

Supplementary CPRE Technical Note: BCRS with new carbon values

Old carbon values

Benefit Type	Low Growth	Core Growth	Optimistic Growth
User benefits (TEE)	£153.44	£181.25	£210.19
Accident benefits	-£7.33	-£7.33	-£7.33
Indirect Taxation	£1.90	£1.41	£1.79
Greenhouse gas benefits	-£17.45	-£17.45	-£17.45
Air quality	-£3.77	-£3.77	-£3.77
Noise	£3.17	£3.17	£3.17
Delays during construction	-£1.04	-£1.04	-£1.04
	£128.92	£156.24	£185.56
BCR	1.20	1.45	1.72

New carbon values

Benefit Type	Low Growth	Core Growth	Optimistic Growth
User benefits (TEE)	£153.44	£181.25	£210.19
Accident benefits	-£7.33	-£7.33	-£7.33
Indirect Taxation	£1.90	£1.41	£1.79
Greenhouse gas benefits	-£45.32	-£30.21	-£15.02
Air quality	-£3.77	-£3.77	-£3.77
Noise	£3.17	£3.17	£3.17
Delays during construction	-£1.04	-£1.04	-£1.04
	£101.05	£143.48	£187.99
BCR	0.94	1.33	1.75

Low growth has high carbon value

High growth has low carbon value

Scheme Cost **107.72**

NH original method

New carbon values

Benefit Type	Low Growth	Core Growth	Optimistic Growth
User benefits (TEE)	£153.44	£181.25	£210.19
Accident benefits	-£7.33	-£7.33	-£7.33
Indirect Taxation	£1.90	£1.41	£1.79
Greenhouse gas benefits	-£30.21	-£30.21	-£30.21
Air quality	-£3.77	-£3.77	-£3.77
Noise	£3.17	£3.17	£3.17
Delays during construction	-£1.04	-£1.04	-£1.04
	£116.16	£143.48	£172.80
BCR	1.08	1.33	1.60

Carbon value kept at central

Source: Table 3.4: Trans-Pennine Upgrade: Stage 3 Combined Modelling and Appraisal Report
Reproduced below

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P06
Information Risk Level - Low



Table 3-4 - Summary of Economic Benefits – (2010 prices and discounted to 2010).

Benefit Type	Low Growth	Core Growth	Optimistic Growth
User benefits (TEE)	£153.44m	£181.25m	£210.19m
Accident benefits	-£7.33m	-£7.33m	-£7.33m
Indirect Taxation	£1.90m	£1.41m	£1.79m
Greenhouse gas benefits	-£17.45m	-£17.45m	-£17.45m
Air quality	-£3.77m	-£3.77m	-£3.77m
Noise	£3.17m	£3.17m	£3.17m
Delays during construction	£1.04m	£1.04m	£1.04m
Total (PVB)	£128.92m	£156.23m	£185.55m

3.5.5. In this table accident benefits, greenhouse gas emissions, noise, air quality and delays during construction have not been reassessed for the low or optimistic scenarios. These values are assumed constant for the purpose of calculating a PVB for this sensitivity test.