

Attachment 7.25

SFG, Water utility beta estimation

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Warwick Anderson
General Manager – Network Regulation Branch
Australian Energy Regulator
GPO Box 3131
Canberra ACT 2601

28 October 2013

Dear Warwick,

In its recent Equity Beta Issues Paper, the AER refers to regression-based estimates of equity beta compiled by SFG in relation to a number of international water utilities. In particular, the Issues Paper states that:

The ENA's consultant on equity beta, SFG, recently produced empirical estimates for an Australian water utility where the mean equity beta estimate was 0.55.¹

and:

Further, the ENA's consultant on beta, SFG, recently produced a report on the equity beta for an Australian water utility, Sydney Desalination Plant. Even though this analysis does not have specific regard to energy, it indicates that the systematic risk exposure of water infrastructure utilities is in a similar ballpark to energy networks. SFG's ordinary least squares regression on 16 listed water utilities derived a mean beta estimate of 0.55, within a 90 per cent confidence interval of 0.40–0.70.²

The analysis referred to in the Issues Paper appears in a report commissioned by IPART in relation to the Sydney Desalination Plant (SDP).³

The report in question recommended that the regression-based estimates of equity beta should not be adopted mechanistically, that a range of other relevant evidence should be considered, and that it would be appropriate to adopt an equity beta that was materially above the regression-based estimates. That advice was adopted by IPART and implemented in the regulatory allowance.

In the remainder of this letter, I set out a brief summary of how the regression-based estimates of equity beta were used by the regulator in the SDP case.

In its report to IPART, SFG recommended against the mechanistic adoption of regression-based beta estimates. Rather, SFG proposed that regard should also be had to other evidence and a number of reasonableness tests.

¹ Equity Beta Issues Paper, p. 7, 42.

² Equity Beta Issues Paper, p. 7, 42.

³ SFG (2011), Cost of capital parameters for Sydney Desalination Plant, August.

SFG recommended an equity beta of 0.8 based on 70% gearing and an equity beta of 0.7 if 60% gearing was to be adopted. These beta estimates for the Sydney Desalination Plant were lower than would have been adopted for a water network of average risk, because of specific contractual provisions in the Sydney Desalination Plant which reduced risk. These conclusions were based on a range of evidence including the measurement of asymmetric exposure to market conditions, consideration of internal consistency, and the limited reliability that can be placed on regression-based estimates of beta.

IPART subsequently adopted a range for equity beta of 0.6 to 0.8 (point estimate of 0.7) based on 60% gearing. The reasons for that decision are set out in Chapter 9 of IPART's Final Report⁴ and broadly mirror the SFG advice summarised above.

I hope this information about why the regression-based estimates cited in the AER's Issues Paper were *not* recommended by SFG or adopted by IPART may be of some use to the AER in its consideration of equity beta. Although the SFG and IPART reports set out their reasons for having regard to other relevant evidence quite clearly, please don't hesitate to contact me if I can be of any further assistance.

Best regards,



Stephen Gray
Director.

⁴ IPART, Final Report – Review of water prices for Sydney Desalination Plant Pty Limited – From 1 July 2012, December 2011,
http://www.ipart.nsw.gov.au/Home/Industries/Water/Reviews/Metro_Pricing/Review_of_Sydney_Desalination_Plant_Pty_Ltds_prices/09_Dec_2011_-_Final_Report/Final_Report_-_Review_of_water_prices_for_Sydney_Desalination_Plant_Pty_Limited_-_From_1_July_2012_-_December_2011.