



SYDNEY
DESALINATION
PLANT

SDP PRICE PROPOSAL

Prices from 1 July 2027
to 30 June 2032

25 September 2026

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SDP Price Proposal 2027-2032

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CHAIR AND CEO FOREWORD



We are pleased to present Sydney Desalination Plant's 2027-32 Pricing Proposal, which sets out how we'll continue to deliver value for the people of Sydney.

The Sydney Desalination Plant (the Plant) plays an integral role in Sydney's water security as the only large-scale rainfall-independent source of drinking water supporting a growing population and increasing demands from industry. Since transitioning to flexible full-time operations, we have maintained the capability and readiness to respond to Sydney Water's drinking water supply requirements.

This is our first pricing proposal under the Independent Pricing and Regulatory Tribunal of New South Wales's (IPART's) new '3Cs' regulatory framework and our most customer-focused proposal to date. It has been developed to meet the expectations of Sydney Water, customers, stakeholders and the community.

Engagement feedback has materially shaped our proposal. This proposal incorporates our extensive customer and stakeholder consultation and, based on feedback obtained during this consultation, seeks to balance drinking water supply quality and reliability, requirements of our Operating Licence and cost to customers. To support this pricing proposal, we have engaged extensively with Sydney Water, the NSW Government and our panel of customer advocates. We also sought to incorporate the findings from Sydney Water's own extensive customer engagement program.

The 2027-32 pricing period marks an exciting new phase in SDP's operations. Since moving to flexible full-time operations in 2023, we have played a greater role in strengthening Sydney's drinking water supply resilience to add value beyond the traditional drought response role we played in the past.

We have had the opportunity to learn from our flexible full-time operations and find better and more efficient ways to deliver our services for customers. Our commitment to cost efficiency continues and our proposal recognises the cost pressures facing households and businesses. We will, however, continue to prioritise drinking water supply reliability and flexibility and be ready to meet Sydney Water's needs.

The Plant is ageing and will require an uplift in capital investment over the coming decade. This is required to continue to meet the expectations of the community and play our role supporting Sydney's drinking water supply resilience. Our long-term energy contracts will also expire during the 2027-32 regulatory period, which will give us the opportunity to re-negotiate a new renewable energy deal that is in the long-run interest of customers while meeting Sydney Water's need for highly flexible and responsive supply.

Under this proposal, our bills to Sydney Water would remain flat over 2026-27 to 2031-32 (declining by an average of 0.01% per year over the period, excluding the impact of inflation from 2027-28 onwards). When passed through to Sydney Water's customers, our portion of a typical household bill would reduce by an average of 1.8% per year.

The Board and Management stand behind the proposal because it will provide value for Sydney Water, its customers and the broader Sydney community.

We look forward to engaging constructively with IPART, the NSW Government, Sydney Water and its customers throughout the price review process, and to demonstrating the value and confidence underpinning this proposal.



A blue ink signature of Adelle Howse.

Adelle Howse

Chair and Non-executive Director



A blue ink signature of Philip Narezzi.

Philip Narezzi

Chief Executive Officer

CONTENTS

Chair and CEO foreword	3
Our value proposition to customers	8
Chair attestation letter	9
Executive Summary	10
A Proposal Shaped by Customers and Stakeholders	11
Learning from Flexible Full-Time Operations to deliver Long-Term Water Security	12
Delivering Outcomes that Matter to Customers	13
Maintaining Affordable and Cost-Reflective Prices	14
Investing Prudently in Critical Infrastructure	15
Managing Future Energy Costs and Environmental Commitments	16
Supporting Financial Sustainability and Regulatory Stability	19
We have developed a high-quality pricing proposal	19
Summary of SDP's proposed positions for the 2027-32 regulatory period	20
The structure of this proposal	24
1. How we developed our customer centric pricing proposal	25
1.1 Our engagement approach and principles were best practice for a bulk water supplier	26
1.2 We engaged extensively through a multi-stage program	30
1.3 Workshop participants collaborated with us and drove the engagement agenda	33
1.4 Workshop participants were equipped to make informed decisions	35
1.5 Feedback from customers shaped our proposal	36
1.6 Our CAP interpreted and applied the values of Sydney Water's customer feedback	37
1.7 We engaged extensively with our direct customer, Sydney Water	38
1.8 How customers have influenced this proposal	39
1.9 Our focus principles for this proposal	44
2. How we will deliver our customer outcomes	47
2.1 We propose to adopt Sydney Water's Customer Outcomes	48
2.2 The Customer Outcomes reflect end-customer feedback	48
2.3 We will contribute towards Sydney Water delivering for its customers	49
2.4 Our approach demonstrates a high level of customer centricity	50
2.5 We will track our progress using performance measures and targets	50
2.6 Our performance measures are aligned with customer value	51
2.7 Our Performance targets will drive better outcomes for customers	54
2.8 Our performance measures and targets reflect customer engagement feedback	55
2.9 We will be accountable for achieving customer outcomes	57

3.	Learning from our flexible operations to deliver long-term performance	58
3.1	Our services	59
3.2	How our operating regime has changed over time	63
3.3	What we have learned since being run on a flexible, full-time basis	68
4.	Prices and end-customer bill impacts	72
4.1	Our proposed price structure is cost-reflective and fair	73
4.2	Our proposed prices	76
4.3	Bill impacts for Sydney Water	77
4.4	Bill impacts for Sydney Water's customers	77
5.	Capital Expenditure	78
5.1	Overview of our long-term capital expenditure	79
5.2	Our forecast prudent and efficient capex for 2027-28 to 2031-32	83
5.3	Approach to forecast capex over the 2027-32 regulatory period	98
5.4	Why our forecasts are prudent and efficient	102
5.5	Deliverability of our capex program	102
5.6	Our prudent and efficient capex for the current period (2023-27)	104
6.	Operating Expenditure	109
6.1	Overview of our opex from 2027-28 to 2031-32	110
6.2	How stakeholders influenced forecast opex	111
6.3	Plant and Pipeline opex in the current period (2023-24 to 2026-27)	113
6.4	Our forecast Plant opex for 2027-28 to 2031-32	115
6.5	Our forecast Pipeline Opex for 2027-28 to 2031-32	129
7.	Energy costs	132
7.1	Overview of our proposed approach to setting the unit cost of energy for the 2027-32 regulatory period	133
7.2	How stakeholders have influenced this proposal	137
7.3	Background and context for energy	139
7.4	IPART's approach to energy cost allowances for the 2023-27 regulatory period	144
7.5	Principles for setting SDP's energy cost allowance for the 2027-32 regulatory period	146
7.6	Wholesale and renewable costs	148
7.7	Energy network costs	160
7.8	Subordinate energy costs	164
7.9	Energy retail costs	164
7.10	Our energy volume forecasts	165
8.	Revenue requirement	166
8.1	Overview of our proposed revenue requirement 2026-27 to 2031-32	167
8.2	Rolling forward our regulatory asset base (RAB) to 30 June 2027	173
8.3	Proposed RAB for 2027-28 to 2031-32	174
8.4	Our proposed return of assets over 2027-28 to 2031-32	175
8.5	Proposed return on assets over 2027-28 to 2031-32	176

8.6	Proposed working capital allowance for 2027-28 to 2031-32	180
8.7	Proposed tax allowance for 2027-28 to 2031-32	181
8.8	Proposed opex allowance for 2027-28 to 2031-32	182
8.9	Proposed adjustments for the EAM	183
8.10	Proposed adjustments for the ECM	183
8.11	Proposed adjustments for the cost of debt true-up	184
8.12	Financeability	185
9.	Regulatory framework and settings	188
9.1	We propose a 5-year regulatory period	189
9.2	We propose IPART does not determine prices for supply to entities other than Sydney Water	190
9.3	We also propose to share profits of any other non-regulated revenue	192
9.4	We do not propose IPART's 3Cs financial incentive schemes	192
10.	3Cs grading	195
10.1	Our self-assessment grading is Standard	197
10.2	Customer principles	198
10.3	Cost principles	199
10.4	Credibility principles	200
	Glossary	201
	Abbreviations	208
	Appendix	
1.	Public Attachments	211
2.	Other information provided to IPART	212

OUR VALUE PROPOSITION TO CUSTOMERS

This proposal sets out SDP's best customer value proposition for the 2027-28 to 2031-32 (2027-32) regulatory period. It incorporates the views of water customers and seeks to meet Sydney Water's operational needs while keeping bills as low as possible over the long term.

Affordable, reliable and secure rainfall independent water supply: Customers told us they value affordability, fair pricing, water security, reliability, water quality, environmental responsibility and clear reporting. We have reflected these priorities in this proposal. We engaged directly with Sydney Water, our Customer Advisory Panel (CAP) and the NSW Government, and drew on the extensive amount of information on customer views and preferences obtained through Sydney Water's recent customer engagement program. In response to customer feedback, we incorporated all recommendations of the CAP, reassessed expenditure priorities, deferred projects, and adopted performance measures that align with the outcomes customers value.

Maintaining reliability: Our proposal maintains Sydney's only large-scale rainfall-independent source of drinking water as a reliable part of the broader water supply system. Since moving to flexible full-time operations, SDP has provided water security benefits beyond its original drought response role. The Plant supports Sydney Water during drought, planned and unplanned network maintenance, water quality events and emergencies. Under this proposal, our prices to Sydney Water would fund the efficient level of expenditure needed to maintain this role, while recognising that customers should not pay for expenditure that can be prudently deferred.

Efficient, fair and cost-reflective pricing: Our proposed prices are designed to recover efficient costs and provide cost-reflective signals to Sydney Water. We propose to maintain our existing price structure, with fixed charges recovering readiness and asset-related costs and variable charges recovering costs that vary with the volume of water supplied to Sydney Water. This structure supports efficient production decisions because Sydney Water faces the cost of each additional unit of drinking water it requests, while SDP remains financially indifferent as to whether water is supplied. Under this proposal, Sydney Water's annual bill for SDP's services is forecast to decline by an average of 0.01% per year from 2026-27 to 2031-32 (excluding the impact of inflation from 2027-28 onwards). When passed through to water customers, SDP's component of a typical Sydney Water household bill is forecast to decline by around 1.8% per year.

Prudent capital forecasts that defer expenditure where possible: Our forecast capital expenditure relates to renewal, reliability, water quality and compliance, including membrane replacement, critical asset replacement and periodic maintenance. At the same time, we have removed, reduced, deferred or re-profiled expenditure where that can occur without compromising safety, reliability or service outcomes. This proposal also includes continuing efficiency targets for operating and capital expenditure, and energy efficiency targets that place downward pressure on costs over time.

Efficient sourcing and use of 100% certified renewable energy: Energy costs are the largest variable cost of desalinated water production. This proposal sets out a framework that balances cost, risk and flexibility after SDP's existing renewable energy contracts expire in 2030. Our proposed approach to determining energy cost allowances reflects the efficient cost of energy, while preserving the flexibility Sydney Water needs to respond to changing water supply conditions. Our proposed approach reflects competitively procured, efficient contracts, consistent with the requirements of our Project Approval (up until the expiry of our current contracts), and then uses market-based benchmark allowances, annual updates where appropriate, and symmetric true-up mechanisms so customers pay no more or no less than the efficient cost of energy and renewable energy obligations.

Accountability: The proposal also improves accountability. SDP proposes to adopt Sydney Water's customer outcomes for Customer Experience, Water Quality and Reliability, and Environmental Protection, supported by 10 performance measures and 12 performance targets. These measures focus on matters within SDP's control, including energy efficiency, expenditure efficiency, low customer bills, production request fulfilment, emergency response, readiness, drinking water quality and environmental performance. SDP will report transparently on performance through the regulatory period, giving Sydney Water, customers and the community a clearer basis to assess whether SDP is delivering the outcomes funded through prices.

Value: Overall, our proposal delivers value by combining lower real bill impacts with reliable water security, prudent and efficient expenditure, environmental responsibility and clearer public accountability. It asks customers to fund the costs needed to efficiently maintain SDP's role in Sydney's water supply system, but not expenditure that lacks a demonstrated need during the 2027-32 regulatory period.

Chair attestation

In accordance with IPART's Water Regulation Handbook, July 2023, the Directors of Sydney Desalination Plant Pty Limited (SDP), having made such reasonable inquiries of Management as we considered necessary, attest that, to the best of our knowledge and for the purpose of proposing prices for IPART's review of SDP's prices:

- The pricing proposal would best promote the long-term interests of its customers
- The pricing proposal:
 - Is the business's best customer value proposition and is consistent with our customer engagement strategy.
 - Would deliver services at the lowest sustainable cost and is consistent with our Cost Efficiency Strategy.
- The information provided in the pricing proposal submitted on 25 September 2026 is the best available information of the financial and operational affairs of SDP and has been checked in accordance with the Water Regulation Handbook; and
- The pricing proposal has been subject to a quality assurance check, which certifies the accuracy and consistency of all data, including confirmation of the following:
 - Information in the pricing proposal is consistent with the business's information return (AIR and SIR), the business's financial accounts, and reports against output measures, as relevant.
 - Figures in the business's pricing proposal are accurate and correctly sourced.
 - The pricing proposal includes proposed prices for all the business's regulated services.
- There are no circumstances of which we are aware that would render the information provided to be misleading or inaccurate.

Certified by the Chair of the Board:



Adelle Howse

25 September 2026

EXECUTIVE SUMMARY

This proposal represents the Sydney Desalination Plant's (SDP's) best customer value proposition for the 2027-28 to 2031-32 (2027-32) regulatory period. It seeks approval of proposed prices for the 2027-32 regulatory period and outlines how we will continue to deliver high-quality drinking water efficiently, sustainably and affordably to Sydney Water and its customers.

Our proposal represents the values and priorities of our customers, a commitment to affordability and transparency, and a clear focus on delivering outcomes valued by Sydney Water and the people of Sydney. The proposal balances the need for prudent investment to maintain the Plant's infrastructure with the importance of minimising customer bills, while ensuring SDP remains capable of delivering the reliable, high-quality and climate-resilient drinking water services that Greater Sydney increasingly relies upon.

This proposal also reflects SDP's evolution from a drought-response asset to an integrated, flexible component of Sydney's drinking water supply network. Since amendments to SDP's Operating Licence in 2023 enabled flexible full-time operations, we have gained significant operational experience in supporting Sydney Water during a range of supply system conditions, including network maintenance activities, water quality events and emergency situations. This experience has provided us with a strong evidence base for forecasting costs, prioritising investment and identifying opportunities to improve efficiency over the 2027-32 regulatory period.

Through this proposal, we seek to continue supporting Sydney's long-term drinking water security while delivering safe, sustainable and efficient services at the lowest sustainable cost to customers. Overall, we consider this proposal is at the upper end of the Standard grade and approaching the Advanced grade under IPART's 3Cs Grading Rubric.

A Proposal Shaped by Customers and Stakeholders

This proposal has been developed through our most extensive customer engagement process to date and represents a step change in how we incorporate customer views in our decision-making.

Over more than 12 months, we collaborated with Sydney Water, the NSW Department of Climate Change, Energy, the Environment and Water (DCCEEW), and our Customer Advisory Panel (CAP). This proposal also incorporates insights derived from more than 30,000 comments and qualitative insights gathered from analysing the data from Sydney Water's Our Water, Our Voice customer engagement program.

Through this process, we have sought to understand the priorities of Sydney Water, our direct customer, as well as the expectations and preferences of the households and businesses in Sydney that ultimately fund and benefit from our services. This includes the needs of people experiencing vulnerability, through representation of the Justice and Equity Centre (JEC) on our CAP.

From the customer engagement data, we consistently found the following five matters appear the most important to customers:

**affordability
and
fair pricing**

**drinking water
security,
reliability and
resilience**

**drinking
water quality
and safety**

**environmental
sustainability**

**customer
communication
and
transparency**

Customer and stakeholder engagement materially influenced this proposal. In response to feedback, we reassessed expenditure priorities, challenged forecasting assumptions, identified additional efficiency opportunities, deferred projects that were not immediately required to maintain service outcomes and developed new customer-focused performance measures. We incorporated all recommendations from the CAP into this proposal, demonstrating our commitment to genuine customer co-design and responsiveness.

Learning from Flexible Full-Time Operations to deliver Long-Term Water Security

This proposal outlines how we will continue to deliver safe, reliable and high-quality drinking water services, while supporting the long-term resilience of Greater Sydney's drinking water supply system.

It seeks to balance the objectives of affordability, reliability, environmental sustainability and long-term sound asset management.

As Sydney's only large-scale rainfall-independent source of drinking water, SDP plays a unique role in maintaining drinking water security during droughts, water quality incidents, and when other parts of Sydney's water supply network may be impacted by planned or unplanned maintenance and repairs. Since recommencing operations in 2019, SDP has supplied more than 270 billion litres of drinking water up to the end of August 2026 and has evolved from a drought-response asset to a critical part of Sydney's drinking water supply system, with SDP now operating on a full-time, flexible basis.

The 2027-32 regulatory period represents an important stage in SDP's evolution. Since the introduction of flexible full-time operations in 2023, we have accumulated valuable operational experience that has enhanced our understanding of how the Plant operates under varying production conditions. Previously, the Plant's operating model was largely focused on drought response. Today, we must respond to Sydney Water's Annual Production Requests (APRs) while also retaining the ability to respond to unplanned events, emergencies and rapidly changing drinking water supply conditions.

This experience has generated new insights into:

- customer and system requirements
- asset condition and performance
- energy efficiency under different production levels
- reverse osmosis (RO) membrane performance and replacement timing
- maintenance requirements to maintain reliability
- operational optimisation opportunities
- long-term capital planning needs.

Importantly, we have learned that customer value is not created solely through maximising drinking water production. Value is also created through maintaining readiness, providing operational flexibility, supporting drinking water quality across Sydney and responding quickly when Sydney Water requires additional supply. These learnings have been incorporated into SDP's Asset Management Plan, Long-Term Investment Plan, Asset Management Strategies and Cost Efficiency Strategy, providing a strong basis for expenditure forecasts and investment decisions.

Delivering Outcomes that Matter to Customers

To strengthen accountability and ensure our services remain aligned with customer expectations, we propose to adopt Sydney Water’s Customer Outcomes, which incorporate the expectations and preferences of its customers.

Under the proposal, we will contribute to three customer outcomes:

- **Customer Experience:** we will contribute to positive customer experience by maintaining affordability, operating efficiently, minimising costs and ensuring investment is undertaken only when it is prudent and justified. While we do not have a direct relationship with Sydney Water’s customers, we recognise that our costs ultimately form part of the bills paid by Sydney Water’s customers.
- **Water Quality and Reliability:** This outcome reflects our core purpose. We will continue to supply safe and reliable drinking water, meet Sydney Water’s production requests, maintain operational readiness and provide emergency response capability when needed.
- **Environmental Protection:** We will continue operating using 100% renewable energy, pursue energy-efficiency opportunities, comply with environmental obligations and improve transparency regarding environmental and community outcomes.

Adopting Sydney Water’s Customer Outcomes shows a high degree of customer centricity and it incorporates feedback we received during our Customer Engagement Program.

To support these outcomes, we propose ten performance measures and twelve performance targets covering:

energy efficiency	operating expenditure efficiency	capital expenditure efficiency	maintaining low customer bills	drinking water quality compliance
emergency response capability	production request fulfilment	plant readiness and availability	environmental outcomes	emissions and climate-related performance

To ensure we are held accountable to customers and other stakeholders for our performance, we will publicly report against these measures throughout the regulatory period, including through an annual performance dashboard.

Maintaining Affordable and Cost-Reflective Prices

We propose to maintain our existing pricing structure, which consists of:

- a Plant Service Charge (\$/day)
- a Pipeline Service Charge (\$/day)
- a Volumetric Water Usage Charge (\$/ML)
- a Minimum Water Usage Charge (\$/day).

This structure is cost-reflective because it aligns our fixed charges with our fixed costs and variable charges with our variable costs. Therefore, it ensures SDP remains financially indifferent to production decisions with separate charges for water supply and making the plant available, consistent with the Minister's Terms of Reference (ToR)¹ to IPART for this price determination, and it promotes efficient operational decisions by Sydney Water as Sydney Water faces the additional costs of an additional unit of drinking water supplied by SDP.

A key objective of this proposal is to deliver efficient services at the lowest sustainable cost to customers. We have undertaken a comprehensive review of operating and capital expenditure forecasts to ensure that only prudent and efficient costs are included in the proposal.

Forecasts have been informed by enhanced operational data, benchmarking, detailed asset assessments and lessons learned since transitioning to flexible operations.

The proposal also builds on our established record of efficiency improvements. We have identified additional operating efficiencies and continue to pursue opportunities to optimise maintenance programs, improve asset performance, enhance energy management and streamline service delivery. These initiatives help contain costs while continuing to maintain supply reliability and service quality.

Through these measures, we seek to ensure that customers receive value for money and only pay for services and investments that are necessary to maintain long-term drinking water security.

Under the proposal, over the 2027-2032 regulatory period:

- the Plant Service Charge remains broadly flat
- the Pipeline Service Charge increases by an average of 1.3% per year
- the Water Usage Charge declines over the period by an average of around 2.9% per year, primarily due to lower forecast energy costs in 2030-31 and 2031-32 (although we do propose that benchmark energy prices be annually updated, after expiry of our current long-term energy contracts in 2030).



Assuming production of 38 gegalitres (GL) per year, which is consistent with the forecast level of SDP production in IPART's recent determination of Sydney Water's prices, we forecast that over 2026-27 to 2031-32 Sydney Water's annual bill for SDP's services will decline by an average of 0.01% per year.

We also estimate that the SDP component of a typical Sydney Water household bill will average \$102 (or 5.8%) over the 2027-32 regulatory period and will decline by approximately 1.8% per year over this period, when passed through to customers.

These price and bill impacts are in real \$2027-28 - i.e., they exclude the impact of inflation from 2027-28 onwards.

1. Terms of Reference to IPART from The Hon. Kevin Anderson MP, Minister for Lands and Water, Minister for Hospitality and Racing, 16 June 2022.

Investing Prudently in Critical Infrastructure

The Plant is now entering a stage of its lifecycle where significant asset renewal and replacement is required.

The Plant was constructed between 2007 and 2010, with drinking water first produced in early 2010. During the 2027-32 regulatory period many of the Plant's assets will be 20 to 25 years old.

We propose capital expenditure of approximately \$164.7m (\$2026-27) over the 2027-32 regulatory period. This investment is directed towards maintaining Plant reliability, preserving drinking water quality performance, managing asset risk and ensuring ongoing compliance with SDP's operating obligations.

Major investment programs include:

- replacement of RO membranes (\$42.8m)
- major asset replacements, including power distribution equipment, pipework and variable speed drives (\$43.6m)
- major one-off projects, including some energy recovery device upgrades (\$41.6m)
- periodic maintenance activities (\$32.4m).

These investments reflect detailed condition assessments, operational experience and robust long-term planning. They also recognise that the Plant is approaching a period of heightened renewal activity, as critical electrical and mechanical assets approach the end of their design lives.

Importantly, we have sought to offset bill impacts by removing, reducing, deferring or re-profiling expenditure wherever this can be achieved without compromising existing safety, reliability or service outcomes. In response to stakeholder feedback, SDP has deferred \$41.8 million from the 2027-32 regulatory period for projects including:

- Construction of the second drinking water tank. While our business case found that a second drinking water tank can provide net benefits to SDP, Sydney Water and the Greater Sydney community under certain conditions, deferring this expenditure balances enhanced reliability of drinking water supply to meet Sydney Water's needs with affordability outcomes during the 2027-32 regulatory period.
- Investments in on-site solar generation and battery storage until a stronger customer value proposition can be established, which may be part of a new renewable energy contract.
- A pilot plant that would be used to test new technologies and processes to try and find ways to operate more efficiently.





Managing Future Energy Costs and Environmental Commitments

Energy is SDP's largest variable cost and represents a key source of uncertainty due to the underlying volatility in electricity prices and the generational shift occurring as Australia targets a zero-emissions electricity system. This shift will impact wholesale, renewable energy (policy) and network costs involved in water supply services.

Our existing renewable energy contracts will expire in 2030. These contracts were procured prudently and efficiently in 2010 through a competitive process, based on the best information available at the time they were established. The current arrangements were embedded in SDP's Project Approval as the means through which SDP would meet its obligation to operate using 100% certified renewable electricity supplied by the Capital Wind Farm. At the same time, they have provided cost certainty, managing exposure to electricity market volatility and supporting Sydney Water's changing production requirements. The contracts have also protected against substantial wholesale electricity price increases experienced across the National Electricity Market over recent years.

While SDP's existing energy contracts have been prudent and efficient, the environment in which future energy procurement decisions will be made differs materially from the environment in which the existing contracts were established. Since the contracts were entered into, SDP's Operating Licence has changed and the Plant has transitioned to flexible full-time operation. SDP's production requirements have become more variable and difficult to forecast. Operational experience has demonstrated that future production requirements may vary significantly in response to drought and other weather conditions, dam storage levels, water quality events and Sydney Water's operational decisions.

This proposal sets out a future energy procurement and regulatory framework that seeks to balance flexibility to meet Sydney Water's variable production requirements with affordability and price certainty. Our proposal is consistent with customers' preference that they should pay no more or no less than the efficient cost of energy.



Customers and stakeholders considered our renewable energy procurement strategy as important and identified this as a key topic for discussion through the customer engagement program. Our proposed framework for setting benchmark energy cost allowances beyond expiry of our current contracts has been shaped directly by customer and stakeholder feedback, which emphasised the need to minimise locked-in costs to customers while retaining sufficient operational flexibility to respond to droughts, emergencies and changes in Sydney Water's production requests.

Beyond expiry of our current energy contracts, we propose that IPART establishes an annual benchmark energy price allowance based on prevailing market conditions. The annual benchmark energy price allowance would, amongst other retail cost components, reflect the benchmark wholesale market price of meeting Sydney Water's APRs including an allowance for energy option premiums to meet 6-monthly revisions to Sydney Water's APRs under its Operational Approval. The annual benchmark price of wholesale energy in meeting Sydney Water's APRs would be symmetrically updated in-period each year by IPART through a self-executing formula referencing published market information to ensure the allowance and resulting prices for water supply services reflect prevailing market prices. This is critical to providing efficient pricing signals to Sydney Water to support informed operational decision-making when ordering water from SDP.

Within this framework, we would also seek to provide Sydney Water with the ability to phase production across the year to meet its identified system needs. Working with Sydney Water to date, we understand the value that this profiling flexibility provides to Sydney Water. To provide this additional flexibility to Sydney Water, we will need to prudently and efficiently manage procurement and operational risks given it is likely not efficient to seek to transfer the procurement risks associated with this flexibility to retailers. This is because standard electricity market products assume a relatively flat load profile across the year compared to Sydney Water's needs.

To the extent Sydney Water requires additional flexibility above and beyond these arrangements (e.g. to change SDP's production profile part way through the year, outside of the 6-monthly revisions, and/or in response to emergencies), we propose to reflect the prevailing spot market price of these variations in the price that Sydney Water pays (via a symmetric end of period true-up).

This would promote efficient procurement decisions by SDP at the start of a year to meet Sydney Water's known level of demand and requirements for flexibility under the APRs, while ensuring that Sydney Water faces efficient price signals relating to the cost of meeting additional levels of flexibility – which, in turn, is necessary to promote efficient operational decisions by Sydney Water.

We have worked hard to develop a package that balances the objective of minimising energy costs with prudently managing the variability in energy load required for SDP's flexible full-time operation. At the same time, our proposal would ensure efficient and transparent price signals flow to Sydney Water when it has discretion to alter requested production profiles.

The renewable certification framework is currently in a period of transition, with a complete shift away from the current Renewable Energy Target scheme with large and small-scale renewable generation certificates to the time-stamped Renewable Energy Guarantee of Origin (REGO) scheme due in 2030, part way through the 2027-32 regulatory period. There is currently no observable benchmark market price for REGOs and it is uncertain whether pricing will ultimately be differentiated by the time of day when renewable electricity is supplied. Thus, we propose that the prudent and efficient cost of renewable energy (policy) post 2030 is estimated and then reviewed and adjusted ex post via a true-up as part of SDP's 2032-37 price determination so that customers pay no more or no less than the efficient price for SDP to remain 100% renewable energy powered in line with State and Federal Government regulations. We have proposed this end-of-period true-up also accounts for the difference between our forecast of benchmark energy network costs and those costs determined by Ausgrid and approved by the Australian Energy Regulator (AER). The cost recovery arrangements for major network infrastructure to support the renewable energy transition are uncertain and could impact Ausgrid's network charges. We have sought to align key elements of the proposed end-of-period true-up with IPART's recent decision for WaterNSW's Murrumbidgee River to Broken Hill Pipeline determination.

We will also continue pursuing efficiency improvements to reduce energy consumption and lower long-term costs wherever we can.



Supporting Financial Sustainability and Regulatory Stability

This proposal is underpinned by a total notional revenue requirement of approximately \$1.25 billion over the 2027-32 period.

We propose a five-year determination period, which will provide pricing certainty and stability for both Sydney Water and its customers.

This proposal satisfies IPART's benchmark financeability test, demonstrating that a benchmark efficient business would remain financeable under the proposed revenue allowance. At the same time, we have identified several areas where IPART's financeability framework could be improved in future reviews to better reflect the financing characteristics of long-life infrastructure concession businesses.

Consistent with feedback from Sydney Water and the CAP, we are not proposing to adopt IPART's 3Cs financial incentive mechanisms, including the Efficiency Benefit Sharing Scheme (EBSS), Capital Expenditure Sharing Scheme (CESS) or Outcome Delivery Incentives (ODIs). Instead, we propose accountability through transparent reporting against publicly observable performance measures and outcomes and maintenance of the current Efficiency Carryover Mechanism (ECM).



We have developed a high-quality pricing proposal

Through this proposal, we seek to continue supporting Sydney's long-term drinking water security while delivering safe, sustainable and efficient services at the lowest sustainable cost to customers.

We set out to develop a high-quality pricing proposal that represents the best value for the people of Sydney. In developing this proposal, we have had regard to IPART's 3Cs Water Regulation Framework and the guidance in its Handbook.

As required as part of IPART's Framework, we have self-graded the quality of our proposal. We undertook a detailed assessment of the proposal against each of IPART's 12 principles and provided this assessment in Attachment 7.

Our self-assessment found we have met the requirements for an Advanced proposal against many of the 12-Principles. However, overall, we have self-assessed our proposal as Standard under IPART's 3Cs Grading Rubric. We consider this proposal is at the upper end of the Standard grade range and welcome feedback from IPART, Sydney Water and the community on the overall quality of our proposal.

Summary of SDP's proposed positions for the 2027-32 regulatory period

Table 1 presents a summary of our positions in this proposal. The explanation and supporting analysis behind these positions are presented in this proposal and supporting attachments.

Table 1: Summary of SDP's positions for the 2027-32 regulatory period

Section	Issue	Proposal
How we developed our customer centric proposal		
1.9	Focus principles	Our focus principles for this proposal are Customer Centricity, Customer Engagement, Robust Costs and Delivering.
Customer outcomes and performance measures		
2.1	Customer outcomes	We propose to adopt Sydney Water's customer outcomes of Customer Experience, Water Quality and Reliability and Environmental Protection.
2.5	Performance measures	Our proposed measures for showing how we perform in delivering customer outcomes relate to energy efficiency, capital expenditure efficiency, operating expenditure efficiency, maintaining low costs for customers, emergency response, annual production request performance, readiness and availability performance, water quality, environmental outcomes, and carbon emissions and climate change.
Price structures and prices		
4.1	Price structure	We propose to maintain our current price structure, comprising a fixed Plant Service Charge, fixed Pipeline Service Charge, Volumetric Water Usage Charge and Minimum Water Usage Charge. This approach matches SDP's fixed and variable cost structure with its fixed and variable price structures, which ensures that prices are fair, that they promote efficient decision making and that SDP remains financially indifferent to whether it supplies drinking water – consistent with the ToR for IPART's price determination.
4.2	Prices	To adopt the regulated prices for the Plant and Pipeline for the 2027-32 regulatory period as set out in Table 5.
Capital expenditure		
5.2	Prudent and efficient capex for 2027-32	Forecast prudent and efficient capital expenditure of \$164.70m for the 2027-32 regulatory period, as set out in Table 8, including undertaking our membrane replacement program, periodic maintenance on the Plant and Pipeline and specific projects that provide better protection against the risk of asset failure that could affect water production, and promote operational efficiencies. This includes a continuing efficiency factor of 0.7% per year.
5.6	Prudent and efficient capex for 2023-27	Actual capital expenditure over the 2023-27 regulatory period of \$41.90m, as set out in Table 20, representing prudent and efficient capital expenditure to be incorporated into SDP's opening RAB for the 2027-32 regulatory period.

Section	Issue	Proposal
Forecast operating expenditure		
6.1	Forecast opex for 2027-32	Forecast Plant and Pipeline operating expenditure of \$399.47m - as set out in Table 21 for the 2027-32 regulatory period.
6.4	Forecast Plant opex for 2027-32	Forecast Plant operating expenditure of \$394.22m, as set out in Table 27 for the 2027-32 regulatory period.
6.5	Forecast Pipeline opex for 2027-32	Forecast Pipeline operating expenditure of \$5.25m, as set out in Table 31, for the 2027-32 regulatory period.
Approach to setting energy cost allowances		
7.6	Wholesale electricity costs	<p>Before 1 July 2030: Cost allowances based on the prices payable under the GGRP contracts consistent with Pricing Principle 7A of the ToR, plus a benchmark allowance for energy market related energy fees including energy losses and unaccounted for energy (UFE). The EAM should continue to share any gains or losses from the sale of surplus energy relative to the GGRP contract fixed prices consistent with the ToR.</p> <p>From 1 July 2030: Market based benchmark price that is based on electricity swap market costs for the initial APR value, and options to cover potential 6-monthly variation to the APR, with the electricity and option costs updated annually in-period using a self-executing formula.</p>
7.6	Renewable energy costs	<p>Before 1 July 2030: Cost allowances based on the prices payable under the GGRP contracts consistent with Pricing Principle 7A of the ToR. The EAM should continue to share any gains or losses from the sale of surplus energy relative to the GGRP contract fixed prices consistent with the ToR.</p> <p>From 1 July 2030: Market based benchmark price based on costs of Renewable Electricity Guarantee of Origin (REGO) certificates to meet renewable obligations, and compliance with the Energy Savings Scheme (ESS), with an end-of-period true-up to reflect movements in the benchmark costs of meeting renewable energy (policy) obligations.</p>
7.7	Energy network costs	Component of benchmark energy price based on estimated Ausgrid network charges with an end of period true-up to reflect Ausgrid's prices as approved by the Australian Energy Regulator.
7.8	Subordinate energy costs	Component of benchmark energy price covering subordinate costs e.g. ancillary service charges, energy market fees, and metering and data costs based on best available information.

Section	Issue	Proposal
Approach to setting energy cost allowances		
7.9	Energy retail operating costs & margin	Component of benchmark energy price covering retail operating costs (\$/year) and retail margin (% of other retailer costs including wholesale, renewables, network, and subordinate costs).
7.10	Energy volume forecasts	Benchmark energy consumption based on observed operating performance using a linear regression analysis of historical operating data as set out in Table 41, alongside an ongoing annual efficiency adjustment of 0.5% for variable energy consumption and 0.3% for fixed energy consumption both applied from Year 1 of the 2027-32 regulatory period.
Revenue requirement for 2027-32		
8.1	Revenue requirement for 2027-32	A notional revenue requirement of \$1,247.96m, as set out in Table 42, for the Plant for the 2027-32 regulatory period.
8.2	Rolling forward RAB to 30 June 2027	An opening Plant RAB value for the 2027-32 regulatory period of \$1,177.61m presented in Table 47 and an opening value of the Pipeline RAB for the 2027-32 regulatory period of \$878.24m presented in Table 48.
8.3	RAB for 2027-32	The RAB roll forward for the Plant over the 2027-32 regulatory period as set out in Table 47 and the RAB roll forward over the 2027-32 regulatory period for the Pipeline as set out in Table 48.
8.4	Asset lives	To retain the straight-line method of depreciation, consistent with IPART's standard approach and adopt standard and remaining asset lives as set out in Table 49.
8.5	Return on assets for 2027-32	A placeholder post-tax real rate of return of 4.1% as set out in Table 52 based on the methodology in IPART's 2018 'Review of Our WACC Method' report.
8.6	Working capital allowance for 2027-32	To use IPART's current methodology for determining the allowed return on working capital, as set out in IPART's 2018 Policy Paper on the working capital allowance with the return on working capital allowances as set out in Table 42 and explained in Section 8.6.
8.7	Tax allowance for 2027-32	Tax allowances for the Plant and Pipeline over the 2027-32 regulatory period as set out in Table 54 and Table 55 respectively, reflecting an efficient allowance for corporate tax liabilities.
8.9	Adjustments for the EAM	EAM adjustments for the 2027-32 regulatory period as set out in Table 58.

Section	Issue	Proposal
Revenue requirement for 2027-32		
8.10	Adjustments for the ECM	ECM adjustments for each year of the 2027-32 regulatory period as set out in Table 59. We are proposing an ECM adjustment of \$1.87m which includes carryover of efficiency savings into 2027-28 and 2029-30, net of efficiency losses in 2028-29.
8.12	Financeability	The benchmark efficient firm would be financeable under this proposal, although we have identified some concerns with IPART's benchmark test.
Regulatory framework and settings		
9.1	Regulatory period	A 5-year regulatory period, from 1 July 2027 to 30 June 2032, consistent with IPART's default length.
9.2	Prices to entities other than Sydney Water	That IPART does not regulate (or defers regulation of) SDP's prices to customers other than Sydney Water, to enhance the probability of cost savings to Sydney Water and its customers, noting this approach would be consistent with regulatory precedent. As per IPART's approach to non-regulated activities outlined in its Water Regulation Handbook, SDP proposes to share any profits from sales to these other customers 50:50 with Sydney Water but bear 100% of any losses from such supply arrangements.
9.3	Other non-regulated revenue	To share any profits from non-regulated revenue with customers and retain all losses, with the profit-sharing ratio 50:50 for most types of revenue, but 80:20 for some potential non-regulated revenue streams that present higher risk to SDP.
9.4	Financial incentive schemes	To propose that IPART's 3Cs financial incentives schemes (the CESS, EBSS and ODI schemes) do not apply, as customers did not express support for these schemes and instead be subject to performance monitoring and the Efficiency Carryover Mechanism (ECM).
3Cs self-assessment		
10.1	Self-assessment	Overall, we consider this proposal to be at the upper end of Standard and very close to an Advanced proposal.

