

Project-level Benefits for Storage Project Promoters

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Questions

If, at any time during the webinar, you have questions feel free to “raise your hand” or to type it in the questions window.

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Resources available to project promoters

- Draft CBA Guideline 3.0
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General submission requirements for PLIs

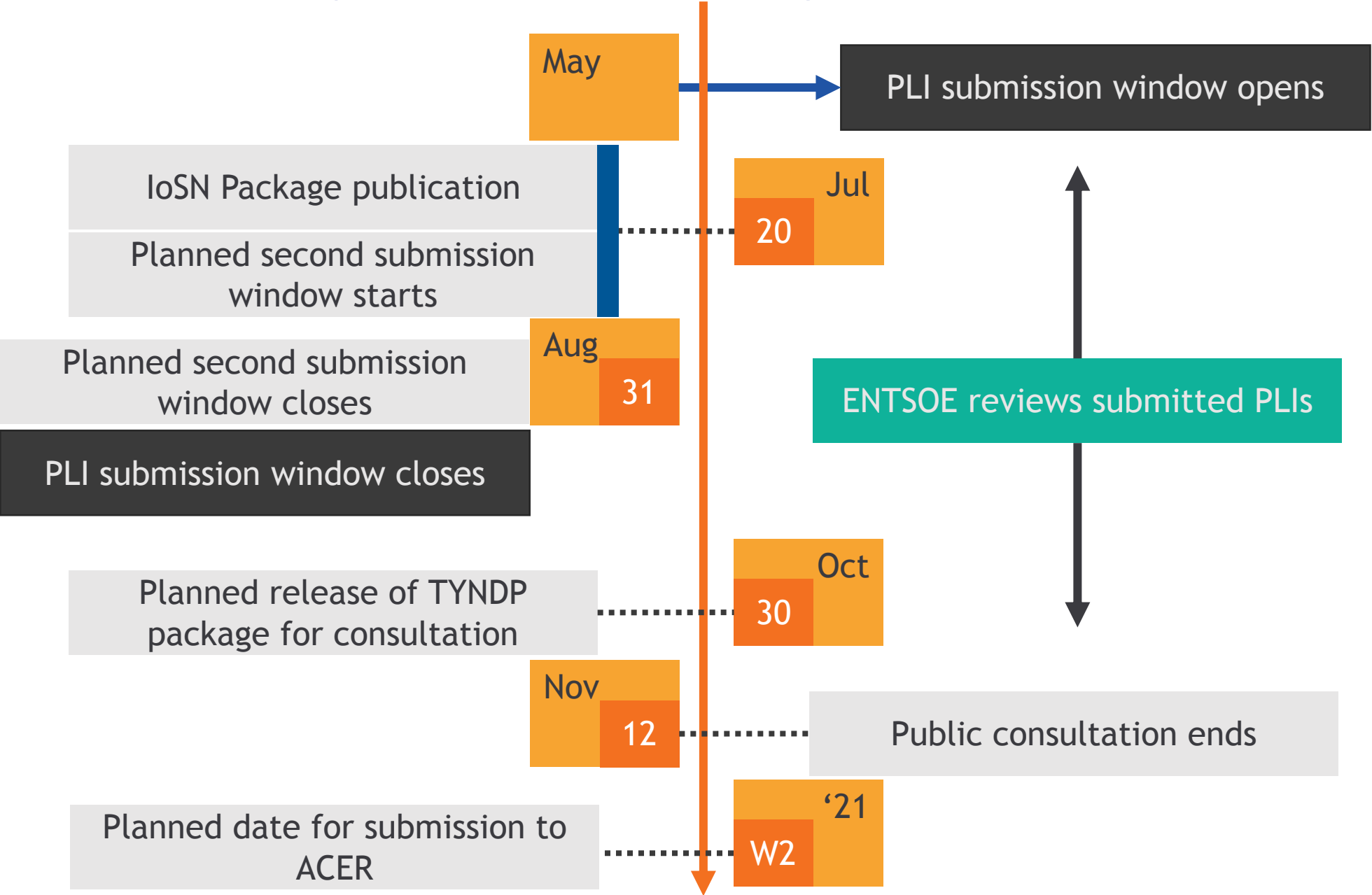
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TYNDP development timeline

