Sydney Desalination Plant: Review of Prices and Methodology Paper

29 August 2016

WHAT

IPART is reviewing prices that the Sydney Desalination Plant (SDP) can charge for:

- the supply of drinking water, and
- making the desalination plant available to supply drinking water.

IPART is also reviewing the 2012 Methodology Paper which outlines its approach to implementing:

- an energy adjustment mechanism, and
- an efficiency adjustment mechanism.

WHY

Prices set for SDP at our last review conclude on 30 June 2017. The new prices will apply from 1 July 2017.

We are also reviewing our Methodology Paper to ensure it remains appropriate for future determinations. Any changes to the Methodology Paper will not affect prices in the 2017 Determination but will create incentives throughout the 2017 determination period.

Our Issues Paper summarises the key issues in the Methodology Paper and in setting SDP's prices. It outlines our preliminary views on these issues and seeks stakeholder comments.

HOW

IPART has an established way of conducting a price review. Consultants will assist us to review SDP's capital and operating expenditure proposals, including its energy costs. We will then set prices to allow SDP to raise the revenue it requires to recover its prudent and efficient costs in each of its operational modes.

We also make decisions on:

- The length of time for which we set prices.
- The appropriate price structures for SDP's different operating modes.
- How to address risks and other uncertainties that SDP faces.
- How to incorporate efficiencies or other benefits for customers.

Finally, we consider the impacts of these decisions on SDP, its customers (including Sydney Water Corporation) and other stakeholders.

For the Methodology Paper, we will seek stakeholder input on how the existing energy and efficiency adjustment mechanisms are working and what changes, if any, should be made to these mechanisms.

WHEN

The timetable for these reviews is on page 3.

WHAT NEXT

SDP will respond to our Issues Paper by 24 October 2016 with its Pricing Proposal. SDP has issued a Preliminary Position Paper.

Stakeholders will be able to comment on SDP's Pricing Proposal and our Issues Paper by 11 November 2016.

We prefer submissions via our online form. You can also send comments by fax to (02) 9290 2061, or by mail to:

SDP Review of Prices and Methodology Paper
Independent Pricing and Regulatory Tribunal
PO Box K35
Haymarket Post Shop NSW 1240

Unless they are identified as confidential, we plan to put all submissions on our website soon after the closing date for submissions.

1 What are the key issues in the review of Sydney Desalination Plant's prices?

SDP is a drought response measure for the residents of greater Sydney. It provides an additional source of water when dam levels are low and currently operates under an intermittent 'on' and 'off' regime triggered by dam storage levels.

In this review, we are considering how to improve SDP's operating flexibility, to enable it to better respond to droughts, while at the same time encouraging its efficient use when dam levels are high.

In particular, we are considering if there are opportunities for the price determination to assist in minimising the time it takes for SDP to reach full production during drought, while also minimising the costs of maintenance and capacity testing outside of drought.

We are likely to maintain many features from the 2012 Determination that apply to SDP in its drought response role, while seeking to improve its operating flexibility in this role. We will ensure that our regulatory settings create incentives that align with SDP's water security role, as outlined in the Government's Metropolitan Water Plan.[1]

At all times, we are mindful that any changes in the 2017 Determination should enhance the overall long-term interests of water users.

Theme	Key Issues
Price structures	We propose refining the price structures to enable greater pricing and operating flexibility to promote the efficient use of the plant. Among other things, we propose: ▼ Splitting the fixed charge for each operating mode into a **base 'water security' charge** and an **incremental service charge**. Our view is this approach is more transparent and better reflects the different fixed costs of each operating mode: o The base 'water security' service charge reflects the fixed costs that SDP incurs when it is shutdown for more than two years. o The incremental service charge reflects the additional fixed costs SDP incurs when the plant is in each mode. ▼ A water usage charge reflecting the operating costs of supplying drinking water. We will also examine the ongoing relevance of different shutdown modes. We propose to continue separate pricing of the pipeline that transfers water from SDP to Sydney Water Corporation's (Sydney Water) main water supply at Erskineville.
Sharing costs between multiple customers	We are reviewing the mechanisms for sharing SDP's costs. Among other things, we propose: ▼ Introducing an impactor pays principle for sharing SDP's base 'water security' service charge. That is, this base charge should be shared between Sydney Water and any other bulk water customers based on their respective share of total water system demand (not their share of the desalination plant's output). ▼ Sharing incremental fixed costs incurred when the plant operates between SDP's customers based on a user pays principle. That is, incremental service charges should be shared based on each customer's use of the desalination plant. ▼ SDP's customers would pay the variable costs of the desalinated water they each have purchased.

