[redacted]

**From:** [redacted]
**Sent:** [redacted]
**To:** [redacted]
**Subject:** RE: Nyrstar network charges [redacted]
[DLM=Sensitive]

**Security Classification:**
Sensitive

**From:** Zooeff, Greg [redacted]
**Sent:** Monday, 27 August 2018 4:26 PM
**To:** [redacted]
**Cc:** Anderson, Warwick [redacted]; Mark Grenning [redacted];
davidheadberry [redacted];
[redacted]
**Subject:** Nyrstar network charges [redacted]

Dear Professor Gray

We refer to the correspondence re-Nyrstar network charges dated 10th August 2018 to Mr Andrew Dillon of the ENA (refer to attached link).

https://www.aer.gov.au/system/files/Frontier%20Memorandum%20-%20AER%20Public%20Forum%20-%20Nyrstar%20transmission%20-%2010%20August%202018.pdf

I would like to correct the context of the question that was raised at the forum in Sydney regarding the rate of return guideline among other issues.

Firstly, your comparison of Nyrstar Port Pirie in South Australia with our smelter in The Netherlands is not valid. The comparison needs to be undertaken on a like for like basis. The question was not focussed on the network costs of the Port Pirie smelter compared to our Budel smelter but rather it was focussed on Nyrstar Hobart smelter compared to our Budel smelter. Nyrstar Port Pirie is not comparable due to a mix of transmission and distribution charges, different technology and different scale. Nyrstar's Hobart and Budel smelters are electrolytic zinc smelters of similar scale so a comparison of network costs becomes more relevant.

Secondly, you mention that comparisons may be misleading. Nyrstar benchmarks the cost and performance of its global portfolio of smelters and the costs that our smelters incur are known and real. As a trade exposed business competing in international markets comparing our Australian network costs among other operating costs with Nyrstar's own smelters and its competitors is of strategic importance for business unit performance evaluation, capital allocation and investment decisions. To this end there is nothing misleading in the costs Nyrstar bears for transmission services and accordingly I draw you to the following confidential information on network costs (in equivalent Australian dollars per MWhr) for Nyrstar's European electrolytic zinc smelters and the Nyrstar Hobart smelter.

Balen smelter 272kt p.a (Belgium) @ $[redacted]/MWhr

Budel smelter 292kt p.a (The Netherlands) @ $[redacted]/MWhr

Auby smelter 172kt p.a (France) @ $[redacted]/MWhr

Hobart smelter 287kt p.a (Tasmania) @ $[redacted] / MWhr

On this basis the Hobart smelter transmission costs are 16 times compared to Auby and 6.2 times that of the Budel smelter.

As you point out in your memorandum there are many factors contributing to network costs and in benchmarking one must exercise caution due to scale effects, intensity among others. That is not an issue that needs debate. However, the fact that transmission costs in Nyrstar's smelter in Australia is so materially different from its European smelters warrants closer examination and questions regarding the regulatory process in Australia that is contributing and/ or has contributed to this and more importantly how this can be altered so that Nyrstar's Australian operations and other businesses more broadly are not at a international competitive disadvantage. For the above transmission costs to occur one could plausibly raise the proposition that the Australian regulatory process has over rewarded investment not commensurate with the risk or the investment was inefficient at the outset? Furthermore, how is the National Electricity Objective satisfied in Nyrstar's context given that domestic considerations are irrelevant? As you are aware the key drivers for return on capital are the RAB and the regulatory WACC. The RAB is not in the scope of this review by the AER and is the single largest contributor. It is well known that the domestic CAPM model has shortcomings being:

- It assumes that investors use the mean-variance framework for decisions however, in practice investors are likely to weight 'negative' returns more than 'positive' returns;

- The CAPM assumes a symmetrical return distribution that is characterised by mean and variance only with a normal distribution. However, distribution of returns of assets maybe skewed and have kurtosis and be approximated by log normal distributions instead;

- The assumption that investors have homogeneous expectations is also not realistic;

- The assumption that there are no transaction costs is not appropriate because transaction costs affect net returnsreceived by investors;

- The existence of tax also impact investor's behaviour as investors may seek to invest in companies because of the company's dividend policy suits their tax position (e.g. franked dividends);

- The CAPM also implies that equity β is constant. This may also be violated in reality as companies change strategies or business/ industry cycles affect earnings performance and returns and hence β;

- Empirical evidence indicates that whilst the CAPM predicts a linear relationship between systematic and excess return there are periods where there may be no correlation of excess returns and β;

- CAPM assumes a single period investment horizon which is also unrealistic. Investors may change their strategy over time; and

Does not reflect the globalisation of capital.

Despite these limitations the AER affirm the use of CAPM but from a large users perspective the use of CAPM needs caution and requires other considerations to guide the selection of parameters such as evidence of RAB multiples, TNSP profitability, international benchmarking of TNSP actual equity returns, competitive effects on users and cross referencing against an

international CAPM model which can be used as a cross check for domestic CAPM (for example refer to Ejara D et al "Estimating cost of equity: Global CAPM vs International CAPM around the world" where Australia had an market equity risk premium of 3.12% using international CAPM over the period of 1999 to 2016 vs. AER draft decision equity risk premium of 3.6%) among others.

Nyrstar broadly agrees with the AER approach taken but based on the reality Nyrstar experiences the AER is still too conservative and Nyrstar encourages the AER to further refine key WACC parameters as there is still an implied imbalance in the overall result, i.e network costs. We do not accept the proposition that by further reducing the cost of equity and/ or increasing imputation credits will cause TNSPs or DNSPs not to invest, the shear size of the RAB and the future Integrated System Plan provides plenty of incentives to continue investment and attract economic financing from equity and debt providers.

Kind regards

Greg Zooeff
Regional Energy Portfolio Manager - Nyrstar Australia Pty Ltd

Sent from my iPad

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