TYNDP2020 development timeline – Key dates



Project-level Benefits: Resources available to Promoters

Resources available to promoters

1. Draft CBA Guideline 3.0:

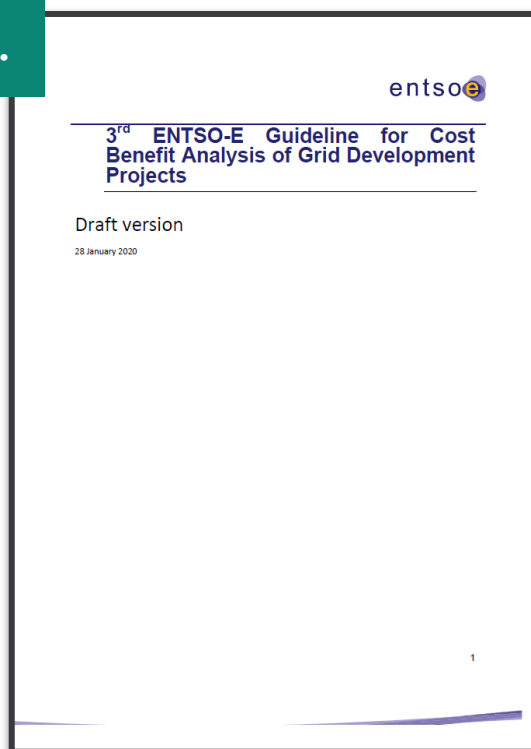
https://www.entsoe.eu/Documents/TYNDP%20documents/Cost%20Benefit%20Analysis/191023_CBA3_Draft%20for%20consultation.pdf

2. Implementation Guideline on “Project Level Indicators based on promoter’s input”: <https://tinyurl.com/ycudm2a7>

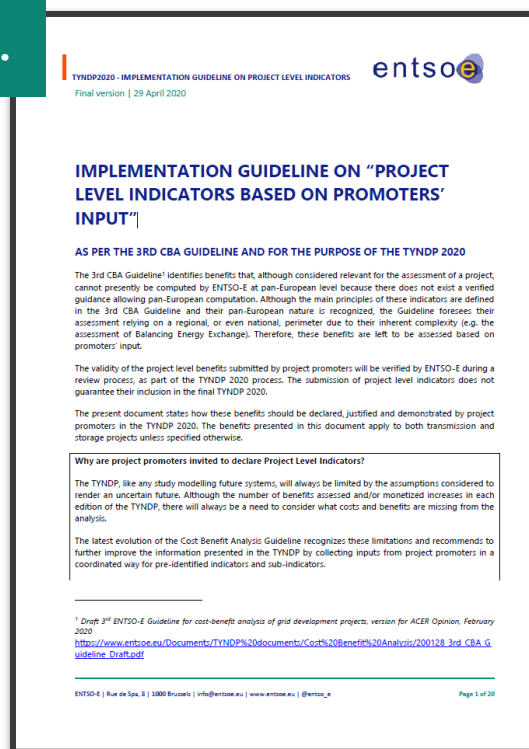
3. Practical Guide on project sheets: <https://tinyurl.com/ycudm2a7>

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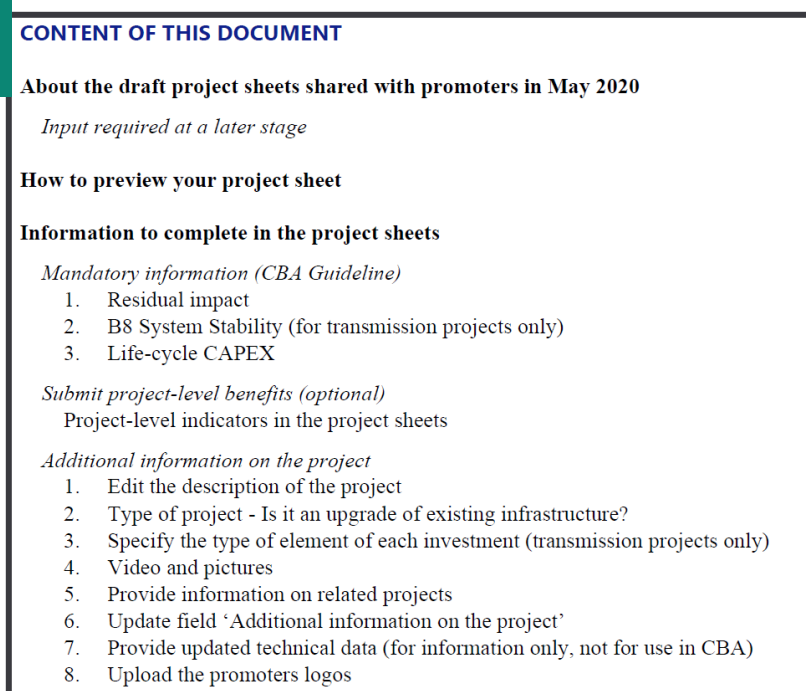
1.



2.



3.



