

Department of Planning and Environment


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Review of prices for Sydney Desalination Plant Pty Ltd from 1 July 2023

Submission to IPART

January 2023



Acknowledgement of Country

The Department of Planning and Environment acknowledges that it stands on Aboriginal land. We acknowledge the Traditional Custodians of the land and we show our respect for Elders past, present and emerging through thoughtful and collaborative approaches to our work, seeking to demonstrate our ongoing commitment to providing places in which Aboriginal people are included socially, culturally and economically.

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More information

Urban Water Strategy, Policy and Programs, Water Group

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Introduction

The Department welcomes the opportunity to make a submission in response to the November 2022 Issues Paper released by IPART as part of its review of Sydney Desalination Plant Pty Ltd (SDP) prices.

During the recent drought (2017 -2020), SDP was switched on in January 2019, slowing dam depletion and assisting in managing the drought. Since the drought broke and the easing of water restrictions SDP has continued to operate to assist in managing poor water quality in the dams as a result of bush fire affected catchments and high inflow events. SDP produced approximately 22.5 gigalitres (GL) of drinking water in 2021/2022.

The Greater Sydney Water Strategy was released in August 2022 with a strong emphasis on conserving water and using water more efficiently, while exploring options to make Sydney more resilient and less dependent on rainfall for our future water supply.

A key direction in the Strategy is to change the operation of SDP from a drought response mode to flexible full-time operation to slow dam depletion during drought and to increase the overall resilience of the water supply.

To enable effective and efficient operation of SDP in this manner is a significant change in the operating philosophy. It requires new considerations for how water is ordered, new Network Operator Licence conditions, and new approaches to pricing that will deliver both value to customers and encourage flexible fulltime operation of SDP in a manner that meets the needs of the NSW Government, Sydney Water and SDP.

The focus of this submission is on the alignment of the SDP price submission and the intended approach to operation with the outcomes of the Greater Sydney Water Strategy (GSWS).

We encourage IPART to ensure that the prices that are set reflect the efficient cost of service provision so as to minimise the impact on customers and make it as affordable as possible.

Greater Sydney Water Strategy

The GSWS charts a direction for delivering sustainable and integrated water services to Greater Sydney for the next 20 to 40 years. The Strategy outlines an approach for servicing a growing Greater Sydney, even through periods of severe and prolonged droughts and other extreme events including floods. The GSWS includes the delivery of drinking water, wastewater, recycled water and stormwater services in a way that is integrated with land use planning. This includes how we plan for development so that Greater Sydney's waterways, natural environment and biodiversity are protected and so that water is available to support recreational activities, cooling and greening initiatives and improved amenity and liveability in urban areas.

While the existing dam network and desalination plant provide a substantial supply to Sydney, future demand for water means that we cannot solely rely on these to meet all of our water needs. Our climate is changing, and we need to be prepared for more extreme events. This requires that our water supply system be more resilient to droughts and floods, as well as risks to water quality like bushfires.

These challenges were highlighted in the most recent drought (2017-2020) where water storage levels depleted at a much higher rate than previously experienced. In the summer of 2019/20, bushfires devastated drinking water catchment areas, posing water quality treatment challenges, while the recent floods in the Hawkesbury-Nepean refocused attention on the flood risk from Greater Sydney's major water sources, including the Warragamba and Upper Nepean catchments.

The GSWS highlights the importance of making the most of our existing water supplies and adding to this over time to meet the needs of a growing population and respond to climate change. Current population growth in Greater Sydney means that the city's water supply system is now at a sustainable limit and without the actions outlined in the GSWS the supply will be insufficient to meet demand over the long term.

This highlights the need to have a plan in place to address a future supply shortfall. Current weather conditions and full surface water storages have provided us with the time we need to plan and act and to progress a range of short-term responses to support long-term growth and resilience. These include conserving more water and using it more efficiently so it can save up to 49 GL/year by 2040. It also includes relatively low-cost changes to the operation of the SDP to enable flexible and continuous operation. Operating at full capacity before the onset of drought conditions will result in higher storage levels at the start of a drought and will slow the rate of depletion during the drought, increasing water supply by approximately 20 GL/year under average conditions, and more when needed. Through this operation, more water supply would also be available quickly if needed due to a change in circumstances, including operational or water quality risks.

Decision Framework

The Department of Planning and Environment, Sydney Water and SDP collaborated to develop a framework that would guide flow requests from Sydney Water to SDP that would deliver on the outcomes of the Strategy, provide value for customers, allow for maintenance as planned and needed, and provide the flexibility to respond quickly to rapidly changing dam levels or other water quality or asset management issues.

The Decision Framework provides a clear and transparent framework for Sydney Water to make production requests to SDP that will satisfy the objectives of the GSWS, reflect the new operating rules, and deliver value for customers.

The Decision Framework was endorsed by the Minister for Lands and Water in July 2022.

Under the previous Metropolitan Water Plan (2017), SDP would not commence operation until dam levels dropped to 60% and would switch off again at 70%. If SDP was not in operation, the time to restart could be up to 8 months. In order to make better use of our existing assets, the GSWS proposed changing the operating philosophy for the SDP.

Under the Decision Framework, the intent is to balance the benefits of quick increases in operation against the increased cost of production. In general, SDP will operate at a minimum production level at high dam levels that would be sufficient to enable rapid increase in production if required but would also minimise production at times when storage levels are high. Under the flexible operation regime, production would increase as dam levels started to fall, and then reach full production to manage drought conditions or other system shocks.

