

Whole system CBA

End of year report 2021

Open Networks WS4 P1

December 2021

DOCUMENT CONTROL

Authorities

Version	Issue Date	Authorisation	Comments
0.1	11/10/21	WS4 P1 Product Team	Initial draft circulated to WS4 for comments
0.2	03/12/21	WS4	Final draft circulated for WS4 approval
1.0	16/12/21	Steering Group	Approved

Introduction

About ENA

Energy Networks Association (ENA) represents the owners and operators of licenses for the transmission and/or distribution of energy in the UK and Ireland. Our members control and maintain the critical national infrastructure that delivers these vital services into customers' homes and businesses.

About Open Networks

Britain's energy landscape is changing, and new smart technologies are changing the way we interact with the energy system. Our Open Networks project is transforming the way our energy networks operate. New smart technologies are challenging the traditional way we generate, consume and manage electricity, and the energy networks are making sure that these changes benefit everyone.

ENA's Open Networks Project is key to enabling the delivery of Net Zero by:

- opening local flexibility markets to demand response, renewable energy and new low-carbon technology and removing barriers to participation
- providing opportunities for these flexible resources to connect to our networks faster
- opening data to allow these flexible resources to identify the best locations to invest
- delivering efficiencies between the network companies to plan and operate secure efficient networks

Report

Work during 2020

Version 1.0 of the whole system CBA tool, methodology and user guide was delivered at the end of 2020. This was a good quality, fit for purpose model and supporting documentation that, with sufficient feedback, could potentially be enhanced during 2021.

The CBA tool's design and functionality was influenced heavily through significant stakeholder feedback which included but was not limited to the Networks, BEIS, Ofgem, System Catapult and Open Networks. The tool itself was built by subject matter experts, Baringa under the guidance of a Workstream 4 product team.

The CBA tool and supporting documents are freely available on the ENA website.

Work during 2021

Intended scope for 2021

The main aim of the product team during 2021 has been to seek feedback on the framework and model. If the feedback was significant and valid enough, it would then be used to identify subsequent updates. In the 2021 PID, it was intended to produce two updates within the year:

- Version 1.1 of minor updates and quick fixes, based on feedback
- Version 2.0, a more substantial update, also based on feedback

Given the time it has taken to receive feedback, the low level of feedback and the associated development time, it was decided during the middle of the year not to proceed with producing these versions during 2021. Instead, the scope was revised to focus on promotion of the tool and supporting its use in various projects and use cases. These are highlighted in the below section.

Uses considered

The product team has involved the following stakeholders, promoting use of the whole system CBA and seeking feedback

Organisation	Use case	Status (Nov 2021)
Wychavon Borough Council	Local authority	No progress
WPD/WWU/Regen	Regional energy solutions	In progress – plan to deliver by end of the year
SSE Transmission	T-D solutions	Various projects under discussion
Northern Gas / others	Hydrogen	GGG deliverables likely to provide data that informs future updates, test tool on blending CBA by Q1 2022
NGGT	Hydrogen	No progress

ENA / ReCosting Energy	Energy system	No progress
NGET/ESO/WPD	Grendon substation	Decided not to progress
NGET/ESO/WPD/SPEN/Welsh Government	Mid-Wales wind connection	Still under consideration
ESO/UKPN/WPD	Potential heat and off-grid gas	Still under consideration
ESO/SSE/SPEN	RDP Charleston-Abernethy	Still under consideration
WS1 P6 DER Visibility	Data	No progress
WPD	Reinforcement project at GSP level	No progress
SSEN	Argyll	For future consideration
Cadent		Discussions ongoing
SSE	Project Leo	Still under consideration

Use of tool during RIIO ED-2 submissions

We received the following feedback from the relevant product team representatives about the use of the model in their RIIO ED-2 submissions:

- ENWL – plan to use as during ED-2. May use in RIIO-2 submission to complement Ofgem CBA template
- SSE-D – plan to use for ED-2 submission on one project
- UKPN – plan to use for ED-2 submission
- WPD - unsure

Feedback received

The following feedback has been received from the initial users:

- Password for unlocking the table does not work so, for example, new rows to add additional costs and benefits cannot be included. It was subsequently confirmed that the password in the first version of the document is wrong.
- Unclear about the difference between “scenarios” and “strategies”.
- Point out where data for the weighted average cost of capital (WACC) and other related items can be found. (These can be found in Ofgem’s final determinations)
- Provide clarity on what is meant by “non-regulated stakeholders” (e.g. generators)
- Clarify what goes into the “additional costs and benefits” space

- Costs do not seem to filter through to the respective places
- Overall, the spreadsheet seems a bit daunting
- The material is not easy to find on the ENA's website

Updates considered by the product team

In addition to the feedback above, updates to the CBA tool and supporting documentation were considered in the following areas. They will be explored further in 2022.

OPTION VALUATION

- This has been supported by stakeholders (eg ADE) during stakeholder engagement
- There should be consistency across industry on option valuation.
- It needs to be decided whether WS CBA *drives* this work, or *takes the output* from it

CARBON

- Embodied carbon - there is an agreed methodology between the TOs. This could be incorporated into the model.
- Carbon difference – ESO has shared a methodology for use during RDPs that could be incorporated into the model.

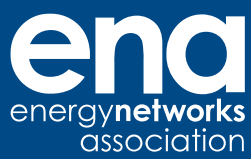
CEM UPDATES

- Any updates to the CEM should be reflected in the WS CBA.

2022 work

In 2022 the product team will:

- Continue to seek new use cases and gather feedback from users.
- Provide support to those using the tool including running training sessions through the year.
- Consolidate feedback into a document to include an assessment of the value of acting on the feedback and a proposal for a version 2 of the model and supporting documentation.
- Ensure alignment with the development of the CEM tool and other emerging products that compliment or overlap the whole system CBA.



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