

Cost Benefit Analysis methodology workshop following the European Regulation on guidelines for the implementation of European energy infrastructure priorities (EU) No 347/2013

Date: 24 June 2013

Time: 10.30h – 15.30h

Place: ENTSO-E premises, Avenue Cortenbergh, 100, 1000 Brussels

WORKSHOP MINUTES

1. Meeting's agenda

No	Subject	Time	Lead
1.	Welcome	10:30 – 10:45	Jean Verseille Chairman of ENTSO-E System Development Committee
2.	General presentation of CBA methodology and process	10:45 – 11:30	Klaus Wewering Convener of ENTSO-E Draft Team Planning Standards (DT PS)
	Discussion		ALL
3.	Review of the CBA changes since the last published CBA version (4 December 2012):	11:30-13:00	
	- Impact on environment and society	11.30-12.00	Ivan Scrase Senior Policy Officer The Royal Society for the Protection of Birds Martti van Blijswijk Member of ENTSO-E Draft Team Planning Standards (DT PS)
	- Storage	12.00-12.30	Grégory Fayet Member of European Association for Storage of Energy Yannick Jacquemart Member of ENTSO-E Draft Team Planning Standards (DT PS)
	- Further options for monetisation: status for impact on ancillary services and value of lost load	12.30-13.00	Paul Plumptre Member of ENTSO-E Draft Team Planning

	Discussion		Standards (DT PS) ALL
Lunch		13:00 – 14:00	
4.	Panel discussion (EC, ACER, ENTSO-E, EASE, RGI) Questions & answers session	14:00 – 15:00	ALL
5.	Next steps within the CBA development	15:00– 15:15	Klaus Wewering Convener of ENTSO-E Draft Team Planning Standards (DT PS)
6.	Conclusions	15:15 – 15:30	Jean Verseille Chairman of ENTSO-E System Development Committee
7.	End of the workshop	15:30	

2. General presentation of CBA methodology and process

ENTSO-E has published the first draft CBA methodology in November 2012 and had a first workshop with the stakeholders on 19 November 2012.

The current workshop is the second of its kind and its aim was to present the latest updates on the methodology: inclusion of a storage assessment annex, improvement of the environmental and social impact indicator and further options for monetization: status for the impact on ancillaries' services and the value of loss of load.

The CBA methodology purpose is three folds: PCI and TYNDP project assessment and support for the PCI selection, base for the CACB and incentives decisions.

For further insight please consult the presented material.

Discussion:

TIWAG -> Clustering investments may lead to reduced infrastructure. How does ENTSO-E quantify the use of generation over the others?

A: ENTSO-E does not assess this for the moment. Any idea in this sense is welcomed.

EFD: Transparency is a critical issue. The implementation of a neutral sharing platform should be used to share the contribution between stakeholders. Clearly defined assumptions are necessary (data: sources and methodology).

A: most of the data is under the TYNDP methodology which is consulted with the stakeholders. Additionally ENTSO-E is using the newly created Long Term Network Development Stakeholder Group for further insights.

CECED: What is the purpose of the CBA: to prioritise and define the best projects or support specific decisions in network codes?

A: The CBA is only for the assessment of transmission project in the perspective on transmission development. No direct link with network code.

RSE: ENTSO-E is using a mixed CBA and a multi-criteria approach. This may be confusing since an investor decides based on the monetized indicators.

A: Using a multi-criteria approach one can present the full benefits of projects (even if not all are monetised they may be crucial for the Europe - e.g. RES integration). This approach is also supported by the EC.

Tractabel: The multi-criteria approach is good. Will you give guidance to the EC on weighting the indicators?

A: This is totally up to the MSs, under the EC RGs umbrella to decide, since it depends on the regional/local sensitivities.

EC: The EC RGs have voted on the weights with not too big impact on the final list. Any additional methodological consideration on the weighting is a bit difficult. The role of CBA is not only related to the PCI selection but also to the CACB and incentives decisions. For each purpose difference depth of the analysis is required.

3. Review of the CBA changes since the last published CBA version (4 December 2012)

a. Social and environmental indicator

This indicator has been improved significantly since December r 2012. The improvements are the result of a strong collaboration between ENTSO-E, RSBA, CAN Europe and RGI.

