



Seed Advisory

LGC and Electricity Trading Review

Report for Sydney Desalination Plant

19 October 2016



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1 Executive Summary

1.1 Introduction

Sydney Desalination Plant Pty Ltd (SDP) has been deemed a monopoly supplier of non-rainfall dependent water. Consequently, the prices it charges to Sydney Water are determined every five years by the Independent Pricing and Regulatory Tribunal (IPART). SDP's current determination expires on 30 June 2017.

Given the Sydney dam levels the desalination plant is currently in water security mode. Under their electricity and renewable energy supply contracts, SDP has a minimum level of electricity and Large Scale Generation Certificates (LGCs) that they must purchase. To manage costs, SDP has a right to sell (or trade) any surplus LGCs and electricity.

SDP have engaged Seed Advisory Pty Ltd (Seed) to undertake an independent expert review of their LGC and electricity trading approach for the period 1 July 2012 – 30 June 2016.

This report summarises the findings of this review.

1.2 Overview of scope

In brief, the scope of this project involved undertaking an independent expert review of SDP's LGC and electricity trading for the period 1 July 2012 – 30 June 2016. This involved assessing whether the trading activities reasonably captured value for money recognising the risk appetite of the SDP Board (inferred through their Electricity and LGC trading policy¹ ["The Policy"]), the LGC and electricity contracts with Infigen (refer Section 3.1), the business context of SDP (as a water utility and not a sophisticated energy trading business) and the relative maturity of the business.

Section 2.1 outlines the scope of work in further detail including the specific exclusions.

1.3 Overview of approach

Our approach involved:

- Reviewing electricity and LGC trading related information provided by SDP (refer Section 2.2.1);
- Analysing this information in light of the scope of work (refer Section 4);
- Discussing any questions of clarification or issues with key SDP personnel; and
- Preparing this report.

1.4 Key findings

Our review has identified that based on the information provided by SDP for the period 1 June 2012 to 30 June 2016:

¹ This policy was approved by the SDP Board in September 2016. We understand through discussions with SDP that whilst not formally documented and approved the current policy best reflects the framework within which SDP operated during the period of our review. Our review has been conducted on this basis.



- the LGC and electricity trading activities were broadly consistent with SDP's Policy requirements;
- these activities were prudent and reasonable for a company not actively engaged in the energy market; and
- within this context these activities have achieved value for money.

Our review identified the following points to note:

- SDP's Policy requires at least two quotes to be obtained from independent sources prior to transacting any LGC trade. In the period December 2012 – January 2013 there were four (4) LGC transactions where only one quote was obtained. We understand through discussions with SDP that this may be more an issue of incomplete record keeping than necessarily non-compliance. In addition, these LGC trades were executed within 2 per cent of the prevailing market prices.
- SDP did not sell any LGCs during the period October 2013 – December 2013. SDP advised this was due to the political and regulatory uncertainty surrounding the potential repeal of carbon tax at that time and the unknown effect on the LGC market. This approach is consistent with SDP's Policy that acknowledges that SDP is exposed to regulatory risk but there is limited scope for SDP to materially mitigate this risk. The Policy contemplates SDP keeping abreast of potentially material changes to regulations that may impact the LGC market and developing mitigation strategies where feasible. We are satisfied that SDP's decision to not trade LGCs during this period was consistent with this policy requirement and reasonable and prudent given the circumstances.



2 Scope and approach

2.1 Scope of work

Our scope of work included:

- Undertaking an independent expert review of SDP's LGC and electricity trading for the period 1 July 2012 – 30 June 2016.
- Confirming that the trading was consistent with the key requirements of the Board approved policy, noting that the policy was formally approved in September 2016.
- Assessing the performance of the LGC and electricity trading activities to capture value for money. This recognises the risk appetite of the Board (inferred through the Policy), the LGC and electricity contracts with Infigen, the business context of SDP (being a water utility and not an energy trading business) and the relative maturity of the business.

The scope excluded:

- Undertaking an audit or providing an audit opinion on the LGC and electricity trading activities of SDP. We did not independently verify the information provided by SDP.
- Confirmation that the LGC and electricity trading were fully compliant with the Policy. Section 3.2 outlines the key requirements of the SDP policy we considered.
- A validation or review of the total financial value of the LGC and electricity transactions. We were not required to assess or review this calculation.
- An assessment or comparison of the potential value from selling surplus LGCs to be achieved through alternative strategies. We were required only to consider the reasonableness of SDP's strategy.

2.2 Approach

Our approach involved:

- Reviewing electricity and LGC trading related information provided by SDP (refer Section 2.2.1);
- Analysing this information in light of the scope of work;
- Discussing any questions of clarification or issues with key SDP personnel; and
- Preparing this report.