Draft 3rd CBA Guideline after consultation (FOR INFO)

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 project promoter until TYNDP ENTSO-E processes are able to provide a Pan-European assessment

Project-level benefits Implementation Guideline Walkthrough

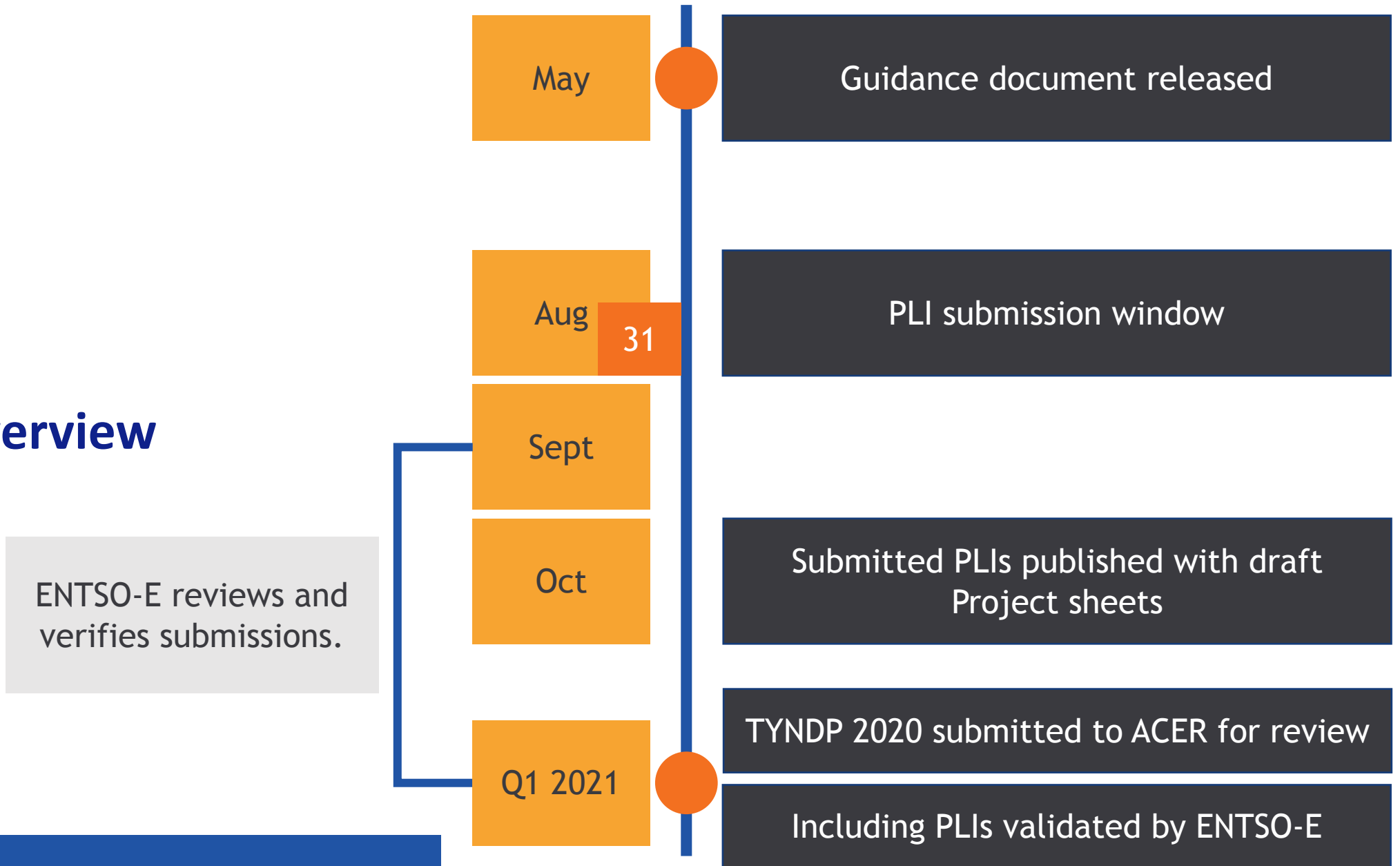
Available at: <https://tinyurl.com/ybqot9sy>

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Shared between transmission and storage projects

Exclusively for storage projects

Timeline Overview



Refer to Guidance pp. 10-11

Project-level Benefits for Storage Projects

Project-level benefits for storage projects

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**)
- B9 Avoidance of the Renewal/Replacement Costs of Infrastructure (**Chapter 6.12**)
- B10 Reduction of Necessary Reserve for Redispatch Power Plants (**Chapter 6.13**)
- B8 Security of Supply (**Chapter 6.11**): Frequency stability: qualitative indicator based on KPI score specifically designed for storage projects
- B8.2 Blackstart services (**Chapter 6.11**)

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

Project-level Benefits: General Submission Guidelines

General PLI submission guidelines

- Submission of one or several project-level benefit(s) is optional. You are free not to submit any. Only benefits included in the presented list will be accepted.
- **Submitted benefits must be computed in line with the methodology described in the draft CBA Guideline 3.0.**
- Submitted benefits should preferably be based on any of the ENTSO-E or ENTSO-G TYNDP 2020 Scenarios. NT2025 and NT2030 are recommended. Promoters are free to submit the chosen indicator based on all ENTSO-E and ENTSG TYNDP 2020 Scenarios (GA, DE, NT)
- Scenarios other than ENTSO-E and ENTSO-G are allowed if the promoter submits the used scenario for review (one only).
- **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.**

