

version number	use / purpose	date	changes made
Template CBA RIIO ED1 v1.xls	initial draft RIIO-GD1 model issued for demo purposes		-
Template CBA RIIO ED1 v2.xls	draft RIIO-ED1 model demonstrated during the CBA meeting held on the 19 March	19/03/2013	updated the model to reflect ED1 rather than GD1
Template CBA RIIO ED1 v3.xls	issued to DNOs to complete the 2 worked examples (leaking cable and QoS)	28/03/2013 03/04/2013	updated to reflect discussions at the CBA meeting including straight line depreciation assumption for ED1, addition of fixed parameter assumptions for non-monetary items re-issued on 3 April to correct CI/CML fixed data transpose error
Template CBA RIIO ED1 v4.xls	final version of CBA spreadsheet to take into account worked examples	16/04/2013	updated to reflect DNO feedback following completion of worked examples main changes include: - included baseline scenario worksheet - removed VOLL as CI/CML method of monetising loss of supply was viewed as robust method - amended the CO2 conversion factor associated with losses to take into account assumptions regarding future decarbonisation of electricity - updated fixed data parameters to 2012/13 prices
		29/04/2013	removed 'de-minimum' text in cell B9 of <i>Option summary</i> worksheet
		10/01/2014	Inserted clarification comment in cell C9 of the <i>Option 1</i> worksheet.
		10/01/2014	Clarified text in cell B1 of <i>Option summary</i> worksheet.
		10/01/2014	Clarified text in cell F26 of <i>Option summary</i> worksheet.

Guidance for CBA spreadsheet model

Tab	Instructions
Option summary	Provide a description of the stated aim / investment decision contained within this CBA analysis workbook, along with a list of options considered to meet the aim. Also include here the short list of options contained within this workbook which have been fully costed and specify which option has been adopted following CBA and included in your business plan submission.
Fixed data	Enter pre-tax WACC and prices consistent with your business plan
Baseline scenario	Enter costs and benefits associated with the baseline scenario. The baseline scenario represents status quo; that is the cost of business as usual in the absence of any investment intervention. Where business as usual is not an option i.e. an investment intervention of some kind is required DNOs should chose the option with the lowest investment to represent the baseline scenario.
Working baseline	Show any calculation used to derive the values in your baseline scenario
Option 1	Enter costs and benefits <i>over and above the baseline scenario</i> i.e. the marginal or incremental costs / benefits of the option being considered. Enter capitalisation rates consistent with your business plan.
Working 1	Show any calculation used to derive the values in your CBA

Colour code:

User populated cells
Fixed data
Summation formula
Other formula

The user should populate the light blue cells. All other cells are either fixed or auto-populated.

Enter costs / benefits in 2012/13 prices (£m).

Costs should be entered as negative values.

Benefits (i.e. avoided costs) should be entered a positive values.

Costs entered should correspond to values set out in company business plans i.e. should exclude RPEs and include ongoing efficiencies consistent with assumptions contained in your business plan submission.

Copy *Option 1 worksheet & workings 1* for each CBA option and label these *option 2 & workings 2* etc.

Where a 'do minimum option' exists, Option 1 should represent your 'do minimum' or 'reference scenario' e.g. do nothing, ongoing maintenance of existing asset or the option which requires the minimum investment .

Use the relevant *Workings worksheet* to demonstrate any calculation/information that can support the costs and benefits you have entered for each option. This is free fill and provides you with an opportunity to show additional underlying data you believe will assist Ofgem in evaluating/understanding your CBA.

Please highlight your chosen option by colouring the worksheet tab yellow.

Purpose of CBA: describe the primary driver of the investment decision

To quantify loss savings between the existing LV design policy of oversizing LV cables and previous policy on sizing cables on minimum network parameters.

If investment is to replace an existing asset / asset class, please state the condition of the asset / asset class (HI / CI etc.)

List below all options considered to meet the stated aim

Options considered / project name	Comment
"do minimum" option	Overlay old LV Cable with 185Wf Cable as per previous design policy.
Overlay with 300Wf	Overlay old LV Cable with 300Wf Cable as per exsiting design policy.

List below the short list of those options which have been costed within this CBA workbook

Option no.	Options considered	Decision	Comment	For the chosen option only, provide detail of where CBA expenditure included in this CBA is reported in the BPDt pack. e.g. LV swtichgear BPDt CV3 rows 15 to 22.	NPVs based on payback periods				
					8	24 years	32 years	45 years	DNO view
1	Overlaying LV cable with 300mm2 Wf	Adopted	As per NPG Design Policy	Not reported directly in BDPT pack. These CBAs were used to quantify options for the Losses Strategy paper. Not licence specific.	-£0.021	£0.21	£0.59	£0.75	
2									
3									
4									
5									

If more options are costed, please copy Option 1 and workings 1 worksheets and add detail to the short list table above.

Parameters		Prices	
pre-tax WACC	<div><div>3.9%</div><div>enter DNO specific pre-tax WACC figure</div></div>		
Discount Rate <= 30 years	<div><div>3.3%</div></div>		
Discount Rate > 30 years	<div><div>3.0%</div></div>		
Discount rate for safety	<div><div>1.3%</div></div>		
Assumed Asset Life (Years)	<div><div>45</div></div>		
		2012/13 prices	
		2016	2017
		2018	2019
		2020	2021
		2022	2023
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		2026	2027
		2028	2029
		2030	2031
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¹ Includes all GHG not associated with losses e.g. SF₆ converted to tCO₂e using Defra conversion factors
<http://www.defra.gov.uk/publications/2012/05/05/05013772a2012-ghg-conversion/>

Where losses are entered in terms of MWh, the tCO₂e sums of MWh, the tCO₂e associated with those losses will be calculated based on an assumed GHG conversion factor. The tCO₂e are monetised using BECC traded carbon values.

All other GHG emissions not associated with losses should be entered in row 90 to avoid double counting.

² <http://www.hse.gov.uk/risk/theory/galapcheck.htm>