Network Operators Licence

The Minister for Lands and Water issued amended licence conditions for SDP operations on 19th September 2022. These reflected the intent for flexible full-time operation in accordance with the GSWS and the Decision Framework. The key licence condition, as it relates to the objectives of the GSWS is Schedule A Clause 1.2 (a)

The licensee must comply with any Annual Production requests made by the Sydney Water Corporation under the Decision Framework provided that the request is consistent with the Decision Framework, and;

a) the Licensee will not be in breach of this obligation if the Licensee produces in the relevant financial year an amount of water that is between 90% and 110% of the Annual Production Request.....

To provide for the flexibility required under the GSWS and the Decision Framework the licence also makes provision for amendments to the flow requests.

Terms of Reference

Prior to the commencement of the SDP Price Review, the Minister for Water provided terms of reference to IPART for undertaking the review.

Under Section 52 of the *Water industry Competition Act 2006* (WIC Act), the Minister may issue terms of reference to outline the specific matters and key principles that the Minister requires IPART to consider in undertaking its review.

In June 2022, the Minister for Water amended the previous Terms of Reference to reflect the change to flexible full-time operation in accordance with the new operating approach. The Minister encouraged IPART to work with stakeholders to consider the implications of the new operating regime with a view to creating a pricing framework that is in the long-term interests of customers and consistent with the decision framework and need for a more flexible operating approach.

Key principles under which SDP is expected to operate include:

- that the plant provide a minimum base load volume each year to achieve the desired performance;
- that the plant can respond to shocks in the network as required by the agreements between SDP and Sydney Water and;

- that the volume of water produced by the plant can be varied as needed in line with the decision framework to balance the need to increase the resilience of the system and maintain cost effectiveness, including bolstering supply during drought to slow dam depletion while decreasing production when dam levels are high in order to reduce operational costs.

A full list of the pricing principles to be considered by IPART are described in the Terms of Reference (published on the IPART website at: ipart.nsw.gov.au/documents/terms-reference/updated-terms-reference-sydney-desalination-plant-pty-ltd-june-2022)

SDP Price Submission

This submission is focussed on the alignment of the SDP proposal with the GSWS and Decision Framework.

We encourage IPART to ensure that the prices that are set reflect the efficient cost of service provision so as to minimise the impact on customers and make it as affordable as possible.

Specific comments are provided in response to the following questions raised by IPART in the Issues Paper.

<p>Question</p> <p><i>Are the operating assumptions that underpin SDP's pricing proposal (i.e a minimum production level of 23 GL per year with an ability to adjust production levels at short notice both inside and outside of drought) in line with SDP's role identified through the Greater Sydney Water Strategy</i></p>
<p>Response</p> <p>The GSWS identifies the benefits of the full-time flexible operation of SDP. Modelling to inform the GSWS assumed a minimum/baseline production of 50 ML/day for the Plant. The Department is satisfied that the baseline production of 23 GL/year (63 ML/day) proposed by SDP is a reasonable starting point for IPART's consideration and consistent with the intent and strategic outcomes of the GSWS. It was anticipated that SDP might revise their efficient level of baseline production subsequent to the time at which the GSWS was developed following further analysis and IPART can determine an efficient production level. Having a level of baseline production for SDP from which it can rapidly ramp up to increased or full production levels is an important objective of the GSWS.</p>
<p>Question</p> <p><i>Does SDP's proposal represent a reasonable and efficient balance of service levels and costs?</i></p>
<p>Analysis undertaken in developing the GSWS, and confirmed in the price submission from SDP, is that the change to flexible full-time operation will only have a modest impact on customer bills. Modelling indicated that operation of SDP as per the new Decision Framework, compared with the drought response settings in the 2017 Metropolitan Water Plan, could delay the imposition of severe restrictions or the time until reaching critically low dam levels if severe and prolonged drought conditions were to be experienced.</p>
<p>Question</p>

Does SDP's pricing proposal represent a fair and efficient allocation of risk between SDP, Sydney Water and end use water customers

While the Department supports the proposed pricing approach by SDP it is noted that the proposal represents a very low level of risk to SDP. In general, the return received should reflect the level of risk taken on by SDP. Any reduction in risk to SDP should include a reduction in its return so that it approaches the risk free rate of return in the market. If SDP takes on no risk it should not earn a risk premium and only earn the risk free rate of return.

Question

Many of the costs in SDP's proposal assume it will be operating at full production for the next five years. Is this a reasonable expectation?

It is highly speculative to assume that SDP will be running at full production over the next 5 years. While there are a number of circumstances under which production may be greater than minimum (i.e. low dam levels, ongoing raw water quality issues, or other major system changes), the assumption that SDP will operate at maximum production over the next 5 years represents a worst case scenario from a cost perspective.

Question

If the proposed Service Level Incentive Scheme (SLIS) is adopted, do you think it should provide financial rewards for overproduction. If so, do you think the 10% bound is an appropriate bound?

The Annual Flow Request, or amendments to the Annual Flow Request (as per the Decision Framework) seek to strike a balance between the water security and operational benefits of SDP producing additional water and the additional costs to customers in producing that water. SDP should not be rewarded for producing water significantly in excess of what is requested.