The structure of this proposal

The rest of this proposal is structured as follows:

- **Chapter 1** explains how we developed this customer centric proposal
- **Chapter 2** outlines how we will deliver the outcomes that are most important to customers and be held accountable for delivering these outcomes
- **Chapter 3** explains our services to Sydney Water, our changing role from drought response to full-time, flexible operations and our key learnings in this new role over the last few years
- **Chapter 4** presents our proposed price structures and prices and impacts of these proposed prices, including indicative bill impacts for Sydney Water and its customers
- **Chapter 5** outlines our prudent and efficient levels of capital expenditure over the 2023-27 regulatory period and the upcoming 2027-32 regulatory period, with supporting information and explanation
- **Chapter 6** explains our forecast levels of efficient operating expenditure
- **Chapter 7** presents our forecast energy costs and explains our proposal for how IPART should set SDP's energy cost allowances both pre and post expiry of our current long-term energy contracts
- **Chapter 8** brings together our proposed operating and capital expenditure allowances, along with other elements of the building block framework, to present our proposed notional revenue requirement for the 2027-32 regulatory period
- **Chapter 9** presents our proposals in relation to other elements of the regulatory framework, including the length of the regulatory (or pricing) period, the approach to pricing water services to other potential customers directly supplied by SDP (other than Sydney Water) and our position on IPART's financial incentive schemes
- **Chapter 10** presents a summary of our self-assessment against IPART's 3Cs Grading Rubric.

We also provide a large amount of important supporting information in attachments, which should all be considered part of this proposal.



1. HOW WE DEVELOPED OUR CUSTOMER CENTRIC PRICING PROPOSAL

Key messages

- We undertook our most extensive customer and stakeholder engagement program to date to ensure this proposal reflects the priorities of Sydney Water, customers and key stakeholders.
- We established a Customer Advisory Panel (CAP) of customer advocates to help us better understand the needs and preferences of customers, including households, businesses and the wider community.
- Our multi-stage engagement process ran for more than 12 months and combined direct engagement with Sydney Water and a deliberative workshop series involving the CAP, Sydney Water and DCCEEW. We also drew on de-identified findings from Sydney Water's Our Water, Our Voice program, so the views of the people and businesses that ultimately receive our drinking water were considered.
- Participants at the workshops set the agenda and considered key issues, including service levels, energy, expenditure, production settings, performance measures and future Plant expansion. We supported informed discussion by explaining technical matters clearly and showing how different choices could affect customer bills and service delivery.
- Information obtained through our extensive engagement program has materially shaped our proposal. It helped us test trade-offs, refine expenditure and energy positions, strengthen performance reporting, and balance affordability with safe, reliable and high-quality services. It also built organisational capability and a stronger foundation for ongoing engagement.

1.1 Our engagement approach and principles were best practice for a bulk water supplier

Understanding the needs and preferences of Sydney Water and customers has been essential to developing a proposal that supports their long-term interests. This engagement has helped us test priorities, identify trade-offs and better understand the outcomes that customers value.

In 2025, we published our Customer and Stakeholder Engagement Strategy to support our proposal's development.² The Strategy sets out our commitment to becoming a more customer-centred business and continuing to provide value to the people of Sydney.

Although we increased engagement specifically for this proposal, it builds on our strong and ongoing relationship with Sydney Water. As our direct customer, Sydney Water plays a central role in ensuring our service delivery remains aligned with its priorities and operating requirements.

We committed to use the findings and feedback from this process to inform both this proposal and our future strategic direction and investment decisions. We also designed the engagement program to build organisational capability and establish processes that will help our business be more customer-focused over time.

Our engagement objective was to reflect the priorities, requirements and expectations of customers, the community and Sydney Water in this proposal. We set out to achieve this through a comprehensive, multi-stage engagement program that focused on the topics that are most important to customers, Sydney Water and other stakeholders.

The key elements of our engagement approach included:

- Direct and extensive engagement with Sydney Water to ensure we appropriately balance costs and service levels, within the constraints of our Operating Licence conditions.
- Leveraging feedback from customers that was provided to Sydney Water through its own recent customer engagement program.
- Establishing a CAP, comprising customer advocates who provided diverse and important perspectives.
- Collaboratively setting the engagement agenda with Sydney Water and the CAP.
- Offering the CAP access to other experts and data to augment its understanding of issues, thereby providing it with agency over the conduct and content of the engagement.
- Workshops with the CAP, Sydney Water and the NSW Department of Climate Change, Energy, the Environment and Water (DCCEEW) as a representative of the NSW Government.



2. The Strategy was published on the SDP website in December 2025 after incorporating feedback from early on in our engagement program.

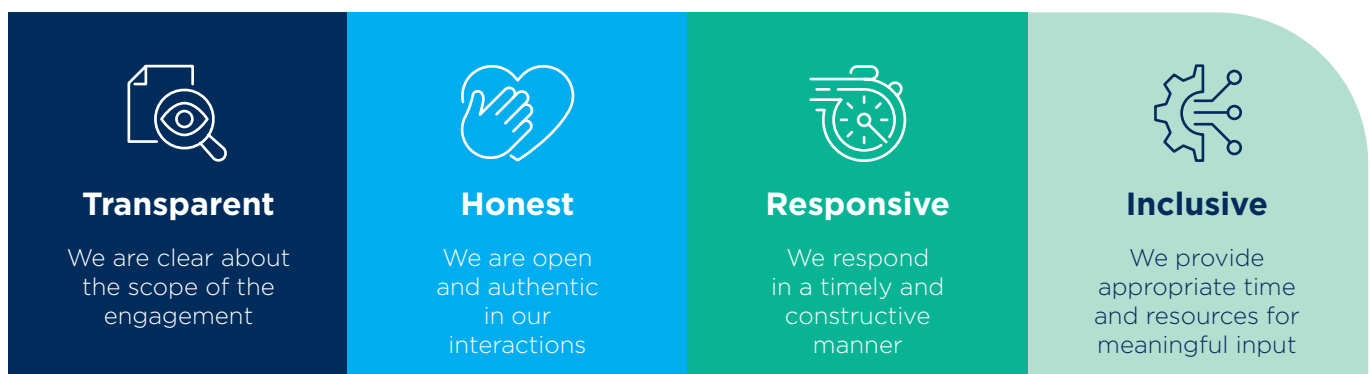
Our Customer Advisory Panel (CAP)

Our CAP comprised six people, each selected for the distinct perspectives and skills they brought to the engagement process:

- Ruth Lavery, Independent CAP Chair, who provided independent governance, balanced facilitation, and oversight
- Douglas McCloskey, Justice and Equity Centre, who represented a social justice perspective and the voices of less-heard community members
- Jun Mo, University of Sydney student, who represented young customers
- Leah Tucker, Business NSW, who represented business and commercial customer perspectives
- Graham Turner, Council on the Ageing NSW, who represented older customers
- Jordan Widenstrom, Sutherland Shire Council, who represented a local government perspective, with a focus on sustainability and long-term planning.

Our Customer and Stakeholder Engagement Strategy was founded on the principles of transparency, honesty, responsiveness and inclusiveness (Figure 1).

Figure 1: Our engagement principles



Our iterative approach incorporated stakeholder feedback that was used to refine and improve this proposal. It also included several features designed to maximise transparency and credibility, including:

- being clear that the IAP2 participation level of Collaborate was being offered – we promised to incorporate recommendations in this proposal to the maximum extent possible, and tell participants when we were unable to do so
- clear explanation of what participants could and could not influence
- clear articulation of licence, policy and regulatory constraints
- comprehensive documentation of proceedings
- circulation of draft proceedings for participant review
- publication of recommendations in full
- commitment to close the loop and demonstrate how recommendations influenced the proposal.

Consistent with IPART's expectations regarding credibility and accountability, we have established a documented evidence trail between customer feedback, recommendations and SDP's decisions as reflected in this proposal.

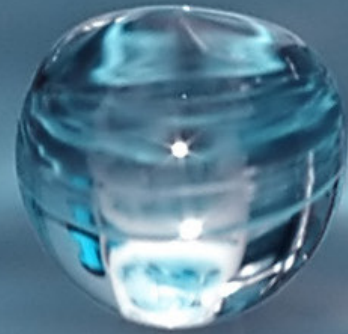


We incorporated recommendations
to the maximum extent possible.



Top picture: CAP Independent Chair and members hand over recommendations to SDP CEO Philip Narezzi.
Bottom picture: Workshop participants from Sydney Water, DCCEEW, the CAP and SDP Management tour the Plant.

Our 4-Stage, 12 month engagement workshop program



Engagement

Our 4-Stage engagement workshop program ran for over 12 months



12+
months
Engagement
Program



17
workshops
& webinars
(34Hrs Total)



6
CAP
members
Including an
Independent Chair



1+
SDP Non-Executive
Directors
Attended every
workshop

Our workshops and webinars were attended by our CAP and representatives from Sydney Water and DCCEEW. Separately, we met regularly with Sydney Water and NSW Government to discuss key elements of our pricing proposals.

Analysis

We analysed Sydney Water's engagement data to understand what customers value.



30,000+
Qualitative Data Points
collated and coded

"Drought" referenced
in 563 Data Points.

563

"Desal" referenced
in 70 Data Points.

70

Comments were thematically grouped to understand what customers value.

Outcomes

Our analysis identified five clear areas that matter most to Sydney Water customers.



**Affordability
and fair pricing**



**Water security,
reliability and
resilience**



**Water quality
and safety**



**Environmental
sustainability**



**Customer
experience +
communication**

Sydney Water Demographic Data

The data from residential customers reflected a diverse range of locations and ages.



13,179
Residential
Customers



395
First Nations
Customers



1,818
Customers living
with a disability



75
Small + Medium
Size Businesses



1.2 We engaged extensively through a multi-stage program

We engaged with Sydney Water, the CAP and DCCEEW through 4 stages over more than 12 months, from May 2025 to September 2026. This engagement involved an induction and orientation session, webinars, 8 workshops that covered topics of most interest to workshop participants, and a close the loop session (see Figure 2). It brought together:

- Sydney Water's operational perspectives
- The values of Sydney Water's customers
- The CAP's insights into customer values and preferences
- DCCEEW's government policy and long-term water security perspective
- SDP's technical, operational and regulatory knowledge.

The four stages comprised:

Activation Stage – May to September 2025

In the Activation Stage, we designed the engagement process and confirmed participation from Sydney Water and DCCEEW (on behalf of the NSW Government). In this stage we also approached and appointed members of our CAP and identified a long list of topics for potential discussion.

To assist the CAP, we provided training in critical thinking, cognitive bias and psychological safety to CAP members. We also provided CAP members with a tour of the Plant, enabling the CAP to see first-hand important reference points, and we talked to CAP members about potential barriers to participation.

Exploration Stage – September-December 2025

In the Exploration Stage, we focused on building participants' understanding of SDP's role, operating context, regulatory framework, and the key issues that would shape the development of this proposal. This ensured participants were well positioned to engage in informed and meaningful deliberations throughout the process.

As part of this exploration phase, participants considered findings from Sydney Water's Our Water, Our Voice engagement program, including analysis of more than 30,000 comments from a broad and representative cross-section of the community to identify values, preferences, and concerns relevant to SDP. This provided robust evidence of the interests and priorities of customers and helped identify issues warranting further consideration during the engagement process.

Once participants had developed a shared understanding of SDP's context and customer priorities, CAP members worked collaboratively with SDP to determine the priority issues for further discussion and to design how the engagement would operate. Participants influenced the topics to be considered, session frequency

and duration, delivery methods, information requirements, and approaches to feedback and deliberation. This ensured that subsequent discussions focused on issues they regarded as most important and relevant.

Consistent with the International Association for Public Participation (IAP2) Collaborate level of participation, this approach gave participants genuine influence over both the engagement process and the matters to be considered. It demonstrated our commitment to a transparent, inclusive, and responsive engagement process in which stakeholder input helped shape the direction of the engagement from the outset.

Negotiation Stage – January-July 2026

Throughout the Negotiation phase, we provided participants with detailed information on each topic they had selected for consideration, including modelling of the potential impacts on service levels, costs and customer prices. We also responded to participant questions and addressed information gaps identified during the engagement process, ensuring participants had access to the information required to make informed recommendations.

Drawing on this evidence, participants explored trade-offs and worked collaboratively to develop, test and refine draft recommendations. Through a structured deliberative process, participants weighed the benefits, costs and risks associated with alternative approaches before finalising their advice for inclusion in this proposal.

SDP and Tingwall, our independent engagement facilitators, responded to participant feedback and needs throughout the process. For example, workshop formats were adapted to provide additional opportunities for CAP members to deliberate independently when participants asked for more time separately as a group to reach a collective view on customer values without the influence of other stakeholder groups.

To further support the CAP's deliberations, Tingwall maintained ongoing discussions with the CAP Chair regarding whether additional meeting opportunities or alternative forms of support would assist the CAP in reaching its conclusions. Options considered included supplementary facilitated discussions involving SDP, Tingwall-facilitated CAP-only sessions, or independent CAP meetings. Following these discussions, the CAP elected to meet independently, with the Chair convening additional sessions outside the scheduled engagement program to enable further deliberation and consensus building.

This flexible and participant-led approach helped ensure the engagement process remained responsive to participant needs and enabled the CAP to develop its recommendations in an environment that supported independent and informed decision-making.

Confirmation Stage – August 2026

In the Confirmation Stage we held a 'close the loop' session and consolidated feedback and recommendations we heard from stakeholders. We showed stakeholders how we had incorporated their feedback and recommendations into this proposal.

For each recommendation from the CAP, Sydney Water and DCCEEW we showed how we had incorporated the recommendation and highlighted how feedback had shaped and changed the proposal.

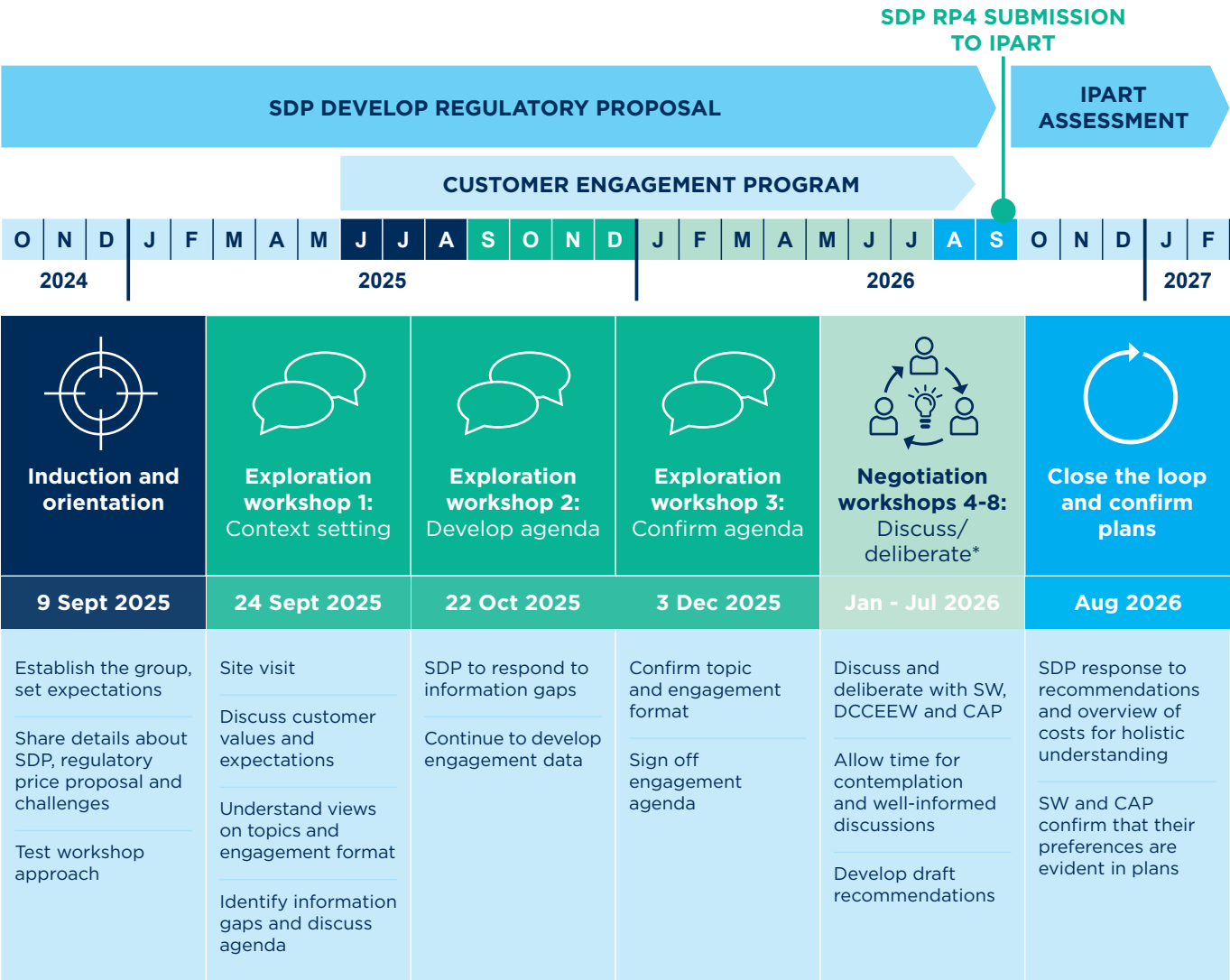
The workshop demonstrated that participant feedback had materially influenced the proposal. Importantly, we were transparent where feedback could not be incorporated in full or where decisions involved competing priorities. In those cases, we explained the operational, regulatory, cost or timing considerations that constrained our position. This was consistent with our engagement promise to incorporate recommendations to the maximum extent possible and provide clear reasons where we were unable to do so.

Following this process, we asked the CAP to attest that we had kept our engagement promise, which they did as outlined in their letter to us.³ Their positive responses provided an additional measure of confidence that the process had been open, informed and responsive, and that this proposal reflected the themes and recommendations developed through the workshop series.

The close-the-loop workshop completed the formal engagement process, but not our commitment to ongoing engagement. We will continue to work closely with Sydney Water and other stakeholders as the proposal is assessed and implemented, and we will report transparently on our performance against the outcomes and measures set out in this proposal.

3. Attachment 3 – Letter from Customer Advisory Panel (CAP)

Figure 2: Engagement timeline



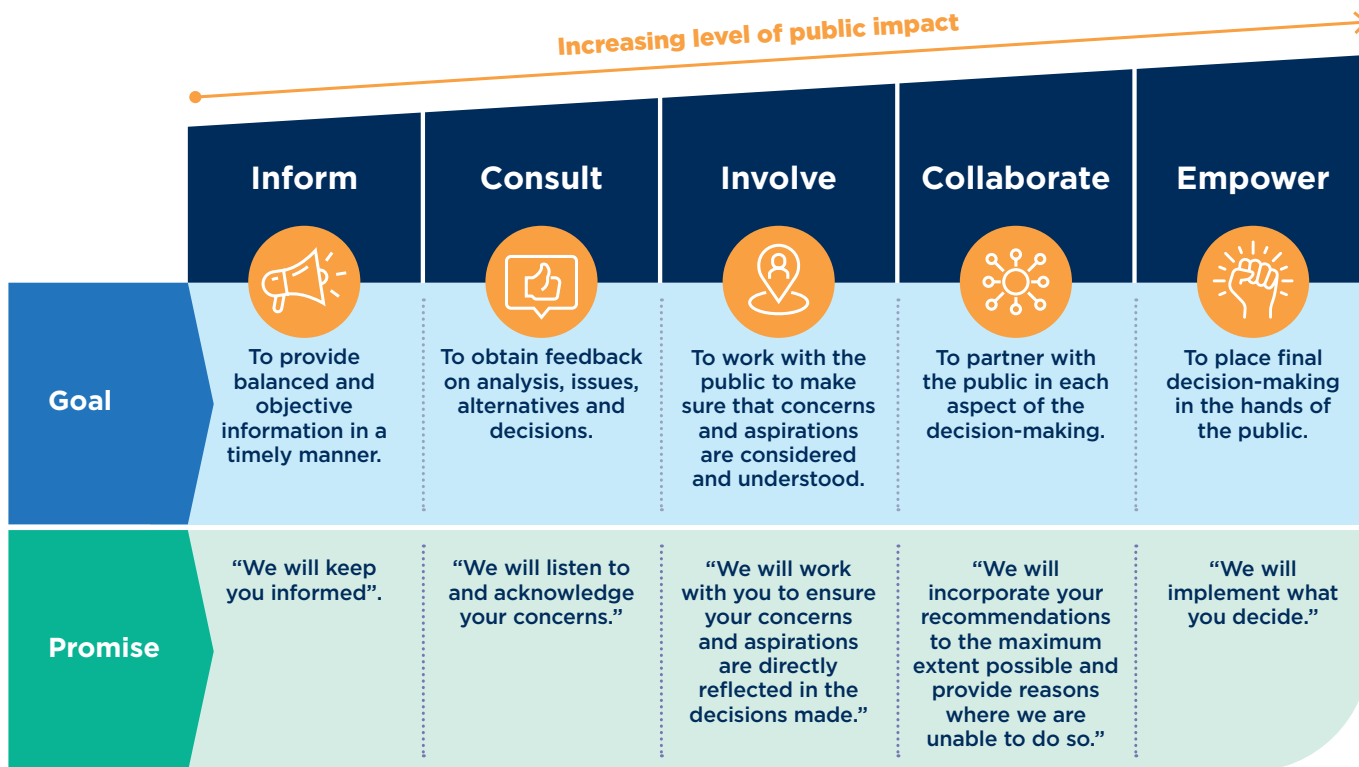
Source: Tingwall, Sydney Desalination Plant, Customer and stakeholder engagement report, September 2026.



1.3 Workshop participants collaborated with us and drove the engagement agenda

In relation to the IAP2 public participation spectrum, we collaborated with workshop participants in each aspect of decision-making (Figure 3). We have also fulfilled our promise to workshop participants to incorporate their feedback into this proposal to the maximum extent possible and provide reasons where we were unable to incorporate their feedback.

Figure 3: IAP2 Public Participation Spectrum

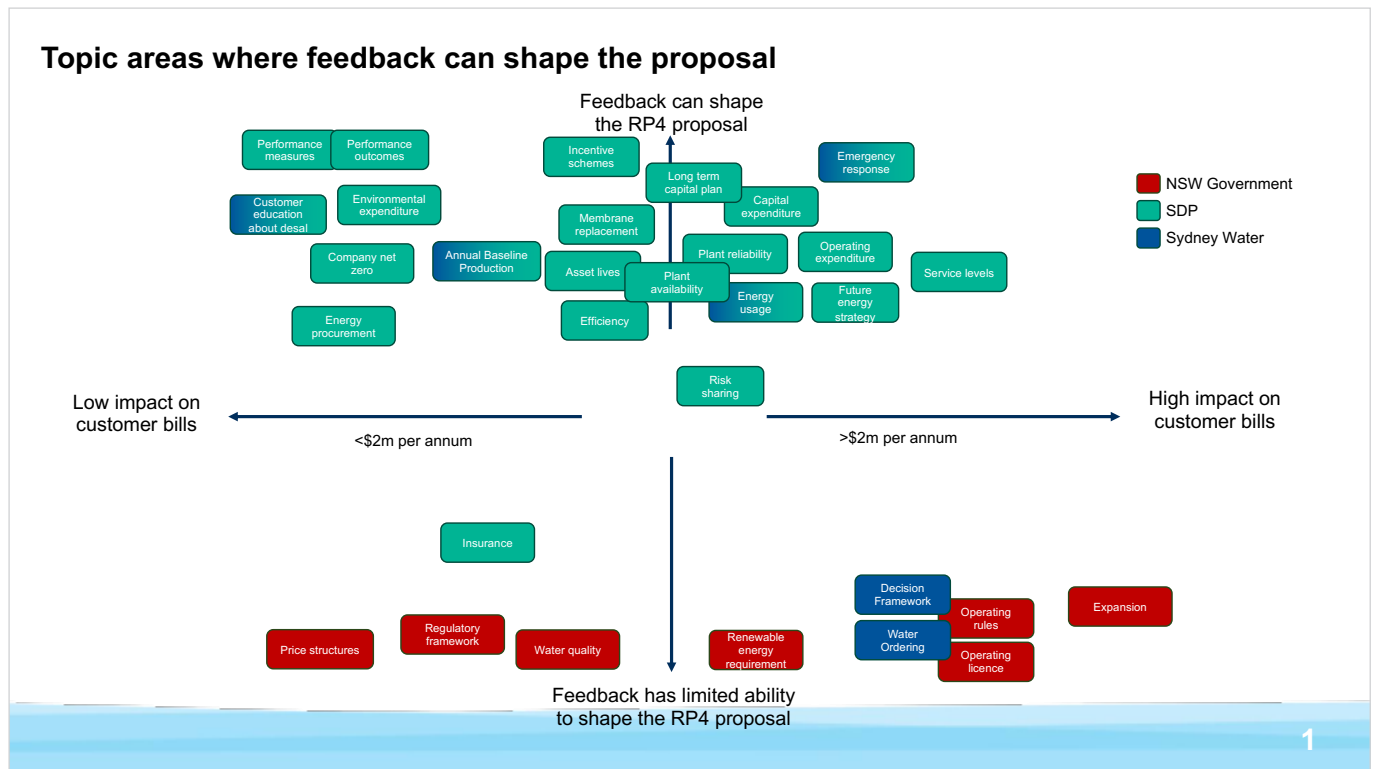


Workshop participants were given genuine influence over:

- the engagement agenda
- session design
- information requests
- deliberation topics.

Importantly, participants helped to determine what topics would be discussed and were free to make recommendations on any matters. This level of influence was outlined and agreed early, and we kept our engagement promise consistent with best practice engagement principles.

To inform stakeholders' deliberations, we provided information about the topics that had the most material impact on bills, and where there was the most latitude for recommendations to impact SDP's course of action (Figure 4).

Figure 4: Information to inform stakeholders' decisions on focus areas for engagement

Note: Figure 4 shows the PowerPoint slide presented to workshop participants during the engagement program.

Clarifying the boundaries of customer influence

We made clear to participants where their feedback would have the most impact on our proposal. For example, participants were advised that while we could act on matters within our operational responsibilities and this proposal, we could not override the requirements of the Water Industry Competition Act 2006 (WICA) licences and approvals, drinking water quality obligations, environmental approvals, or other statutory and regulatory obligations. These requirements establish the minimum standards necessary to ensure the safe, reliable and compliant operation of the Plant.

In this context, we encouraged participants to provide feedback on how SDP could comply with its regulatory obligations in a way that reflected customer values and preferences.

We also explained to participants that:

- Our proposal would remain subject to IPART's independent assessment, and that participants therefore could influence SDP's proposal rather than determine the final price outcome (which is subject to IPART determination).
- Sydney Water has responsibility for drinking water production requests and network investment decisions that influence how the Plant is used – participants could therefore provide advice on how SDP should maintain its readiness, reliability and operational flexibility, but could not direct Sydney Water's drinking water ordering decisions or broader network planning activities.
- Government policy decisions, including those related to long-term water security, drought preparedness and potential future Plant expansion scenarios, were outside the scope of this engagement.



1.4 Workshop participants were equipped to make informed decisions

Best-practice engagement requires informed participants. Therefore, we invested heavily in participant capability building through:

- induction and orientation sessions
- detailed briefing packs
- webinars to inform CAP participants about the subject matter of upcoming workshops
- Plant site tours
- specialist presentations
- access to recordings and reference materials
- responses to questions on notice
- circulating a summary of proceedings after each session.

We also offered individual briefings to any CAP member who needed extra context or background. In addition to an audit of inclusivity, CAP members were asked to identify any barriers to their full participation.

For all issues where workshop participants gave feedback, SDP provided bill and revenue impact analysis so that workshop participants understood the impacts of, and trade-offs involved in, their decisions. In the last workshop, we provided the CAP with information about the bill and revenue impacts of its draft recommendations to inform the development and finalisation of its recommendations.

All workshop materials provided to stakeholders were carefully designed to be readable and accessible. Technical information was explained as simply and clearly as possible – acknowledging the complexity of the subject matter.

Further, the engagement was deliberately staged so participants could first build understanding and then deliberate on issues later. This enabled participants to consider complex questions around service levels, expenditure, energy procurement and long-term planning in an informed manner, with adequate time for contemplation.

1.5 Feedback from customers shaped our proposal

A small group of sophisticated customer advocates, such as those on the CAP, cannot fully represent the full diversity of Sydney Water's customer base. Therefore, we sought to deepen our understanding of customer preferences and priorities. Under a data-sharing agreement, Sydney Water provided de-identified data from its recent Our Water, Our Voice engagement program, which ran from mid-2022 to mid-2024. This allowed workshop participants to consider this evidence, including Tingwall's independent re-analysis of more than 30,000 customer comments and data observations. This data shows that customers value:

- affordability and fair pricing
- water security, reliability and resilience
- water quality and safety
- environmental sustainability
- customer experience and communication.

The key findings from Sydney Water's engagement program are summarised in Figure 5.

This approach was highly efficient because it avoided duplicating customer research while still incorporating a broad and representative evidence base into the SDP engagement program. During the process, CAP members were asked to reflect on the customer values and preferences identified through Sydney Water's engagement program and to apply them throughout their deliberations. Using existing Sydney Water engagement data enabled perspectives from across Sydney's diverse customer base to be considered and incorporated into this proposal in a way that could not have been achieved through a single advisory panel alone.

Figure 5: Feedback from Sydney Water's customers



1.6 Our CAP interpreted and applied the values of Sydney Water's customer feedback

We established the CAP to help us understand what customers in Sydney value. The CAP was charged with helping us interpret the above-mentioned customer engagement findings from Sydney Water, to provide a voice for different groups of customers, and to provide unique, sophisticated perspectives.

The CAP's Terms of Reference are available on our website.⁴ The CAP's role was to provide critical review, challenge and assurance throughout the development of our proposal. Specifically, the CAP was responsible for:

- validating that relevant customer feedback from Sydney Water's engagement program has been appropriately incorporated into SDP's proposal
- providing insights and advice to ensure the proposal accurately reflects customer preferences and priorities
- constructively challenging SDP to strengthen the transparency, rigour and robustness of the proposal
- providing assurance to customers, stakeholders and IPART that SDP's customer engagement has been authentic, meaningful and influential.

The CAP comprised six people, including an independent Chair, each selected for the distinct perspectives and skills they bring to the engagement process. Members were appointed to bring a diverse range of perspectives, skills and expertise from across the community and to provide independent customer and community viewpoints.

The CAP played an important role helping us answer the following Problem Statement as part of our engagement program:

As Sydney's only major rainfall independent source of drinking water, SDP is an integral part of the city's drinking water supply, contributing to its long-term water security. SDP's vision is to be a great water company that provides safe, reliable and high-quality drinking water to the people, households and businesses of Sydney.

How can SDP support Sydney Water, help to deliver the NSW Government's Greater Sydney Water Strategy, meet our operating licence obligations, and continue delivering the drinking water services that the people of Sydney value?



4. www.sydneidesal.com.au/regulation/our-next-regulatory-proposal/

1.7 We engaged extensively with our direct customer, Sydney Water

We engaged with Sydney Water on a range of topics in developing this proposal. This engagement occurred as part of the workshops with the CAP and DCCEEW, as well as separately where appropriate. For example, we incorporated Sydney Water feedback in developing our proposed capex and opex allowances, and in developing our positions on the Outcome Delivery Incentive scheme and the Minimum Baseline Production Amount. Other examples are mentioned throughout this proposal.

Outcome Delivery Incentive Scheme

- IPART's Water Regulation Handbook includes a framework of inter-related incentive schemes including an Outcome Delivery Incentive (ODI) Scheme, which would be designed by each water business with the goal of providing incentives for incremental changes in customer outcomes.
- As part of our process to develop this proposal we explored development of an ODI Scheme with Sydney Water.
- From September 2025 to July 2026, we held a series of workshops where we explored options for ODI Schemes that promoted service level outcomes agreed with Sydney Water that were additional to our licence requirements.
- We developed a viable ODI Scheme that would incentivise SDP to better respond to emergency production requests by providing financial incentives to meet time and volume-based targets. The scheme would have been proposed as a trial over the 2027-32 regulatory period while we gathered additional data to inform the targets and financial incentive rates.
- However, based on feedback from Sydney Water and our CAP, we decided not to propose that the scheme apply. We heard that customers' preference was to instead incorporate the scheme into our proposed Performance Measures for the 2027-32 regulatory period (as outlined in Chapter 3).

Minimum Baseline Production Amount

- The contract between SDP and Sydney Water includes a minimum amount of drinking water that Sydney Water must order each year. The minimum order was 23GL per year, or about 25% of the Plant's capacity.
- The Plant's baseline production is important because it considers the optimal operation of the Plant in years of low water orders to ensure that SDP:
 - is ready to respond to higher production requests
 - maintains emergency response capability
 - allows for displacement of water in the pipeline to safeguard water quality
 - can shut down for periods of planned and unplanned maintenance
 - can perform readiness and performance tests.
- In April 2025, Sydney Water wrote to SDP and asked us to review the Minimum Baseline Production Amount. We agreed to undertake a review in consultation with Sydney Water leading into our next pricing proposal.
- We explored the trade-off between volume, service levels and costs over a series of workshops with Sydney Water.
- We have agreed a lower baseline production amount of 20GL/year with Sydney Water.

1.8 How customers have influenced this proposal

Workshop participants were asked to consider real trade-offs involving:

- service reliability versus customer bills
- future energy procurement strategies
- capital investment timing
- expenditure prioritisation
- environmental initiatives
- expansion planning
- performance measures and incentives

In doing so, participants were provided with preliminary price and bill impact modelling so they could understand the customer consequences of different choices. This is consistent with IPART's expectation that engagement should be linked to genuine business decisions rather than simply seeking general feedback.

As outlined below, feedback from the CAP (incorporating and applying the views of customers), Sydney Water (our direct customer) and DCCEE (representing the Government and therefore the broader community) has materially guided this proposal. In addition to the summaries in Section 1.8.1, further information on what we heard during the engagement workshops is outlined in Attachment 2.

This proposal incorporates all recommendations of the CAP and all but one recommendation from Sydney Water in full (Sydney Water's recommendation about expenditure on expansion of the Plant was only partially incorporated).

1.8.1 How the CAP has influenced this proposal

Table 2 outlines the CAP's recommendations and how these recommendations have been incorporated into this proposal.

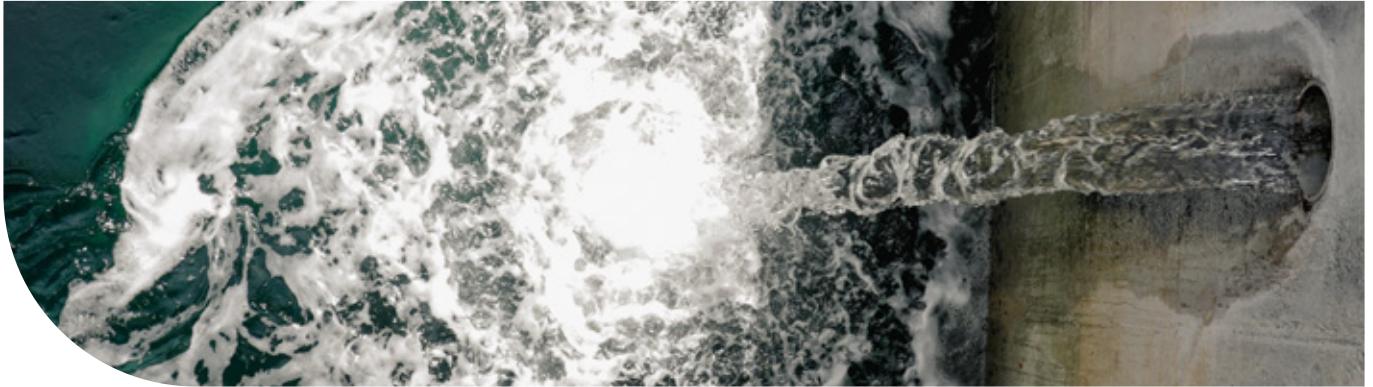
Table 2: CAP recommendations and how they have been incorporated into this proposal

Topic	CAP Recommendation	How it was incorporated into the proposal
Service Levels	1. In relation to Service Levels SDP continues to provide services that: <ol style="list-style-type: none"> Are consistent with the requirements of its Operating Licence, Are consistent with the values and relevant preferences of Sydney Water and end customers, and Most efficiently contribute to providing the people of Sydney with secure, reliable and affordable water services. 	This proposal includes expenditure allowances that will challenge SDP but allow us to continue providing services that: <ul style="list-style-type: none"> – are consistent with our Operating Licence – are valued by Sydney Water and customers, and – contribute to providing secure and reliable drinking water supply that considers affordability and impacts on customers.
	2. In developing its proposal, SDP should: <ol style="list-style-type: none"> recognise that end-users prioritise fair and affordable bills, and identify opportunities to defer or delay non-essential expenditure that does not contribute to optimising its efficient operation within the regulatory period, consistent with its Operating Licence. 	SDP has actively sought opportunities to reduce bill impacts for customers, including: <ul style="list-style-type: none"> – Incorporating a challenging efficiency target across our proposed opex and capex – Deferring some capital projects out of the 2027-32 regulatory period and re-profiling some expenditure into later years of the period. – Removing small opex step changes and seeking to absorb some new regulatory requirements.
	3. Any expenditure or project that enhances or improves SDP's services, including its ability to respond to other production requests, needs to be well justified – with benefits to the people of Sydney clearly outweighing costs.	All major capital projects have a detailed business case outlining their costs and benefits. SDP has only included projects in this regulatory period that are required to meet SDP's existing service level obligations as outlined in our Operating Licence.