[1] NSW Government, *2010 Metropolitan Water Plan*, August 2010. This Plan is scheduled to be updated. See NSW Government, Metropolitan Water Directorate, *Updating the Plan*, at http://www.metrowater.nsw.gov.au/planning-sydney/updating-plan, accessed on 11 July 2016.

Theme	Key Issues
Increasing SDP's operating flexibility when dam levels are low	We are considering ways to increase SDP's operating flexibility when dam levels are low (ie, in its drought response role) to promote its efficient use. In particular, we are considering: ▼ Enabling SDP to sell water without penalty when it is ramping up to full production. Currently, SDP is prohibited from doing this by an abatement mechanism.[a] ▼ Enabling SDP to sell water when it is transitioning to shutdown from full production or for a minimum run time when called into operation. Currently, SDP is prohibited from doing this by the nil usage price[b] to Sydney Water.
Increasing SDP's operating flexibility when dam levels are high	We propose enabling SDP to sell drinking water to Sydney Water upon request.[c] This is currently prevented by the nil usage price. For example, Sydney Water might decide that purchasing water from SDP is a cost-effective way for it to meet its service obligations while it deals with temporary maintenance issues in part of its network. Allowing SDP to operate more flexibly when dam levels are high may also reduce the time the plant spends in shutdown mode, thereby reducing maintenance costs and the bulk service charges paid by customers.
Increasing SDP's operating flexibility in maintaining its asset	We are considering how the plant may be most efficiently and cost effectively maintained. We are examining if there is a need for periodic testing of the plant, where small amounts of water are produced, to assist in maintaining the plant and reducing base service charges to customers in the long-term.
Energy costs	Desalination is an energy intensive process. We are examining what SDP's efficient energy costs are for the 2017 determination period.
16 December 2015 storm event	We are examining the impact of the 16 December 2015 storm event on SDP. In particular, we will consider what costs (if any) SDP should recover from its customers in situations when it is unable to be operated.

[a] An abatement mechanism applies to SDP's fixed charges if it produces volumes of water less than the plant's full production capacity when it is in drought response mode.

[b] In the 2012 Determination, we set a nil price for any water supplied to Sydney Water when dam levels are high ie, outside the 70/80 rule.

[c] Sydney Water's purchase of desalinated water when dam levels are high must be prudent and efficient. Because Sydney Water is a provider of monopoly services itself, we set Sydney Water's retail prices and subject its bulk water costs to prudence and efficiency tests (to the extent that it proposes to pass these bulk water costs into its customers through its regulated retail prices).

2 What are the key issues in the review of the 2012 Methodology Paper?

We are reviewing the 2012 Methodology Paper, which outlines our approach to:

- an energy adjustment mechanism (**EnAM**), and
- an efficiency adjustment mechanism (**EfAM**).

Any changes to the Methodology Paper will not affect prices in the 2017 Determination. But changes may affect prices in future determination periods, as SDP will respond to the incentives created in the Methodology Paper throughout the 2017 determination period. Certain aspects of the EnAM and EfAM are also not open to consultation as they are prescribed by the terms of reference that apply to IPART's determination.

For the **EnAM**, we seek stakeholder input on key issues including:

- the calculation method for energy resale gains or losses
- the threshold level and pass-through formula – ie, the appropriate allocation of gains and losses on surplus energy between SDP and its customers
- the treatment of unrealised gains or losses arising from the 'banking' of surplus Renewable Energy Certificates (RECs)

- the market price of electricity and RECs (data sources and averaging methods and periods), and
- the interest rate used to account for financing costs.

For the **EfAM**, we seek stakeholder input on key issues including:

- the inclusion of efficiency losses in the EfAM
- the inclusion of management initiatives in the EfAM
- whether efficiencies should be mode specific, and
- the impact of any existing incentive mechanisms between SDP and the desalination plant operator.

More information on these issues is contained in Chapter 7 of the Issues Paper.

3 Timetable for these reviews

Milestone	Timeframe
Release Issues Paper on the price review and Methodology Paper	29 August 2016
SDP's submission due on the Issues Paper	24 October 2016
Receive public submissions on Issues Paper and SDP's submission	11 November 2016
Public hearing	8 December 2016
Release Draft Determination and Draft Report	March 2017
Release Draft Methodology Paper	March 2017
Receive submissions to Draft Determination and Draft Report and Draft Methodology Paper	April 2017
Release Determination and Final Report	June 2017
Release Final Methodology Paper	June 2017
New prices take effect	1 July 2017