From: Cainey, Jill < jill.cainey@sandc.com Sent: Wednesday, 9 May 2018 9:56 AM

To: Chan, David < david.chan@aer.gov.au >

Subject: RE: S&C submission to the Proposed Amendment to the STPIS

Dear David,

Please see the response from my colleague, Christopher Watts, plus his workbook:

I've gone back to my original analysis and done some further work based on the GB reliability incentives using an additional method. The British interruptions incentives suggests that placing a higher proportion of incentive value on SAIDI than the 60:40 suggested by AER has worked well in driving both down.

I've set out my analysis below together with a workbook which has all the calculations underpinning this.

Note both methods I've used have very similar results although one is based on actual reliability incentives earnt and the other is based on the incentive rate values.

Method 1: Looking at % of incentive earnings relating to SAIFI (CI) and SAIDI (CML) in RIIO-ED1 to date (2015-16 and 2016-17)

	Cl incentive earnings (£)	CML incentive earnings	Total	% SAIFI (CI)	% SAIDI (CML)
ENWL	8	19	27	29%	71%
NPgN	3	16	18	15%	85%
NPGY	9	29	38	24%	76%
WMID	19	40	58	32%	68%
EMID	7	34	41	17%	83%
SWALE	3	7	10	31%	69%
SWEST	3	6	9	35%	65%
LPN	5	25	30	16%	84%
SPN	8	17	25	34%	66%
EPN	15	28	43	34%	66%
SPD	3	15	18	16%	84%
SPMW	1	8	9	15%	85%
SSEH	1	3	3	23%	77%
SSES	10	19	29	34%	66%
Total	95	265	359	26%	74%

Range 35% 65% 15% 85%

The average is 26% of incentive value on SAIFI and 74% on SAIDI but this ranges from 15:85 to 35:65. However, it's worth noting that underlying this are different levels of improvement or outperformance on each. So we've also explored the 2nd method below.

Method 2: Comparing proportion of energy value exposed to SAIFI and SAIDI using CAIDI to calculate the relative values as per AER methodology

	I					
		B: RIIO-ED1 SAIFI				
	A: Average CAIDI	incentive rate (=Cl	C: SAIDI	D: SAIFI		F:%of
	from DPCR5 (2010)	incentive rate/100))	incentive rate	incentive rate	E: % of value on	value on
	to 2015)	ยSAIFI	&CML	* CAIDI	SAIFI (BI(B+D))	SAIDI (1-E)
ENWL	102	0.003	0.646	0.275	30%	70%
NPgN	84	0.002	0.419	0.141	25%	75%
NPGY	78	0.002	0.600	0.191	24%	76%
WMID	54	0.003	0.814	0.180	18%	82%
EMID	50	0.004	0.866	0.174	17%	83%
SWALE:	62	0.001	0.368	0.092	20%	80%
SWEST	76	0.002	0.516	0.159	24%	76%
LPN	115	0.002	0.573	0.268	32%	68%
SPN	73	0.002	0.566	0.171	23%	77%
EPN	80	0.004	0.892	0.294	25%	75%
SPD	68	0.002	0.502	0.142	22%	78%
SPMW	98	0.002	0.375	0.150	29%	71%
SSEH	88	0.001	0.198	0.074	27%	73%
SSES	91	0.003	0.791	0.294	27%	73%
Average	80	0.002	0.580	0.007	25%	75%

Range 32% 68% 17% 83%

The average ratio suggests 25% of value on SAIFI and 75% on SAIDI but ratios range from 17:83 to 32:68 across the 14 DNOs.

Under both approaches the results are broadly same, suggesting that Ofgem is putting a significantly greater proportion of value on SAIDI than the 60% that AER is proposing.

Happy to have a quick chat about this tomorrow morning if its helps.

Kind Regards,

Chris

If you have any queries, please let me know and I've also copied Chris into this response, so you have his email details.

Best Regards

Jill

Dr. Jill Cainey | S&C Electric Australia Pty Ltd | M: +61 (0) 467 001 102 | jill.cainey@sandc.com