Topic	CAP Recommendation	How it was incorporated into the proposal
Energy	<p>4. In developing its proposal, SDP should:</p> <ol style="list-style-type: none"> Look to minimise guaranteed cost to customers when procuring energy from 2030 onwards, through prudent contracting occurring closer to 2030, When contracting, consider the following factors when deciding how much energy to lock in: <ul style="list-style-type: none"> Lock in only the energy necessary to deliver required minimum annual production, Otherwise minimise the locked-in cost to customers, Retain flexibility to respond to Sydney Water's other production requests and broader system needs, and Use an approach that aligns contracted demand with production requirements, in the interests of balancing flexibility, certainty and costs, Most efficiently procure genuinely renewable energy as outlined in its licence, whatever its source or procurement structure. 	<p>Our proposed framework for determining SDP's energy cost allowances is consistent with this recommendation because it ensures that our energy cost allowances reflect efficient costs (thus minimising costs to Sydney Water and end customers and promoting efficient water sourcing decisions), while providing sufficient flexibility to meet Sydney Water's needs.</p> <p>Our proposed framework for determining SDP's energy cost allowance reflects our current prudent and efficient energy contracts until they expire in 2030.</p> <p>From 2030-31, our proposed framework includes the following key elements:</p> <ul style="list-style-type: none"> Allowances for benchmark energy and option prices to accommodate yearly contracting for APR volumes and flexibility for six-monthly adjustments to these volumes (consistent with our Water Supply Agreement with Sydney Water, and the obligation to comply with such APR requirements in our Operational Approval), with symmetrical in-period annual updates to the benchmark prices using forward market data that will be publicly available during the regulatory period. A symmetrical end of period true-up for other key benchmark energy cost components (including renewable energy scheme costs and network costs) and to account for the difference between the (annually updated) benchmark energy price reflected in allowances and prevailing spot prices SDP may face in responding to any Sydney Water emergency or other requests outside the APR volumes and six-monthly adjustment to these volumes each year. <p>Further information is provided in Chapter 7.</p>
	<p>5. Investment in on-site solar and batteries be considered only as part of SDP's portfolio of potential efficient investments rather than explicitly prioritised.</p>	<p>We investigated installing solar panels and batteries during the 2027-32 regulatory period. Our analysis suggested that the business case was marginal, and we have decided to defer this project until after the 2027-32 regulatory period. The project may be more efficiently delivered as part of a future project or augmentation to the Plant</p>
	<p>6. SDP considers opportunities to lower energy costs and pursue additional income streams (i.e. demand response) if benefits are shared with end customers.</p>	<p>We have set ourselves a challenging energy efficiency target of 0.5% on variable energy and 0.3% on fixed energy. This represents a direct saving to customers.</p> <p>SDP has also committed to investigating opportunities to pursue additional income streams. Any additional income would be shared with customers consistent with our proposed sharing ratios outlined in Chapter 9.</p>

Topic	CAP Recommendation	How it was incorporated into the proposal
Expenditure	<p>7. SDP's expenditure decisions align with customer values and preferences and have regard to the following:</p> <ul style="list-style-type: none"> a. clean, safe drinking water is expected, b. expenditure must demonstrate material benefits and be undertaken no sooner than prudent, c. expenditure that efficiently improves flexibility and emergency response effectiveness is a priority, d. SDP decisions should minimise impact on the local environment and support emissions reduction, e. Innovation should seek to improve the plant's efficiency and reduce costs to end customers over predictable timeframes. 	<p>Our proposed opex and capex allowances are consistent with and aligned to the customer values and preferences of Sydney Water's customers. Further information about the factors that SDP considers when making its expenditure decisions are outlined in Chapters 5 and 6.</p>
	<p>8. Maintaining or somewhat increasing local community and environmental initiative expenditure is consistent with the expectations of the people of Sydney, particularly where more tangible impacts can be demonstrated.</p>	<p>Our opex base year includes a small increase in local community and environmental initiative expenditure compared to other years in the 2023-27 regulatory period. This means that we are proposing a small uplift in expenditure.</p> <p>When we heard this feedback from our CAP and other workshop participants we moved forward with planned expenditure now, instead of separately proposing a step-change for the 2027-32 regulatory period. More information about what this increased expenditure will cover is outlined in Chapter 6.</p>
	<p>9. The second drinking water tank be included in the pricing proposal only if SDP can clearly demonstrate its benefits exceed its costs. The CAP considers the tank should not proceed if expansion planning is the main or only material benefit.</p>	<p>In line with sound business planning, we have comprehensively reviewed the need or 'case for action now' for a second drinking water tank and the balance between supporting reliability of Sydney's drinking water supply and customer affordability.</p> <p>The preliminary business case supports the case for further action over the 2027-32 regulatory period, including a planning process and associated expenditure to prepare a full business case. This will provide further information on delivery feasibility and defer a final decision on the second drinking water tank to the following regulatory period.</p>
Other topics	<p>10. That it is not essential for SDP to adopt IPART's three inter-related financial incentive schemes – EBSS, CESS and ODIs. The CAP regards efficient operation and delivery of required outcomes as fundamental, regardless of whether the schemes are adopted. If SDP elects to adopt the schemes, the customer share of the benefit/penalty must be passed on to end customers.</p>	<p>We have proposed not to adopt IPART's three inter-related financial incentive schemes based on feedback from our CAP and Sydney Water.</p>

Topic	CAP Recommendation	How it was incorporated into the proposal
Other topics	<p>11. That SDP aligns with relevant Sydney Water Performance Measures and Customer Outcomes and develops and adopts its own Performance Measures. In the CAP's view:</p> <ul style="list-style-type: none"> a. Performance Measures for the customer experience of Fair and Affordable Bills should: <ul style="list-style-type: none"> i. Be anchored to aspects that are meaningfully under SDP's control, ii. Encourage SDP to optimise operational efficiency, including the cost-efficient use of energy, iii. Be aligned with but additional to existing licence, regulatory and community expectations to deliver capital projects efficiently. b. Performance measures for Environmental Protection based on SDP's local and environmental initiatives should be quantitative. Reduction of carbon emissions beyond the renewable energy contractual arrangements is desirable and metrics should be developed. c. Performance Measures for the Customer Outcome of Water Quality and Reliability should: <ul style="list-style-type: none"> i. Include more detailed reporting of compliance with Australian Drinking Water Guidelines (i.e. frequency, duration and magnitude of any non-compliance). ii. Measure SDP's contribution to the quality of water provided by Sydney Water to the people of Sydney, as this is a meaningful reflection of its increasing role in supporting water quality. iii. Measure material fulfilment of Sydney Water production requests (annual production, fixed production day requests and emergency requests). iv. Measure SDP's readiness and ability to respond to planned and unplanned (emergency) requests. 	<p>We have proposed to adopt Sydney Water's Customer Outcomes and we have developed Performance Measures that are relevant to SDP and will enable us to help Sydney Water achieve its Customer Outcomes.</p> <p>We have incorporated the feedback from our CAP in the design of our performance measures. Further information is provided in Chapter 2.</p>
	<p>12. Regarding expenditure on expansion of the plant in the upcoming regulatory period, that SDP either undertake:</p> <ul style="list-style-type: none"> a. No additional expenditure on expansion specific works, or b. Limited expenditure on prudent preparatory planning works only. 	<p>We have proposed limited expenditure on prudent preparatory planning works to enable SDP to better respond and deliver the expansion project when called upon to do so. SDP is required under the Security of Water Deed with the State to commence certain expansion preparation work where required by the State.</p>



1.8.2 How Sydney Water has influenced this proposal

Sydney Water's feedback reflected its role as our direct customer and focused on the matters most relevant to the efficient and reliable operation of Sydney's water supply system.

Overall, Sydney Water supported the direction of the proposal and provided detailed input on production settings, energy arrangements, customer priorities and preparatory work for future expansion.

Sydney Water expressed general **support for the CAP's recommendations**, including the emphasis on fair and affordable bills, efficient expenditure, maintaining service reliability and emergency response capability, and adopting customer outcomes and performance measures that are relevant to SDP's role.

Sydney Water's feedback also covered the following areas:

- **Minimum baseline production.** Sydney Water supported a lower annual minimum baseline production level of around 20 GL, following joint analysis of system needs, operating requirements and costs. This approach is intended to maintain the Plant's readiness and contribution to drinking water security while avoiding unnecessary production and associated costs for customers.
- **Future energy position.** Sydney Water emphasised the importance of an energy framework that balances affordability, price certainty and operational flexibility after SDP's existing long-term contracts expire in 2030. Its feedback supported prudent procurement arrangements that align contracted volumes to expected production and retain flexibility to respond to changing system needs.
- **Proposed performance measures.** Sydney Water supported our proposed performance measures and their alignment with its Customer Outcomes. It considered that the measures appropriately focus on matters relevant to SDP's role and within our control, including operational efficiency, water quality and reliability, fulfilment of production requests, and readiness to respond to planned and emergency needs. Sydney Water also supported transparent reporting to demonstrate our contribution to outcomes for the people of Sydney.
- **Proposed expenditure.** Sydney Water's feedback on our operating and capital expenditure proposals recognised the need to balance asset maintenance, operational readiness and prudent investment with affordability for customers. Sydney Water also supported our approach to testing project need and timing, including deferring or re-profiling non-essential expenditure where this can be achieved without compromising service delivery or water security.
- **Expansion-related expenditure.** Sydney Water considered there was a strong case for undertaking prudent preparatory work during the upcoming regulatory period to de-risk any future expansion of the Plant. This included focusing on prudent preparatory planning that preserves future options and supports timely delivery if expansion is required, without committing customers to significant expenditure before there is a demonstrated need.

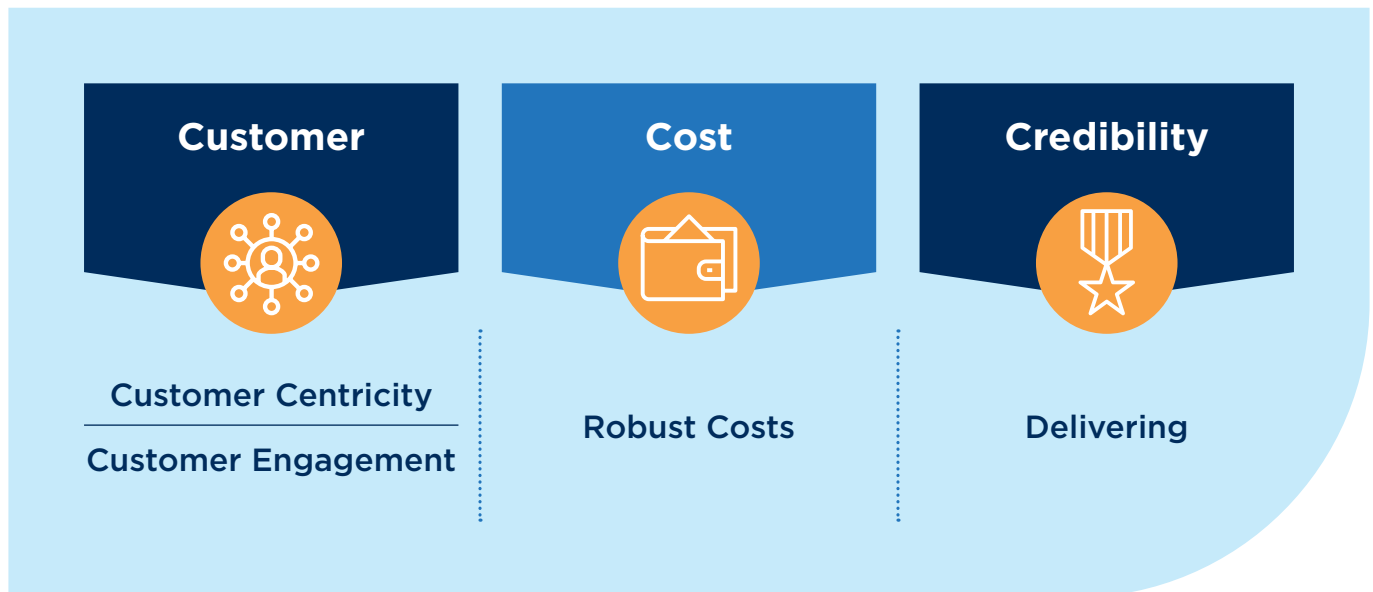
1.9 Our focus principles for this proposal

In response to what we heard through our engagement program, we have selected four principles that we have focused on in this proposal.

We placed a greater emphasis on these focus principles in our self-assessed grade, which is summarised in Chapter 10 and presented in Attachment 7.

We have chosen focus principles from each of the 3 pillars of the 3Cs Framework: 2 from the customer principle, 1 from the cost principle and 1 from the credibility principle (Figure 6).

Figure 6: Our Focus Principles



We chose these four principles because:

- **Customer centricity** reflects our commitment to place the needs and long-term interests of Sydney Water and customers at the centre of our decisions.
- **Customer engagement** recognises the extensive contribution of Sydney Water, the CAP and DCCEEW in shaping this proposal.
Together, the two customer principles reinforce our commitment to listen, respond transparently and explain how feedback has influenced our decisions.
- **Robust costs** responds directly to the strong emphasis customers placed on fair and affordable bills, efficient expenditure and deferring non-essential projects. It also reflects the need for expenditure proposals to be well justified, supported by sound evidence and timed no earlier than necessary.
- **Delivering** reflects customers' expectation that we maintain safe, reliable and high-quality services, including readiness to respond to planned and emergency production requests. This principle supports clear performance measures, transparent reporting and accountability for the outcomes we have committed to achieve.

Collectively, the four principles provide a balanced focus across IPART's customer, cost and credibility pillars and align with the principal themes heard throughout our engagement program.

1.9.1 Customer centricity

This is the most customer-centred pricing proposal we have developed. It reflects a deliberate shift towards placing customer needs, preferences and long-term interests at the centre of our decisions.

The proposal meets the requirements of our Operator Licence and Operational Approval and reflects the priorities of Sydney Water, our direct customer. We engaged closely with Sydney Water across all major elements of the proposal and incorporated its feedback to the maximum extent possible.

We also went beyond our direct customer relationship by considering the views of Sydney Water's customers in a proportionate and cost-effective way. We drew on Sydney Water's customer research and established a CAP to interpret those findings, provide diverse perspectives and to test the trade-offs in our proposal.

This approach demonstrates a high degree of customer centricity for a bulk water supplier that does not have a direct relationship with Sydney Water's customers. It has helped us balance affordability, service reliability, water security and prudent investment.

Overall, the proposal supports the long-term interests of the people of Sydney, who ultimately benefit from the safe, reliable and high-quality drinking water services we provide.

1.9.2 Customer engagement

We undertook our most extensive customer and stakeholder engagement program to date to ensure this pricing proposal reflects the priorities of Sydney Water, its customers and key stakeholders.

Our multi-stage process ran for more than 12 months and combined direct engagement with Sydney Water, a deliberative workshop series and input from our CAP. We also drew on de-identified findings from Sydney Water's Our Water, Our Voice engagement program so the views of the people and businesses that ultimately use our drinking water were considered.

Participants set the agenda and considered key issues, including service levels, energy, expenditure, production settings, performance measures and future expansion. We supported informed discussion by explaining technical matters clearly and showing how different choices could affect customer bills and service delivery.

Our approach was founded on transparency, honesty, responsiveness and inclusiveness. We committed to incorporating feedback wherever possible and explaining where operational, regulatory, cost or timing constraints prevented us from doing so. This engagement materially shaped the final proposal.



1.9.3 Robust costs

Sydney Water and its customers expect us to put forward a robust, efficient and well-justified pricing proposal.

Our focus on robust costs reflects the importance of affordability and recognises that even small increases can add up for households and businesses.

We developed our expenditure proposals using detailed evidence, transparent assumptions and clear assessment criteria. Every major capital project and program is supported by a business case that demonstrates its need, timing, costs, benefits and contribution to our service obligations. This helps ensure customers fund only prudent and efficient investment.

We also tested whether expenditure could be removed, reduced, deferred or re-profiled without compromising safety, reliability, water quality or operational readiness. As a result, we deferred some capital expenditure to the next regulatory period and adjusted the timing of other projects to better match when they are required.

Our operating expenditure proposal includes only a small number of step changes, each supported by clear justification. We have not proposed separate allowances for minor cost increases and will instead absorb these within our existing operations.

We have also included a challenging efficiency target of 0.7% each year, compounded across the regulatory period. Together, these measures demonstrate our commitment to disciplined cost management, efficient delivery and minimising bill impacts while maintaining the services customers value.

1.9.4 Delivering

Sydney Water and the community expect us to deliver value and meet the commitments set out in this proposal.

Our focus on delivering reflects the essential role SDP plays in Sydney's water supply system—as a continuously operating source of drinking water and an important drought and emergency response asset.

Customers expect the Plant to be safe, reliable and available when it is needed. We have therefore proposed clear and challenging performance measures covering operational efficiency, water quality and reliability, fulfilment of Sydney Water's production requests, and readiness to respond to planned and emergency events. We will report transparently against these measures throughout the regulatory period.

Our expenditure program and service commitments are designed to be achievable within the regulatory period. Major projects are supported by clear delivery plans and realistic timing, with appropriate oversight to manage cost, schedule and operational risks.

We have also begun planning for foreseeable challenges, including the expiry of our long-term energy contracts in 2030, future asset replacement needs and potential expansion of the plant. By preparing early while avoiding premature expenditure, we can preserve flexibility and respond efficiently as circumstances change. Together, these commitments demonstrate that we have a credible plan to deliver the services and outcomes customers value.

2. HOW WE WILL DELIVER OUR CUSTOMER OUTCOMES

Key messages

- We are committed to delivering against three outcomes that will create value not only for Sydney Water but for the people of Sydney.
- We propose to adopt Sydney Water's Customer Outcomes, which are: (1) customer experience, (2) water quality and reliability, and (3) environmental protection.
- Sydney Water's Customer Outcomes reflect the feedback it received from its customers for its recent pricing proposal. Ultimately, it is Sydney Water's customers that benefit and pay for our services, so it is appropriate that our Customer Outcomes reflect their feedback.
- Adopting Sydney Water's Customer Outcomes, and demonstrating how we can contribute towards them, is best practice for a bulk water supplier.
- We have identified 10 areas where we will measure performance to help achieve the Customer Outcomes. Against these 10 areas we have identified 12 challenging, but achievable, performance targets and measures for the 2027-32 regulatory period.
- Adopting Sydney Water's Customer Outcomes as our own is consistent with feedback we received during our Customer Engagement Program. Our proposed Performance Measures and Performance Targets also reflect feedback we received from Sydney Water and our CAP.
- We have developed performance measures to make our contribution visible and accountable. These measures focus on matters within our control, including operational efficiency, water quality and reliability, fulfilment of production requests, and readiness to respond to planned and emergency needs.
- We will report transparently against them throughout the regulatory period, giving Sydney Water, IPART and the community a clear view of how our performance supports the outcomes customers value.
- We will hold ourselves to account by publishing an annual dashboard that shows our process against each outcome, measure and target.

2.1 We propose to adopt Sydney Water's Customer Outcomes

For the 2027-32 regulatory period, we propose to adopt Sydney Water's Customer Outcomes of:

- Customer Experience
- Water Quality and Reliability, and
- Environmental Protection.

These outcomes align closely with the services we provide, the decisions we control and the areas where our performance can make a meaningful contribution to the Sydney Water network and the people of Sydney.

As part of our Customer and Stakeholder Engagement Program we asked workshop participants if we should adopt our own Customer Outcomes based on their feedback and our interpretation of Sydney Water's engagement data, or adopt Sydney Water's Customer Outcomes.

Workshop participants supported us adopting Sydney Water's Customer Outcomes because they reflect the values and preferences of the people and businesses of Sydney. Using the same outcomes creates a clear connection between our role as a bulk water supplier and the experience of the customers who ultimately benefit from the drinking water we produce (Figure 7).

These Customer outcomes are relevant for SDP and will help guide our service delivery over the next 5-years and beyond.

Figure 7: Our Customer Outcomes



2.2 The Customer Outcomes reflect end-customer feedback

In developing its customer outcomes, Sydney Water undertook a comprehensive, multi-phase customer engagement program 'Our Water, Our Voice' that sought to understand what customers value most from their water services and how those values should be reflected in the services delivered by Sydney Water.

Sydney Water's engagement involved a wide range of customers and stakeholders through surveys, customer panels, focus groups, workshops, forums and interviews. The engagement process reached thousands of customers across different demographic groups, regions and customer segments, ensuring that the resulting customer outcomes reflected community priorities and expectations.

To support SDP's engagement program, our advisors (Tingwall) reviewed more than 30,000 customer comments and qualitative data points collected through Sydney Water's engagement activities. This analysis sought to identify the underlying values that customers associate with water services and determine how those values vary across different customer cohorts.

The analysis identified five core customer values:

- water quality and safety;
- affordability and fair pricing;
- water security, reliability and resilience;
- environmental sustainability; and
- customer experience and communication.

For SDP, Sydney Water's engagement findings provide a foundation for understanding the outcomes customers expect from Sydney's water supply system. During SDP's customer engagement program, workshop participants (including the CAP) reviewed Sydney Water's engagement findings and considered which customer values SDP could help deliver. Participants identified a strong connection between SDP's role and customer priorities relating to water security, reliability and resilience; safe and clean drinking water; environmental sustainability; and affordability. Participants also emphasised the importance of ensuring customers are informed and empowered through improved water literacy and communication regarding the role desalination plays in Sydney's water supply system.

Sydney Water's customer outcomes provide a customer-tested and evidence-based framework for SDP to deliver against. They reflect the priorities that emerged consistently through extensive customer engagement and provide a clear explanation of the outcomes that Sydney customers value from their drinking water services.

2.3 We will contribute towards Sydney Water delivering for its customers

By choosing Sydney Water's Customer Outcomes, we can contribute towards the outcomes that are valued by its customers. We can do this in the following ways against each of the 3 Customer Outcomes:

- **Customer Experience** – Sydney Water's customers expect to be provided with a great customer experience. While SDP does not have a direct relationship with customers, we can still contribute towards achieving a better customer experience. We can do this by acknowledging that people expect fair and affordable bills and that our costs form part of Sydney Water's overall service costs that ultimately affect customer bills. We will support this outcome by operating efficiently, managing expenditure prudently, improving energy efficiency and ensuring investment is undertaken only when it is needed and clearly justified.
- **Water Quality and Reliability** – Is central to our purpose and the most meaningful Customer Outcome that we can directly contribute towards. We will contribute by producing safe, high-quality drinking water, maintaining plant availability, meeting Sydney Water's production requests and remaining ready to respond to drought, planned events and emergencies. We intend to provide greater transparency about water quality compliance, performance against production requests and operational readiness.
- **Environmental Protection** – Reflects our responsibility to manage the Plant's environmental impacts and support the transition to a lower-emissions future. We will continue to procure renewable energy, pursue energy-efficiency opportunities, comply with environmental requirements and improve reporting on our community, environmental and climate-related performance.

Together, these three outcomes provide a focused and proportionate framework for demonstrating our contribution to customers. We have developed specific performance measures and will report transparently against them throughout the regulatory period, strengthening accountability to Sydney Water, IPART and the community.

2.4 Our approach demonstrates a high level of customer centricity

Adopting Sydney Water's Customer Outcomes demonstrates a high level of customer centricity because it connects our decisions directly to the outcomes valued by the people and businesses that ultimately use the drinking water we produce.

While Sydney Water is our only direct customer, our services form part of a broader water supply system that exists to serve the community. Aligning with Sydney Water's framework ensures that our priorities are informed by end-customer needs rather than being defined solely by our internal activities, regulatory obligations or by Sydney Water itself.

This approach represents best practice for a bulk water supplier like SDP. It avoids creating a separate or duplicative set of outcomes and supports consistency across the water supply chain.

Importantly, the outcomes were supported by Sydney Water and our CAP. We have translated them into relevant performance measures and targets that cover operational efficiency, water quality and reliability, production request fulfilment and operational readiness.

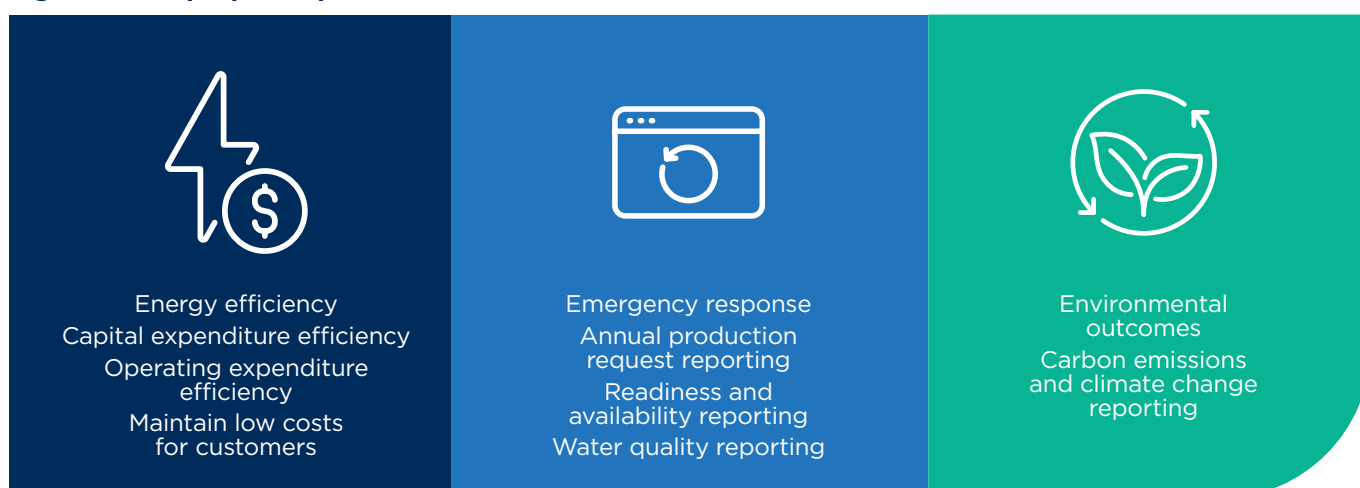
Together, this provides a practical, proportionate and transparent framework for demonstrating how SDP contributes to outcomes that are valued by customers.

2.5 We will track our progress using performance measures and targets

We have developed performance measures to make our contribution visible and accountable.

These measures focus on matters within our control, including operational efficiency, water quality and reliability, fulfilment of production requests, and readiness to respond to planned and emergency needs. We will report this information annually in a dashboard on our website. We are proposing 4 performance measures each against the Customer Experience and Water Quality and Reliability Customer Outcomes and 2 measures against the Environmental Protection Customer Outcome. Our 10 Performance Measures are outlined below in Figure 8.

Figure 8: Our proposed performance measures



2.6 Our performance measures are aligned with customer value

This section sets out how our performance measures are aligned with customer value and will ensure SDP operates in Sydney Water's interests and delivers value.

2.6.1 Customer experience

Maintaining low costs for customers.

Although Sydney Water is our direct customer, SDP's costs ultimately form part of Sydney Water's bills paid by households and businesses. This measure makes that connection explicit by tracking SDP's contribution to a typical Sydney Water customer bill over the long term. It is a useful indicator of customer value because it brings together the combined effect of our operating costs, capital program, and energy arrangements in a form that is easy to understand. It will help us test whether costs remain proportionate to the services and resilience we provide and explain material changes transparently.

Monitoring this indicator over time strengthens accountability for prudent decision-making and reinforces our commitment to minimise bill impacts without compromising essential service outcomes.

Energy efficiency.

Energy is one of our largest operating costs and a significant input to our drinking water production. Measuring specific energy consumption provides a clear indication of how efficiently the Plant uses energy to produce drinking water, while allowing performance to be assessed across different production volumes.

This measure aligns strongly with customer value because improved efficiency can reduce operating costs and place downward pressure on bills without compromising water quality, reliability or operational flexibility. It also supports environmental protection by reducing energy demand and associated emissions.

The measure responds directly to customer feedback that SDP should use energy as efficiently as possible and pursue savings where benefits flow to customers.

Capital expenditure efficiency.

Capital investment is necessary to maintain and replace aging assets, manage risk and maintain the reliability and availability of the Plant. This measure tests whether we deliver the approved capital program efficiently while maintaining the scope, quality and timing needed to meet service obligations.

It aligns with customer value by encouraging disciplined project planning, procurement and delivery and by ensuring expenditure is undertaken no earlier than necessary. The measure also reinforces the expectation that major projects are supported by evidence and that benefits clearly outweigh costs.

Tracking performance against a defined efficiency target will encourage continuous improvement. It complements our business-case and governance processes by focusing accountability on both prudent decisions and efficient execution across the regulatory period.

Operating expenditure efficiency.

Operating expenditure covers the costs of running and maintaining the Plant, including labour, maintenance, insurance and support services. This measure is aligned with customer value because it requires us to find sustainable efficiencies while continuing to provide safe, reliable and high-quality drinking water.

A clear annual target encourages us to challenge existing practices, absorb minor cost pressures where appropriate and avoid unnecessary increases being passed through to customers. It also provides a transparent basis for assessing whether operating costs remain prudent and efficient as service needs and external conditions change.

2.6.2 Water quality and reliability

Emergency response.

SDP is an important emergency response asset within Sydney's water supply system. This measure assesses whether the Plant can begin delivering defined volumes of drinking water within the required time when Sydney Water makes an emergency production request. It aligns directly with customer value because rapid response can help maintain continuity of supply during unexpected incidents, protect public health and reduce disruption for households and businesses.

The measure is specific, time-bound and focused on an aspect of service that SDP can meaningfully control. It also makes the value of maintaining operational readiness more visible, including during periods when the Plant is producing at lower levels. Reporting performance will demonstrate whether our people, processes and assets can respond as planned, identify any lessons from tests or events, and provide assurance that customers can rely on the Plant when it is most needed.

Annual Production Request reporting.

Sydney Water's Annual Production Request (APR) outlines how much drinking water SDP should supply to the network each year. Measuring performance against the requested or otherwise agreed volume shows whether we are meeting our direct customer's operational needs and contributing effectively to system planning.

This is closely aligned with customer value because accurate delivery supports reliable drinking water supply, efficient network operation and prudent use of resources. Producing materially more or less than required can create avoidable costs or operational impacts, so a clear tolerance provides an appropriate balance between accountability and practical operating variability.

Transparent reporting will show whether agreed volumes were achieved, explain material differences and support better coordination with Sydney Water. The measure therefore links our operational performance to the broader reliability and affordability outcomes valued by customers.

Readiness and availability reporting.

Customers benefit from SDP not only when the Plant is producing drinking water, but also when it is ready and available to respond to changing system needs. This measure provides evidence that the Plant, workforce and operating processes can perform as required, particularly during low-flow periods when capability may not otherwise be demonstrated through normal production. Regular availability testing offers practical assurance that critical systems remain functional and that potential issues are identified before an actual request or emergency occurs. The measure aligns with customer value by supporting reliability, water security and confidence in the resilience of Sydney's drinking water supply, while avoiding unnecessary continuous production solely to prove readiness. Reporting test outcomes, any limitations identified and corrective actions will strengthen transparency and show that the costs of maintaining the Plant are delivering a genuine preparedness benefit for customers.

Water quality reporting.

Producing safe, high-quality drinking water is fundamental to SDP's purpose and is consistently expected by customers. This measure tracks compliance with the Australian Drinking Water Guidelines and provides more detailed information about any non-compliance, including its frequency, duration and magnitude.

It is strongly aligned with customer value because water quality directly affects public health, confidence and the reliability of Sydney's drinking water supply. The measure is objective, based on established standards and closely connected to matters within our operational control.

Transparent reporting will go beyond a simple compliance result by helping the community understand the quality of drinking water supplied and how any issue was managed. Maintaining a clear target and publishing performance will reinforce accountability, support continuous improvement and demonstrate our contribution to the quality of drinking water ultimately delivered to customers.

2.6.3 Environmental protection

Environmental outcomes

This measure captures the environmental and community benefits generated through our operations and local initiatives. It aligns with customer value because workshop participants supported responsible management of local impacts and investment in initiatives where clear benefits can be demonstrated. Tracking year-on-year outcomes, alongside compliance with environmental reporting requirements, will move reporting beyond expenditure alone and focus attention on what has been achieved.

The measure will track monitoring of our environmental initiatives including, tracking of native flora and fauna in the conservation area, harvesting of eucalypt leaves in our eucalypt plantation, our seagrass breeding program, and our green and gold bell frog breeding program.

Carbon emissions and climate change reporting

SDP's desalination processes use 100% renewable energy, which is a requirement of our Project Approval.

This measure will establish a consistent view of our greenhouse gas emissions, climate-related risks and actions. It aligns with customer value by supporting informed decisions about energy efficiency, renewable energy procurement and future investment, while making the cost and environmental implications of those choices visible.

The measure also recognises that customers value emissions reduction but expect initiatives to be efficient. Regular reporting will provide a baseline, reveal trends and help identify practical opportunities to reduce emissions or improve resilience. It will also allow the community to assess whether our approach remains credible, proportionate and aligned with wider environmental commitments over time.



2.7 Our Performance targets will drive better outcomes for customers

We have set challenging, yet achievable, performance targets for our Performance Measures. In total, we propose 12 targets against the 10 Performance Measures. Our proposed performance targets are outlined in Table 3.

Table 3: Performance Measures and Performance Targets

Customer Outcome	Performance Measure	Performance Target
Customer experience	Maintaining low costs for customers	Target: Keep the SDP portion of a typical Sydney Water customer's bill below 7% over the long term. ⁵
	Energy efficiency	Target: meet or exceed the specific energy consumption benchmark, on average, over the regulatory period.
	Capital expenditure efficiency	Target: Achieve a 0.7% saving across the proposed capital expenditure program per year over the regulatory period.
	Operating expenditure efficiency	Target: Achieve a 0.7% saving across the proposed operating expenditure costs per year over the regulatory period.
Water quality and reliability	Water quality reporting	Target: Achieve 100% compliance with Australian Drinking Water Guidelines. And provide qualitative reporting of any non-compliance.
	Annual production request compliance reporting	Target: Achieve +/- 5% of either the Annual Production Request amount or an agreed water order volume over the year. Target: 100% compliance with all fixed production day requests made by Sydney Water.
	Emergency response	Target: Deliver 45 ML within 12 hours and 150 ML within 24 hours. And provide qualitative reporting of all emergency requests.
	Readiness and availability reporting	Target: Undertake 1 readiness test per year in years of low flow and report on SDP performance.
Environmental protection	Reporting on environmental outcomes	Target: Achieve better year-on-year outcomes across existing community and environmental initiatives. Target: Achieve 100% compliance with EPA reporting requirements.
	Carbon emissions and climate change reporting	Target: to be confirmed by 2027-28 once revised GHG Protocol reporting requirements are published. And start reporting on Scope 3 emissions progress from 2029-30 onwards.

2.7.1 Additional qualitative reporting

We will supplement reporting against our quantitative targets with qualitative information that provides context (including current and historical performance, where relevant), explains material results and highlights opportunities for improvement. This will include reporting on any non-compliance with the Australian Drinking Water Guidelines, performance during availability testing and emergency requests, and the outcomes delivered through our environmental and community initiatives.

5. Based on forecast and not actual volume and excluding any expansion related expenditure.

2.8 Our performance measures and targets reflect customer engagement feedback

Our performance measures and targets directly reflect feedback from Sydney Water, the CAP and other workshop participants.

During engagement, we presented draft options and asked participants which aspects of performance mattered most to customers. There was support for measures that are challenging, meaningful and within our control, with a strong focus on affordability, energy and expenditure efficiency, water quality, production fulfilment, operational readiness and environmental performance.

We refined the framework in response by removing measures outside our control, strengthening efficiency and reliability indicators, and improving environmental and emissions reporting. The resulting measures provide a transparent and practical basis for demonstrating customer value.

Table 4: How we incorporated engagement feedback about Performance Measures and Targets

Engagement group	Recommendation	How we incorporated this recommendation
Customer Advisory Panel	<p>11. That SDP aligns with relevant Sydney Water Performance Measures and Customer Outcomes and develop and adopt its own Performance Measures. In the CAP's view:</p> <ol style="list-style-type: none"> Performance Measures for the customer experience of Fair and Affordable Bills should: <ol style="list-style-type: none"> Be anchored to aspects that are meaningfully under SDP's control, Encourage SDP to optimise operational efficiency, including the cost-efficient use of energy, Be aligned with but additional to existing licence, regulatory and community expectations to deliver capital projects efficiently. Performance measures for Environmental Protection based on SDP's local and environmental initiatives should be quantitative. Reduction of carbon emissions beyond the renewable energy contractual arrangements is desirable and metrics should be developed. Performance Measures for the Customer Outcome of Water Quality and Reliability should: <ol style="list-style-type: none"> Include more detailed reporting of compliance with Australian Drinking Water Guidelines (ie, frequency, duration and magnitude of any non-compliance). Measure SDP's contribution to the quality of drinking water provided by Sydney Water to the people of Sydney as this is a meaningful reflection of its increasing role in supporting drinking water quality. 	<p>We adopted the CAP's recommendation to align our performance measures and customer outcomes with Sydney Water's where relevant and to adopt our own Performance Measures.</p> <p>Based on the feedback from the CAP, we:</p> <ul style="list-style-type: none"> Removed a performance measure to ensure all proposed measures were meaningfully under our control. Included performance measures for operational and capital efficiency. Made sure our performance measures and targets were aligned with or additional to our existing licence, approval and regulatory obligations. Developed a qualitative performance measure for environmental protection. Included a measure to reduce carbon emissions beyond the requirements in our renewable energy contractual arrangements, with the actual target to be defined. Will report on our compliance with ADWG and explain any non-compliance. Measure the fulfillment of production requests including compliance with the APR amount and fixed production days. Report performance of annual readiness tests.

Engagement group	Recommendation	How we incorporated this recommendation
Customer Advisory Panel	<ul style="list-style-type: none"> iii. Measure material fulfilment of Sydney Water production requests (annual production, fixed production day requests and emergency requests). iv. Measure SDP's readiness and ability to respond to planned and unplanned (emergency) requests. 	
Sydney Water	<p>Overall, Sydney Water supports the CAP's recommendation for SDP to develop its own performance measures, in alignment with Sydney Water's customer outcomes and performance measures.</p> <p>Sydney Water also agrees with many of the considerations that have been put forward by the CAP with respect to the design of these performance measures, such as the measure only capturing aspects of performance within SDP's control and being meaningful. Sydney Water noted that there may be limited measures available to track the contribution of SDP to the quality of drinking water provided by Sydney Water.</p> <p>In line with Sydney Water outcomes, it also suggests the following additional performance measures:</p> <ul style="list-style-type: none"> - Plant availability as a percentage over the calendar year, - Response to Emergency ramp up requests and ability to sustain production, - Ability to meet Fixed Production Day requests, and - Energy efficiency improvements or targets. 	<p>We adopted Sydney Water's recommendation to align our customer outcomes and performance measures with Sydney Water's outcomes and measures where relevant and adopted our own Performance Measures.</p> <p>Based on the feedback from the Sydney Water, we:</p> <ul style="list-style-type: none"> - Incorporated the CAP's feedback. - Included a performance measure about our response to emergency production requests and we will also provide qualitative reporting on our performance. - Included a performance measure on our compliance with fixed production days, and - Included a target based on energy efficiency improvements. <p>We have not included a performance measure based on Plant availability as a percentage over the year. This information is provided to Sydney Water but is not made publicly available.</p> <p>There are good reasons why Plant availability might be lower in some years and higher in others. Parts of the Plant could be taken offline to allow for critical maintenance. The Decision Framework says SDP should prioritise maintenance during years of low production requests.</p> <p>If there was a performance measure and target tied to keeping Plant availability as high as possible it could incentivise SDP to unnecessarily prioritise keeping availability high at all times at the expense of critical maintenance that allows for sustained periods of maximum production when required (e.g., in years of high production requests when dam levels fall).</p> <p>We will continue to provide this information to Sydney Water so it can track and monitor plant availability.</p>

2.9 We will be accountable for achieving customer outcomes

We will be accountable for our contribution to Sydney Water's Customer Outcomes through a clear set of performance measures and indicators. These measures focus on matters that are relevant to SDP and meaningfully within our control, including operational efficiency, water quality and reliability, fulfilment of production requests, and readiness to respond to planned and emergency needs.

We will monitor performance throughout the 2027-32 regulatory period and report results transparently to Sydney Water, IPART and the community to demonstrate how our performance supports the Customer Outcomes. Our reporting will explain whether targets have been met, identify material variations and outline the actions we are taking where performance falls short. This will provide a clear line of sight between our day-to-day performance, the commitments in this proposal and the outcomes customers value.

Accountability will also be embedded in our governance and decision-making. Performance will be reviewed by Management and the Board, and the findings will inform operational priorities, investment decisions and continuous improvement. We will continue to engage closely with Sydney Water to ensure our measures remain aligned with its Customer Outcomes and provide useful information about our contribution.

Our approach is consistent with our focus principles of customer centricity, customer engagement, robust costs and delivering. Wherever possible, we will use information already collected through our existing operational and regulatory systems. This will strengthen transparency and accountability without creating unnecessary reporting costs for customers.



