page of the study where assumptions are described	No
Indicate page of the study where the implemented methodology is described	No
Indicate page of the study where the results of the study declared above for your project are displayed	No
Clear statement and explanation on how the figures provided in the study relate to countries within the ENTSO-E perimeter only	
Optional additional information (non mandatory): specify if an external body, beyond the entity who has performed the study, has reviewed or approved the study	Yes

Insight and explanation on Flexibility

Complete methodology is described in Chapter 6.10 of the Guideline.

Until the dataset and assumptions needed for this indicator are not consolidated and tested, it is not recommended to assign a monetary value to this benefit.

→ Promoters have to provide a study that can provide quantified or monetized results: these results, after ENTSO-E review, will be translated into a qualitative indicator

- 0: No change: the technology/project has no (or just marginal) impact on the Balancing Energy Exchanges indicator.
- +: Small to moderate improvement: the technology/project has only a small impact on the Balancing Energy Exchanges indicator.
- ++: Significant improvement: the technology/project has a big impact on the Balancing Energy Exchanges indicator.

Insight on frequency stability for transmission

For transmission project the qualitative frequency stability indicator is kept as from the 2nd CBA Guideline

Element	Transient Stability	Voltage Stability	Frequency Stability
New AC line	++	++	0
New HVDC	++	++	+ (between sync areas)
AC line series compensation	+	+	0
AC line high temperature conductor/conductor replacement (e.g., duplex to triplex)	-	-	0
AC line Dynamic Line Rating	-	-	0
MSC/MSR (Mechanically Switched Capacitors/Reactors)	0	+	0
SVC	+	+	0
STATCOM	+	++	0
Synchronous condenser	+	++	++

- : Adverse effect: the technology/project has a negative impact on the respective indicator.
- 0: No change: the technology/project has no (or just marginal) impact on the respective indicator.
- +: Small to moderate improvement: the technology/project has only a small impact on the respective indicator.
- ++: Significant improvement: the technology/project has a large impact on the respective indicator.
- N/A: Not relevant: if a particular project is located in a region where the respective indicator is seen as not relevant,⁴⁴ this should also be highlighted by reporting as N/A.

But It is now possible to add additional, quantified, non-monetized indicator on Frequency quality targets (energy aspect) for **HVDC interconnectors between synchronous areas**

Insight on frequency stability for storage

For storage project the qualitative frequency stability indicator relies on promoters' input according to the following conversion table.

KPI	Score	Motivation
Response time – FCR ⁴⁹	0 = more than 30 s + = less than 30 s ++ = less than 1 s	30 s : ramp time of FCR 1 s : typical inertia time scale
Response time – including delay time of IT and control systems	0 = more than 200 s + = less than 200 s ++ = less than 30 s	200 s: FRR ⁵⁰ ramp time 30 s: FCR ramp time
Duration at rated power – total time during which available power can be sustained	0 = less than 1 min + = less than 15 min ++ = 15 min or more	1 min : double the response time of FCR 15 min : Typical PTU ⁵¹ size
Available power – power that is continuously available within the activation time	0 = below 20 MW + = 20 - 225 MW ++ = 225 MW or higher	20 MW : 1%-2% of a typical power plant is reserved for FCR and reachable from a project perspective 225 MW : PCI size

The score corresponds to the input
from the promoter

Next steps

- March: Publication of implementation guidance for promoters on project-level benefits & Information on the process to obtain scenario data / NDA template (PEMMDB 2.1)
- April 2020: the submission form will become accessible
- **Mid-July 2020:** Deadline to submit project-level benefits
- Mid-July to September 2020: ENTSO-E reviews the submitted benefits
- August 2020: Publication of the submitted project-level benefits in the project sheets with the draft TYNDP2020 package for public consultation
- October 2020: Publication of the validated project-level benefits in the projects sheets and submission to ACER with the draft TYNDP2020 package (post public consultation)

TYNDP 2020 project sheets

Projects sheets – Status & new format

-> Webpages presenting each project: project description, technical data and results of the CBA

Status:

- Draft projects sheets were consulted with promoters, stakeholders, the EC and ACER from November to January 2020.
- Project sheets will be accessible to promoters online starting from April 2020
- April-May: completion of the projects sheets with additional information
- August: Publication of the project sheets

Main changes compared to 2018:

- Improved structure and readability of information: separate key information on the project, technical information and CBA results
- Possibility to publish audiovisual material on your project

[Transmission project sheet template](#)

[Storage project sheet template](#)

Additional information window (April-May 2020)

Background

The requested information is needed for:

- Compliance with the CBA Guideline 3.0
and/or
- ACER request / Completion of the project sheets

All additional information is meant to be published in the projects sheets.

Submission window for additional information: end April until end of May

Concerns both transmission and storage projects

Mandatory information

To comply with the draft CBA Guideline 3.0:

- Residual impact
- CAPEX at inception and CAPEX incurred during the life-cycle of the project (time window of 25 years)

Upon ACER request:

- Type of element per investment (align with reporting to ACER)
- New project / upgrade / mostly upgrade / mostly new (align with reporting to ACER)

To improve the projects sheets:

- Related projects (Number, name and url to the project sheet of related projects (for example, the transmission project necessary for connecting a storage project to the grid)
- review/edit the project description (we will provide guidance on what the description should focus on)

Optional information

- Upload promoters logos
- Upload videos
- Possibility to edit 'additional information on the project' : url to project website, link to studies, media articles,...
- Possibility to provide updated data after the deadline for CBA assessment : e,g, correction of an error in the technical data. The data will be include in a separate field, with a mention that it was not considered for the CBA assessment.

Next steps:

- Opening of the submission window: 3rd week of April, until end of May (submission via the online platform)
- By the opening of the submission window, we will circulate a guideline listing all information required and the format in which it should be provided.

System needs addressed by the projects

System needs addressed by your project

Publication of Identification of System Needs 2040 & Regional Investment Plans: foreseen 3rd week of April

What will be asked for each project: (similar to 2018)

- Select a maximum of 4 needs in a pre-defined list of needs
- Provide a few lines of explanation for each selected need, on how your project addresses this need

Window: end April/date of publication of IoSN2040 report, until end of May

The selected needs and the justification will be published in the projects sheets.

Next steps

Workshops in early May 2020

- One workshop in Brussels
- One workshop in place TBC
- One webinar (recorded for those who cannot attend any workshop)

Objective of the workshops: Answer your questions on the additional information requested, on system needs, on the project sheets and on the CBA.

More information on the dates and location will come towards the end of March.

New point of contact

For any question, please contact Johannes Moolman

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Thank you for your attention