The social and environmental impact indicator has developed from a purely qualitative expert assessment to a quantifiable indicator for the social and biodiversity impact. Note that this indicator covers only the residual impact and not the impact that has already been monetised and included in the cost of the project.

For further insight please consult the presented material.

Discussion:

EC: How does ENTSO-E determine this indicator in case of different route possibilities?

A: If the project is in an early development phase this indicator will take the form of a range. This range tends to be wider in early project stages, and narrows as the project develops over time.

RSE: What is the purpose of this indicator?

A: This indicator will provide a clear view on the environmental and social impact of a project. It is up to the EC RGs, based on their regional sensitivities to either consider this indicator in their decisional process or not. The main users of this indicator are the other stakeholders. This indicator does not label a project as good or bad.

Tractabel: Did ENTSO-E consider the CIGRE paper on the externalities?

A: The CIGRE paper is more an R&D activity while the TYNDP is practical and can be currently implemented.

ACER: ACER in its opinion on CBA (January 2013) underlined that this element is to be considered in the long term. It further stressed this point in the agency opinion on R&D, published end May 2013.

EDF: How does ENTSO-E avoid double accounting?

A: This indicator considers only the residual impact of a project. If mitigation measures are taken to eliminate or reduce certain impacts, the cost of these measures will be monetized and included under project costs.

b. Storage annex:

The CBA methodology for storage is applied to the projects which have a capacity higher than 225 MW and the annual energy production higher than 250 GWH/y. This means that it mainly tackles the hydro units and some storage batteries. The methodology is similar as for the transmission lines: multi-criteria approach, same indicators and the same approach (TOOT method).

Next steps in relation to the application of CBA for storage:

- First trial in TYNDP 2014
- Full application in TYNDP 2016
- 2 identified future improvements to work on:
 - o Investigate possibilities for assessing economy on avoided investments on the generation fleet

New storage development may avoid or postpone some other investments for peak generation (or demand response). Here the Socio-Economic Welfare takes into account the replacement of energy delivered by some power plants by the storage devices, but not the possible avoidance of investment costs. This statement is also true for Transmission Lines cost-benefit assessment.

- o Investigate possibilities to quantify of ancillary services provided by storage

Storage devices provide some ancillary services, and hence can improve the total cost of these service (e.g. some thermal units can produce at the same cost without keeping a power margin).

For further insight please consult the presented material.

Discussion:

ALSTROM: Does ENTSO-E consider the clustered of storage units (e.g. batteries) as one project?

A: The idea is feasible. For the future ENTSO-E may think of the rules applicable to clusters of storage units.

EDF: One benefit of storage is the impact on the optimisation of generation portfolio. How will the CBA methodology incorporate this benefit and how will it make sure that the impacted stakeholders' opinion is to be considered?

EASE: The difficulty of this exercise is not to optimize the generation but to do it publicly considering and agreeing on the long term generation costs.

RSBA: How will the social and environmental indicator for storage (area of lake, nr of impacted rivers) look like?

EASE A: This is highly dependable of the technology used. It will not be the same approach as for the transmission.

A: For the first version of the CBA this indicator for storage will not be very detailed.

TIWAG: It must be acknowledged that the European landscape is not a virgin territory. We are just moving from one state to another.

RSBA: This is true, and the EU legislation acknowledges this, provided that some defined rules are respected.

Verbund: How will you apply the TOOT methodology for pump storage units that work in parallel (e.g.in the Alps area)?

EASE: One suggestion is to use the incremental approach. This is still to be analysed and looked at. For the current TYNDP this it is very difficult to implement.

c. Further options for monetisation: status for impact on ancillary services and value of lost load

For the general view please see the presented material.

Discussion:

EDF: Did ENTSO-E consider the impact (reduction) on system services through the implementation of e.g. storage, super grids?

A: The most common impact is the reduction of the system services costs, but not of the volume, due to the fact that the volume of reserves is intimately related to the generation and load. This may be a question of tomorrow.

Additionally we must remember that providing ancillary services depends on the type of generation. Having standard values will destroy the specificity of the units.

CECED: What is the status of calculating the VOLL?