3. LEARNING FROM OUR FLEXIBLE OPERATIONS TO DELIVER LONG-TERM PERFORMANCE

Key messages

- SDP's Operating Licence changed in 2023, so the Plant would run on a flexible full-time basis. Prior to this change, SDP operated primarily in a drought response role.
- Over the last few years, SDP has operated at low flow to supplement other water sources and be available to respond to emergencies while dams remain high.
- While the Plant was originally designed for continuous full production operations, there may be new and better ways to operate parts of the desalination process for when we operate the Plant more flexibly.
- SDP has incorporated learnings over the last few years of flexible, full-time production into our Long-Term Investment Plan, our Asset Management Plans and our Cost Efficiency Strategy. Our experience operating at low flow in recent years has improved our understanding of the Plant's performance, maintenance requirements, asset condition and operating costs.
- SDP is learning from its new operating model and is looking for ways to be more efficient in the future.

3.1 Our services

Sydney's water security is highly dependent on rainfall into the Warragamba Dam, which supplies 80% of Sydney's water needs through Sydney Water's Prospect Water Filtration Treatment Plant.

SDP plays an integral role in securing Sydney's water supply by providing two water supply services:

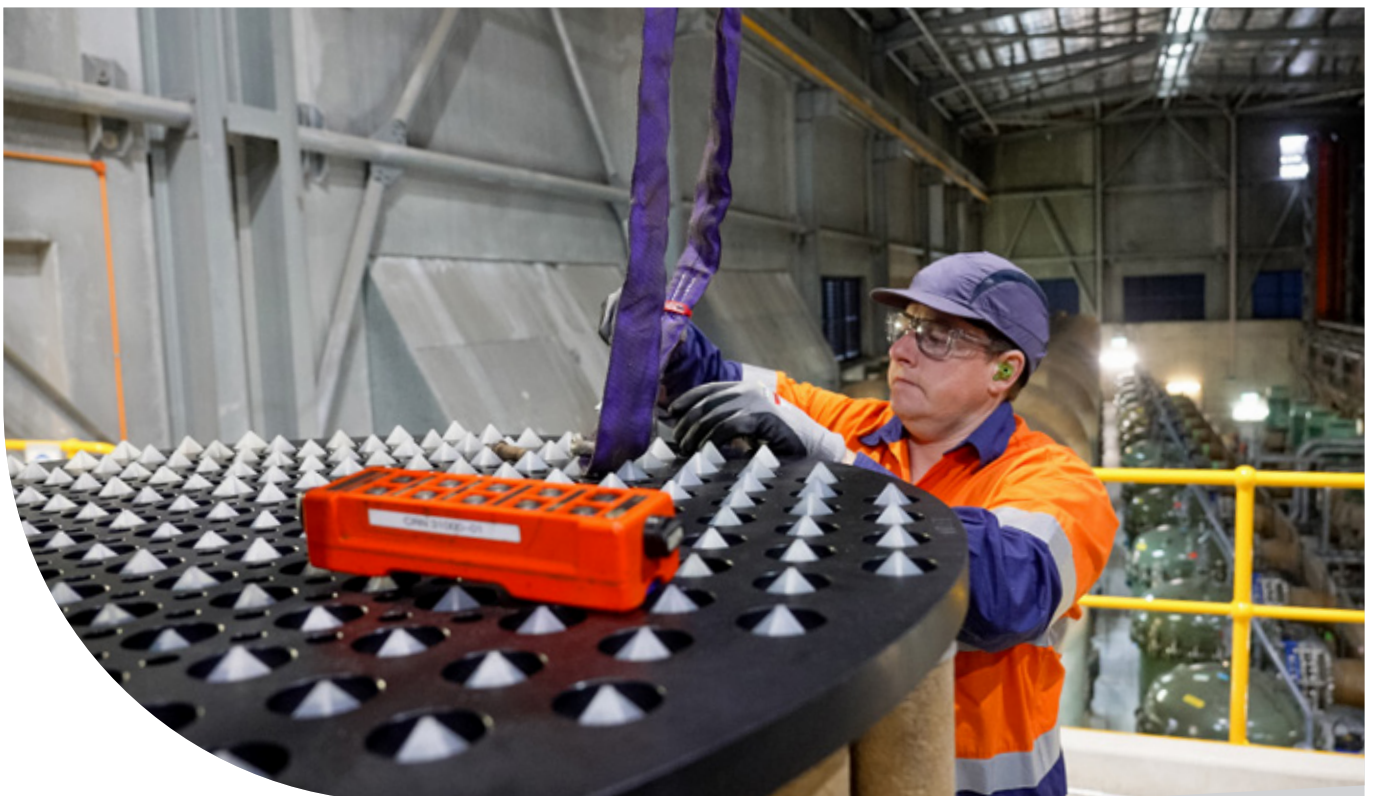
- the supply of non-rainfall-dependent drinking water
- making available the Plant to supply non-rainfall-dependent drinking water.

Under the NSW Water Industry Competition Act 2006, SDP's operations and performance are regulated by a Scheme Approval, an Operational Approval and an Operator Licence. Under SDP's Operational Approval, SDP is required to operate on a "flexible full-time basis", which means complying with Sydney Water's APR and using best endeavours to comply with any other reasonable production requests, such as emergency production requests, made by Sydney Water that are consistent with the Decision Framework. In this way, our Plant is an important part of Greater Sydney's water supply system, helping to ensure customers have access to clean, reliable and uninterrupted drinking water.

While the Sydney Desalination Plant was originally built between 2007 to 2010 to respond to the worst drought in a century (Millennium Drought), recent experiences have shown just how important the Plant is, as part of an integrated drinking water supply system across Greater Sydney.

A growing population and increasing climate-related stresses – such as more severe droughts, bushfires, and floods – have placed strain on Sydney's water supply system and demonstrated the need for the Plant to remain operational outside drought periods.

As well as droughts, we have responded to water quality challenges driven by flooding, storms, bushfire debris and major system maintenance needs. Furthermore, having SDP operate full time allows Sydney Water to undertake planned and unplanned maintenance of its supply networks, without compromising water supply to customers.



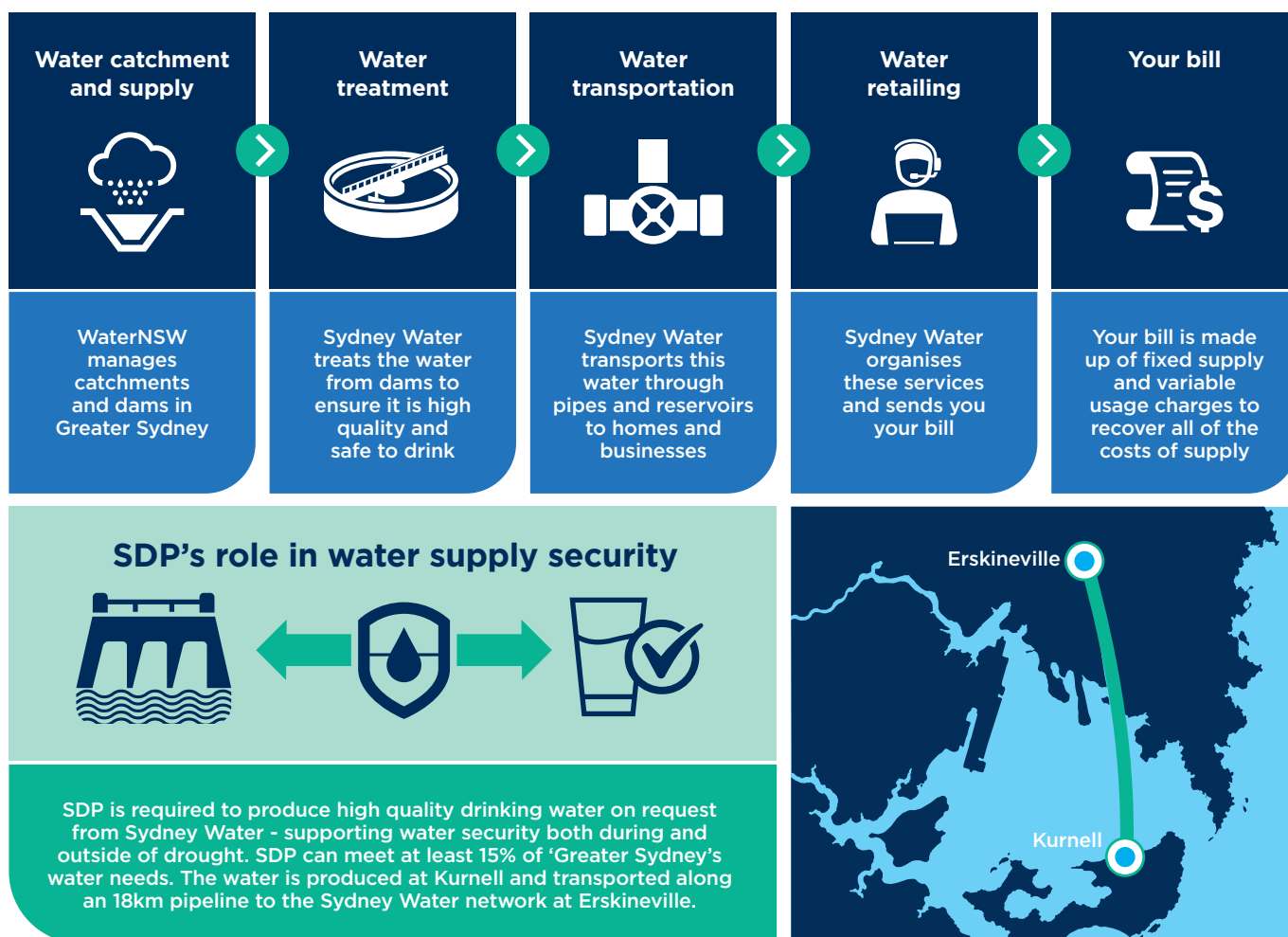
To support Sydney Water in addressing these challenges, SDP has supplied over 270 billion litres of drinking water since it was switched back on in 2019 during drought.

This water is provided using our large-scale RO membrane facility located in Kurnell, Sydney to turn seawater into high-quality drinking water. With a current design capacity of 91.25GL/year, the Plant can provide approximately 15% of Sydney's annual average water needs, with an option to expand the Plant to double its capacity at the NSW Government's request.

The drinking water is transported via the Pipeline to Sydney Water's distribution network at Erskineville (Figure 9). Sydney Water then distributes the drinking water, alongside water from other sources of supply including Warragamba Dam and the Prospect Water Filtration Treatment Plant, to homes and businesses across the Sydney region.

Our role in meeting Sydney's water needs is shown in Figure 9.

Figure 9: SDP's role in meeting Sydney's water security needs





Tempe Pipeline Mural

In 2025 we launched our pipeline mural, The Story of Naggangbi.

Co-created with Re-Right Collective (Dennis Golding and Carmen Glynn-Braun) and First Nations artists (Dakota Dixon-Campbell and Wirrin Lowe), the 800-metre artwork along Airport Drive and Alexandra Canal in Tempe was painted by Indigo Jo, curated by Cultural Capital, and incorporates language developed by the Gujaga Foundation.

Open to the public alongside a new bike and walking path, the mural reflects the lands and seawaters of the Bidjigal, Gadigal and Dharawal peoples through motifs of shellfish, mangroves, seagulls and wattles.



Ownership and operation of the Plant

- In June 2012, the NSW Government leased the Plant for 50 years to a private consortium. The lease includes the Plant and the Pipeline connecting the Plant to the water supply network and is supported by a 50-year Water Supply Agreement (WSA) with Sydney Water. This means Sydney Water is contracted to take water until 2062, but not beyond that date.
- SDP is 100% owned by Utilities Trust of Australia (UTA). UTA was established in 1994 as one of Australia's first infrastructure investment vehicles. The fund is managed by Morrison, a leading global infrastructure manager.
- Veolia Water Australia (Veolia) is contracted to operate the Plant and the Pipeline under a multiyear Operation and Maintenance (O&M) contract, which was originally competitively tendered and executed by Sydney Water as an integral part of the Plant design and construct process. Our O&M contractor's role is to:
 - Operate and maintain the Plant and Pipeline in accordance with industry best practice and a detailed Operations Management Plan
 - Provide high-quality drinking water in quantities directed by SDP that meet drinking water standards, and
 - Perform services that meet technical requirements specified by SDP.

3.2 How our operating regime has changed over time

SDP continues to supply non-rainfall-dependent drinking water and makes the Plant available to supply non-rainfall-dependent drinking water.

While these services have not changed, the way the Plant is operated and the volume of drinking water we have provided has changed in response to climate conditions and changes to the operating regime as summarised in Figure 10 .

Figure 10: The history of the Sydney Desalination Plant



2007

The NSW Government decided to build the Plant in 2007 to respond to the worst drought in history, which saw Sydney's combined dam storage levels falling below 34 per cent capacity.

2010

Construction took three years, with the project funded by the Government and put under the ownership of Sydney Water.

The original operating framework for the Plant was for it to be turned on when dam levels were low due to drought and off again when dam levels recovered.

2012

The Plant operated at full capacity for a two-year proving period until June 2012. As dam levels had recovered by then, there was no longer an immediate need for desalinated drinking water to supplement other supplies. As a result, the Plant was placed in a long-term shutdown state.

2019

After nearly seven years of shutdown, drought returned and the Plant recommenced production in January 2019.

2020

While dam levels had once again recovered by early 2020, the Plant continued operating so it could bolster drinking water supplies at times when other sources of supply could be impacted by bushfires, storms and floods.

2023

From mid-2023, our Operating Licence conditions were changed and the Water Supply Agreement with Sydney Water amended to reflect that the Plant will operate on a flexible full-time basis. This means it will produce up to a maximum of 91.25 gigalitres a year, depending on production requests by Sydney Water.

2026

The Plant continues to operate on a flexible full-time basis, responding to Sydney Water's Annual Production Requests and adjusting production timing throughout the year to meet the operational needs of the Plant and Sydney Water under the Water Supply Agreement. In the three years since the change to the Operating Licence in 2023, the Plant has produced at approximately 28% of full capacity, on average.

3.2.1 SDP was commissioned during the Millennium Drought

The Sydney Desalination Plant was originally built between 2007 to 2010 to respond to the worst drought in a century (Millennium Drought), which saw Sydney's dam levels falling below 34% in 2007.

The NSW Government built the Plant (with Sydney Water being the original owner) under a design, build, operate, maintain contract with the Bluewater Joint Venture (John Holland and Veolia Water Australia). The construction took approximately three years from 2007-2010.

The Plant operated predominantly in full production mode between 2010 and 2012 as part of the original design and construction Proving Period, producing approximately 15% of Sydney's drinking water requirements. At this time, the drought had broken and Sydney's dam levels recovered. Under the operating licence conditions of the then Metropolitan Water Plan, the Plant ceased production and was placed in a long-term shutdown mode in June 2012.⁶

The Plant was successfully restarted in January 2019 when during the 'Tinderbox drought' Greater Sydney's dam storages fell rapidly, reaching the 60% 'restart trigger' specified in the then Metropolitan Water Plan. Up until February 2020, SDP sought to maximise drinking water production in response to the drought conditions as per its Operating Licence. SDP significantly outperformed expectations during the restart period (January to September 2019) both in the speed of its first transfer of drinking water and the volume it supplied during the restart period.

Following substantial rainfall in February 2020, Sydney dam levels recovered sufficiently to meet the 70% 'shutdown trigger' specified in the then Metropolitan Water Plan. However, rather than return to long-term shutdown (Water Security Mode), the Plant remained in operation as SDP responded to 17 Emergency Response Notices (ERNs) issued by Sydney Water following bushfires and subsequent heavy rain events that severely affected the quality of Sydney's raw water supply from Sydney's dams.



6. The plant went into Water Security Mode. Under this mode, the Plant does not produce water but is maintained in a state of readiness to be able to supply water within 8-months when it is next called upon.

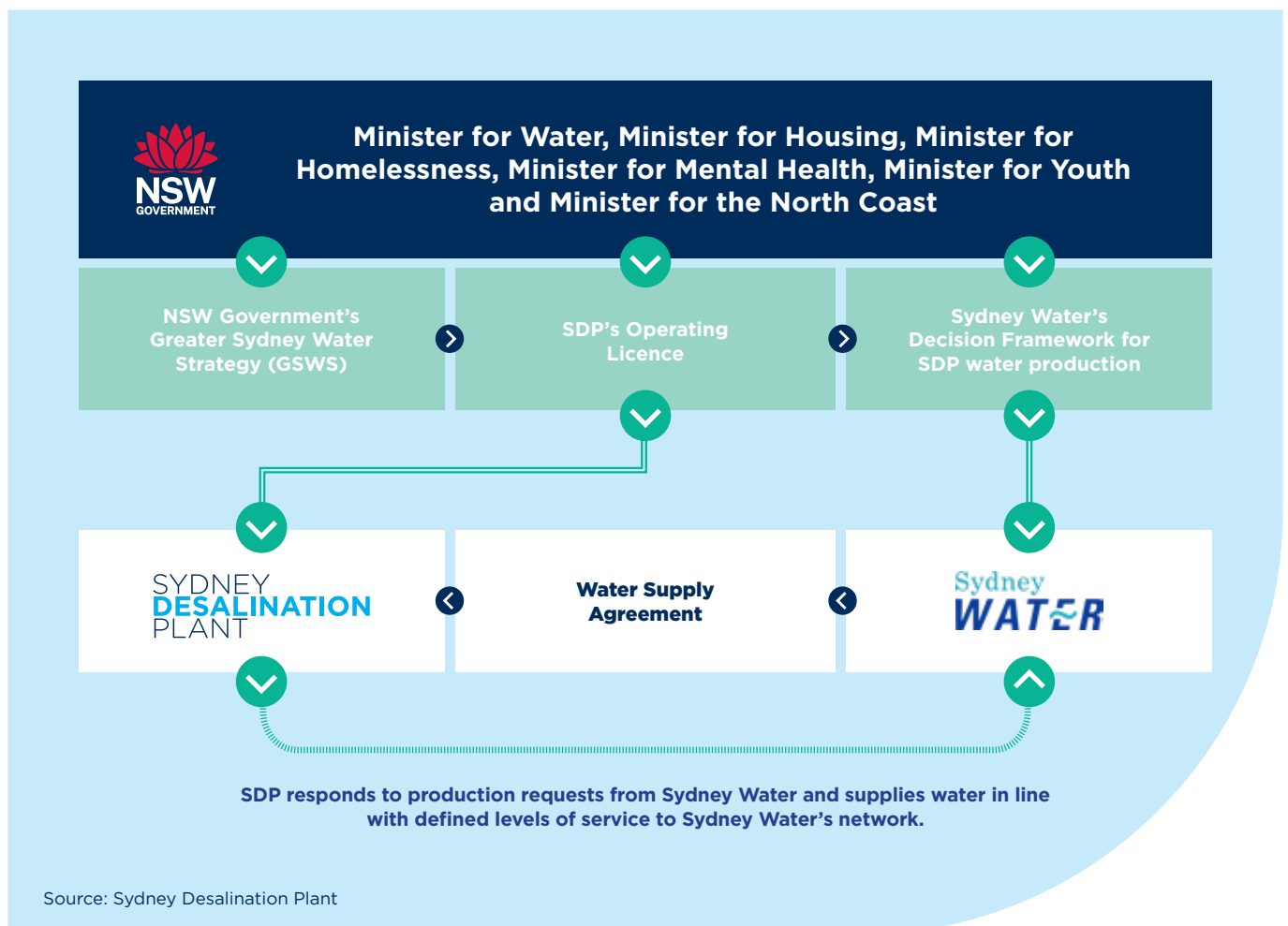
3.2.2 SDP's licence was changed in 2023 so the Plant would run on a flexible full-time basis

SDP's operations and performance are regulated by a Scheme Approval, an Operational Approval and an Operator Licence, issued under the NSW Water Industry Competition Act 2006 (the WIC Act). These approvals and licences replaced SDP's Network Operator's Licence, following changes to the WIC Act. We often refer to these approvals and licences collectively as our licence requirements or our Operating Licence.

Up until 2023, SDP's licence requirements and IPART's determinations were developed "through the lens of SDP's primary role of drought response."⁷ For example, IPART noted in its 2017 Determination that when assessing the need for expenditure that is not related to what was then SDP's primary role of drought response, that "any need to maintain a higher level of service is ancillary."

In response to the NSW Government's 2022 Greater Sydney Water Strategy (GSWS), SDP's licence requirements were varied from July 2023 to require flexible fulltime operation rather than acute drought response alone, with rules and arrangements that align with the Sydney Water Decision Framework⁸ for requesting drinking water from SDP.

Figure 11: SDP's Operating Environment



7. IPART, Sydney Desalination Plant Pty Ltd: Review of prices from 1 July 2017 to 30 June 2022 - Final Report, 2017, p3.

8. The Decision Framework for SDP Operation was prepared by Sydney Water in June 2022 and endorsed by the then Minister for Lands and Water in July 2022.

3.2.2.1 The Decision Framework

Under SDP's Operational Approval, we must comply with any Annual Production Request (APR) made by Sydney Water that is consistent with its Decision Framework and use best endeavours to comply with any other request, such as emergency response requests.

The Decision Framework provides guidelines on how Sydney Water determines the quantity of drinking water produced by SDP. Its purpose is to optimise SDP's contribution to water security while balancing costs to customers.

The Decision Framework seeks to achieve four objectives:

- maximise SDP's contribution to Sydney's drinking water supply
- slow dam depletion during drought
- reduce the risk of dam spills and associated customer costs where practical
- maintain flexibility to respond to emergencies and critical maintenance needs.

The operating regime under the Decision Framework is divided into three phases (see Figure 12).

1. Ready to Respond Phase, when dam storage levels are greater than 90%

This phase reflects low drought risk, high potential for dam spills if desalination production is unnecessarily high, and a focus on minimising customer costs while maintaining readiness. Under this phase:

- SDP operates at a minimum baseline production
- production may be increased temporarily to support emergency situations or critical maintenance elsewhere in the water supply system
- maintenance activities are prioritised during this period where feasible and cost-effective.

2. Operational Flexibility Phase, when dam storage levels are between 75% and 90%

This phase is intended to balance water security benefits against customer costs.

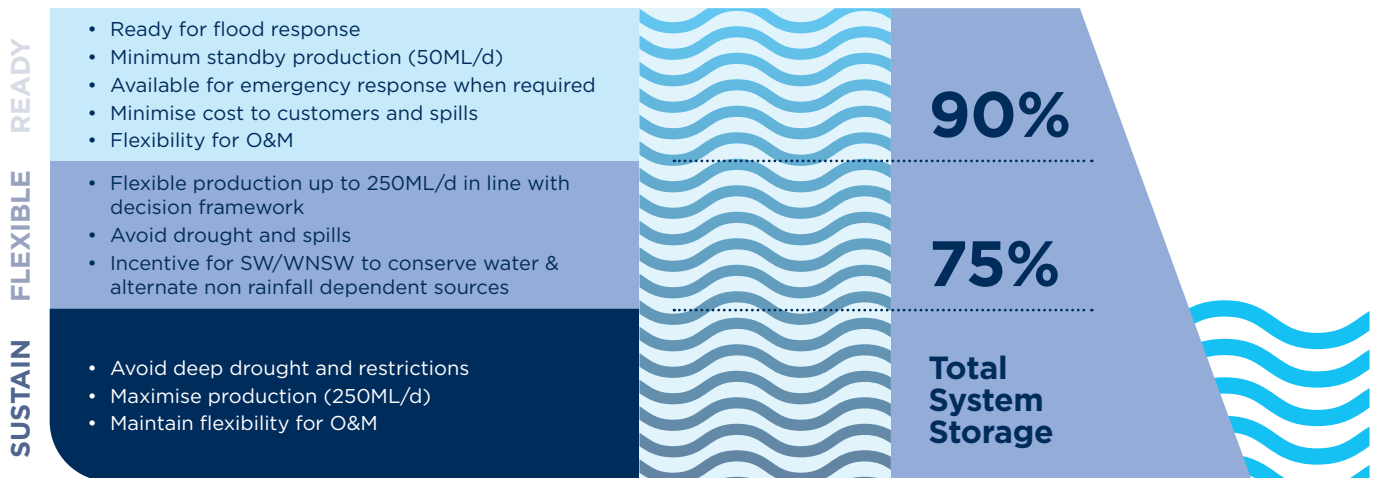
Key features under this phase include:

- a default production target of 125 ML/day
- production increases to 250 ML/day if drought risk becomes high
- production may be reduced back to a minimum amount if dam spill risk becomes high
- production can be adjusted up or down to accommodate emergencies or critical maintenance events.

3. Sustaining Dam Storage Phase, when dam storage levels fall below 75%

Drought risk is high under this phase, and the priority is water security. Therefore, under this phase:

- SDP production is maximised
- the target production level is an average of 250 ML/day
- production remains at this level except during outages or critical maintenance.

Figure 12: Operation of SDP under Sydney Water Decision Framework

Source: Sydney Water, Decision Framework for SDP Operation June 2022 P5. Figure 1

Forecasting APRs and monthly production levels is inherently challenging given Sydney Water is balancing a range of considerations under the Decision Framework.

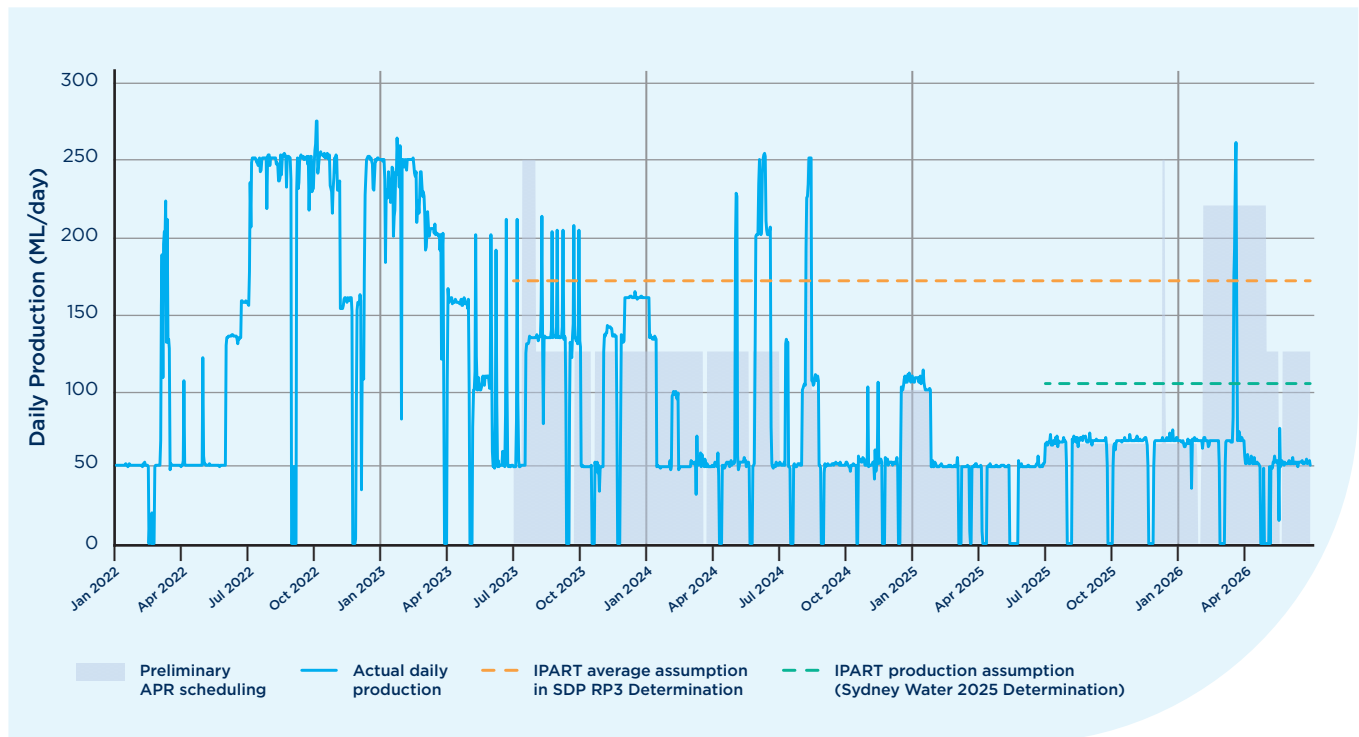
In its Final Report of its 2023 determination of SDP's prices, IPART noted:

"There is limited information available about how much Sydney Water will order from SDP and therefore what SDP's production levels are likely to be over the upcoming determination period. SDP's new licence foresees a greater likelihood that SDP will operate under varying levels of production going forward. This is also supported by Sydney Water's proposed new operating rules for SDP...As such, there remains a significant range of potential production levels that SDP could operate under over the 2023 determination period."

For the purposes of the last determination of SDP's prices, IPART assumed a 68.4% average production level for setting SDP's production-dependent building block components. This average production level was derived using current and historical data on SDP's production, dam storage levels and Annual Production Request (APR) indicators from Sydney Water's Decision Framework.

Figure 13 shows that production volumes have varied significantly over recent years, following the end of the drought and changes to SDP's Operating Licence. It highlights that not only are APRs difficult to forecast, but there is also significant weekly and monthly variation around the APR.



Figure 13: SDP planned compared to actual production volumes, 2022-23 to 2025-26

As explained in Chapter 7, SDP's proposed expenditure covering energy costs has been developed in direct response to the potential variability in production volumes required to meet SDP's obligations to Sydney Water under SDP's Operating Licence and Water Supply Agreement.

3.3 What we have learned since being run on a flexible, full-time basis

SDP has built operational knowledge from the transition from a drought-response asset to a flexibly operated, full-time water supply asset, and this experience has directly informed our expenditure forecasts, asset management and efficiency initiatives.

3.3.1 Learning from operating under flexible full-time production

The transition to flexible full-time operation in 2023 has fundamentally changed the way the Plant operates and the information available to support operational, maintenance and investment decisions. While the Plant was originally designed to operate continuously at high production during drought conditions, it is now required to respond to a broader range of production requests from Sydney Water and to provide ongoing operational flexibility within the Greater Sydney water system.

Operating the Plant more frequently and across a wider range of production levels has generated valuable operational and asset performance information that was not available during periods when the Plant was largely in standby mode or operating solely in response to drought. SDP has used this experience to improve its understanding of how Plant performance, maintenance requirements, asset condition and operating costs change under different production profiles and operating conditions.

3.3.2 Improved understanding of production requirements and customer needs

A key lesson from the 2023-27 regulatory period is the importance of aligning operations with Sydney Water's evolving requirements. Under the flexible operating framework, SDP has worked closely with Sydney Water to better understand how it can support the broader water supply system during periods of varying demand, network constraints, water quality events and climatic uncertainty.

This operating experience has demonstrated that value is not derived solely from maximising annual drinking water production. Rather, value is also created through the Plant's ability to respond flexibly to changing system needs, maintain readiness, and assist Sydney Water in managing water quality and supply risks across the broader network.

As a result, SDP has continued to refine its understanding of the trade-offs between production volumes, operating costs, asset utilisation, water security outcomes and customer affordability.

3.3.3 Better understanding of energy performance

Energy is the largest variable cost associated with desalinated drinking water production. Operating the Plant under a wider range of production profiles has improved SDP's understanding of the relationship between production levels, operating modes and energy efficiency.

Experience during the 2023-27 regulatory period has confirmed that the Plant is generally more energy efficient when operating at higher production levels. However, Sydney Water's operational requirements do not always align with the production levels that optimise energy performance. Lower production rates can increase the need for RO membrane train cycling, flushing and other operational interventions which increase the energy consumed per megalitre of drinking water produced.

The move to flexible full-time operation has enabled SDP and its Operator to identify and implement initiatives that improve energy efficiency across a range of operating conditions. These include treatment process optimisation, automated process control, improved RO membrane front-permeate management and trialling alternative production profiles. SDP has already achieved measurable reductions in specific energy consumption and continues to investigate further opportunities to reduce energy use while maintaining water quality, reliability and operational flexibility.

3.3.4 Improved understanding of membrane performance and replacement requirements

One of the most significant insights gained during the 2023-27 regulatory period relates to the performance of the Plant's RO membranes.

Historical assumptions regarding RO membrane replacement were primarily based on design expectations and limited operating history. The experience of operating under the new framework has provided SDP with significantly more performance information regarding RO membrane degradation, salt passage, feed pressure requirements and overall RO membrane condition.

This additional information has enabled SDP to adopt a more condition-based and performance-based approach to RO membrane management. As a consequence, SDP has increased confidence in its ability to forecast future RO membrane replacement requirements and has developed a more refined strategy that progressively replaces RO membranes in response to observed condition and performance outcomes while minimising whole-of-life costs.

3.3.5 Enhanced asset management and capital planning

The move to continuous operation has significantly improved SDP's understanding of asset condition, reliability and lifecycle requirements.

During periods of limited operation, future maintenance and replacement programs relied more heavily on design assumptions, manufacturer recommendations and predictive modelling. With the Plant now operating regularly, SDP is increasingly able to supplement these approaches with actual asset condition information, operational experience and performance monitoring data.

This has informed the development of a more sophisticated asset management framework, including the Long-Term Investment Plan, Asset Management Plan and individual asset class strategies. Capital expenditure forecasts are increasingly based on observed asset condition, performance trends and risk assessments rather than solely on asset age, with the ultimate investment decisions backed by clearer and more comprehensive information.

The 2023-27 regulatory period has demonstrated the value of this approach. For example, SDP prudently deferred RO membrane replacement expenditure in this period while maintaining performance outcomes because condition monitoring and operating data showed that replacement of the RO membranes was not yet required.

3.3.6 New opportunities for efficiency and innovation

Flexible full-time operation has also created opportunities to identify and test operational improvements that were not practical under previous operating arrangements.

Regular production provides a larger and more representative dataset from which to identify efficiency opportunities and evaluate process improvements. SDP and its Operator have used this environment to pursue improvements in:

- energy optimisation
- chemical dosing efficiency
- treatment process control
- operational automation
- asset maintenance practices
- capital planning methodologies
- digital systems and reporting.

The experience gained to date has reinforced the importance of continuous improvement and provided greater confidence in SDP's proposed efficiency commitments for the 2027-32 regulatory period.

3.3.7 Looking forward

While SDP has made significant progress in understanding the implications of flexible full-time operation, operational experience under the new framework is still maturing. Since the new Operating Licence conditions have come into effect, SDP has operated at between 20% and 30% of annual supply capacity. Although total annual production has been relatively low, the Plant has operated at between 0% and 100% of daily capacity to meet Sydney Water's flexible needs. SDP expects that ongoing operation will continue to improve understanding of production requirements, asset performance, lifecycle costs and optimisation opportunities, particularly once operation is further tested across the full range of production scenarios.

The lessons learned throughout the 2023-27 regulatory period have been incorporated into SDP's Long-Term Investment Plan, Asset Management Plan, RO Membrane Replacement Strategy and Cost Efficiency Strategy. These learnings provide a stronger evidentiary basis for expenditure forecasting and help ensure that future investments are targeted, proportionate and focused on delivering reliable water security services at the lowest sustainable long-term cost to customers.

3.3.8 Potential for an expansion of the capacity of the Plant

The 2022 Greater Sydney Water Strategy (GSWS) sets the NSW Government's intended direction to ensure the resilience and sustainability of the region's water and wastewater systems for the next 20 plus years.

In response to these concerns, the State has set water conservation targets of up to 49 GL per year by 2040 and amended SDP's Operating Licence requirements to shift the Plant to flexible full-time operation to address the 'supply yield – demand' imbalance.

However, even with these efforts, the GSWS notes that Greater Sydney remains vulnerable to rapid onset and prolonged drought given Sydney has a low level of rainfall-independent water supply – less than half the proportion of other major capital cities including Melbourne, Perth and Adelaide.⁹

To improve the resilience of Greater Sydney's water system, the GSWS identifies the need to "increase the amount of rainfall-independent supply that can continue to be provided reliably during extreme drought, and provide time to respond by slowing dam depletion."¹⁰

The existing Plant and Pipeline to Sydney Water can provide up to 15% of Sydney's current total drinking water demand. Provisions for doubling the capacity of the Plant (up to 180GL per year equivalent to about 30% of Sydney's total drinking water demand) were put in place at the time the Plant was designed and built. Land is available on the Kurnell site, Environmental Approvals are in place, and major civil infrastructure (seawater tunnels, intake structure and the delivery pipeline) was built to accommodate an expansion of the Plant.

SDP is well-placed to deliver a timely and cost-efficient expansion of the Plant should the need arise in the future.

SDP's Operating Licence outlines SDP's expected performance standards and can accommodate production up to 500 ML/d without requiring further variation.

As part of our engagement program, we heard that Sydney Water supports SDP undertaking a measured approach to expenditure associated with any future expansion of the Plant. This included focusing on prudent preparatory planning that preserves future options and supports timely delivery if expansion is required, without committing customers to significant expenditure before there is a demonstrated need. The CAP also supported limited expenditure on high value expansion planning activities in the 2027-32 regulatory period.

In response to feedback from Sydney Water and the CAP and given the important role that timely expansion of the Plant will have in assuring the security of drinking water supply in Sydney, we have proposed an opex allowance to undertake some works to plan for the expansion of the Plant (see section 6.4.2.3). This allowance will allow us to plan for and better understand the most efficient way to deliver the future expansion of the Plant. This expenditure is in customers' interest and aligned with customer feedback that supports the value of water security and system resilience.



9. Department of Planning and Environment, Greater Sydney Water Strategy, August 2022, p 37.

10. Department of Planning and Environment, Greater Sydney Water Strategy, August 2022, p 48.

4. PRICES AND END-CUSTOMER BILL IMPACTS

Key messages

- SDP proposes to maintain its current price structure, comprising a fixed Plant Service Charge, fixed Pipeline Service Charge, Volumetric Water Usage Charge and Minimum Water Usage Charge. This approach matches SDP's fixed and variable cost structure with its fixed and variable price structures, which ensures that prices are fair, that they promote efficient decision making and that SDP remains financially indifferent to whether it supplies drinking water – consistent with the ToR for IPART's price determination.
- Under this proposal, over 2026-27 to 2031-32, the Plant service charge remains broadly flat, while the Pipeline service charge increases by an average of 1.3% per year. These movements reflect relatively stable forecast fixed costs for the Plant and moderate increases in fixed costs for the Pipeline. The water usage charge decreases by an average of around 2.9% per year, mainly because forecast variable energy costs are lower in 2030-31 and 2031-32. These price changes exclude the impact of inflation.
- SDP's forecast bill to Sydney Water would remain flat (reducing by an average of 0.01% each year between 2026-27 and 2031-32), assuming an average production level of 38GL.
- When passed onto customers, SDP's prices will remain a relatively small component of households' and businesses' water bills. In 2027-28, the SDP component of a typical Sydney Water household bill would be about \$106 per year, representing around 6.4% of the total bill. Under this proposal, SDP's portion of a typical end customer's annual bill would fall by 1.8% per year on average over 2026-27 to 2031-32, when passed onto customers and before the impact of inflation.
- This proposal minimises bill impacts, while supporting long-term water security and supply reliability.



