

Proposed drafting for asset health grid output measures for RCP2 – 14 July 2014

This document contains proposed drafting for Transpower's individual price-quality path determination to give effect to our 3 July 2014 draft decisions on asset health grid output measures. This drafting is an addition to our draft individual price-quality path determination published on 30 May 2014.

In its submission on our draft determination, Transpower has also proposed drafting to give effect to the asset health grid output measures.

We have not had the chance to review Transpower's proposed drafting, but consider it is better to publish our proposed drafting as soon as possible to give interested persons time to comment in cross-submissions on the asset health grid output measures.

We encourage interested parties to review the two drafting proposals and submit comments by 5pm on **Friday 18 July 2014**. This is the due date of the cross-submissions on our draft decision on asset health grid output measures.

Please send submissions to regulation.branch@comcom.govt.nz with the title "Transpower asset health grid output measures cross-submission."

Please note: the drafting in this document does not include provision for the 'aggregate cap' as proposed by Transpower. We intend to exercise our discretion in regard to ensuring that Transpower does not earn a net benefit across the suite of asset health grid output measures by, for example, adjusting the 'm' terms in the grid output adjustment (Capex IM, Schedule B3).

Part 4: Quality standards and revenue-linked grid output measures for asset health

Revenue-linked grid output measures

1. Quality standards

1.1 The quality standards are the **grid output targets** for each **revenue-linked grid output measure** as shown in Table 3.1.

2. Revenue-linked grid output measures

2.1 The six **revenue-linked grid output measures**, are:

2.1.1 **asset health grid output measures for asset replacement and asset refurbishment** for each **disclosure year** of the **regulatory period**, being:

- (a) for **asset health grid output measure AHM1**: the difference in the average remaining tower coating life (years) between that which exists at the end of the current **disclosure year**, and that which existed at the end of the preceding **disclosure year**;
- (b) for the **asset health grid output measure AHM2**: the number of grillages **commissioned**;
- (c) for the **asset health grid output measure AHM3**: the number of insulators **commissioned**;

2.1.2 **asset health grid output measures for asset replacement and asset refurbishment** for the final **disclosure year** of the **regulatory period**, being:

- (a) for the **asset health grid output measure AHM4**: the difference in the average remaining life (years) of outdoor circuit breakers between that which exists at the end of **RCP1**, and that which exists at the end of **RCP2**;
- (b) for the **asset health grid output measure AHM5**: the difference in the average remaining life (years) of transformers between that which exists at the end of **RCP1**, and that which exists at the end of **RCP2**;
- (c) for the **asset health grid output measure AHM6**: the number of outdoor to indoor conversions **commissioned** during the **regulatory period**;

3. Grid output targets, caps, collars, and grid output incentive rates
 - 3.1 For each of the **revenue-linked grid output measures** identified in clause 2 above, the **grid output targets, caps, collars, and grid output incentive rates** identified in Table 3.1 apply.

Table 3.1: Grid output targets, caps, collars and grid output incentive rates

Description: grid output measure	Disclosure year	Measure reference	Grid output target	Cap	Collar	Grid output incentive rate (\$000)
[Column 1]	[Column 2]	[Column 3]	[Column 4]	[Column 5]	[Column 6]	[Column 7]
Change in average tower coating life	2015/16	AHM1 (15/16)	-0.696	-0.674	-0.718	52,400
	2016/17	AHM1 (16/17)	-0.565	-0.543	-0.587	52,400
	2017/18	AHM1 (17/18)	-0.678	-0.656	-0.700	52,400
	2018/19	AHM1 (18/19)	-0.712	-0.690	-0.734	52,400
	2019/20	AHM1 (19/20)	-0.697	-0.675	-0.719	52,400
Number of grillages commissioned	2015/16	AHM2 (15/16)	408	438	378	10.2
	2016/17	AHM2 (16/17)	408	438	378	10.2
	2017/18	AHM2 (17/18)	408	438	378	10.2
	2018/19	AHM2 (18/19)	409	439	379	10.2
	2019/20	AHM2 (19/20)	409	439	379	10.2
Number of insulators commissioned	2015/16	AHM3 (15/16)	1,526	1,630	1,422	2.1
	2016/17	AHM3 (16/17)	1,466	1,570	1,362	2.1
	2017/18	AHM3 (17/18)	1,402	1,506	1,298	2.1
	2018/19	AHM3 (18/19)	1,315	1,419	1,211	2.1
	2019/20	AHM3 (19/20)	1,380	1,484	1,276	2.1

Description: grid output measure	Disclosure year	Measure reference	Grid output target	Cap	Collar	Grid output incentive rate (\$000)
[Column 1]	[Column 2]	[Column 3]	[Column 4]	[Column 5]	[Column 6]	[Column 7]
Change in average outdoor circuit breaker life	2019/20	AHM4	-0.258	0.010	-0.526	2,100
Change in average transformer life	2019/20	AHM5	-0.194	-0.028	-0.359	16,500
Number of outdoor indoor conversions commissioned	2019/20	AHM6	16	17	15	2,710

4. The grid output adjustment applies to revenue-linked grid output measures

- 4.1 **Transpower** must apply the **grid output adjustment** in accordance with Schedule B3 of the **Capex IM** to each of the **revenue-linked grid output measures**.
- 4.2 Output achieved in respect of each **asset health grid output measures** for **asset replacement** and **asset refurbishment**, for each relevant **disclosure year**, shall be calculated in the following manner:
- 4.2.1 For measure reference **AHM1**, the difference in the average remaining tower coating life (years) between that which exists at the end of the current **disclosure year**, and that which exists at the end of the preceding **disclosure year** is calculated in accordance with Transpower's Tower Painting Asset Health Model in the following manner:
- (average remaining tower coating life (years) for the current **disclosure year**) less (average remaining tower coating life (years) for the previous **disclosure year**)
- 4.2.2 For measure reference **AHM2**, the number of grillages **commissioned** in the **disclosure year**;
- 4.2.3 For measure reference **AHM3**, the number of insulators **commissioned** in the **disclosure year**;

- 4.2.4 For measure reference **AHM4**, the difference in the average remaining life (years) of outdoor circuit breakers between that which exists at the end of **RCP1**, and that which exists at the end of **RCP2** is calculated in accordance with Transpower's Outdoor Circuit Breakers Asset Health Model in the following manner:

(average remaining life (years) at the end of **RCP2** for outdoor circuit breakers 50 kV or over) less (average remaining life (years) at the end of **RCP1** for outdoor circuit breakers 50 kV or over)

- 4.2.5 For measure reference **AHM5**, the difference in the average remaining life (years) of transformers between that which exists at the end of **RCP1**, and that which exists at the end of **RCP2** is calculated in accordance with Transpower's Transformers Asset Health Model in the following manner:

(average remaining life (years) for transformers at the end of **RCP2**) less (average remaining life (years) for transformers at the end of **RCP1**)

- 4.2.6 For measure reference **AHM6**, the number of outdoor indoor conversions **commissioned** in the **regulatory period**.