A: For the moment we assess the impact of a project on SOS through the LOLE/ENS. The main impediment in using the VOLL is the nonexistence of a common European value or method of calculation. The CEER report is a start but further studies on VOLL are necessary.

EDF: Developing the network has no impact on the reserves value. What about the impact on the volume of energy?

A: Adding an interconnector it may lead to changes in the generation capacity, but it will have no impact on the reserve exchange.

4. Panel Discussion

EC opinion on the CBA: The EC is pleased with ENTSO-E's CBA methodology, which it defines as reliable and opened to stakeholders' communication and suggestions.

ACER expressed also its satisfaction towards ENTSO-E's CBA methodology. It further underlined the big expectations it has in relation to clustering. For further insight of ACER's view please read ACER's opinion on CBA.

- How does the finalisation of CBA methodology (around mid-2014) and the first PCI list (October 2013) match?
 EC: We will not have the final CBA earlier, but the promoters who apply for grants may use the draft CBA for delivering a CBCA suggestion. Considering that CEF will enter into force in 2014, EC will make a call for projects which want to acquire grants for work in fall 2013. These projects must be accompanied by a CBCA suggestion.

ACER: the EC is preparing guideline for CBCA applicable for the PCIs.

- Are any considerations on extreme weather conditions present in the CBA indicators?
 A: This parameter is included in the resilience indicator of the projects.

- It would be good to have explicit rules for the extreme cases. This will not allow the promoter to pick the most favourable extreme case for their project.

A: This is defined within the scenarios and the cases that are run within the Regional Groups. It is not possible to have general guidelines on the sensitivity analysis. Additionally all the projects must be assessed least on one common case and the sensitive analysis is up to the promoters.

- Is the storage on the same rank with the transmission?

EASE: Storage and transmission projects are two solutions. Storage can provide specific application that interconnections cannot. An interconnection is where is needed and a storage unit is when you need. It is good to have the same CBA for storage and transmission but also to consider some specific elements.

- Interconnection helps flexibility. How is this benefit considered?

A: This is incorporated in the SOS.

RBSA: The storage should be taken out of the PCI list.

ENTSO-E: The interconnections provide flexibility within the transmission system (e.g. integration of RES). The transmission projects are regulated and the storage is under the market play.

EASE: The objective of the CBA is to assess the best economic solution for the system accepted by the citizens. This is why the 2 type of assets are assessed with the same indicators.

- If some storage projects get funded it will be unfair for the other storage projects which have market viability.

EC: The hydro pump storage is excluded from the CEF funding (grants for work) but it can make use of financial instruments (bonds etc.). Additionally the TSOs grant cannot be included in the price.

We still need to have the methodology for non-pump storage projects – in case they apply for work grants.

- Why would storage want to be PCI if it does not get the funds?

EASE: this provides you strengths in the discussions with the banks and faster authorisation process.

- What type of studies will be covered by the PCIs?

EC: The ranges of studies are very wide: any kind of studies necessary for the preparation of the projects.

- Isn't a risk for the investment if the project is taken out of the PCI list every 2 years?

EC: having a PCI label is not a guarantee that a project is to be done. The decision is taken by the regulators and the market itself. EC and its Regional Groups had never the ambition of replacing the market decisions.

- EC: What is the level of maturity for the TYNDP projects?

ENTSO-E: TYNDP has to give a wider view on the necessary European projects, therefore we present projects which have different levels of maturity.

5. Next steps within the CBA development

The CBA methodology drafted by ENTSO-E must be submitted to the EC (as the Regulation (EU) 347/2013, Ch. IV, Art 11 requests) by 16 November 2013.

The next steps of the CBA methodology are the following:

- 3 July – 15 September 2013 – [public web consultation on the CBA methodology](#)
- September – October 2013 – compilation of comments and internal approvals.
- 16 November 2013 – Delivery of the methodology to ACER, EC and MSs
- February 2014 - ACER Opinion
- May 2014 - EC and MS Opinion
- August 2014- Adjusted CBA method
- Sept 2014 Publication of the final CBA methodology

Note: All the material presented in this workshop can be accessed from the ENTSOE- website:

<https://www.entsoe.eu/news-events/events/cost-benefit-analysis-cba-methodology-workshop-24-june-2013-in-brussels/>