4.1 Our proposed price structure is cost-reflective and fair

We propose to maintain our current price structure. Under this structure, SDP's prices to Sydney Water comprise a:

- fixed Plant Service Charge (\$ per day)
- fixed Pipeline Service Charge (\$ per day)
- volumetric Water Usage Charge (\$/ML)
- Minimum Water Usage Charge (\$ per day).

The Minimum Water Usage Charge reflects IPART's finding in its last determination of SDP's prices that SDP would incur some variable costs to produce small volumes of water not for sale but to maintain the Plant's function during zero to very low production days to keep the Plant ready to increase production when requested by Sydney Water.

We propose to maintain the current price structure because it:

- reflects SDP's cost structure
- complies with the Minister's ToR to IPART for its review of SDP's prices
- promotes efficient operational and investment decisions
- fairly allocates costs to customers in a simple and transparent manner
- recovers no more than efficient costs,
- is consistent with IPART's approach in other similar price determinations,¹¹ and
- supports the long-term interests of Sydney Water and customers across Greater Sydney.

Accordingly, maintaining the current price structure remains the most cost-reflective, equitable and economically efficient approach for recovering the efficient costs of SDP's services to Sydney Water. We consider there are no material changes in circumstances that would warrant moving away from this approach.

11. A two-part tariff for the Plant is consistent with IPART's approach to setting prices for WaterNSW's Broken Hill Pipeline (including allocating costs between Essential Water and offtake customers). IPART recently decided to retain this price structure, with WaterNSW's fixed costs recovered through a fixed access charge and variable costs recovered through a variable usage charge. (see: IPART, Review of prices for WaterNSW's Murray River to Broken Hill Pipeline services from 1 July 2026, Final Report, 2026, p 71.)

4.1.1 The price structure reflects our cost structure

SDP's cost base comprises a combination of fixed costs that are incurred regardless of production volumes and variable costs that increase when drinking water is produced.

The fixed service charges recover costs associated with maintaining the Plant and Pipeline in a state of readiness, including:

- fixed operating expenditure, including corporate costs
- the return on and of capital invested in the Plant and Pipeline, including expenditure to establish and maintain the Plant and Pipeline.

These costs are incurred whether SDP is producing water or standing ready to respond to Sydney Water's requirements.

The volumetric usage charge recovers costs that vary directly with drinking water production, including:

- energy
- chemicals
- process waste disposal.

The current price structure aligns prices with SDP's cost structure. This is consistent with promoting efficient production ordering decisions by Sydney Water, as Sydney Water faces the fixed and variable costs of the services it receives from SDP. Sydney Water pays SDP's fixed costs regardless of its demand for drinking water (as these costs are incurred independent of supply volumes);¹² and it pays the costs of each additional ML of drinking water it orders in line with the additional costs of supplying this water.

The role of the volumetric water usage charge in signalling to Sydney Water the costs of each ML of drinking water is important in ensuring that Sydney Water only orders water from SDP when the benefits of supply to Sydney Water exceeds the costs, consistent with the Decision Framework.

4.1.2 The current price structure complies with the Minister's ToR to IPART

Our current price structure aligns our fixed charges with our fixed costs and our volumetric usage charge with our variable costs. This means that, under this price structure, SDP is financially indifferent as to whether it supplies water. It also means that the current price structure aligns with the requirements of the Minister's ToR to IPART.

The ToR for IPART's determination of SDP's prices state that SDP's prices should reflect the following water services provided by SDP:

“(a) the supply of non-rainfall dependent drinking water”, and

“(b) the making available of the desalination plant to supply non-rainfall dependent drinking water”.

The ToR also requires that:

“The charges for water supply services in a) above should reflect all efficient costs that vary with output, including variable labour, energy and maintenance costs.”;

“The charges for water supply services described at b) above should be a periodic payment and should reflect fixed costs including, return on assets, return of assets, and the fixed component of operating costs.”; and

“The structure of prices should encourage SDP to be financially indifferent as to whether or not it supplies water. As such the structure of prices should comprise separate charges for the different water supply services described at (a) and (b) above.

12. Assuming Sydney Water is the only SDP customer i.e. 'Total Third Party Supply' is zero, such that the Plant and Pipeline service charges are not prorated between Sydney Water and other purchasers.

4.1.3 The structure is fair to Sydney Water, as SDP's direct customer

The current price structure promotes fairness because Sydney Water pays in accordance with the costs it causes SDP to incur.

Sydney Water does not pay for variable costs when drinking water is not being produced. Conversely, when Sydney Water requests higher volumes of drinking water, the resulting increase in production costs is recovered from Sydney Water through the volumetric usage charge.

This structure therefore avoids cross-subsidies between periods of low and high production and allocates costs to Sydney Water in a manner that is transparent and equitable.

The framework also protects Sydney Water from paying more than the efficient costs of the services it receives and SDP from receiving less than the efficient costs of the services it supplies. The fixed and volumetric charges are designed to recover SDP's fixed and variable efficient costs.

The structure therefore promotes cost reflectivity, efficient cost recovery, and long-term financial sustainability – which are in the long-term interests of Sydney Water and customers.

4.1.4 The current price structure supports efficient investment and long-term value to customers

Because fixed asset-related costs are primarily recovered through service charges, SDP can maintain critical infrastructure and system readiness while remaining financially indifferent to production volumes. This supports efficient investment in long-lived assets and water security infrastructure.

By having fixed and volumetric charges that reflect SDP's fixed and variable costs of service supply, the price structure ensures that customers pay efficient costs and preserves SDP's ability to maintain and operate the plant in accordance with its Operating Licence and approval obligations and Sydney Water's production requirements.



4.2 Our proposed prices

Given our proposed price structures and efficient costs, Table 5 presents our proposed prices for the 2027-32 regulatory period. Compared with current (2026-27) prices, the Plant service charge remains broadly flat, while the Pipeline service charge increases by an average of 1.3% per year over 2026-27 to 2031-32. These movements reflect relatively stable forecast fixed costs for the Plant and moderate increases in fixed costs for the Pipeline. The water usage charge decreases by an average of around 2.9% per year, mainly because forecast variable energy costs are lower in 2030-31 and 2031-32 (although we do propose that benchmark energy prices be annually updated, after expiry of our current long-term energy contracts). These prices and price impacts are in real (\$2027-28) – i.e., they exclude the impact of inflation from 2027-28 onwards.

As outlined in this proposal, these prices are set to recover expenditure allowances that have been subject to extensive review and customer engagement. Our proposed expenditure allowances and revenue requirement reflect:

- Robust forecasts of efficient operating expenditure, including efficient energy procurement assumptions
- Sound long-term capital and asset management planning, and efficient capital expenditure forecasts supported by business cases
- Ongoing productivity and efficiency improvements
- Customer and stakeholder preferences, including delivery of the outcomes valued by Sydney Water and customers such as maintaining water quality, availability and reliability, as well as affordability
- Requirements of SDP's Operating Licence.

Table 5: Proposed prices for the Plant and Pipeline for the 2027-32 regulatory period (\$2027-28)

	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32
Plant service charge (\$/day)	\$499,965	\$489,825	\$489,973	\$490,596	\$500,598	\$502,109
% change		-2.0%	0.0%	0.1%	2.0%	0.3%
Pipeline service charge (\$/day)	\$116,325	\$124,401	\$126,185	\$125,659	\$125,069	\$124,207
% change		6.9%	1.4%	-0.4%	-0.5%	-0.7%
Water usage charge (\$/ML)	\$862	\$838	\$834	\$829	\$682	\$745
% change		-2.7%	-0.6%	-0.6%	-17.8%	9.3%
Minimum water usage charge (\$/day)	\$2,357	\$2,357	\$2,357	\$2,357	\$2,357	\$2,357
% change		0.0%	0.0%	0.0%	0.0%	0.0%

Note: Prices have been calculated in \$2027-28 using IPART's March 2027 inflation forecast.

4.3 Bill impacts for Sydney Water

Sydney Water is SDP's only direct customer. Under our proposal, an annual production level of 38GL and no other direct SDP customers, the forecast bill for Sydney Water would remain flat, declining by an average of 0.01% each year between 2026-27 and 2031-32 (Table 6). The annual bill fluctuates slightly from year to year because we have set prices equal to the notional revenue requirement (NRR) in each year. These prices and price impacts are in real \$2027-28 – i.e., they exclude the impact of inflation from 2027-28 onwards.

Table 6: Forecast bills for Sydney Water at 38GL per year for the 2027-32 regulatory period (\$2027-28, \$'000)

	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32
Annual bill	\$257,690	\$256,754	\$256,582	\$256,443	\$254,268	\$257,605
% change		-0.4%	-0.1%	-0.1%	-0.8%	1.3%

4.4 Bill impacts for Sydney Water's customers

Under this proposal, the SDP component of a typical customer's annual bill would fall in real terms by 1.8% per year on average over 2026-27 to 2031-32, when SDP's prices are passed onto customers. This reflects a marginal reduction in SDP's bill to Sydney Water (under assumed levels of production), combined with a forecast increase in the number of billable households in Greater Sydney (across which to recover the SDP component of Sydney Water's costs).

These bill impacts assume forecast SDP production of 38GL per year, which is consistent with the forecast level of SDP production in IPART's determination of Sydney Water's prices for 2025-30. With IPART's decision to remove the pass through of SDP's price determination in Sydney Water's prices, customers will pay forecast SDP prices until at least 2029-30. We understand that IPART will then true-up the SDP portion of Sydney Water's bill to customers based on any change in our prices, but not true-up Sydney Water for any variation to the forecast volume of water used to set its allowance.

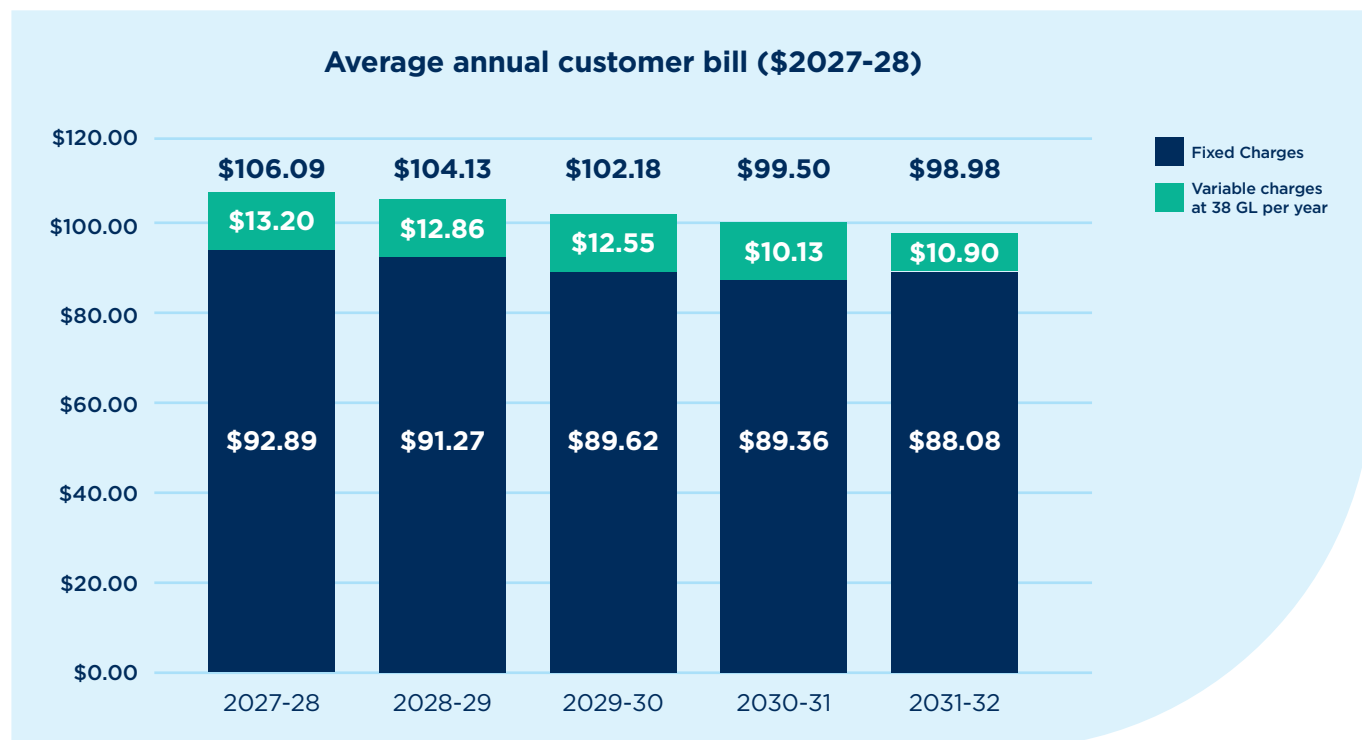
A typical average household bill for a Sydney Water customer is expected to be approximately \$1,652 per year (\$413 per quarter) in 2027-28. Under this proposal, the SDP component of this bill is expected to be \$106 in 2027-28 (when passed onto customers), which equates to about 6.4%. This SDP share of a typical customer's Sydney Water bill is expected to continue to fall over time because the Sydney Water and WaterNSW components of the Sydney Water bill are expected to continue rising over the next 5 years, while SDP's proposed prices to Sydney Water are broadly flat.

Table 7: Forecast bills for customers at 38GL per year for the 2027-32 regulatory period (\$2027-28, \$million)

	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32
Typical Sydney Water customer bill	1,583.44	1,652.02	1,730.08	1,812.02	1,812.02	1,812.02
SDP portion of the bill	\$108.37	\$106.09	\$104.13	\$102.18	\$99.50	\$98.98
% change		-2.10%	-1.85%	-1.88%	-2.62%	-0.52%

Note: Information about the typical Sydney Water customer bill was provided by Sydney Water.

Figure 14: Forecast SDP component of a typical customer bill at 38GL per year for the 2027-32 regulatory period (2026-27)



Source: Sydney Desalination Plant



5. CAPITAL EXPENDITURE

Key messages

- We forecast capital expenditure (capex) of \$164.70m (\$2026-27) over the 5-year 2027-32 regulatory period. Our forecast is based on average annual production of 38 GL in line with IPART's 2025-30 determination of Sydney Water's prices and includes a 0.7% per year continuing efficiency factor.
- Our proposal addresses stakeholder feedback that we should seek to balance maintaining Service Levels while considering affordability and cost to customers. We have sought opportunities to defer investments until beyond the 2027-32 regulatory period in response to customer engagement feedback.
- The Plant has reached a stage in its lifecycle where key assets need to be replaced over the next 10-years to maintain performance and continue to meet the conditions in our operating licence.
- Our key investments over the 2027-32 regulatory period include:
 - major asset replacements (\$43.65m), including power distribution assets, pipework and variable speed drives,
 - replacement of RO membranes (\$42.76m), with all RO membranes scheduled to be progressively replaced over the 2027-32 regulatory period,
 - key one-off projects (\$41.58m) including upgrading our energy recovery devices, and
 - continued periodic maintenance of assets (\$32.38m).
- While proposed capex is a material increase on the 2023-27 regulatory period, we conducted a thorough deliverability assessment to ensure our plans are realistic and balance the scale of investment with our capacity to deliver effectively and efficiently. Our assessment drew on lessons learnt during the 2023-27 regulatory period and we are confident in our ability to deliver the proposed program.
- Our actual capital expenditure over the four years of the 2023-27 regulatory period is projected to be \$43.84m (\$2026-27), or around 17% lower than IPART's allowance.
- This underspend largely reflects our prudent and efficient decision to defer RO membrane replacement capex under our risk-based Reverse Osmosis Membrane Replacement Strategy. Given the Plant's actual production levels over the 2023-27 regulatory period have been below forecast, the performance and condition of our RO membranes have been better than expected and have not warranted replacement.
- We have developed a Long-Term Investment Plan to improve transparency over the capex required to run and maintain the Plant over the next 25 years. Our Plan shows that capex needs to increase over the next 10 years and then it will stabilise closer to long-term averages. We commissioned an external review of the Plan which confirmed our forecast investments are comprehensive and robust.

In this section our capital expenditure is summarised under the following categories:

- **Asset replacements** – the costs of replacing assets that are approaching or have reached their economic lives.
- **Periodic maintenance** – the costs of inspecting, refurbishing and renewing assets to maintain, extend or restore their condition and performance.
- **RO membrane replacement** – a specific category of replacements relating to RO membranes that gradually lose effectiveness as they age.
- **Specific projects** – the costs of installing new asset(s) or capex projects that are relatively large and/or irregular in frequency.
- **Corporate capex** – relates to shared or corporate-level assets and systems that support the operation, governance, and management of SDP as a business.

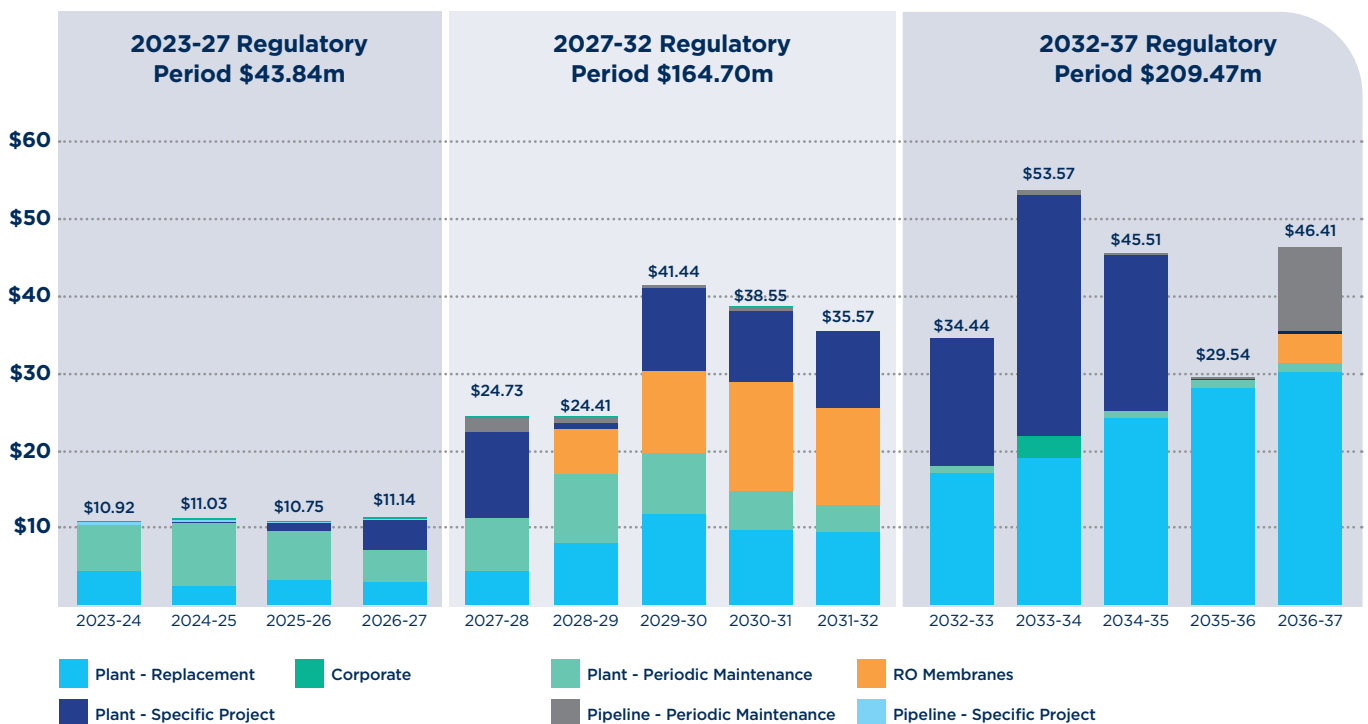
5.1 Overview of our long-term capital expenditure

The Plant has reached an age where key electrical and mechanical assets are nearing their design end-of-life and major investment is needed over the next 10 years.

Our pattern of capex is thus shifting from predominantly planned periodic maintenance to planned major asset renewals and replacements.

This trend is shown in Figure 15 which provides actual and forecast capex for the Plant and Pipeline between 2023-24 and 2036-37. This figure includes the current and the next two regulatory periods.¹³

Figure 15: Actual and forecast capex for the Plant and Pipeline 2023-24 to 2036-37 (\$2026-27, \$million)



Source: Sydney Desalination Plant

13. The 2023-27 regulatory period covered 4-years, following an earlier request to IPART from the then Minister for Water, Property and Housing to defer the review of SDP's prices by one-year to allow consideration of SDP's new licence.

One of the reasons that capex is increasing in the 2027-32 regulatory period is because there were no RO membrane replacements in the 2023-27 regulatory period. As discussed later in this section, drinking water production levels were lower than forecasted in this regulatory period and the existing RO membranes have continued to perform effectively. We therefore made a prudent and efficient decision to defer around \$10 million in RO membrane replacement capex, with no RO membranes replaced in the 2023-27 regulatory period.

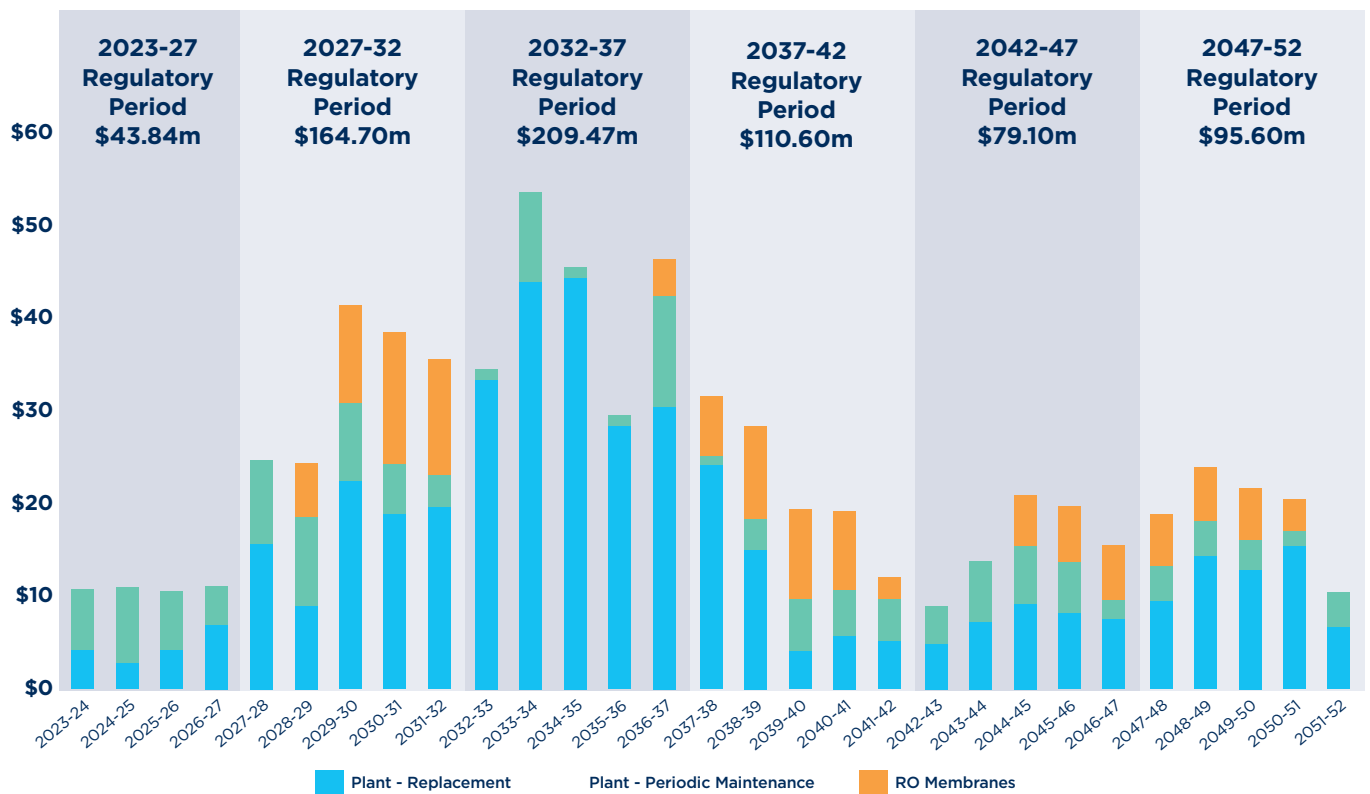
Figure 15 shows the increase in the asset replacement category which continues into the 2032-37 regulatory period. In addition to RO membranes, key asset replacements for the Plant over the next two regulatory periods include:

- Power distribution,
- Rotating equipment,
- Pipework
- Variable Speed Drives.

Based on feedback from the CAP and Sydney Water, we've also decided to defer investment in several projects to keep customer bills lower this regulatory period. This includes deferring an investment to build a second drinking water tank. This provides SDP with an opportunity to undertake further investigations to better understand the costs and benefits of the tank over the 2027-32 regulatory period before seeking approval for this investment as part of the 2032-37 regulatory period. We have proposed limited expenditure on prudent further planning works for the second drinking water tank in the 2027-32 regulatory period. Around \$37.7 million for the second drinking water tank is included in the 2032-37 regulatory period.

After we've replaced critical electrical and mechanical assets over the next two regulatory periods, our capex is expected to fall back closer to longer-term averages as shown in Figure 16.

Figure 16: Actual and forecast capex for the Plant and Pipeline 2022-23 to 2051-52 (\$2026-27, \$ million)



Source: Sydney Desalination Plant

The figure above is from our Long-term Investment Plan which describes the investment pathway to optimally balance cost and service risks, while meeting our regulatory requirements, critical stakeholder expectations, and reflecting customer preferences and priorities now and into the future. Our Long-term Investment Plan is provided at Attachment 5 and is summarised on the next page.

SDP's Long Term Investment Plan

- SDP's Long Term Investment Plan sets out the investment required to sustain the performance, reliability and resilience of the Plant and Pipeline over the next 25 years. The Plan supports SDP's role as Sydney's only major climate-independent source of drinking water and provides a transparent roadmap for renewing, refurbishing and maintaining critical assets while balancing service reliability, risk, affordability and whole-of-life cost for customers.



Stakeholder feedback materially shaped the Plan. We engaged with Sydney Water and the CAP over an 18-month program.

In response, SDP reviewed the capex forecast, incorporated affordability considerations, deferred or re-profiled expenditure where prudent, and focused the program on projects required to maintain existing service levels rather than enhance them.

- The Plan is underpinned by SDP's Asset Management Plan, asset class strategies, asset condition information, lifecycle cost analysis and updated asset replacement values.
- Our long-term capex forecasts share common assumptions with this pricing proposal, including annual Plant production of 38 GL, standard asset lives and achieving continuing efficiency improvements of 0.7% per year.
- The Plan also investigates uncertainty around Plant production volumes through low and high production scenarios:
 - If the Plant operates at minimum production of 20 GL per year for 10 years, capex is forecast to be around \$325.6 million, approximately 13% lower than shown in Figure 15.
 - If the Plant operates at maximum production of 91.25 GL per year for 10 years, capex is forecast to be around \$410.4 million, approximately 10% higher than in Figure 15, reflecting accelerated deterioration of production-sensitive assets.
- SDP validated the Plan with the Plant's Operator and commissioned an review by Sequana to test the robustness, deliverability and efficiency of the forecast. It will be kept current through annual reviews, governance oversight, updated asset strategies, business cases and post-implementation reviews.
- Overall, the Plan is positioned as a living framework for prudent, efficient and transparent investment that ensures SDP remains a reliable, flexible and cost-effective source of rainfall-independent drinking water for Greater Sydney over the decades ahead.

Source: Sydney Desalination Plant.

5.2 Our forecast prudent and efficient capex for 2027-28 to 2031-32

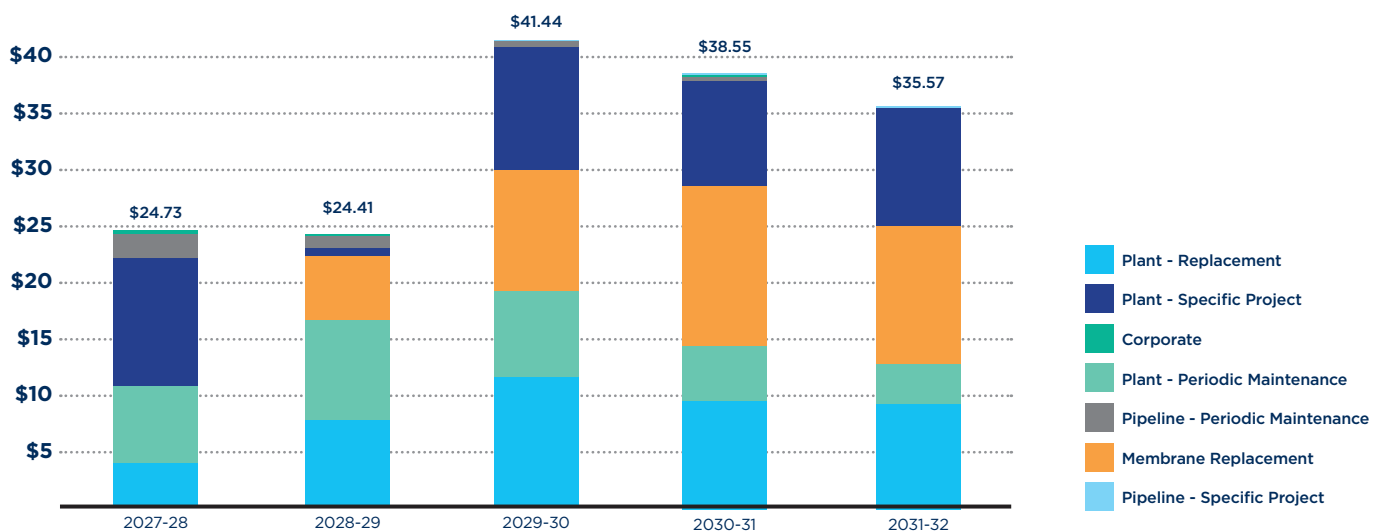
We forecast capex of \$164.70m over the 2027-32 regulatory period, including a 0.7% per year continuing efficiency factor. We summarise our forecast capex by category in Table 8 and Figure 17. Note that in Table 8 the continuing efficiency factor is applied at the bottom of the table so the capex by category is pre-efficiency adjustment.

Table 8: Forecast capex by category in the 2027-32 regulatory period (\$2026-27, \$millions)

	2027-28	2028-29	2029-30	2030-31	2031-32	Total
Plant						
Asset replacements	4.39	8.23	12.11	10.08	9.86	44.67
Periodic maintenance	7.02	9.10	8.07	5.18	3.64	32.99
Membrane replacement	0.00	5.79	10.78	14.51	12.83	43.91
Specific projects	11.05	0.78	10.86	9.37	10.45	42.52
Corporate	0.28	0.02	0.02	0.02	0.02	0.38
Sub-total Plant	22.74	23.92	41.84	39.16	36.80	164.46
Pipeline						
Periodic maintenance	2.16	0.83	0.49	0.49	0.04	4.01
Specific projects	0.00	0.00	0.00	0.00	0.00	0.00
Sub-total Pipeline	2.16	0.83	0.49	0.49	0.04	4.01
Total capex	24.90	24.75	42.33	39.65	36.84	168.47
Total capex (inc. efficiency)	24.73	24.41	41.44	38.55	35.57	164.70

Source: Sydney Desalination Plant

Figure 17: Forecast capex by category in the 2027-32 regulatory period (\$2026-27, \$million)



Source: Sydney Desalination Plant

The sections below discuss our proposed investments by category in more detail, including how customer and stakeholder feedback has informed our proposal.

5.2.1 How customer and stakeholder feedback influenced our capex proposal

Customer and stakeholder preferences have directly informed our capex proposal. As outlined in Chapter 1, we engaged with our Customer and Stakeholder Engagement workshop participants on our proposed capex program, including key investments such as the second drinking water tank, RO membranes and DWEERs.

As part of our engagement process, we also shared our capex forecast with Sydney Water and responded to and incorporated their feedback.

As part of our customer engagement program, we received recommendations about our capex forecast from the CAP and Sydney Water.

CAP Recommendations 2, 3, 7 and 9 and Sydney Water's responses are directly relevant to our capex forecast and were incorporated into this proposal. This section outlines how these recommendations were incorporated into this proposal (see Tables 9 to 12).

Table 9: How we incorporated CAP Recommendation 2 and Sydney Water's response into our capex proposal

Customer Advisory Panel recommendation	Sydney Water's response
<p>2. In developing its proposal, SDP should:</p> <ul style="list-style-type: none"> a. recognise that end-users prioritise fair and affordable bills, and b. identify opportunities to defer or delay non-essential expenditure that does not contribute to optimising its efficient operation within the regulatory period, consistent with its Operating Licence. 	<p>Sydney Water notes that customers told us that they value 'maintaining clean and safe drinking water' and affordability during the Our Water, Our Voice program. Any reduction to service levels, including deferral of nonessential expenditure that may impact service levels, must carefully consider the potential increased risk to water supply, customer impacts and system resilience.</p>
<p>How we incorporated this recommendation</p> <p>We have incorporated these recommendations by including a challenging efficiency target of 0.7% per year (cumulative) over the regulatory period. We have challenged ourselves to find efficiencies and this has reduced our capex forecast by \$3.8m over the regulatory period.</p> <p>We reviewed our entire capex forecast to identify opportunities to prudently defer \$41.8m of expenditure. We identified three projects that could be deferred and delivered beyond the 2027-32 regulatory period, including building a second drinking water tank (\$37.7m), installation of solar and batteries on site (\$2.7m) and the pilot plant project (\$1.4m). In addition, we have re-profiled our RO membrane expenditure towards the end of the regulatory period based on the latest available data that supports the re-profiling.</p> <p>We have carefully considered the risks of deferring or delaying projects and we are confident that the deferred expenditure will not materially impact service levels or system resilience.</p>	

Table 10: How we incorporated CAP Recommendation 3 and Sydney Water's response into our capex proposal

Customer Advisory Panel recommendation	Sydney Water's response
<p>3. Any expenditure or project that enhances or improves SDP's services, including its ability to respond to other production requests, needs to be well justified – with benefits to the people of Sydney clearly outweighing costs.</p>	<p>Sydney Water agrees with the CAP's draft recommendation that any improvements to SDP's service levels must be clearly justified and balance costs and system-wide benefits. In particular, we consider that there is a strong case for expenditure on detailed design development for the expansion of the plant over the upcoming regulatory period, to ensure a resilient and reliable water supply across Greater Sydney. This is discussed further in our response to the CAP's 12th draft recommendation.</p>
<p>How we incorporated this recommendation</p> <p>We have carefully considered our capex forecast and only included projects that maintain but don't enhance the service levels we are required to meet in our Operating Licence.</p> <p>For all major projects in our forecast, we have included well justified and robust business cases and cost estimates that clearly articulate the balance between costs and system-wide benefits. This includes for project to replace DWEERs that are failing and could impact our ability to sustainably meet higher production orders</p>	

Table 11: How we incorporated CAP Recommendation 7 and Sydney Water's response into our capex proposal

Customer Advisory Panel recommendation	Sydney Water's response
<p>7. SDP's expenditure decisions align with customer values and preferences and have regard to the following:</p> <ul style="list-style-type: none"> a. clean, safe drinking water is expected, b. expenditure must demonstrate material benefits and be undertaken no sooner than prudent, c. expenditure that efficiently improves flexibility and emergency response effectiveness is a priority, d. SDP decisions should minimise impact on the local environment and support emissions reduction, e. Innovation should seek to improve the plant's efficiency and reduce costs to end customers over predictable timeframes. 	<p>Sydney Water generally supports the CAP's recommendation around key considerations for expenditure decisions. The need for expenditure should also carefully consider trade-offs amongst cost, performance, and risk, while delivering the services valued by end-use customers. This includes any impacts on SDP's operational flexibility in meeting Sydney Water's Emergency and Fixed Production Day production requests.</p> <p>Sydney Water also supports IPART conducting a case-by-case assessment of innovation expenditure as required under the 3Cs framework, with benefits for customers to be demonstrated, and findings to be shared with Sydney Water.</p>
<p>How we incorporated this recommendation</p> <p>We have incorporated both of these recommendations into our proposed capex forecast. Our proposal sets out the investment required to align with customer values and preferences and meet the expectations of our direct customer Sydney Water in relation to operational flexibility and meeting Emergency and Fixed Production Day production requests.</p> <p>Our forecast recognised the need to balance asset maintenance, operational readiness and prudent investment with affordability for customers.</p>	

Table 12: How we incorporated CAP Recommendation 9 Sydney Water's response into our capex proposal

Customer Advisory Panel recommendation	Sydney Water's response
<p>9. The second drinking water tank be included in the pricing proposal only if SDP can clearly demonstrate its benefits exceed its costs. The CAP considers the tank should not proceed if expansion planning is the main or only material benefit.</p>	<p>As a standalone investment targeted at providing additional routine storage during normal operations, Sydney Water does not currently consider the higher levels of service reliability through investment in a second drinking water tank as a high priority.</p> <p>However, Sydney Water acknowledge that there is a range of benefits that could be derived from investing in a second drinking water tank including response time, production during emergencies, expansion programming, increased efficiency, reduced wear and tear on assets, plant maintenance and availability during drought and these could be sufficient to demonstrate the project is a prudent and efficient investment.</p> <p>Sydney Water considers that a material benefit of building a second drinking water tank would be if it is part of a tranche of investments that would substantially reduce build time and derisk the expansion of SDP.</p>
<p>How we incorporated this recommendation</p> <p>Based on the feedback from both Sydney Water and the CAP we have decided to defer the proposed timeline for delivery of the second drinking water tank. This provides SDP with an opportunity to undertake further investigations to better understand the costs and benefits of the tank over the 2027-32 regulatory period before seeking approval for this investment as part of the 2032-37 regulatory period.</p> <p>We have proposed limited expenditure on prudent preparatory planning works for the second drinking water tank in 2031-32.</p>	

5.2.2 Plant asset replacements

As noted above, the Plant has reached an age where key assets are nearing their design end of life and major investment is needed in the short to medium term. Our forecast capex on asset replacements derives from the age and condition of our assets, and the probability of asset failure which is calibrated with actual condition and performance data.

Table 13 summarises forecast key asset replacements capex over the 2027-32 regulatory period inclusive of the 0.7% per year continuing efficiency factor.

Table 13: Forecast major asset replacements in the 2027-32 regulatory period (\$2026-27, \$millions)

	2027-28	2028-29	2029-30	2030-31	2031-32	Total
Power distribution	1.89	4.93	4.25	3.16	2.61	16.84
Pipework	0.00	0.00	3.63	3.67	3.64	10.94
Variable Speed Drives	0.14	2.09	2.20	0.26	0.00	4.69
Other asset replacements	2.33	1.08	1.78	2.72	3.26	11.17
Total asset replacements	4.36	8.11	11.86	9.80	9.52	43.65

Source: Sydney Desalination Plant

Since IPART's 2023 Determination, we have undertaken analysis to improve our long-term forecasting of asset replacements. In the past we relied on long-term predictive modelling of asset replacements and periodic maintenance to develop our 5-year forecasts, before refining our plans each year based on actual condition and periodic inspection. While this approach meant we still only delivered prudent and efficient capex, it could result in minor discrepancies between short and long-term forecasts. With more experience operating the Plant in a flexible full-time operating mode we have improved our long-term forecasting methodology by incorporating information about periodic inspections, actual asset performance and replacement values. To improve the robustness of our forecast we commissioned and incorporated feedback from an external review of the Plant's asset replacement values, which are a key input into our capex forecasts.