Submitting 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
Statement by the promoter that the indicator is submitted jointly and in agreement with all promoters of the project	No
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

Submitting a project-level benefit? (2)

In general, here is the information that will be requested for each indicator	Published in the project sheet?
[If the study is based on ENTSO-E scenarios] Value of the benefit for 2030 (compulsory horizon) 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 horizon (only one with 2030 and 2025 -optional- time horizon)	Only the value of the benefit is published
Name and description of the scenario (including data source); upload of scenario dataset; justification for the use of another scenario;	No

How to submit a project-level benefit? (3)

In general, here is the information that will be requested for each indicator	Published in the project sheet?
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
Upload of the study in English	No
Year of the study	Yes
Entity who performed the study	Yes
Indicate page of the study where assumptions are described	No
Indicate page of the study where the implemented methodology is described	No

How to submit a project-level benefit? (4)

In general, here is the information that will be requested for each indicator	Published in the project sheet?
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	Yes
Optional: short explanation on the methodology implemented	No
Optional additional information (non mandatory): specify if an external body, beyond the entity who has performed the study, has reviewed or approved the study	No

Project-level benefits specific submission criteria

Information included in the following slides was taken directly from the Implementation guideline on project-level indicators (resource #3)

B7.1: Security of supply - System flexibility – Balancing energy exchange

CBA Guidelines: [Chapter 6.10](#)

In addition to the requirements outlines on pages 11 – 16 of the Guidance, promoters must also submit:

1)Unit of the submitted value: the value submitted is monetized and can be expressed in MEuro/year only

2)Submitted value: the value submitted by the promoter will not be published in the TYNDP 2020 project sheet. This value, after validation by ENTSO-E, will be converted into a qualitative indicator applying the following equivalences:

Value submitted within the range	Corresponding qualitative indicator shown published in the Project Sheet
< 1 M€	0
[1 M€; 15 M€)	+
≥ 15 M€	++

B9: Avoidance of the Renewal/Replacement Costs of Infrastructure (for both Transmission and Storage projects)

CBA Guideline: [Chapter 6.12](#)

In addition to the requirements outlined on pages 11 – 16 of the Guidance, promoters must also submit:

The promoter has to provide all the information requested in Chapter 3 considering the following exceptions:

- 1) Scenarios: the indicator can be provided for up to three different years (depending when the benefit materializes), it is not required to provide information on the scenarios used.
- 2) Unit of the submitted value: the value submitted is monetized and can be expressed in MEuro only
- 3) Submitted value: the value submitted must be reported together with the year (along the assessment period of the project) when this benefit materializes.

B10: Reduction of Necessary Reserve for Redispatch Power Plants

CBA Guidelines: [Chapter 6.13](#)

In addition to the requirements outlines on pages 11 – 16 of the Guidance, promoters must also submit:

The promoter must provide both quantitative and monetized values.

B8: Security of Supply: Frequency stability: qualitative indicator based on KPI score specifically designed for storage projects

CBA Guidelines: Chapter 6.11

In addition to the requirements outlines on pages 11 – 16 of the Guidance, promoters must also submit:

For this indicator the promoter does not need to provide the information as presented in Chapter 3 but rather provide information on the following KPIs:

- Response time – FCR (Frequency Containment Reserve)
- Response time – including delay time of IT and control systems
- Duration at rated power – total time during which available power can be sustained
- Available power – power that is continuously available within the activation time

The statement of the KPIs of the storage project is considered a responsibility of the project promoter and will not be subject to ENTSO-E review.

The KPIs are expressed in ranges because ENTSO-E will convert the ranges selected by the project promoter into a qualitative indicator. The qualitative indicator will be shown in the project sheet.

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

→ This indicator requires you only to provide the score of your project on the above mentioned KPI (no study to upload)

B8.2: Blackstart services – for storage projects only

CBA Guidelines: [Chapter 6.11](#)

The promoter must provide all information requested in Chapter 3 of the Implementation guideline on project-level indicators considering the following exceptions:

1. Methodology and review process: for this indicator the CBA 3.0 Guideline does not provide a comprehensive , solid methodology. For this reason, ENTSO-E will abstain from performing a review of the methodology and study submitted by the promoter and from providing a positive or negative validation of the submission.
2. Unit of the submitted value: the value is quantified. All unit values are accepted except Meuro/year and Meuro.

In practice – How to submit project-level benefits

Thank you very much for your attention

If you have any further questions do not hesitate to contact:

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