Managing electricity price volatility to meet customer and regulatory expectations

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Engagement, regulation, electricity

EXECUTIVE SUMMARY

Electricity prices and price volatility have both increased significantly over the past two years driven by transformational changes to the electricity generation mix and fuel costs. Electricity costs represent 30% of Lower Murray Water’s Rural irrigation business controllable costs. Therefore, the increased prices and volatility represents a major risk to the corporation and its customers. Lower Murray Water has collaborated with its customers and worked closely with the regulator, the Essential Services Commission, to develop an electricity price collar mechanism designed to protect the sustainability of the Rural business from electricity price volatility.

YEAR CASE STUDY WAS IMPLEMENTED

2018/19

CASE STUDY DETAIL

Lower Murray Water’s Rural business comprises about 2,800 small to large sized agricultural businesses that compete mainly in global markets. Table grapes, dried fruit, citrus, avocados and wine grapes supply markets in Asia and Europe. Growers are acutely aware of the need for both quality and cost competitiveness of their product. The reliability of the Lower Murray Water’s infrastructure to deliver water is crucial to maintaining quality. Because horticulture requires long term investment, customers value price stability as well as price competitiveness.

LMW pumps water from the Murray River and delivers water through a network of channels and pressurised pipes. The continued sustainability of the water delivery infrastructure depends upon Lower Murray Water securing stable cashflows from its customers to fund the 20-year asset renewal and replacement master plan.

The electricity consumption of the Lower Murray Water irrigation pumps peaks at around 14MW during summer. The peak pumping period coincides with the highest and most volatile electricity spot prices and has the coincidence of peak load and price volatility has the effect of amplifying electricity price volatility risk.

Under the regulatory regime, Lower Murray Water is subject to a revenue cap that is derived from a building block approach that includes the cost of electricity. Electricity costs are included in the revenue cap and represent a median case price forecast with a risk premium. Under this approach Lower Murray Water may be exposed to the risk of extreme electricity price increases because it would, under the normal regulatory framework, be unable to pass on the associated costs to customers through price increases. This situation could seriously affect Lower Murray Water’s financial capacity to undertake asset operations and maintenance and threaten its sustainability and reliability of water supply.

Lower Murray Water worked with its customer committees to develop a collar mechanism that would enable the corporation to increase water delivery prices to customers if electricity costs exceeded a pre-determined price cap. In these instances, Lower Murray water has agreed to collaborate with its customers to decide
whether to increase prices to ensure that the renewal and replacement program is funded or to increase debt to provide the funding. Similarly, Lower Murray water worked with the ESC to ensure that the collar mechanism met the requirements of the regulatory framework and provided transparency and proper allocation of risk.