The sections below describe key categories of asset replacements in the 2027-32 regulatory period.

5.2.2.1 Power distribution

The Plant's power distribution system is critical because it provides the reliable and continuous electricity needed to operate energy-intensive processes, including high-pressure pumps, treatment systems and control equipment.

Failure of key power distribution assets can interrupt the Plant's drinking water production, create safety risks and increase the likelihood of unplanned outages, making timely maintenance and replacement essential to maintaining reliable drinking water supply.

Replacement of power distribution assets are primarily driven by obsolescence, compliance requirements and vendor support limitations. Replacement of electrical distribution assets is challenging when the Plant is operating at high production levels because of limited redundancy in those systems and the time needed for replacement. Hence the most prudent time to undertake renewal of power distribution assets is when the Plant is operating at less than full capacity to ensure services can still be met.



5.2.2.2 Pipework

Our pipework conveys fluids such as seawater, chemicals, process water and drinking water throughout the Plant. Assets such as pipework and pipework expansion joints form part of the water conveyance system, enabling the safe and reliable transport of water between treatment processes and ultimately to customers.

As pipework ages, the risk of leaks, bursts and service interruptions increases. Replacement is typically driven by localised deterioration from UV exposure, material ageing, gasket degradation and mechanical damage. Our projected expenditure is based on assets within our pipework asset group approaching end of life stages, and the anticipated replacements needed from deterioration or damage during the 2027-32 regulatory period.

5.2.2.3 Variable Speed Drives (VSDs)

Variable Speed Drives (VSDs) provide a foundational control technology that regulates the speed of large motors. The motors in turn provide a force to operate critical pumps, blowers, conveyors and fans at the Plant. Being able to vary the speed of the motor enables the equipment to be operated efficiently.

Over time, key electronic components deteriorate in the VSDs, reliability declines and equipment can become obsolete and more difficult to support.

We are proposing replacement of VSDs as the existing drives are now obsolete, with some units already at end of life and others nearing the end of service support. These drives are critical to Plant production, and failures can reduce RO train capacity, seawater intake volumes, pretreatment filter backwash capability, or potentially stop production.

A staged replacement program is proposed to reduce operational risk, address long Original Equipment Manufacturer (OEM) lead times, and allow removed modules to be retained as critical spares (where possible) until the remaining VSD drives are replaced.

5.2.2.4 Other asset replacements

Other key asset groups where we are proposing replacements over the 2027-32 regulatory period include:

- Fire safety equipment,
- Mixers – used to make sure chemicals are properly blended before and after RO membranes,
- Cranes – that allow operators to safely handle the large pumps, motors, pressure vessels and other equipment
- Screw conveyors – a small but essential asset used in the Plant's sludge and waste handling system
- Screens – which are part of the seawater intake and pre-treatment system that remove debris and suspended material before the water reaches downstream treatment processes.

5.2.3 Plant periodic maintenance

Periodic maintenance is critical to ensure the Plant remains reliable and operates efficiently. By intervening at predictable points in an asset's lifecycle, periodic maintenance reduces the likelihood of premature asset failure, costly emergency repairs, and inefficient early replacement.

Periodic maintenance is thus essential to asset management efficiency because it contributes to minimising whole-of-life costs.

Our forecast periodic maintenance costs for the 2027-32 regulatory period, including the 0.7% per year continuing efficiency adjustment, is summarised in Table 14.

Table 14: Forecast periodic maintenance in the 2027-32 regulatory period (\$2026-27, \$millions)

	2027-28	2028-29	2029-30	2030-31	2031-32	Total
Centrifugal pumps	3.57	1.97	2.14	0.57	2.37	10.63
Membrane housing	1.99	1.93	2.00	1.83	0.00	7.75
ERDs	0.00	1.47	1.46	0.48	0.00	3.41
Gravity Media Filters	0.00	0.97	0.96	0.96	0.00	2.89
Other periodic maintenance	1.41	2.63	1.34	1.20	1.14	7.71
Total periodic maintenance	6.97	8.97	7.90	5.03	3.51	32.38

Source: Sydney Desalination Plant

As with asset replacements, our forecast capex on periodic maintenance derives from condition monitoring and asset performance data. Periodic maintenance on the Plant over the 2027-32 regulatory period is forecast to remain broadly in line with previous years.

Key focus areas for our periodic maintenance program are described further in this section.

5.2.3.1 Centrifugal pumps

Centrifugal pumps are critical assets that move seawater and drinking water throughout the desalination process and provide the pressure necessary for RO treatment.

To maintain reliability, efficiency and production capability, SDP undertakes periodic condition monitoring, planned servicing and lifecycle overhauls, including vibration analysis, lubrication, seal and bearing replacement, performance testing and major refurbishments.

These activities reduce the risk of asset failure, minimise whole-of-life costs and support the prudent and efficient operation of the Plant.

5.2.3.2 Membrane housing

The membrane housing asset group are critical assets that house the RO membranes and associated high pressure pipework. The pressure vessels and pipework must remain correctly supported, aligned and sealed to maintain membrane performance, hydraulic integrity and safe operation.

Our proposed expenditure on components including pressure vessel saddles, coupling bolts and gaskets is required given their deterioration after approximately 15 years in service.

Degraded saddles can compromise vessel support and alignment, while aged couplings and gaskets increase the risk of leaks, coupling failure and uncontrolled high-pressure release. These issues create safety, reliability and production risks, including potential RO train shutdowns and reduced Plant capacity.

The proposed integrated renewal will replace degraded components, restore asset integrity, align with OEM recommendations, reduce future failure risk and support continued reliable operation of the Plant.

5.2.3.3 Energy Recovery Devices (ERDs)

This relates to the ongoing maintenance component of our ERD Strategy and includes individual vessel repairs and maintenance. Our ERD Strategy is discussed below in section 5.2.5.1.

5.2.3.4 Gravity Media Filters

Our pretreatment Gravity Media Filters remove suspended solids and organic matter from seawater before it enters the RO process. By protecting RO membranes from fouling and damage, they help maintain drinking water quality, Plant reliability and operational efficiency.

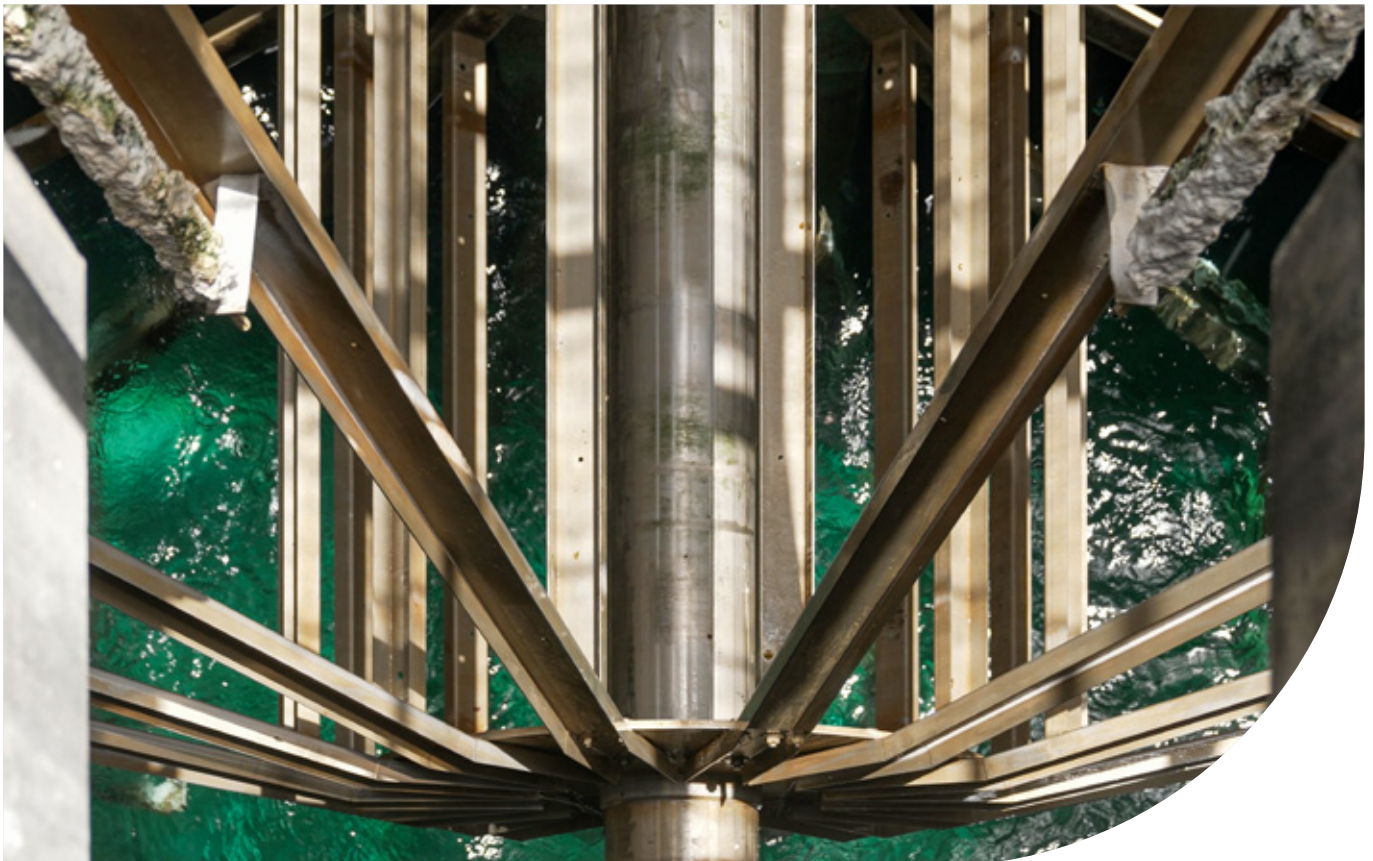
We undertake sampling of our filter media to provide an overview of their condition. This assessment, together with operational data such as turbidity, head-loss and filter run times, dictate when filter media will need to be replaced.

The current media has never been replaced or 'topped-up'. Our analysis indicates the media will need replacing in the next regulatory period. In addition, if the Plant's production increases, filter media degradation is likely to accelerate and this is a key consideration for our planning given the logistics and time required to progressively take filters offline.

5.2.3.5 Other periodic maintenance

Other key asset groups where periodic maintenance is due over the 2027-32 regulatory period include:

- Concrete structures – refurbishment of civil infrastructure that physically supports, contains, stores, or conveys water throughout the Plant
- Tanks – inspections, cleaning and renewals of chemical storage tanks and wastewater holding tanks, and
- Power distribution - major overhauls and refurbishments of components in the Plant's power distribution system.





5.2.4 Reverse Osmosis Membrane Replacement Program

RO membranes are used in the water treatment process to separate fresh water from dissolved salts and impurities by allowing water molecules to pass through while rejecting contaminants. Their performance is critical to maintaining drinking water quality, production capacity, energy efficiency and the reliable operation of the Plant. As RO membranes age there is a gradual increase in the feed pressure required to achieve the same volume of water that passes through the membranes (permeate flow rate), and an increase in the amount of salt and other chemicals that pass through the RO membranes, reducing permeate quality. Eventually one or more of several potential drivers will trigger RO membrane replacement. These include performance-based drivers (e.g. increased salt passage that can breach drinking water standards) and economic drivers (e.g. where rising feed pressure increases energy consumption to a point where it is more economical to replace the RO membranes).

The existing RO membranes were installed in 2019. Despite exceeding the original design assumptions for replacement (average membrane life of 3.5–4.5 years), no material replacement has occurred to date due to the absence of performance-based and economic drivers to justify a replacement.

Our proposed capex for membrane replacement in the 2027-32 regulatory period is based on our Reverse Osmosis Membrane Replacement Strategy.¹⁴ Our strategy employs a condition and performance-based approach that triggers progressive, train-by-train replacement when water quality, cost, or operational risk thresholds are reached. The Strategy ensures compliance and Plant availability at the lowest lifecycle cost and for an optimal level of risk, and incorporates feedback provided by IPART and its expenditure review consultant, Atkins, during the previous determination.

Our forecast capex for membrane replacement in the 2027-32 regulatory period, including the 0.7% per year continuing efficiency adjustment, is summarised in Table 15 and discussed further in this section.

14. Our Reverse Osmosis Membrane Replacement Strategy has been provided to IPART in Non-public attachment 17.

Table 15: Forecast capex on RO membrane replacement in the 2027-32 regulatory period (\$2026-27, \$millions)

	2027-28	2028-29	2029-30	2030-31	2031-32	Total
RO membrane replacement	0.00	5.71	10.55	14.10	12.39	42.76

Source: Sydney Desalination Plant

Since the last full membrane replacement in 2019 there has been a material increase in the unit cost of RO membranes. This is the main reason why the full replacement has increased from around \$30m in 2019.

5.2.4.1 Risk positions that inform our Membrane Replacement Strategy

There are several key operating parameters that determine the expected future performance of RO membranes. These include forecast demand, seawater quality, impact on Plant availability and membrane lead times. Each key parameter was assessed to determine an acceptable risk setting.

5.2.4.2 Membrane condition assessment

SDP tracks the condition of the membranes on an ongoing basis considering feed pressure limits, pressure drop across the membranes, permeate quality trends (general salt passage, plus boron and bromide), net cost of producing drinking water, and physical tests on used membrane elements.

The most recent condition assessment of the membranes carried out in May 2026 indicates that salt passage will be the main driver for replacement, with no concerning trends in any other area. More details of the condition assessment is provided in our Reverse Osmosis Membrane Replacement Strategy. The acceptable risk position along with assessment of drivers for membrane replacement indicates that membranes need to be ordered in 2027-28 so that replacement can start in 2028-29, with all trains replaced over a 4-year period. The proposed membrane replacement schedule is set out in Table 16.

Table 16: Proposed RO membrane replacement schedule

	% Membranes Replaced	No. of 1st Pass Trains	No. of 2nd Pass Trains - Stage 1	No. of 2nd Pass Trains - Stage 2
2026-27	0%			
2027-28	0%			
2028-29	13%	2		2
2029-30	19%	2	2	2
2030-31	39%	5	3	2
2031-32	29%	4	2	1
2032-33	0%			

Source: Sydney Desalination Plant.

As noted above, RO membranes are consumable assets that gradually deteriorate over time and therefore cannot remain in service indefinitely. Our proposal progressively replaces RO membranes to ensure the Plant can meet its production requirements with an acceptable level of risk and at the lowest lifecycle cost.

5.2.5 Plant specific projects

Our forecast Plant specific projects for the 2027-32 regulatory period, including the 0.7% per year continuing efficiency adjustment, is summarised in Table 17.

Table 17: Forecast Plant specific project capex in the 2027-32 regulatory period (\$2026-27, \$millions)

	2027-28	2028-29	2029-30	2030-31	2031-32	Total
Energy Recovery Devices	█	█	█	█	█	█
Second 132kV feeder	█	█	█	█	█	█
Drinking Water Pump Station Reliability project	█	█	█	█	█	█
Second Drinking Water Tank planning	█	█	█	█	█	█
Additional warehouse for Plant spares	█	█	█	█	█	█
Total	10.98	0.77	10.63	9.11	10.09	41.58

Source: Sydney Desalination Plant

The following sections provide more details on these projects.

5.2.5.1 Energy Recovery Devices (ERDs)

An ERD captures the energy loss that occurs across the RO process. High-pressure (up to 60 bar of pressure) is used in the seawater feed to the RO process and it reduces to low pressure (about 4 bar of pressure) in the output streams. The ERDs capture this energy loss and transfer the energy back into the incoming seawater feed stream. This significantly reduces the amount of power required by the high-pressure pumps (up to a 50% reduction in energy use), which are among the Plant's largest energy users. By recovering and reusing energy that would otherwise be wasted, ERDs improve overall plant efficiency, reduce operating costs of electricity consumption, and help make drinking water more affordable for customers.

Our proposed capex for ERD replacements is based on our ERD Strategy.¹⁵ This Strategy assesses the costs of maintaining, refurbishing and/or improving the existing Dual Work Exchanger Energy Recovery (DWEER) ERDs, compared to replacement with newer, more reliable technologies.

There is a general industry trend to move away from DWEER technology, with safety being a key driver. The other driver is that the DWEER technology is becoming obsolete and less supported. The DWEER OEM no longer supports the technology, and they do not stock spare parts, increasing some part delivery times out to almost one year if they can be sourced. This poses a major operational risk to the Plant if multiple and unexpected breakdowns occur, potentially reducing overall Plant capacity for several months if not longer.

Our ERD Strategy found that the optimal risk and lowest lifecycle cost option is to continue with 5-yearly refurbishments of the existing DWEER units until they are progressively replaced with rotary pressure exchanger technology. We are not proposing to undertake any upgrades of the DWEERs other than routine maintenance and refurbishment and will retrofit the DWEER units with rotary pressure exchangers before the DWEER units reach their end of life. Our ERD Strategy supports the replacement of 6 DWEER units in the 2027-32 regulatory period, and the remaining 7 units in the following regulatory period. This is required so that the Plant can continue to comply with our licence requirements to maintain the availability of the Plant to respond to emergencies and prepare for drought conditions if they were to occur in Greater Sydney.

If we did enter drought during the 2027-32 regulatory period, it is likely that we would need to replace more than 6 DWEERs as the reliability risk of the remaining 7 units would be too high when operating at full production.

15. Our ERD Strategy has been provided to IPART in non-public attachment 18.



5.2.5.2 Second 132 kV feeder

The Plant is an Ausgrid network high voltage customer. It receives a single supply of high voltage electricity via a 132kV main feed cable and a backup supply at 11kV feed cable from the Ausgrid Kurnell South Zone Substation, into the Plant's own high voltage electrical installation.

The single 132kV feeder provides the full operational load of the Plant in its present configuration (250ML/day). In the event of planned or unplanned outages of the 132kV feeder, the Plant will lose all drinking water production.

In the 2023-27 regulatory period, IPART approved the installation of a second 132kV feeder to provide greater resilience for the Plant and reliability of supply for customers. An additional benefit of installing a second 132kV feeder is to futureproof the Plant for an expansion, minimising the downtime of the existing Plant during the 132kV feeder installation.

The project commenced in November 2023 when a connection request was issued to Ausgrid as part of the preliminary expansion planning process requested by the NSW Government in 2023 (currently on hold) and will be completed in the first year of the 2027-32 regulatory period.

5.2.5.3 Drinking Water Pumping Station Reliability Upgrade

This project relates to installing an additional drinking water pump and improving the electrical buildings cooling to improve the resilience of the Plant. Construction of a new drinking water pump is aligned with good industry practice as it creates redundancy in the system and reduces the risk of failure to deliver the required daily water production.

There is currently no redundancy for the drinking water pumps which means should one pump fail, the remaining duty pump can only deliver a maximum flow of around 185ML/d. The Drinking Water Pump Station (DWPS) has a higher probability of failure than the overall Plant and can potentially restrict the Plant from achieving an average annual drinking water production rate of 250ML/d or from responding quickly and reliably to an emergency flow request from Sydney Water.

As summarised in the box, this project was approved in the 2023 Determination but was prudently deferred due to the request from the NSW Government to start preliminary planning works for the expansion (currently on hold). The project has now commenced and will be completed in the first year of the 2027-32 regulatory period.

Background: Drinking Water Pumping Station Reliability Upgrade

- This project was raised by SDP in the proposal for the 2017-22 regulatory period. Whilst the justification for this capex was endorsed by IPART, IPART considered that the installation and subsequent maintenance cost should be deferred until a Plant restart triggered by dam storage levels.
- In practice when the Plant did restart, completion of this project was not feasible due to the required lead times, disruption to production during construction, the Plant restart process itself and the ongoing objective of maximising water supply.
- SDP's 2023-27 IPART Determination included an allowance to build a third drinking water pump. Planning for the project was scheduled to commence in 2023 followed by a process to design, tender and construct the project during the regulatory period.
- In 2023 SDP received a notice from the NSW Government to commence planning for the expansion of the Plant. In response we identified some projects, including the third drinking water pump station that could potentially be planned for and delivered more efficiently as part of the expansion process. Doing so would reduce the total cost that customers pay for this project.
- The project was put on hold to enable this further investigation during the expansion planning phase. When expansion planning was put on hold by the NSW Government in 2025, SDP re-commenced planning for the project. Construction will commence in 2027.
- SDP will continue to identify opportunities to defer or deliver projects as efficiently as possible. If SDP is called on to re-commence expansion planning during the 2027-32 regulatory period, we will again investigate opportunities to deliver projects more efficiently as part of the expansion process.

Source: Sydney Desalination Plant





5.2.5.4 Second drinking water tank

Currently, drinking water is stored in a 40 ML Drinking Water Tank (DWT) before being transferred via the pumping station and Pipeline to Sydney Water's distribution network. There is an area set aside at the site for an additional storage tank to incorporate any expanded production capacity from 250 ML/day up to 500 ML/day.

In the 2023-27 regulatory period, SDP investigated the installation of an additional DWT to effectively provide a total of 80 ML of drinking water storage capacity onsite. However, we excluded any costs for this in our proposal and instead invited IPART and other stakeholders to provide their views on the validity of including this project within the capital program for the 2023 determination period. During IPART's review process, Sydney Water expressed support for the second drinking water tank project, noting its potential benefits in providing additional site storage capacity and assisting the Plant's ability to reliably respond to emergency requests.

We undertook further work to assess an additional DWT as part of this proposal. Our business case assessed whether the cost of investing in a second DWT (i.e. outside of drought) is outweighed by the benefits including:

- Reduced opex and deferred membrane capex through less frequent use of a third RO membrane train at low production
- Enhanced emergency response times
- Enhanced reliability of services through reduced consequences of Plant outages.

While our business case found that a second drinking water tank can provide net benefits to the Greater Sydney community under certain conditions, we decided to defer this investment following feedback from the CAP and Sydney Water. This provides an opportunity to undertake further investigations to better understand the costs and benefits of the tank over the 2027-32 regulatory period before proposing this investment as part of the 2032-37 regulatory period. Our proposal includes some expenditure in 2031-32 to continue this planning. This approach balances enhanced reliability of drinking water supply to meet Sydney Water's needs with affordability outcomes during the 2027-32 regulatory period.

5.2.5.5 Additional Warehouse for spares

The original design of the Plant included a warehouse for storage of spare parts and equipment. The existing warehouse has insufficient storage for the current levels of spares.

Over the last decade of operation, the site has accumulated 10 additional temporary storage containers spread around the site. The storage containers around the site are no longer practical and present safety risks. For example, the temporary storage in the operating building has been raised as a concern by SDP's insurers as possibly increasing fire safety risk.

As the Plant is now in flexible full-time operation there is a need to hold an increased level of spares on-site. Particularly, significant stocks of spare membranes need to be stored. Recent geopolitical crises have had a significant impact on global supply chains. These risks warrant additional spares being maintained on site, which requires additional storage.

Inappropriate storage of spares may also lead to premature deterioration resulting in additional replacement costs or the spare not being available when required. Plant availability will be impacted by the availability of critical spares for quick rectification of unforeseen failures as well as the availability of spares required for planned maintenance activities.

The scope of this project is to duplicate the existing warehouse to provide additional storage capacity. It includes a new concrete slab and building to match the construction style of the existing warehouse including internal racking and a climate-controlled area for sensitive equipment such as electrical spares and RO membranes.

5.2.6 Corporate capex

Corporate capex is needed for the prudent and efficient corporate management of SDP. Our forecast capex for the 2027-32 regulatory period includes investment in IT hardware and software and general office equipment.

Our forecast corporate capex including the 0.7% per year continuing efficiency adjustment, is summarised in Table 18.

Table 18: Forecast corporate capex in the 2027-32 regulatory period (\$2026-27, \$millions)

	2027-28	2028-29	2029-30	2030-31	2031-32	Total
Corporate capex	0.28	0.02	0.02	0.02	0.02	0.37

Source: Sydney Desalination Plant

The higher cost in 2027-28 relates to an office fit out. SDP's existing office can't accommodate all our team members at the same time (we have fewer desks than people). Our current office lease expires in 2027-28 and so our proposed expenditure would support a fit out to accommodate our team.

5.2.7 Pipeline capex

Our Pipeline extends approximately 18km and includes 454 individual assets from the Plant at Kurnell to the point of connection into Sydney Water's drinking water supply system at Erskineville.

Our forecast capex is based on our Pipeline Asset Management Plan (PAMP) that contains strategies and processes to optimise the lifecycle of this high value and not easily replaceable asset. The PAMP requires us to consider operating conditions, asset condition, asset performance and asset criticality.

Our forecast Pipeline capex for the 2027-32 regulatory period, incorporating the 0.7% per year ongoing efficiency factor, is summarised in Table 19. This table shows our proposed capex relates entirely to periodic maintenance with the higher expenditure in 2027-28 relating to an internal inspection of the Pipeline.

Table 19: Forecast Pipeline capex in the 2027-32 regulatory period (\$2026-27, \$millions)

	2027-28	2028-29	2029-30	2030-31	2031-32	Total
Pipeline periodic maintenance	2.14	0.82	0.48	0.48	0.03	3.95
Pipeline specific projects	0.00	0.00	0.00	0.00	0.00	0.00
Total Pipeline capex	2.14	0.82	0.48	0.48	0.03	3.95

Source: Sydney Desalination Plant

Key features of the Pipeline forward capex program include:

- Internal Pipeline condition assessment in 2027-28 (including the Botany Bay section, which has not been inspected since the partial inspection in 2010).
- Air and scour valve renewals (several scour valve leaks have occurred since 2019).
- Cathodic Protection (CP) renewals, including isolation gaskets.

The internal condition assessment of the Pipeline is a critical project to maintain its condition and serviceability. The aim is to proactively identify potential or early-stage defects which can be remediated at low cost and with minimal impact to delivery.

The internal condition assessment and valve replacements are planned to take place at the same time as the Drinking Water Pumping Station Reliability project, due to the likely extended shutdown requirements on that project, minimising the outage duration of the Plant. This shutdown provides an opportunity to undertake other major maintenance tasks at the same time to minimise the impact on our availability. If we don't take the opportunity to inspect the Pipeline now, we may not have another opportunity for several years, which would pose a risk to water supply and Plant availability. During the last condition assessment in 2018 before the Plant restart, we found several issues that required repairs before the Pipeline could re-enter service.



5.3 Approach to forecast capex over the 2027-32 regulatory period

We developed our capex forecasts using a structured, risk based and lifecycle-driven approach. Our approach integrates asset condition, service requirements, and forward operating scenarios to identify efficient investment needs.

We forecast capex over the 2027-32 regulatory period using predominantly bottom-up methods. Depending on the type of project and its stage of development, bottom-up forecasts are based on asset condition assessment reports, class asset strategies, project scopes, project estimates and risk-cost quantification. Regardless of forecasting approach, we provide detailed analysis and justification to support each investment.

A key assumption for our forecasts is that the Plant will produce an average 38 GL per year. This is consistent with the forecast level of average drinking water production from the Plant in IPART's determination of Sydney Water's prices for 2025-30. Key features of the systems and processes that support the development of prudent and efficient forecast capex are described below.

5.3.1 Planning

We establish the asset baseline and required levels of service, drawing on our Asset Management Plan (AMP) and Operating Licence obligations. This ensures our forecast investments clearly link to maintaining reliability, availability, and water security outcomes.

5.3.1.1 Asset Management Plan

The AMP describes how the Plant and Pipeline will be managed to ensure assets are maintained, renewed and enhanced to meet performance targets and climate resilience goals – while balancing cost, risk and performance. It establishes service objectives focused on safety, water quality, environmental compliance, reliability and sustainability, while supporting Sydney's water security needs.

The AMP adopts a risk-based, whole-of-life asset management approach that integrates condition assessment, criticality analysis, preventive maintenance, corrective maintenance, renewals and capital improvements. It is prepared in line with principles of life cycle asset management in ISO55001:2024. It aligns with and supports SDP's Strategic Asset Management Plan, policies and business expectations, and is underpinned by Australian and water industry standards, rules and regulations.

The objectives of the AMP are:

- Delivering safe, high-quality drinking water during drought and peak demand periods
- Ensuring asset reliability and resilience
- Maintaining financial sustainability and value for public investment
- Aligning with the NSW Government's water security and climate adaptation strategies
- Integrate sustainability and climate resilience
- Maintain regulatory and stakeholder alignment
- Support continuous improvement through innovation and digital transformation.

5.3.1.2 Asset Class Strategies

SDP has developed Asset Class Strategies which describe the life cycle-model or maintenance strategy for key asset classes. These are summarised in the box below.

Asset Class Strategies

Asset Class Strategies establish a comprehensive asset management approach for the top 8 critical asset classes that underpin the Plant and Pipeline's ability to deliver drinking water to the Sydney region. The strategies cover:

1. Pipework comprising Glass Reinforced materials
2. Buildings that house operations and personnel
3. Concrete Water Storage Tanks for process buffering and product storage
4. High Voltage Transformers providing electrical power transformation
5. Pumps for High Pressure Reverse Osmosis applications
6. Pumps for Sea Water intake
7. Pumps for RO Booster functions, and
8. Pumps for Drinking Water Delivery to the distribution network.

SDP's Asset Class Strategies provide a further layer of planning by defining lifecycle and maintenance strategies for these critical asset classes.

5.3.2 Investment identification and approval

Investment proposals are identified and approved in accordance with SDP's Capital Works Procedure.¹⁶ This procedure is summarised and discussed further in this section.

5.3.2.1 Annual Asset Renewal Plan

Our Operator's annual asset condition assessments inform an updated Asset Renewal Plan (ARP) submitted to SDP. The ARP includes the capital works planned for the next 12 months as well as a longer-term outlook. It is possible for our Operator to propose projects that have not been identified in the ARP. SDP may also put forward proposed projects.

The ARP is a rolling annual plan which must explain any changes made to plans submitted to SDP in previous years. The ARP covers short (15 month), medium (5 years) and long term (10 years) scheduled replacements, renewals or overhaul of assets for the Plant and Drinking Water Pumping Station.

After initial submission of the ARP, SDP undertakes a review of the plans which is tabled at the monthly Operational Review Group (ORG) meeting. SDP endeavours to respond to the Operator within 30 business days, either approving, rejecting or requesting additional information.

¹⁶. Our Capital Works Procedure has been provided to IPART.



5.3.2.2 Detailed submissions / business cases

Our Operator then develops detailed submissions for individual approval. Business Cases are required for all Capital Works, however the level of detail required will be different depending on the main driver for the works, the complexity, and the value.

For business cases that are accepted, a representative of SDP's operations team prepares an SDP Business Case Recommendation based on the information provided in the business case. Once a Business Case Recommendation has been prepared by the SDP operations team, the document will be sent to the SDP finance team to review the recommendation, endorse that the Business Case is considered Capital Works from an accounting perspective aligned to our Capitalisation Policy, and assign cost codes for the project. The request will be subject to review and approval in line with the SDP Delegation of Authority Policy, Capitalisation Policy and SDP Procurement Policy. Once satisfied, SDP notifies our Operator of the approval of the Business Case through a formal Change Order under the Operations & Maintenance (O&M) Contract with our Operator.

Capital Works Procedure

SDP's Capital Works Procedure describes our process for identifying, evaluating and prioritising capital investments. The objectives of this procedure are to:

- Maintain the quality and performance of the assets at their optimum level, in accordance with best industry practice, to always remain fit-for-purpose and capable of continuous and reliable operation.
- Improve asset infrastructure, through effective asset management and sound capital investment, planning and project execution in line with the prudent level of risk for SDP as a highly regulated critical infrastructure provider.
- Make informed decisions on all assets in relation to preventative maintenance and capital replacement that are recorded and can be justified.
- Ensure decisions on asset maintenance and replacement of assets are demonstrable, prudent and efficient investments in the long-term interest of customers.
- Ensure maintenance work can be scheduled, capital cost and depreciation recorded, life-cycle analysis undertaken and/or revised, and appropriate treatment justified.

The Capital Works Procedure requires that a business case is prepared for all capital projects. The level of detail and justification provided in our business cases increase with the size, cost and complexity of the project.

5.3.3 Procurement

Under SDP's Procurement Policy, the key objectives of procurement within SDP are to:

- Achieve value for money for water customers through prudent and efficient procurement decisions;
- Encourage sustainable competition
- Demonstrate probity, ethical behaviour, and accountability
- Mitigate risk and maximise efficiency opportunities, and
- Promote responsible procurement, including prioritising Workplace Health and Safety (WHS), management of modern slavery risks, Environmental Social and Governance (ESG) outcomes, as well as Diversity, Equity and Inclusion (DEI).

The key decision rights and roles of the governance structure include the SDP Board, who acts as the overarching governance body for procurement and is charged with the provision of strategic direction and governance to the process of procurement within SDP.

This includes approval of the Procurement Policy and SDP Delegation of Authority Policy, to ensure that all procurement activity is in line with these requirements and supports delivery of SDP's overall corporate strategy.

The Chief Financial Officer is responsible for the commercial outcomes from procurement actions and ensuring adherence to the Procurement Policy to support delivery of SDP's vision and core objectives for procurement.

The guiding principles for capital procurement include:

- **Lowest efficient costs** – capital expenditure needs to target efficient lifecycle costs having regard to capital versus operating cost trade-offs (e.g. ongoing maintenance costs versus the cost of asset replacement or higher energy costs versus the cost of RO membrane replacements) and impacts on long-term capital costs (e.g. durability that enables longer replacement intervals may be a higher cost initially but a lower cost over the lifetime of the Plant's operation).
- **Efficient risk allocation** – risks should be allocated to the party best able to manage them to avoid the risk of inefficient pass-through to customers or detrimental impacts on service levels.
- **Safety and the environment** – safety of workers, customers, the community and the environment is of paramount importance when planning for and procuring capital works.
- **Transparency and accountability** – capital expenditure decisions commit large funds on behalf of water customers and so transparency of procurement processes and decisions is necessary to ensure accountability.

The governance arrangements around procurement are robust for an organisation of SDP's size and complexity. The CEO and CFO are engaged in most procurements.

5.3.4 Delivery and closeout

SDP maintains robust oversight of capital projects through delivery to project close-out. Most of SDP's capital works are undertaken by our Operator under the O&M Agreements.

Our Operator delivers approved business cases with regular reporting through the monthly Operations and Maintenance report as well as the monthly management meetings. Witness and hold points requested by SDP during the review phase are conducted during project delivery, to monitor project outcomes and the quality of works completed.

No changes can be made to any business cases without prior approval by SDP.

Once the physical outcomes of the approved business case have been completed, our Operator will prepare and submit a Project Closeout Pack. Once satisfied that the Capital Works have been completed and documentation recorded, the SDP operations team will complete an SDP Project Closure Report and issue this to SDP's finance team to update the financial system and record the works as complete.

SDP and our Operator keep track of the lessons learnt from completed projects and use this to support continuous improvement in capital delivery.

5.4 Why our forecasts are prudent and efficient

Our capex forecasts are prudent and efficient because they are grounded in a structured, evidence-based asset management and investment planning framework. Our forecast capex is driven by clearly identified needs, including asset condition, reliability and compliance requirements, and well-understood lifecycle obligations such as the membrane replacement program, rather than discretionary or speculative investments.

We distinguish between routine sustainment expenditure and discrete capital projects, enabling transparent assessment of necessity, scope and timing.

Capital proposals are supported by robust technical assessments and structured business cases, which consider alternative options, staging and whole-of-life implications. This supports efficient sequencing of works and avoids premature or excessive investment.

Forecasts are informed by detailed engineering inputs, realistic cost estimates and validated asset life assumptions, all of which are reviewed and tested through IPART's independent expenditure reviews. Opportunities for efficiency, including scope optimisation and improved delivery approaches, are explicitly identified and incorporated where appropriate.

Strong governance, external operational audits and ongoing regulatory oversight provide further assurance that SDP's capex forecasts reflect prudent investment to deliver required service outcomes at lowest lifecycle cost.

5.5 Deliverability of our capex program

SDP recognises the importance of ensuring our proposed capital program is prudent, efficient and deliverable.

We conducted a thorough deliverability assessment to ensure our plans are realistic and balance the scale of investment with our capacity to deliver effectively and efficiently. Our assessment drew on lessons learnt during the 2023–27 regulatory period and we are confident in our ability to deliver the proposed program.

Our proposed investment is higher than previous regulatory periods, however much of this relates to a few key projects and programs including membrane replacement and ERD replacement. As a further challenge, should the Plant need to ramp up to full production it will limit the opportunities we have to undertake our capex program.

We asked an external expert, Sequana to review the deliverability of our proposed program. Sequana found that while our forecast represents a significant and sustained increase in delivery activity, it is achievable with the planning we are currently undertaking. It also noted that our long planning horizon provides a solid foundation and that there is sufficient time to build our capability before the highest forecast investment periods. Sequana's report is provided at Attachment 10.

During the 2023-27 regulatory period we added two dedicated positions to build our capital delivery capability. SDP has also demonstrated its ability to 'ramp up' its resourcing and execution quickly as part of recent expansion planning exercises. SDP had two expansion planning phases and for both met all required deadlines.

5.5.1 Clear investment need and alignment

Our capex program is directly linked to defined service needs, including regulatory compliance, public health, environmental performance and Plant resilience.

Each major program is traceable to a licence condition, regulatory requirement, or quantified service risk.

5.5.2 Strong asset management foundation

Our proposed investments arise from documented asset condition, risk and performance assessments embedded in our asset management framework. Our options assessment demonstrates why capex is required and why the preferred option represents an efficient solution or risk mitigation. All major programs are justified at a project or program level.

5.5.3 Realistic scope definition, project maturity and prioritisation

Many of our key investments are underway or ready to commence, providing confidence and certainty that we have the capacity and capability to deliver complex projects within the period. Based on our deliverability assessment, our capex forecasts were refined as follows:

- Early-stage, uncertain or exploratory projects were excluded, deferred or explicitly identified and staged beyond the regulatory period. For example, non-process related assets such as civil structures and many piping systems can often be planned with more flexibility, and in some cases can be refurbished or deferred where condition evidence supports that decision.
- Projects with defined scopes, defined needs and demonstrated readiness or high customer value have been prioritised. Capex was reprofiled to reflect realistic project sequencing and delivery timelines, including:
 - considering interdependencies between projects and service continuity while undertaking works, which had the effect of delaying some projects.
 - reassessing project lead times, including considering recent lead times for development, delivery and commissioning of projects which have been reflected in our forecasts.

5.5.4 Governance and organisational capacity

Our program is supported by established governance frameworks, program management capability and internal resourcing aligned to the scale of delivery proposed.

As noted above, the addition of two dedicated staff to the operations team during the 2023-27 regulatory period strengthens our capacity to plan, procure, oversee and deliver a growing capex program. The additional resources have improved project management capability, supported more rigorous project development and assurance processes and reduced delivery risks by ensuring sufficient oversight of multiple projects being undertaken concurrently.