2.2.1 Information provided by SDP

SDP provided us with the following information:

- A copy of the LGC and Electricity Trading policy approved by the SDP Board dated September 2016.
- An Excel spreadsheet containing each LGC trade in the period 1 July 2012 – 30 June 2016. The spreadsheet contained information such as trade date, LGC volume, quotes obtained, counterparty, executed price and market price.
- Copies of their LGC and electricity supply contracts with Infigen Energy.
- Example LGC trade confirmations for three trades with separate counterparties. These were to provide an indication of the key terms and conditions of the trades.



- An Excel spreadsheet with an extract from SDP's REC Registry with the Clean Energy Regulator. The REC Registry is an online system that manages the creation, surrender and transfer of LGCs. This extract itemised all relevant LGC activities (creation, surrender and transfer) involving SDP for the period 1 July 2012 to 30 June 2016.



3 SDP contractual and policy environment

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3.1 Electricity and LGC supply contracts

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3.2.2

[Redacted]

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■ We understand through discussions with SDP that whilst they have up to 8 months to ramp up operations from water security mode from receipt of notice.

³ Sydney Desalination Plant – Efficiency and Energy Adjustment Mechanisms, Water – Methodology Paper, IPART, April 2012



4 Analysis

This section documents the results of our analysis.

4.1 LGC trading

[Redacted]

- [Redacted]
- [Redacted]
- [Redacted]

4.1.1 Compliance with policy

[Redacted]

- [Redacted]
- [Redacted]
- [Redacted]

4.1.2 Reasonableness of SDP's strategy and obtaining value for money

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4.1.3 Electricity trading

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5 Conclusions

We acknowledge that sophisticated energy trading businesses could implement more complex trading strategies including a specific forward electricity trading strategy that may have achieved higher returns.

However we believe this is not a core competency, nor is it appropriate given SDP's operating rule or necessarily a business requirement for SDP. Were SDP to implement such strategies the risks and costs would most likely outweigh the benefits.

Our review has therefore identified that based on the information provided by SDP for the period 1 June 2012 to 30 June 2016:

- the LGC and electricity trading activities were broadly consistent with SDP's policy requirements;
- these activities were prudent and reasonable for a company not actively engaged in the energy market; and
- within this context these activities have achieved value for money.



A. Overview of Seed Advisory

Formed in 2008, Seed Advisory is an independent commercial advisory firm specialising in the energy sector covering electricity, gas, renewable technologies and carbon and spans the entire value chain. Key services include the provision of commercial, policy, strategic and risk management advice to energy companies, energy users, infrastructure businesses, regulators, governments, financial institutions, entrepreneurs and investors.

Seed Advisory has worked with several water utilities including the Intelligent Water Network (IWN), Melbourne Water, GWM Water, South East Water, City West Water and Wannon Water. Our work with water utilities includes the recently completed feasibility study on industry scale renewable energy, preparing a business case to develop a renewable energy strategy and business case for the Board of Directors of one water utility. Our work has also included identifying options to reduce energy costs and developing a comprehensive energy strategy. For another water utility we spent over 9 months with their energy team and management developing an energy strategy to reduce costs.

We have also advised: the Victorian Government; ARENA; the Clean Energy Finance Corporation; Low Carbon Australia; the Carbon Markets Institute (with ClimateWorks Australia); the Australian Energy Markets Commission; the Australian Energy Market Operator; the Independent Market Operator, Western Australia; the Western Australian government; the Commonwealth Government, a range of market participants in Australian electricity and gas markets and their peak organisations, including the National Generators Forum, the Private Generators Group and the Energy Retailers Association of Australia.

Leading this project was Peter Eben, a Director and co-founder of Seed. Peter has over 18 years practical and advisory experience across the energy value chain covering consumers, retailers, networks, wholesale participants, regulators, governments and investors.

His expertise covers the gas, electricity, carbon and renewable energy markets. Peter has worked in senior management position at Energy Australia, AGL, Pulse Energy, United Energy and IKON Energy as well as at KPMG.

Peter is also a former member of ARENA's R&D advisory panel and a qualified actuary with strong analytical and risk management skills.

David Priest is an Associate of Seed Advisory and an executive consultant to the energy industry. David worked with Peter on this project. David has 14 years' experience across the energy industry including GM Trading at Energy Australia where he had overall responsibility for the wholesale trading division for electricity, gas, coal, carbon and renewables. He has been a member of the AFMA Electricity committee, Energy Risk committees and is an AFSL responsible manager.

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