We are planning to further increase program management (PM) capacity ahead of the peak in investment. Peak PM demand occurs across 2030–2032, coinciding with the highest volume of renewals activity mostly associated with the membrane and ERD replacements. Our Operator is also able to flex its PM resourcing by drawing on its substantial resource network.

Our proposal is grounded in evidence of previous delivery performance against IPART approved allowances, with transparent explanations where variances have occurred. Over the 2023-27 regulatory period we forecast to deliver within IPART's allowance.

5.5.5 Market capacity and delivery model

The current capital project delivery and procurement markets present some challenges, including high demand for infrastructure construction, resourcing and supply chain constraints, and contractors showing a lower tolerance for risk.

We are actively engaged in the market and are leveraging long-term strategic partnerships to strengthen our capability and capacity.

These partnerships drive efficiencies and help us to secure the necessary skilled resources while maintaining flexibility in project timing and scope. In this regard we note that key contractors and delivery partners are already engaged or will be contractually available.

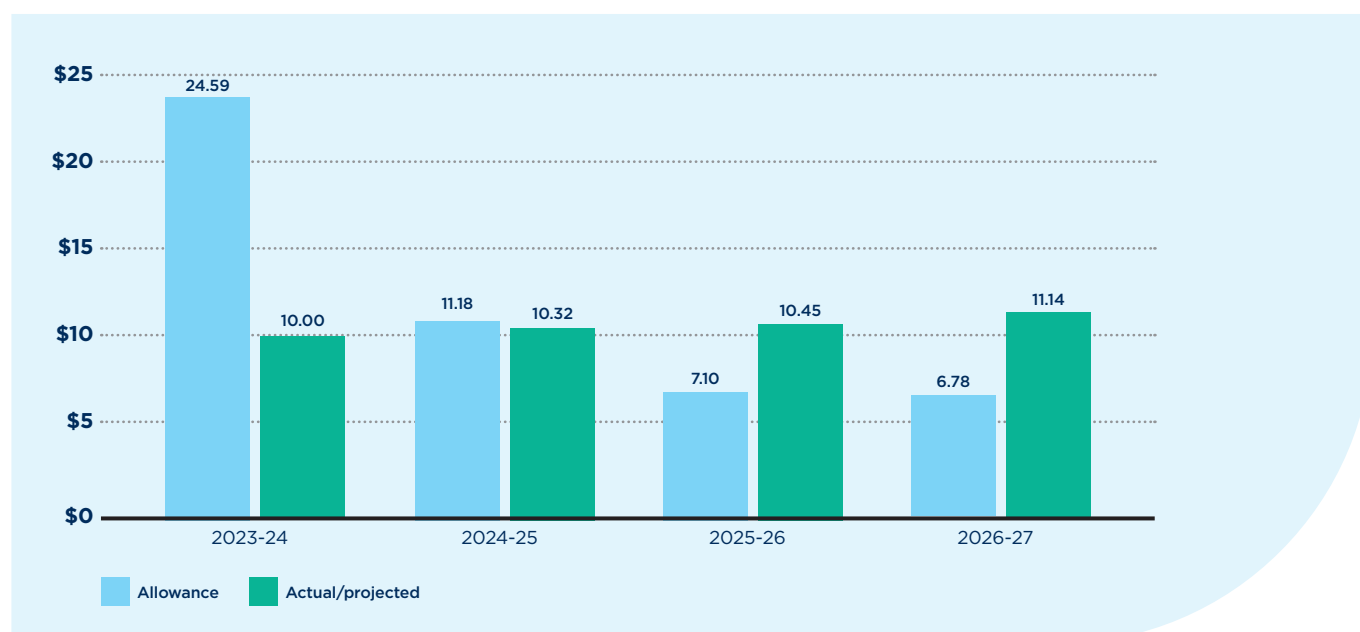
5.6 Our prudent and efficient capex for the current period (2023-27)

Our actual capex over the 2023-27 regulatory period is projected to be \$41.90m, including inflation. This is around 16% lower than IPART's allowance of \$49.65m.

5.6.1 Our capex compared to IPART's allowance

Figure 18 and Table 20 show actual expenditure during the 2023-27 regulatory period compared to the IPART allowance for each year of this period.

Figure 18: Comparison of 2023-27 actual/projected capex vs allowance (\$nominal, \$million)



Note: Expenditure in 2026-27 is a projection. Source: Sydney Desalination Plant.

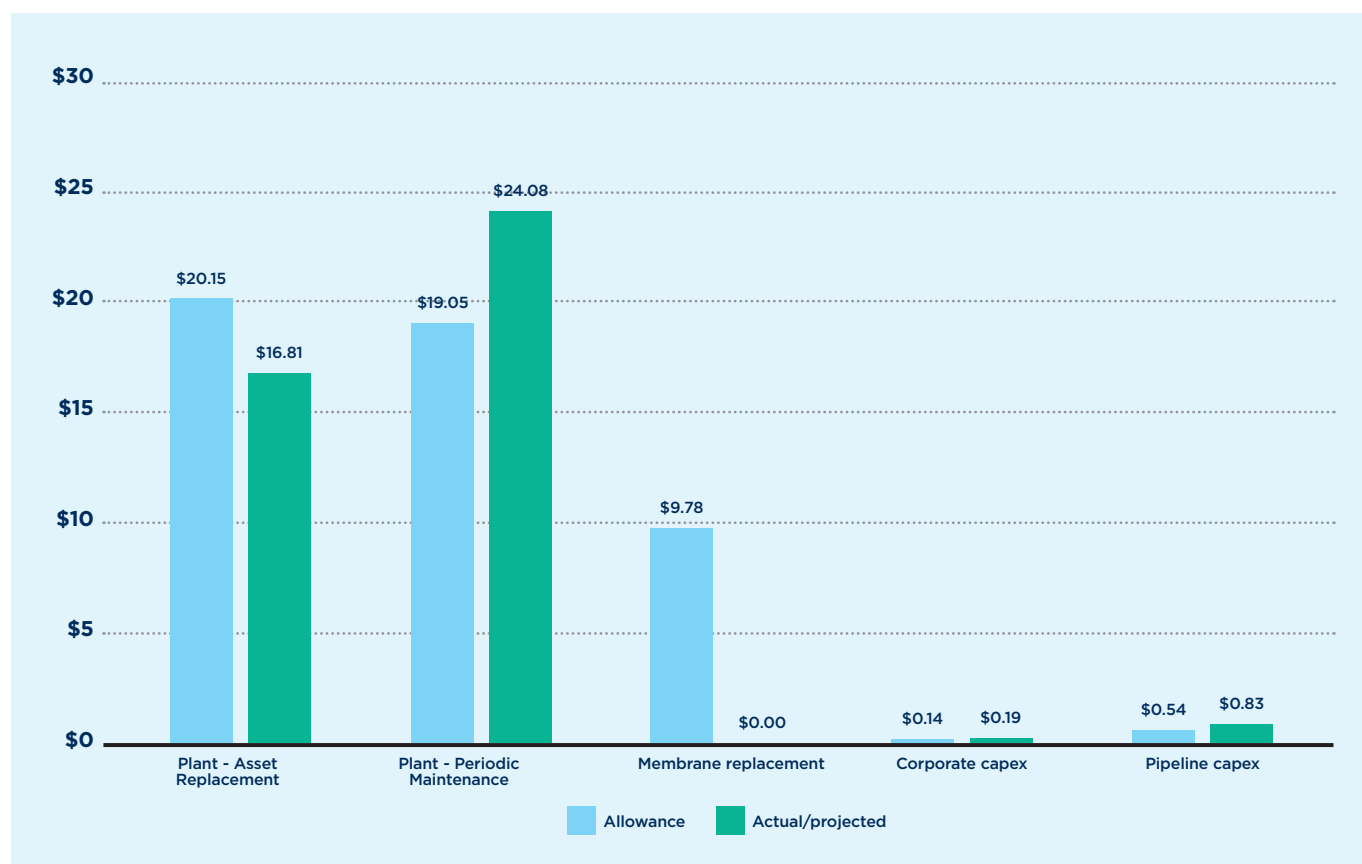
Table 20: Actual capex by category in the 2023-27 regulatory period (\$nominal, \$millions)

	2023-24	2024-25	2025-26	2026-27	Total
Plant					
Asset replacements	3.54	2.21	3.19	2.99	11.93
Periodic maintenance	6.05	7.63	6.19	4.20	24.08
Membrane replacement	0.00	0.00	0.00	0.00	0.00
Specific projects	0.00	0.18	0.88	3.82	4.88
Corporate	0.11	0.04	0.01	0.02	0.19
Pipeline					
Specific projects	0.30	0.25	0.18	0.10	0.83
Total	10.00	10.32	10.45	11.14	41.90
Allowance	24.59	11.18	7.10	6.78	49.65
Variance from allowance	-14.59	-0.87	3.35	4.35	-7.75

The principal driver for the underspend compared to the IPART allowance was our prudent and efficient decision to defer capex on the replacement of RO membranes. The allowance for RO membranes was around \$10m over the 4-year regulatory period. However, condition assessment data from the RO membranes demonstrated that there should be no replacements over the period. A key factor for this was the Plant's production being lower than expected. This contributed to RO membrane condition and energy performance being better than expected. Another reason for the lower actual spend relative to the IPART allowance was our prudent and efficient decision to defer the DWPS reliability project. This project was put on hold following the 2023 expansion process. Around \$4.7m (\$2022-23) was allowed for this project in the 2023 Determination.

Figure 19 shows the underspend on membranes, which is marginally offset by additional expenditure on periodic maintenance.

Figure 19: Comparison of 2023-27 actual/projected capex vs allowance by category (\$ nominal, \$ million)



Source: Sydney Desalination Plant.

5.6.2 Key projects delivered over the 2023-27 regulatory period

We delivered key projects over the 2023-27 regulatory period, some of which are summarised in this section.

Fire protection upgrade: Pyrozone to Inergen (\$3.8m)

Thirteen electrical switch rooms across the Plant are protected by fixed gas fire suppression systems, which flood a room with gas to smother a fire without damaging sensitive equipment. The original Pyrozone systems hold carbon dioxide in refrigerated pressure cylinders. Their manufacturer shut down in 2021, so replacement units and spare parts are no longer available. Further, maintenance servicing relies on a single small contractor, and the refrigerants involved are being phased out.

The project upgraded all thirteen switch rooms and the IT server room to inert Inergen suppression systems. Inergen technology has substantial safety benefits. It reduces oxygen to around 12.5%, enough to put a fire out while still allowing staff in the room to evacuate safely, whereas carbon dioxide at fire extinguishing concentrations can be fatal. The gas is colourless, so exit signs stay visible during a discharge. It is a blend of naturally occurring gases with near-zero global warming potential, no ozone impact and no PFAS chemicals, and it needs no refrigeration. Interchangeable cylinders are held as site spares, keeping switch rooms protected with minimal downtime. The upgrade removes the obsolescence and safety risks carried by the current equipment.



Energy Recovery Device Refurbishment (\$5.6m)

Turning seawater into drinking water takes a lot of energy and the Plant recovers much of it using DWEER energy recovery devices. Each unit is a pair of pressure vessels containing a free-floating piston: the high-pressure brine leaving the RO membranes pushes the piston, which pressurises incoming seawater, so far less pumping power is needed.

For each refurbishment, vessels, valve nests, valves and racks were dismantled, inspected and rebuilt, and every vessel was X-ray scanned so any weld repairs could be identified. Worn parts were replaced and key components upgraded: new-style pistons that reduce mixing of brine and seawater, cam profile gaskets that resist leaks and corrosion, and stronger high-pressure couplings. The refurbishments mean less electricity consumed for every litre of water produced. It also improves the reliability of the 13 RO trains that each supply about 23 million litres a day. The work was done while the trains were already offline for pump overhauls, avoiding extra downtime, and helping to reduce costs.



5.6.3 Why our capex over the 2023-27 regulatory period is prudent and efficient

5.6.3.1 Direct link to service obligations and customer outcomes

SDP's capex over the 2023-27 regulatory period was prudent as it was required to maintain compliance with our Operating Licence, meet defined service standards, and ensure reliable operation of the Plant. Our investment was directly linked to key operational requirements, including water quality, system reliability and asset integrity. Our capex addressed clearly identified needs, including maintaining asset performance under a more sustained and flexible operating regime and avoided material risks to service delivery that would have arisen from deferral.

5.6.3.2 Aligned with asset condition and long-term planning

Capex undertaken during the regulatory period was consistent with our asset management framework and long-term investment plan. Investment needs were identified incorporating asset condition, performance trends and risk profiles.

Decisions over the regulatory period were informed by evolving asset performance data, operational conditions and production requirements. A key example of this was our prudent and efficient deferral of membrane replacement based on asset condition and performance data.

5.6.3.3 Robust investment justification

Our investments were supported by robust business cases that assessed alternative options, including deferral, operational responses and different capital solutions. These assessments considered whole-of-life costs, risks and service outcomes. The selected investments represent the most appropriate response to identified needs, with alternative options resulting in higher long-term costs, increased operational risk or reduced service performance.

SDP's capex decisions were supported by established governance, procurement and assurance frameworks.

Our capex delivered the intended outputs and outcomes, including maintaining Plant reliability, meeting compliance requirements, and supporting efficient operation. Capital works completed during the period contributed to sustaining required levels of service and avoiding performance deterioration, demonstrating that the expenditure was necessary and effective.

5.6.3.4 Cost discipline and alignment with regulatory allowances

We have demonstrated strong cost discipline in delivering the capex program, with actual expenditure tracking below IPART's allowance over the 2023-27 regulatory period. This outcome provides evidence that expenditure was not excessive and that SDP exercised appropriate restraint and prioritisation in our investment decisions. Variances between forecast and actual expenditure reflect prudent reprioritisation and efficient delivery.

6. OPERATING EXPENDITURE

Key messages

- We propose operating expenditure forecasts that reflect the efficient cost of operating and maintaining the Plant and Pipeline, meeting our contractual and licence obligations, and maintaining operational readiness to respond to Sydney Water's requirements.
- Our proposed opex forecasts, including their composition and timing have been influenced by feedback we received through our Customer and Stakeholder Engagement Program. We have placed greater weight on affordability and tested whether new costs could be avoided, absorbed or delayed without compromising service outcomes. We also applied a challenging efficiency target of 0.7% per year.
- Actual operating expenditure over the four years of the 2023-27 regulatory period is projected to be \$270.45m, which is 3.7% lower than IPART's allowance, including inflation. This underspend reflects the impacts of lower energy costs in the early years of the regulatory period when our price per unit of energy was below IPART's benchmark energy price allowance. Adjusting our actual operating expenditure to the same assumed level of production for the 2027-32 regulatory period, this equates to an average of \$77.75 million per year (\$2026-27).
- We forecast expenditure of \$399.47m (\$2026-27) over five years in the 2027-32 regulatory period, or \$79.89m per year. On average, this is 2.8% per year higher than our actual expenditure during the 2023-27 regulatory period, adjusted for the same forecast level of production. Key drivers for changes in operating costs categories include:
 - Lower overall energy costs, reflecting our GGRP contract prices until 2030 and a subsequent material decline in forecast renewable energy costs from 1 July 2030.
 - Higher O&M costs including additional labour required to maintain the Plant given its age and condition and an uplift in routine maintenance for new assets required as part of our capital expenditure program.
 - Higher Pipeline costs to ensure the Pipeline is adequately maintained consistent with our updated Pipeline Asset Management Plan.
 - Increasing insurance costs to secure appropriate insurance coverage consistent with the value of the Plant and the risks we face, particularly from 2027-28 after the current softening insurance market cycle is expected to harden.
 - Additional corporate costs to meet enhanced critical infrastructure and cyber security rules and undertake strategic expansion planning, which is supported by Sydney Water and our CAP.
- The forecast also incorporates ongoing efficiency improvements, while retaining the knowledge and capability needed to sustain previously achieved efficiencies and continue delivering services effectively.

Forecast opex is a key building block cost, comprising around 30% of the notional revenue requirement (see Chapter 8). Our operating expenditure (opex) forecast includes four categories:

- **Operations and maintenance (O&M) costs** – costs incurred to operate, maintain and renew the Plant and associated infrastructure, primarily through our long-term O&M contract with our Operator
- **Corporate costs** – costs of managing and overseeing the business, including contract administration, stakeholder engagement, critical infrastructure and cyber security, regulatory compliance and financial management
- **Insurance costs** – costs incurred to obtain and maintain appropriate insurance coverage to manage operational risks and comply with licence obligations
- **Energy costs** – costs associated with meeting electricity and renewable energy procurement obligations and operating the Plant.

This chapter set out our forecasts for O&M, corporate, insurance and energy costs for the Plant and Pipeline.

This chapter is set out as follows:

- **Section 6.1** provides an overview of our proposed opex over the 2027-32 regulatory period
- **Section 6.2** describes how stakeholders including the CAP influenced our proposed opex
- **Section 6.3** reviews the opex outcomes in the 2023-27 regulatory period
- **Section 6.4** details our proposed opex forecast for the Plant over the 2027-32 regulatory period
- **Section 6.5** describes our proposed opex forecast for the Pipeline over the 2027-32 regulatory period.

6.1 Overview of our opex from 2027-28 to 2031-32

Forecast opex for the Plant and Pipeline over the regulatory period is set out in Table 21. The forecast incorporates a continuing efficiency factor of 0.7% per year applied to controllable operations and maintenance (O&M) and corporate expenditure. This reflects our ongoing commitment to delivering services efficiently and sharing the benefits of productivity improvements with customers.

Table 21: Summary of proposed operating expenditure for the Plant and Pipeline in the 2027-32 regulatory period (\$2026-27, \$millions)

	2027-28	2028-29	2029-30	2030-31	2031-32	Total
Plant – O&M, Corporate and Insurance	\$52.38	\$52.73	\$52.84	\$54.88	\$54.56	\$267.39
Plant - Energy	\$26.60	\$26.38	\$26.40	\$22.31	\$25.14	\$126.82
Pipeline	\$1.05	\$1.05	\$1.05	\$1.05	\$1.05	\$5.25
Total	\$80.03	\$80.16	\$80.29	\$78.24	\$80.75	\$399.47

Note: Sydney Desalination Plant. Forecasts based on production of drinking water of 38 GL per year.

Total proposed operating expenditure for the 2027-32 period is \$399.47m or an average of \$79.89m per year. This is 2.8% per year higher than our actual expenditure for the 2023-27 regulatory period, adjusted for the same forecast level of production.

For Plant O&M, corporate and insurance costs, we developed our forecast using IPART's preferred base-trend-step (BTS) approach as outlined in its Water Regulation Handbook.¹⁷

For energy, we developed our forecast using a combination of existing contract prices and a market-based benchmark. Existing contract prices apply until the contracts expire in 2030, and the market-based benchmark applies from 2030-31 onwards. Given the unique and complex drivers of energy costs, they are described in detail in Chapter 7, with this chapter focusing on all other operating expenditure categories.

6.2 How stakeholders influenced forecast opex

Customer and stakeholder preferences have directly informed our opex proposal.

As part of our customer engagement program, we received several recommendations relevant to our opex forecast from Sydney Water and our CAP. Table 22, Table 23 and Table 24 outline how these recommendations were incorporated into the proposal.

Table 22: How we incorporated CAP Recommendation 7 and Sydney Water's response into our opex proposal

Customer Advisory Panel recommendation	Sydney Water's response
<p>7. SDP's expenditure decisions align with customer values and preferences and have regard to the following:</p> <ul style="list-style-type: none"> a. clean, safe drinking water is expected, b. expenditure must demonstrate material benefits and be undertaken no sooner than prudent, c. expenditure that efficiently improves flexibility and emergency response effectiveness is a priority, d. SDP decisions should minimise impact on the local environment and support emissions reduction, e. Innovation should seek to improve the plant's efficiency and reduce costs to end customers over predictable timeframes. 	<p>Sydney Water generally supports the CAP's recommendation around key considerations for expenditure decisions. The need for expenditure should also carefully consider trade-offs amongst cost, performance, and risk, while delivering the services valued by end-use customers.</p> <p>This includes any impacts on SDP's operational flexibility in meeting Sydney Water's Emergency and Fixed Production Day production requests.</p>
<p>How we incorporated this recommendation</p> <p>These recommendations informed our decisions to place greater weight on affordability, defer non-essential expenditure and test whether new costs could be avoided, absorbed or delayed without compromising service outcomes. We applied a challenging efficiency target of 0.7% per year, removed small opex step changes, focusing our attention on the five targeted step changes outlined in section 7.4.</p> <p>We also absorbed some new regulatory requirements into our base operating costs. At the same time, we retained the expenditure needed to maintain safe, reliable and licence-compliant services for Sydney Water and customers.</p>	

Table 23: How we incorporated CAP Recommendation 8 and Sydney Water's response into our opex proposal

Customer Advisory Panel recommendation	Sydney Water's response
<p>8. Maintaining or somewhat increasing local community and environmental initiative expenditure is consistent with the expectations of the people of Sydney, particularly where more tangible impacts can be demonstrated.</p>	<p>Sydney Water considers that SDP's current investments into local community and environmental initiatives appear to be sufficient, although community awareness of SDP initiatives could be increased.</p>
<p>How we incorporated this recommendation</p> <p>We have incorporated this recommendation by bringing forward a modest increase in local community and environmental initiative expenditure into the base year rather than seeking a separate step change. This means that expenditure on local community and environmental initiatives is captured as an ongoing, efficient activity to be maintained over the 2027-32 regulatory period.</p>	

Table 24: How we incorporated CAP Recommendation 12 and Sydney Water’s response into our opex proposal

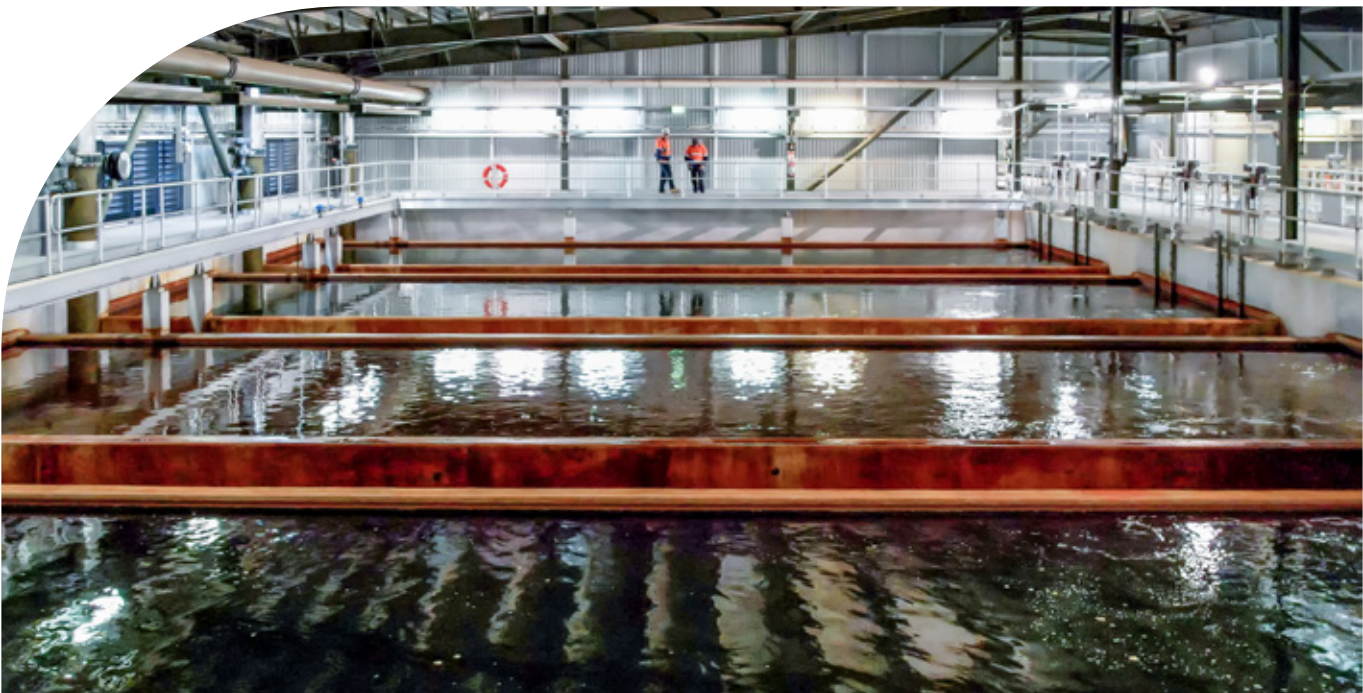
Customer Advisory Panel recommendation	Sydney Water’s response
<p>12. Regarding expenditure on expansion of the plant in the upcoming regulatory period, that SDP either undertake:</p> <ul style="list-style-type: none">a. no additional expenditure on expansion specific works, orb. limited expenditure on prudent preparatory planning works only.	<p>Sydney Water considers that there is a strong case for expenditure on detailed design development for the expansion of the plant over the upcoming regulatory period. This will significantly reduce the cost and time to deliver the expansion and help ensure the resilience and reliability of water supply across Greater Sydney.</p> <p>At the same time, Sydney Water remains cognisant that affordability is a key priority for its customers. In developing its pricing proposal, Sydney Water would encourage SDP to consider:</p> <ul style="list-style-type: none">• The appropriate accounting treatment of the detailed design development costs, such as whether certain costs can be capitalised given the enduring value of the designs for end-use customers, and• Options to smooth end-use customer bills and ensure that bills are not significantly impacted by SDP’s recovery of these costs within a single price period. <p>In procuring any design work, SDP should further seek to extend the validity of that work for as long as possible, so as to accommodate for a future NSW Government decision on the expansion of the plant.</p>

How we incorporated this recommendation

We are proposing a \$1.7m step change for expansion planning costs to undertake high value expansion planning activities. This could include investigating the interconnections between the existing and new plant, undertaking challenging engineering tasks such as making sure the intake and outfall will work as planned with the expanded production volume and investigating opportunities within the existing expansion planning process to fast-track and deliver the expanded plant sooner.

By incorporating these recommendations, we have been conscious to balance the CAP and Sydney Water’s feedback to consider affordability with meeting our requirements to deliver the expansion when called upon to do so.

Further details on how our Customer and Stakeholder Engagement Program influenced our energy costs is contained in Chapter 7.



6.3 Plant and Pipeline opex in the current period (2023-24 to 2026-27)

Table 25 compares our actual and forecast operating expenditure for the Plant and Pipeline over the 2023-27 regulatory period with IPART's allowance. Actual expenditure is reported for 2023-24 to 2025-26, with forecast expenditure shown for 2026-27. Production volumes in Table 25 varied from year to year, ranging from 21GL in 2024-25 to 38 GL in 2026-27. This affects both the Actual/Forecast and the IPART allowance amounts.

Over the 2023-27 regulatory period, our total actual and forecast operating expenditure is \$270.45m, compared with IPART's allowance, pro-rated to our actual levels of production, of \$280.85m. This represents expenditure of \$10.40m, or 3.7%, below the allowance. The variance was greatest in the early years when our energy costs were below IPART's benchmark energy price allowance.

Table 25: Actual and allowed operating expenditure for the Plant and Pipeline in the 2023-27 regulatory period (\$nominal, \$millions)

	2023-24	2024-25	2025-26	2026-27	Total
Actual forecast	66.78	59.76	64.46	79.45	270.45
IPART Allowance	73.01	61.14	66.35	80.36	280.85
Difference \$	-6.23	-1.38	-1.88	-0.91	-10.40
Difference %	-8.5%	-2.3%	-2.8%	-1.1%	-3.7%

Note: Productions volumes varied from year to year. Results would differ if costs were normalised for production volumes between years.

Table 26 provides a further breakdown of the total operating expenditure shown in Table 25 by expenditure category. It shows how expenditure over the 2023-27 regulatory period has been incurred across the Plant and Pipeline, including O&M, corporate and insurance costs.

Table 26: Actual opex by category in the 2023-27 regulatory period (\$nominal, \$millions)

	2023-24	2024-25	2025-26	2026-27	Total
Plant					
O&M	25.86	25.04	25.44	30.13	106.48
Corporate	18.99	19.18	23.16	22.23	83.56
Energy	21.73	14.96	14.94	25.59	77.23
Pipeline					
O&M	0.20	0.57	0.92	1.50	3.18
Total	66.78	59.76	64.46	79.45	270.45
Allowance	73.01	61.14	66.35	80.36	280.85
Difference (\$)	-6.23	-1.38	-1.88	-0.91	-10.40
Difference (%)	-8.5%	-2.3%	-2.8%	-1.1%	-3.7%

Note: Production volumes varied from year to year. Energy includes electricity network costs



Our expenditure was well below IPART's allowances in 2023-24 to 2025-26, before increasing to a level broadly in line with the allowance in 2026-27.

The key drivers of variances between our actual expenditure and IPART's allowances include:

- Lower energy-related operating expenditure, primarily driven by differences between IPART's benchmark energy price allowance and the realised unit cost of energy under the GGRP contracts in 2023-24 and 2025-26
- Lower insurance costs in 2025-26 and 2026-27, driven by cyclical softening in insurance markets. This softening has occurred later in the regulatory period. Our actual insurance costs in 2023-24 and 2024-25 were higher than IPART's allowances because of the then hardening insurance market
- Higher corporate costs in several years including a small number of one-off, non-recurring expenditure items that were not foreseen at the time IPART's allowance was set. These include:
 - Additional corporate labour costs were required in all years to meet the requirements of SDP's increasingly complex regulatory environment and provide an efficient level of oversight of the Plant given its age and flexible full-time operation as required by Sydney Water. This includes additional costs of overseeing and delivering SDP's capex program
 - Higher regulatory costs associated with preparing our proposal for the 2027-32 regulatory period in 2025-26. IPART's allowance smoothed the expenditure required to prepare the proposal over the 4-year period, rather than reflecting its actual profile. This means that our regulatory costs in 2025-26 are higher compared to the allowance in this year, even though they are in line with the total allowance for the period
 - A small number of other one-off and non-recurring costs in 2025-26 including governance, risk and compliance (GRC) software investigation costs and other risk management costs. These costs are excluded from our proposed base year
 - Higher Pipeline O&M costs in 2025-26 and 2026-27 associated with an uplifted preventative maintenance scope. The basis of this scope was derived from an updated 2024 Pipeline Asset Maintenance Plan (PAMP) developed with KBR. The PAMP was partially implemented in 2024-25 and fully implemented in 2025-26. This higher cost is included in our proposed base year because they are prudent and efficient recurrent costs
 - Higher corporate labour costs and professional fees associated with the Ontario Teachers' Pension Plan's sale of its 60% stake in the Sydney Desalination Plant (SDP) in 2025-26 to Utilities Trust Australia. These costs are excluded from our proposed base year.

6.4 Our forecast Plant opex for 2027-28 to 2031-32

6.4.1 Overview

Our forecast Plant opex for each expenditure category is presented in Table 27. We forecast efficient expenditure of \$394.22m over the 2027-32 regulatory period. This is an average of \$78.84m per year which is 2.5% higher than our Plant average annual actual expenditure during the 2023-27 regulatory period.

Table 27: Summary of proposed operating expenditure for the Plant in the 2027-32 regulatory period (\$2026-27, \$millions)

	2027-28	2028-29	2029-30	2030-31	2031-32	Total
Operating and maintenance	29.51	29.78	29.53	29.48	29.43	147.73
Corporate	14.76	14.63	14.71	16.46	16.09	76.66
Insurance	8.11	8.32	8.60	8.94	9.04	43.01
Energy	26.60	26.38	26.40	22.31	25.14	126.82
Total	78.98	79.11	79.24	77.19	79.70	394.22

Note: Forecasts based on production of drinking water of 38 GL per year. Forecast energy costs include an estimate of network costs (including for second 132kV feeder) based on historical peak demand and estimated network charges levied by Ausgrid. Given uncertainty over network charges SDP is proposing these network costs be subject to an end-of-period true-up.

6.4.2 Plant O&M, Corporate and Insurance

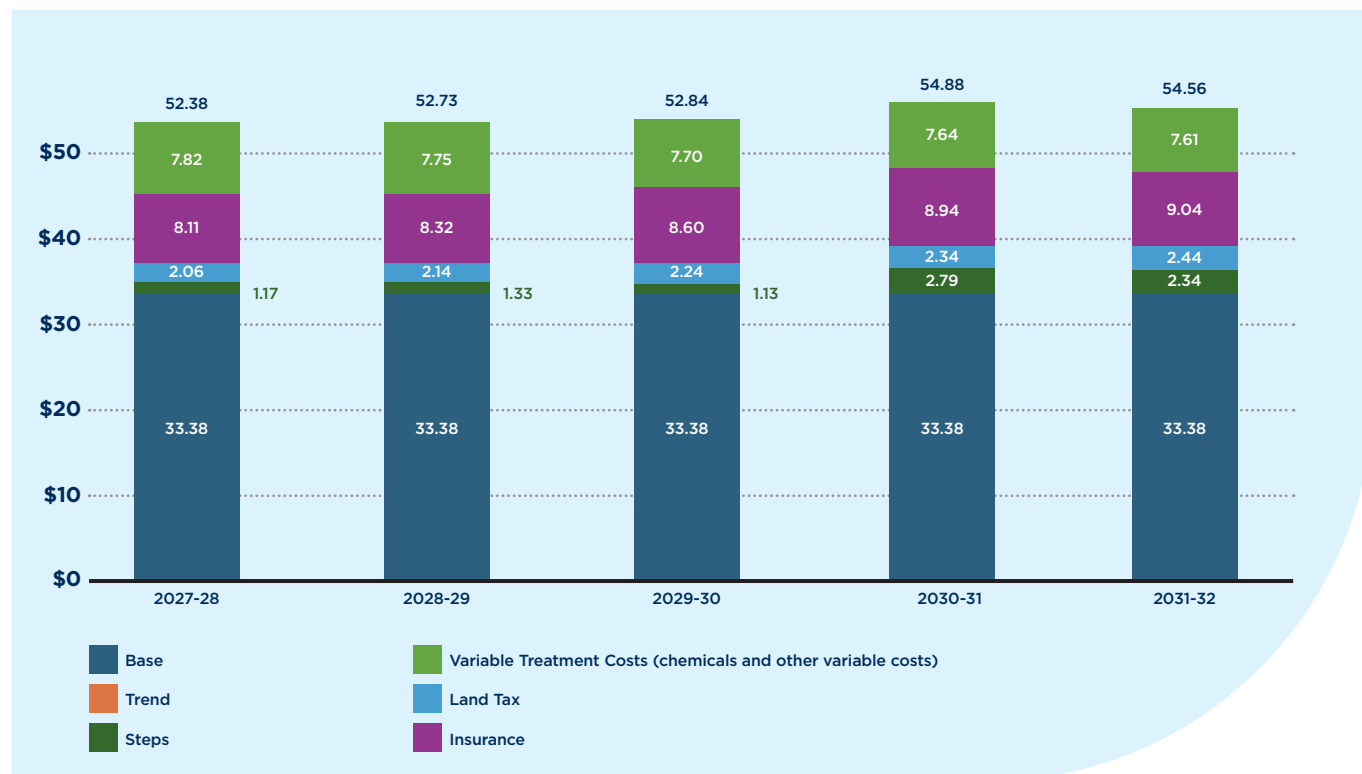
For Plant O&M, corporate and insurance costs, we developed our forecast using IPART's BTS approach. This approach provides a transparent and structured basis for forecasting efficient expenditure by starting with a representative base level of recurrent expenditure, applying trend factors for expected changes in input prices and productivity, and separately identifying step changes where there is a clear and material change in efficient costs that is not reflected in the base or trend.

We have applied the BTS approach to controllable recurrent expenditure, including fixed operating and maintenance expenditure and corporate expenditure. The base year reflects an efficient starting level of expenditure required to operate the Plant and Pipeline and meet our service, safety, reliability and regulatory obligations. We then apply trend adjustments to reflect forecast changes in prices and the continuing efficiency factor that we propose to apply over the 2027-32 regulatory period. Step changes are identified separately where expenditure is required to meet new or materially changed obligations, service requirements or operating conditions.

Some categories of operating expenditure are not well suited to a BTS approach. These include non-controllable land tax and council rates, insurance costs, and variable treatment costs (including chemicals and other variable operating costs). We have therefore forecast these costs separately. This approach is consistent with IPART's Water Regulation Handbook.

Figure 20 summarises our forecasts for each of the BTS components. The trend factor is shown as a negative number because our forecast efficiency factor is higher than expected real price growth.

Figure 20: Plant O&M, corporate and insurance expenditure by base-step-trend component (\$2026-27, \$million)



Source: Sydney Desalination Plant. Note: The trend factor ranges from -\$0.16m to -\$0.25m in each year. Forecasts based on production of drinking water of 38 GL per year.

6.4.2.1 Establishing an efficient base year

We have used 2025-26 as the base year for the Plant controllable recurrent operating expenditure. This is the most recent year of actual expenditure available for this proposal and provides the best available evidence of the efficient level of expenditure required to operate the Plant under our current flexible full-time operating regime.

The level of expenditure in 2025-26 captures most of the efficiency savings already delivered during the 2023-27 regulatory period. As set out in our Cost Efficiency Strategy, we have implemented improvements across O&M, treatment processes, asset management, capital planning and corporate systems, including chemical dosing optimisation, improved treatment control, stronger asset management processes and streamlined digital systems. Because these savings are embedded in our actual recurrent expenditure for 2025-26, they are carried forward into the forecast before we apply any further productivity or continuing efficiency adjustments.

Our operating expenditure is also efficient when compared with our peers. Benchmarking results outlined in the Cost Efficiency Strategy show that our operating costs generally sit below the median for comparable Australian desalination plants, with O&M expenditure assessed in the first or second quartile depending on the measure used. This reflects SDP's disciplined approach to O&M contract management, ongoing optimisation of treatment processes, and strong owner oversight of the Plant performance and maintenance decisions. While benchmarking must be interpreted carefully given differences in desalination plant design, production levels and operating requirements, the results provide an important cross-check that SDP's recurrent operating cost base is efficient and that the 2025-26 base year is an appropriate starting point for forecasting non-energy operating expenditure.

After selecting 2025-26 as the base year for our forecast, we next reviewed actual expenditure to identify and remove one-off or non-recurring items that are not expected to continue over the 2027-32 regulatory period. This ensures the base year reflects the efficient recurrent cost of providing our services, rather than temporary costs associated with specific one-off events.

Our opex base year of 2025-26 reflects an efficient recurrent level of operating expenditure which is \$33.38 million. This adjusted amount is 2.8% above the allowance set by IPART in its 2023-27 regulatory determination. Our base year is separately made up of Plant O&M and corporate opex.

Plant O&M expenditure was in line with the IPART allowance in 2025-26 and did not include any one-off or non-recurring expenditure items. This means that no adjustments to the base year were needed to establish the efficient level of ongoing expenditure.

However, corporate opex in the base year was higher than IPART's corporate allowance in 2025-26, after adjusting for the impact of regulatory proposal costs. This was largely the result of the impact of a range of one-off or non-recurring items in our corporate costs. We have therefore adjusted our base year to remove the effect of a range of non-recurring Corporate expenditure items, including:

- Transaction-related costs associated with Ontario Teachers' Pension Plan's sale of its 60% stake in SDP in 2025-26, including higher labour costs and professional fees
- Governance, risk and compliance software investigation costs, which reflect one-off activities rather than ongoing recurrent expenditure, and
- Other non-recurring risk management and governance costs incurred in 2025-26.

After adjusting for these items our base year, corporate expenditure is only 4.0% higher than IPART's allowance for 2025-26. Part of this difference can be attributed to higher permanent resourcing costs because SDP now employs a small number of additional specialist staff to provide asset management, governance and other capabilities required by our more complex operating environment since the change in our Operating Licence to flexible full-time operation. We consider that these costs are consistent with an efficient organisational structure. Maintaining these resources in-house strengthens oversight and accountability and builds institutional knowledge.

The difference can also be explained in part by higher professional services fees incurred in the base-year for core business functions including Strategic Asset Management, Digitisation and Research, Development and Innovation. Some of these costs would have formed the basis for step changes in opex for the 2027-32 regulatory period, but we decided to begin incurring these costs sooner because it was prudent to do so.

Our proposed base year also includes a modest increase in expenditure on local community and environmental initiatives relative to other years in the 2023-27 regulatory period. This reflects feedback from our CAP and other workshop participants that we should increase this expenditure where it delivers tangible benefits. In response, we brought forward planned expenditure into the base year rather than proposing a separate step change for the 2027-32 regulatory period. The box below provides further information on the initiatives this additional expenditure will support





Local community and environmental initiatives

Sydney Desalination Plant is continuing to protect and enhance the unique environmental values of its Kurnell site. The site includes a 15-hectare conservation area where native plants and wildlife are monitored and managed through its operational agreements. Recent initiatives have focused on restoring habitat, improving threatened species monitoring, supporting seagrass recovery, expanding native vegetation, and strengthening local community connection through public artwork and partnerships.

Key achievements in the 2023-27 regulatory period include supporting the return and monitoring of Green and Golden Bell Frogs, improving surveys for Grey-headed Flying Foxes and other fauna, using wildlife cameras to better understand native and feral species activity, and expanding eucalypt planting to improve biodiversity and provide future koala feed supply for the Symbio Wildlife Park. SDP has also supported seagrass rehabilitation, as part of a multi-organisation led initiative including UNSW, the Gamay Rangers and the local council.

These projects are guided by the Biodiversity Management Plan, Conservation Area Management Plan and Vegetation Management Plan, which set clear requirements for habitat restoration, weed and pest control, threatened species protection, hygiene protocols and ongoing monitoring. This structured approach ensures environmental initiatives are practical, measurable and aligned with broader conservation values across the Kurnell Peninsula, including nearby Kamay Botany Bay National Park, Towra Point and surrounding cultural landscapes.

Over the 2027-32 period, SDP will continue to build on this foundation by completing eucalypt plantation works, scaling successful monitoring trials, enhancing revegetation and pest management, maintaining cultural stewardship initiatives, and working with partners and stakeholders to deliver long-term environmental, cultural and community benefits.

To incorporate engagement feedback, we have committed to providing more information about our community and environmental initiatives on our website as part of our performance measures reporting dashboard.



6.4.2.2 Trends in controllable operating expenditure

Our forecast trend factors account for the change in recurrent controllable opex due to productivity improvements and real input price changes. We have not included an output growth component because the Plant's operating costs (other than variable costs which are separately forecast) are largely fixed and are not driven by growth in customers or demand.

Unlike retail water utilities, SDP does not directly experience ongoing customer connections growth and any additional operating costs associated with new assets or changes in operating requirements have been forecast through specific step changes rather than a general growth allowance.

Opex productivity improvement

We propose a continuing efficiency factor of 0.7% per year for controllable operating expenditure. This factor appropriately balances ongoing productivity improvement opportunities with the realities of operating a single, mature, highly specialised desalination plant. SDP has demonstrated a strong track record of efficiency improvements during the 2023-27 regulatory period, including optimisation of treatment processes, chemical dosing, asset management practices, capital planning and corporate systems. These initiatives have delivered sustainable reductions in operating costs and are already embedded in our proposed base year.

Our ongoing efficiency factor of 0.7% per year is also consistent with IPART's historical approach to applying the long-term multifactor productivity (MFP) growth as a reasonable estimate of the productivity improvements that an efficient business can be expected to deliver over time. We used the most up-to-date data available from the Australian Bureau of Statistics (ABS) Estimates of Multifactor Productivity, Australia released in February 2026 to calculate the long-term MFP of 0.7% per year.

Cost Efficiency Strategy

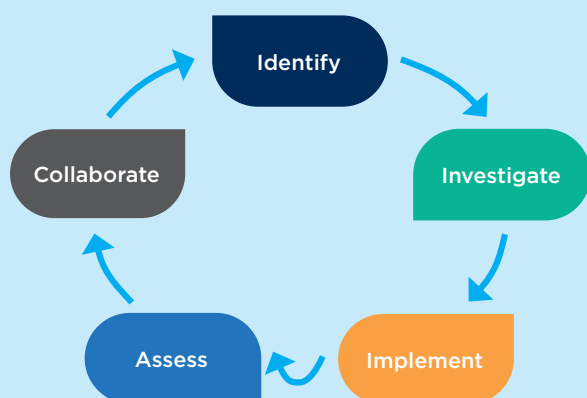
We have developed a Cost Efficiency Strategy that sets out what we have done so far, and what we plan to do into the future to improve value for the people of Sydney.

Since becoming operational in 2010, SDP has had a strong focus on cost efficiency. We have adapted to challenges by finding better and more efficient ways of operating both at low and high flows, and in response to emergency production requests.

We have implemented projects that are having a tangible impact on the efficiency of our operations. For example, we have implemented systems and processes that have reduced the Plant's energy usage, with cost savings being passed back to customers in the next regulatory period.

For the 2027-32 regulatory period, SDP is proposing a challenging but realistic cost efficiency target of 0.7% that applies across both operating and capital expenditure, with a target for fixed and variable energy consumption efficiency of 0.3% and 0.5% per year.

Over the regulatory period we aim to save \$5.3m of opex costs and avoid \$3.8m of capital costs to save customers \$9.1m.



Our plan to meet the target

We have a practical plan to become more efficient in the future to meet our target. We identified practical initiatives across the business and will continue to identify, investigate, implement, assess and collaborate to enable productivity improvements.

We will prioritise initiatives based on materiality, deliverability, risk, whole-of-life cost and customer value. This will be supported by stronger asset management, targeted capital delivery and a staged Digital and Operational Technology Roadmap.

Opportunities to become more efficient

SDP will meet the target through a disciplined continuous improvement program across Plant operations, asset management, capital planning and corporate functions.

More information about our plan to meet the target and opportunities to become more efficient can be found in our Cost Efficiency Strategy.



Real price growth

We applied an Oxford Economics' forecast of the New South Wales Electricity, Gas, Water and Waste Services Wage Price Index (NSW EGWWS WPI) as the measure of real labour cost growth. This measure provides the most appropriate estimate of changes in efficient labour costs faced by water and utility businesses such as SDP. Oxford Economics selected the NSW EGWWS WPI as the preferred labour cost escalator because it measures underlying wage movements for the utility sector, is consistent with regulator practice (including the AER and IPART), and avoids distortions associated with changes in workforce composition. The report forecasts that the NSW EGWWS WPI will increase by an average of 1.3% per year in real terms over the 2027–32 regulatory period.

This trend was applied to the proportion of labour-related costs in our base year. No real price growth is applied to non-labour related fixed costs other than insurance, land tax and council rates, which are forecast as category specific costs. Variable costs are forecast separately.

6.4.2.3 Step changes

We have identified a targeted set of step changes where the efficient level of expenditure in the 2027-32 regulatory period will differ from the base year due to changes in operating requirements, new or expanded assets, increased regulatory and security obligations, and the need to support prudent planning for future expansion.

We have identified five positive step changes:

- **Additional operating labour and capability uplift:** This step change reflects additional operating resources to support compliance, training, asset management, process optimisation and the increasing complexity of plant operations. These roles are already being utilised to address increased management of change requirements and support operational efficiency initiatives given the age of the Plant. The proposed labour uplift is intended to ensure the Plant can continue to operate safely, efficiently and reliably while managing a more complex operating environment. We are proposing three additional Plant O&M FTEs, two of which are permanent and one temporary.
- **Routine asset maintenance for new assets:** This step change captures additional ongoing maintenance requirements associated with the second 132 kV high voltage electrical feed cable and the Drinking Water Pump Station reliability upgrade. Once commissioned, these assets will require ongoing preventative and corrective maintenance that is not reflected in the base year.
- **Critical infrastructure and cyber security uplift:** A step change is required to meet our increased obligations under the Security of Critical Infrastructure (SOCi) Act and recently enhanced Critical Infrastructure Risk Management Program (CIRMP) rules. The expenditure supports the implementation of an enhanced critical infrastructure and cyber security risk posture in response to an increasingly complex threat environment and more stringent regulatory requirements.
- **Regulatory proposal development costs:** These costs are incurred periodically as part of IPART's reviews of SDP's allowed prices. The proposed allowance is based on recent regulatory expenditure and reflects the specialist technical, legal, economic and stakeholder engagement activities required to prepare a robust and evidence-based regulatory proposal under IPART's 3Cs Framework.
- **Expansion planning activities:** This step change involves additional expenditure to support long-term planning for potential future expansion of the Plant. This work will ensure we can undertake the necessary analysis to plan and de-risk future expansion options and be ready to respond when requested to by the NSW Government. We have developed and costed a short-list of low-cost expansion focused projects that will be prioritised and delivered within our proposed step change. This approach is supported by the NSW Government and Sydney Water and our CAP.

We also identified one negative step change:

- **Other operating cost changes:** This negative step change includes efficiencies achieved in laboratory and analysis as well as office-related costs. This step change is partly offset by a small positive component related to physical security costs.

In total, this targeted set of step changes make up a small but critical part of our forecast operating expenditure (3.3%).

6.4.2.4 Non-controllable costs - Land tax and council rates

SDP's land tax and council rates are set by the NSW Government and Sutherland Shire Council based on the underlying land value determined by the NSW Valuer General. These costs are non-controllable.

Land tax is calculated by Revenue NSW using land valuations and the land tax threshold. On 31 December each year it uses an average of land values over the previous three years to determine how much tax NSW landholders must pay. The Valuer General gives Revenue NSW land values each year. The Valuer General also calculates the land tax threshold each year which is based on the annual movement in the average land values of residential, commercial, business and industrial zoned land in NSW.

Council rates are calculated by multiplying the underlying unimproved land valuation by a 'rate in the dollar' amount. The NSW Valuer General provides a land valuation to Sutherland Shire Council, typically every three years.

The rate in the dollar for each rating category is set by Council each year in its annual Operational Plan. While the maximum increase in the council's income is capped by IPART's Rate Peg, this applies to general income in total and not to individual rates. Councils have discretion to determine how to allocate the Rate Peg increase between different ratepayer categories.

For land tax, we are forecasting an increase based on the expected increase in the underlying land valuation used to calculate these costs. To forecast our statutory land tax liabilities, we obtained advice and applied a land valuation based on the 40-year long term average increase in industrial land in Sydney.¹⁸

For council rates, our costs are impacted by both the land value and rate in the dollar applied by Sutherland Shire Council. We have forecast that council rates will be held constant in real terms at 2026-27 levels.



18. Please see the land tax liability assessment report from JLL provided as non-public attachment 1.



6.4.2.5 Insurance

SDP obtains and maintains appropriate insurance arrangements using an approach that addresses all aspects of IPART's Insurance Guide for WICA Licence Applicants and Licensees (see next box). This approach ensures that customers only pay for the efficient costs of these arrangements. There are two key steps in this approach:

- **Deciding on the efficient level of coverage.**

This involves determining the types of insurance and appropriate limits needed relative to the risks and vulnerabilities that SDP is exposed to. As part of this, our insurance expert, Aon, undertakes periodic reviews of SDP's insurable risks and recommends the types of insurance and appropriate limits that can be used to manage those risks.

- **Obtaining insurance coverage at an efficient cost.**

This involves our insurance expert Aon negotiating policies that reflect the efficient cost of the necessary coverage. Aon is the second largest insurance broker in the world and has extensive knowledge of insurance markets including the policies available, current global and Australian market conditions and the capacity of Australian and overseas insurers. This allowed us to ensure that our insurance costs over the 2023-27 regulatory period were efficient. Aon also advised on the likely market conditions that will apply in the 2027-32 regulatory period and the impacts of these conditions on our forecast insurance costs.

This approach is consistent with that agreed with Sydney Water and accepted by IPART for the 2023-27 regulatory period.

WICA Guidelines on appropriate insurance arrangements

The Insurance Guide produced by IPART for Water Industry Competition Act 2006 licensees states that to make appropriate insurance arrangements, a Licensee should:

- Clearly identify the business activities proposed to be, or being, undertaken
- Identify and analyse the key risks arising from the business activities
- Consider what types of insurance policies will cover the business activities and associated risks, and what activities or risks are uninsurable or will remain uninsured
- Consider what insurance limits and terms are appropriate for the size and nature of the business activities and associated risks, and
- Obtain insurance from an appropriate insurer that is appropriate for the size and nature of the business activities and associated risks.

The work we undertake with Aon as part of our annual insurance renewals and periodic reviews of SDP's insurable risks is consistent with these guidelines. As part of this work, Aon assessed SDP's insurable risk profile and undertook a gap analysis of SDP's insurance policies. This involved:

- Identifying the material risks faced by SDP
- Assessing the potential financial consequences of those risks
- Determining which risks are insurable
- Assessing the extent to which risks can be mitigated or allocated contractually, and
- Identifying the insurance policies, coverage limits and other risk-management arrangements required to address the residual risks that are appropriate for a business of the size, scope and nature of SDP.

Aon and SDP developed an initial risk register comprised of 34 risks. Of these risks, 10 Asset and Business Interruption risks and six Liability risks have been deemed relevant key risks. Each identified risk was discussed in detail addressing its associated risk source(s), cause(s) and impact(s) of a 'worst case' scenario, with a financial impact rating using a set of rating scales.

Aon also undertook a review of the risks faced by the Operator (Veolia) and developed an initial risk register comprised of 19 risks. Of these, one Asset and Business Interruption risk and five Liability risks were deemed key risks.

Aon then conducted an insurance gap analysis. The objective of this analysis was to map the current insurance program against the identified risks (both in terms of scope and level of cover) and identify areas where different levels of Insurance coverage may be efficient.

Copies of Aon's reports are provided with this pricing proposal.

Insurance costs cover a range of policies held by SDP as well as several policies purchased by our Operator. SDP's insurance policies provide an efficient means for managing a range of risks faced by SDP. Our Operator carries certain insurances to ensure that SDP is adequately protected, either directly because of damage to its own assets and income streams, or indirectly to ensure that our Operator doesn't suffer undue financial loss that affects their ability to provide ongoing service to SDP. Our Operator's insurance in some cases reduces SDP's exposure and, consequently, the risk reflected in SDP's own premiums. Its professional indemnity and public liability policies complement, but do not overlap with, SDP's corresponding insurance. Our Operator also maintains insurance for risks for which SDP does not hold directly comparable cover, including workers compensation, motor vehicle, property and marine cargo risks.

In 2025-26, SDPs policies made up around 90% of total insurance costs, with our Operator's policies accounting for the remainder.

Our forecast insurance costs are presented in Table 28. We forecast efficient expenditure of \$43.01m over the 2027-32 regulatory period. This is an average of \$8.60m per year which is around 13.7% higher than our average annual actual expenditure during the 2023-27 regulatory period. The actual expenditure in the 2023-27 regulatory period reflects the softening insurance market conditions, which are not expected to continue over the five years of the 2027-32 regulatory period.

Table 28: Summary of proposed insurance costs for the 2027-32 regulatory period (\$2026-27, \$millions)

	2027-28	2028-29	2029-30	2030-31	2031-32
SDP Insurance	6.78	6.96	7.22	7.51	7.62
Our Operator Insurance	1.32	1.36	1.38	1.43	1.42
Total	8.11	8.32	8.60	8.94	9.04



SDP insurance

We forecast that the costs of SDP insurance policies will increase by 2.0% per year in real terms between 2025-26 and 2031-32. Insurance premiums are materially affected by insurance market cycles. These cycles typically run for multiple years with hardening markets historically lasting longer than soft market cycles. During a hardening market, insurers typically reduce capacity, impose more restrictive policy terms and increase premiums. During a softer market, additional capacity and competition can place downward pressure on premiums.¹⁹

Our experience during the last two regulatory periods demonstrates the effect of this uncertainty. During the 2017-23 regulatory period, the hard insurance market continued as expected. This resulted in SDP's insurance costs exceeding the allowance by \$3.92m or 23.8% in nominal terms including the 2022-23 deferral year. This market hardening continued during the first three years of the 2023-27 regulatory period resulting in us spending more than our allowance during this period. Market conditions subsequently softened unexpectedly and we spent less than our allowance during the final two years of the 2023-27 regulatory period. This reversal was not anticipated when the forecasts were prepared and was not predicted by insurance market experts.

The forecasts capture the expected levelling from the current soft market conditions in 2027-28 and 2028-29 before moderate market hardening from 2029-30 onwards. Aon expects that competitive pricing pressures will gradually moderate and insurer pricing discipline will strengthen over the latter part of the 2027-32 regulatory period. The forecast insurance costs in our pricing submission embed the savings achieved as a result of the softer insurance market conditions experienced in the past two years.

19. Historically market cycles last longer than soft market cycles because it takes time for insurers to rebuild profitability and adjust underwriting practices, whereas soft market conditions reflect greater competition and surplus capacity within the market. However, the exact timing and duration of these cycles are difficult to predict with certainty.

The risks covered by our insurance are the same as those identified in the 2023-27 regulatory period. The key drivers of the moderate real increases in SDP's insurance costs are as follows:

- Increases in the value of SDP's assets and revenues that are insured are expected to increase the cost of insuring for material damage and business interruption to the Plant (for further information on how business interruption insurance benefits customers see the box below). We continue to require insurance limits that reflect our unique risk profile as a single-asset, single-geography business, where a single catastrophic event could affect a substantial proportion of our asset base, unlike geographically diversified network utilities that benefit from geographic asset dispersion and operational redundancy. Reflecting these factors, Aon is forecasting an increase of 4% per year excluding inflation over the 2027-32 regulatory period.

- [REDACTED]

[REDACTED]

Business interruption (BI) insurance

[REDACTED]

[REDACTED]

Our Operator insurance

Our Operator's insurances are forecast to increase from \$1.32m in 2027-28 to \$1.42m by 2031-32. Although this is a real increase in percentage terms, the costs make up a relatively small proportion of our insurance costs (around 15% in 2031-32) and reflect up-to-date forecasts of the market cost of these insurances that our Operator has tested with its insurance experts.

6.4.2.6 Variable Treatment Costs

SDP's variable treatment costs are comprised of two key components:

- Chemicals costs – chemical dosing is required at various Plant treatment process areas to meet the required water quality at each treatment step, to maintain RO membranes (via cleaning), to maintain public health and/or to protect the Plant or distribution system assets, and
- Other variable costs for water treatment residuals disposal (including ferric sludge and lime sludge disposal/reuse) and cartridge filters (used to protect RO membranes).

Energy costs also vary with the level of production and are covered in Chapter 7.

We are forecasting a reduction of 0.4% per year in our variable treatment costs between our base year 2025-26 and 2031-32. This reduction incorporates:

- the impact of efficiency savings in chemical dose rates in several areas of the treatment process achieved during the 2023-27 regulatory period, while maintaining required or acceptable water quality
- further ongoing efficiency savings of 0.7% per year, consistent with the rate applied to our fixed operating costs
- customer and regulatory water quality requirements setting or constraining dose rates in specific areas, and
- changes (reductions and increases) in chemical unit costs achieved through competitively tendered contracts but influenced over the period by geopolitical or other cost drivers which have changed efficient costs since the previous regulatory review.

6.4.2.7 Chemical costs

Our forecasts of chemical costs are based on a bottom-up first principles approach consistent with that used and accepted in the 2023 Determination and is still considered prudent and efficient. For each chemical used in the treatment process, we calculate a forecast cost by multiplying the forecast quantity of chemical consumed per ML by a forecast chemical price.

The amount of each chemical required depends on two key factors:

- The dose rate applied at a particular stage of the treatment process, and
- The volume of water flowing through that treatment stage.

These inputs are used to determine the quantity of each chemical consumed relative to the volume of drinking water produced. We then apply forecast chemical prices to estimate the associated chemical costs. By calculating costs separately for each chemical and then combining them, this produces an overall forecast of variable chemical expenditure that reflects both treatment requirements and drinking water production levels.

Our proposed chemical prices are based on contract prices in June 2026. The prices actually incurred are reviewed and adjusted each year in line with different indices defined in the chemical supply contracts. These contracts are also subject to force majeure clauses which the supplier can activate in the event of unforeseen or unavoidable supply chain challenges (as experienced several times in the 2023 regulatory period). A comprehensive national tender process, for the current chemical suppliers was undertaken in April 2024, taking advantage of our Operator's buying power across multiple jurisdictions to achieve the lowest possible rates. These arrangements are due to be updated in January 2027, and SDP proposes to provide an updated efficient market chemical price forecast at that time.

6.4.2.8 Other treatment costs

Other variable costs associated with the supply of drinking water consist of:

- Water treatment residuals disposal - specifically ferric and lime sludge, and
- Cartridge filters.

Like chemical costs, we have undertaken a bottom-up assessment of each variable cost component to develop our 2027-32 regulatory period forecasts, with the improvements we have made reflected in the lower forecast costs.

While the volumes of sludge for disposal are mostly influenced by the inlet seawater quality and our drinking water quality requirements, we can influence the volume of residual waste by optimising our processes. We have delivered improvement initiatives during this regulatory period to utilise our treatment chemicals more effectively and have optimised how we process the resulting treatment residuals.

These initiatives have reduced the weight and volumes of waste generated per ML of drinking water we produce. This has contributed to lower disposal costs that we have passed through to customers in our proposal. By the end of the 2027-32 regulatory period, our other treatment costs are forecast to be around 20% lower than in the base year.

6.4.2.9 Energy

Our proposed energy cost allowances based on assumed production of 38GL per year are provided in Table 29.

Table 29: Proposed total energy operating costs in the 2027-32 regulatory period (\$2026-27, \$millions)

	2027-28	2028-29	2029-30	2030-31	2031-32
Energy	26.60	26.38	26.40	22.31	25.14

Note: Forecasts based on production of drinking water of 38 GL per year

Our forecast of energy costs for the 2027-32 regulatory period consists of:

- The efficient amount of energy required to produce drinking water (energy consumption is measured as MWh per ML or MWh per day) and assumed production of drinking water of 38 GL per year, and
- The efficient cost or price per unit of energy covering the retail energy cost stack, including wholesale, renewables, network, ancillary charges and retail operating costs and margin (where relevant).

For the 2027-32 regulatory period, we are proposing fixed and variable benchmark energy consumption below the current allowance, paired with continued year-on-year reductions in energy consumption, ensuring customers continue to benefit from ongoing efficiency improvements.

We are forecasting a benchmark allowance of 3.377 MWh/ML for variable energy use and 28.12 MWh/day for fixed energy use (inclusive of year 1 efficiency), together with ongoing annual efficiency targets of 0.5% and 0.3% respectively applied for subsequent years of the 2027-32 regulatory period.

A summary of the proposed benchmark energy prices for the 2027-32 regulatory period is provided in Table 30.

Table 30: Benchmark energy costs in the 2027-32 regulatory period (\$2026-27)

	2027-28	2028-29	2029-30	2030-31	2031-32
Fixed (\$/Day)	9,075.36	8,954.33	9,358.17	12,974.22	14,019.04
Variable (\$/MWh)					

Note: Fixed energy costs include an estimate of forecast network costs (including for second 132kV feeder) based on historical peak demand and estimated network charges levied by Ausgrid. Given uncertainty over network charges SDP is proposing these network costs be subject to an end-of-period true-up.

Given the unique and complex market drivers of energy costs, our proposed approach to energy costs is described in further detail in Chapter 7.

6.5 Our forecast Pipeline Opex for 2027-28 to 2031-32

6.5.1 Overview

SDP undertakes ongoing inspection, condition assessment, preventive maintenance, corrective maintenance, lifecycle renewal planning and asset integrity management for the drinking water Pipeline connecting the Plant to Sydney Water's distribution network.

These activities are delivered through SDP's asset management framework and operation and maintenance arrangements with our Operator, and are intended to maintain the reliability, availability and long-term condition of this critical water supply asset.

Our forecast Pipeline opex for each expenditure category is presented in Table 31. We forecast efficient expenditure of \$5.25m over the 2027-32 regulatory period. This is an average of \$1.05m per year which is around 28.7% more than our average annual actual expenditure during the 2023-27 regulatory period. Although the percentage increase appears significant, it is from a very low base and remains modest relative to the value and importance of the asset.

Since July 2023, SDP has operated as a fully flexible asset capable of responding to emergency and drought-related supply requirements. The ability to increase the Plant production at short notice increases the importance of maintaining all Pipeline assets in a state of readiness.

Our proposed increase in operating and maintenance expenditure is required to continue delivering an enhanced preventative maintenance program for the Pipeline. The maintenance program was developed following an update of the Pipeline Asset Management Plan (PAMP) undertaken by KBR in 2024. The updated PAMP identified the need for a more comprehensive maintenance program to ensure the long-term integrity, reliability and availability of the pipeline. SDP and our Operator reviewed and refined the recommended maintenance activities drawing on their experience with the pipeline.

Table 31: Summary of proposed operating expenditure (excluding energy) for the Pipeline in the 2027-32 regulatory period (\$2026-27, \$millions)

	2027-28	2028-29	2029-30	2030-31	2031-32	Total
Pipeline – O&M	1.05	1.05	1.05	1.05	1.05	5.25
Total	1.05	1.05	1.05	1.05	1.05	5.25

Table 32 summarises our forecasts for each of the BTS components. Unlike the Plant, the Pipeline does not have any other cost categories or non-controllable costs. This means that total Pipeline operating expenditure is equal to the controllable operating expenditure.

Table 32: Pipeline expenditure by base-trend-step component (\$2026-27, \$millions)

Component	2027-28	2028-29	2029-30	2030-31	2031-32	Total
Base	1.05	1.05	1.05	1.05	1.05	5.25
Trend - Price	0.04	0.05	0.07	0.09	0.10	0.35
Trend - Efficiency	-0.04	-0.05	-0.07	-0.08	-0.10	-0.35
Trend Sub-total	0.00	0.00	0.00	0.00	0.00	0.00
Step changes	0.00	0.00	0.00	0.00	0.00	0.00
Controllable expenditure	1.05	1.05	1.05	1.05	1.05	5.25
Other cost categories	0.00	0.00	0.00	0.00	0.00	0.00
Non-controllable	0.00	0.00	0.00	0.00	0.00	0.00
Total pipeline operating expenditure	1.05	1.05	1.05	1.05	1.05	5.25

Note: Totals may not sum due to rounding.

6.5.2 Establishing an efficient base year

Consistent with the approach described above for the Plant, we have used 2025-26 as the base year for Pipeline controllable recurrent operating expenditure. This is the most recent year of actual expenditure available for this proposal and provides the best available evidence of the efficient level of expenditure required to operate and maintain the Pipeline.

Although higher than IPART's allowance for the 2023-27 regulatory period, we consider that this actual expenditure reflects the steady-state level of activity required to maintain the Pipeline on an ongoing basis. The level of expenditure is derived from our updated 2024 PAMP developed with our expert KBR. The PAMP was implemented in full in 2025-26 and incorporates enhanced preventative maintenance inspections following several corrective maintenance events in 2022-23 and 2023-24.

The enhanced maintenance scope includes:

- Inspection and maintenance of scour valves, air valves and section valves across the full length of the pipeline
- Inspection of pipeline coatings, anchor blocks, expansion joints, pipe supports and sliding joints
- Testing and maintenance of cathodic protection systems
- Testing of lifting points, residual current devices and remote telemetry units
- Vegetation management and access maintenance along the pipeline corridor, and
- Regular inspections of above-ground pipeline sections and associated structures.

The proposed expenditure is designed to reduce the likelihood of asset failures, minimise the need for reactive maintenance and emergency repairs, and support reliable service delivery. A proactive maintenance approach is expected to improve asset condition over time and reduce the incidence of higher-cost corrective works.

In addition, the actual level of expenditure associated with the activities was higher than forecast during the last review by SDP due to changes in the Pipeline's operating environment. For example, further residential, industrial and infrastructure development along the Pipeline's route has increased costs associated with maintenance activity.

The enhanced maintenance program will be delivered by our Operator, the existing Pipeline O&M contractor. This approach avoids duplication of management systems, maintains asset knowledge and operational continuity, and minimises interface risks associated with introducing additional contractors.

It also makes practical sense given that our Operator is responsible for the drinking water quality, not just at the Plant but at the handover point where water enters Sydney Water's system at Erskineville. The efficient costs of the activities were established through targeted market testing of key maintenance activities during 2024-25 to understand efficient delivery costs and benchmarking undertaken by KBR.

KBR also identified the need for a permanent Pipeline Coordinator to efficiently plan and organise the enhanced maintenance scope. Given the importance of this work, our Operator filled this role in March 2026 (i.e. the last four months of 2025-26). This means that the base year does not fully capture the ongoing level of expenditure associated with this role. We therefore adjusted the base year level of expenditure to reflect the annual impact of this additional role.

6.5.3 Trends in controllable operating expenditure

For the Pipeline opex forecast, we have applied the same approach described in the Plant section above. This includes applying the same opex productivity adjustment and the same treatment of real price growth applied to the labour proportion of costs in the base year.

This provides a consistent and transparent basis for forecasting Pipeline opex over the 2027-32 regulatory period.



7. ENERGY COSTS

Key messages

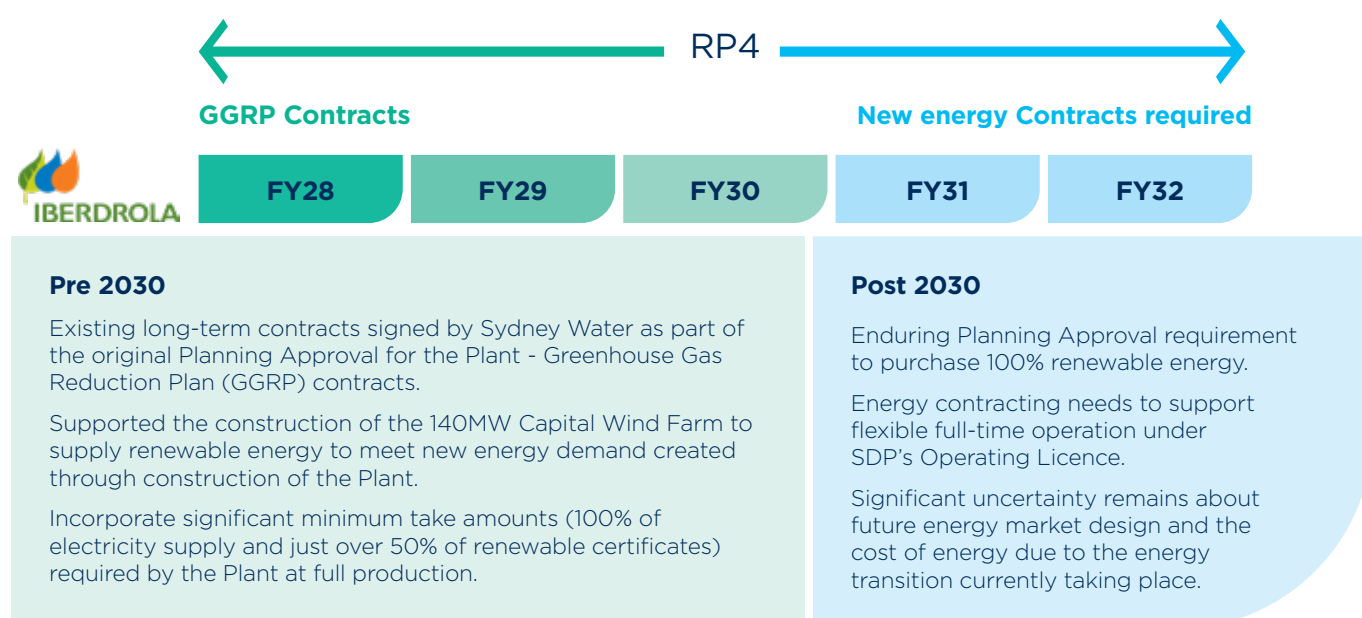
- SDP is a significant energy user, consuming approximately 340 GWh of electricity per year when operating at maximum production capacity. Energy cost accounts for approximately 32% of total annual operating costs under this production scenario.
- Under its approved Greenhouse Gas Reduction Plan (GGRP) contracts, SDP currently sources 100% certified renewable energy through long-term agreements with Iberdrola Australia and the 140 MW Capital Wind Farm. These arrangements delivered additional large-scale renewable supply to the NSW energy system, which continues to support the renewable energy transition. The GGRP contracts have delivered stable prices, averaging lower than IPART's benchmark forecasts across the 2023-27 regulatory period.
- Consistent with the ToR, SDP proposes that its allowed prices reflect the prices within the GGRP contracts through to their expiry in 2030, part way through the 2027-32 regulatory period.
- The energy market is undergoing a generational transformation as the grid transitions to renewable, but intermittent, sources of electricity generation. At the same time the demand for electricity is forecast to nearly double by 2050. Government policy is still evolving to adapt to this change and drive an efficient renewable transition that delivers for customers.
- Within this highly uncertain context, we assessed a range of prudent and efficient options for energy procurement post-2030 in consultation with the CAP, Sydney Water and DCCEE.
- Feedback from CAP, Sydney Water and DCCEE consistently emphasised the need to minimise costs to customers, maintain operational flexibility, and continue meeting SDP's renewable energy obligations. Our proposed approach is consistent with this feedback.
- After the GGRP contracts expire, SDP considers that IPART's existing benchmark retail cost build-up approach remains appropriate, subject to several targeted refinements which are necessary to reflect the flexibility Sydney Water has to vary production requests while continuing to meet the ToR requirements that the structure of prices encourage SDP to be financially indifferent as to whether or not it supplies water and provided revenue that recovers all efficient costs:
 - Annual in-period updates to the benchmark price of wholesale energy, which enable us to align our purchase volumes to the actual APR volumes requested by Sydney Water and ensure our allowed costs reflect prevailing market prices of meeting Sydney Water's APRs.
 - End-of-period true-up for movements in the benchmark renewable energy price and network costs in meeting Sydney Water's APRs to ensure these allowances reflect SDP's obligations under Federal and State renewable energy policy, regulatory (including approval of network prices by the AER) and efficient market prices.
 - End-of-period true-up for energy costs associated with out-of-cycle production requests from Sydney Water, including for emergencies. As it is neither prudent nor efficient to fully hedge all potential supply requests in advance, this approach allows efficient cost recovery while providing Sydney Water with appropriate signals regarding the cost of production variations.
- For the 2027-32 regulatory period, SDP proposes benchmark energy consumption allowances of 3,377 MWh/ML for variable energy use and 28.12 MWh/day for fixed energy use in 2027-28. These allowances reflect lower consumption levels than the current settings and incorporate annual efficiency improvements of 0.5% for variable energy consumption and 0.3% for fixed energy consumption over the 2027-32 regulatory period. Further year-on-year reductions would apply throughout the regulatory period, ensuring customers continue to benefit from ongoing efficiency improvements.

7.1 Overview of our proposed approach to setting the unit cost of energy for the 2027-32 regulatory period

Our existing energy GGRP supply contracts are scheduled to expire in 2029-30, such that this is the first regulatory period in which those contracts will not be in place for the entire period. A critical part of IPART determining the appropriate pricing arrangement for the period after those contracts expire is determining how best to maintain the position required by the ToR (that the structure of prices should encourage SDP to be financially indifferent as to whether or not it supplies water),²⁰ while recognising that SDP's energy procurement is required to accommodate the flexible production requirements from Sydney Water that are part of the operating model in the parties' current water supply contract²¹ and SDP's Operational Approval.²²

This will enable SDP to utilise updated information on Sydney Water's APR for the period beyond the current contracts (rather than locking in long-term arrangements well in advance).

Figure 21: SDP will transition to new energy procurement arrangements during RP4



This approach has been informed by SDP's customer and stakeholder engagement program. Sydney Water and our CAP supported an approach that balances affordability, price certainty, and flexibility to respond to changing production requirements. Consistent with this feedback, SDP will seek to align its procurement sampling windows with IPART's benchmark energy price to reduce 'mismatch' between setting of benchmark energy price allowances and procurement of energy - akin to SDP's management of this risk for the cost of debt. For this later period of the next Determination, this approach would maintain the incentives for efficient behaviour during the regulatory period created by the current IPART benchmark approach.

To reflect this transition, the proposed benchmark approach to setting the unit cost of energy distinguishes between the period before and after the expiry of these contracts, recognising that energy procurement arrangements and associated costs are expected to differ across the regulatory period. This is also reflected in the proposed 'tools' to manage cost and revenue uncertainty given energy costs are material and particularly for the period beyond June 2030, difficult to forecast, yet beyond the control of the benchmark firm given they are driven by market and regulatory outcomes. Where relevant, the proposed approach has sought to draw on recent IPART precedents, particularly the IPART decision relating to "adopting an energy cost true-up covering benchmark wholesale, network and renewable energy policy cost components of the energy price"²³ in the 2026 WaterNSW Broken Hill Pipeline Determination. This includes a focus on updating benchmark energy prices to reflect changing policy, regulation and market conditions.

20. Terms of Reference to IPART from The Hon. Kevin Anderson MP, Minister for Lands and Water, Minister for Hospitality and Racing, 16 June 2022, Pricing Principle 4.

21. Sydney Desalination Plant Water Supply Contract as amended by Deed of Amendment and Restatement dated 28 November 2023, clause 4

22. Operational Approval no. 25_0510A Sydney Desalination Plant, C3.4

23. IPART, Review of prices for WaterNSW's Murray River to Broken Hill Pipeline services from 1 July 2026, Final Report, 2026, p 40.

For the period following the expiry of the GGRP contracts, when SDP is no longer required under its Project Approval to procure energy through those specific arrangements, SDP considers that the broad retail energy cost build-up methodology adopted by IPART in the 2023 Determination remains appropriate and continues to provide a robust framework for estimating the prudent and efficient cost of energy. SDP proposes to retain the broad benchmark methodology, while updating key assumptions to better reflect the costs of a prudent energy procurement strategy in SDP's circumstances. In particular, the updated framework recognises the costs a prudent retailer would incur in using option contracts to manage variations in load arising from Sydney Water's six-monthly APR review process and adopts annual in-period updating of benchmark wholesale energy prices to better align benchmark allowances with prevailing market prices at the time energy is procured.

A summary of the benchmark energy cost proposals is provided in Table 33. It sets out the:

- basis or approach for estimating each of the components of the retailer 'cost-stack' over the 2027-32 regulatory period; and
- the mechanism for efficient sharing of key risks with Sydney Water that are beyond the ability of a benchmark firm in SDP's circumstances to manage - consistent with the ToR and IPART's approach in other determinations.

Table 33: Summary of approach to forecasting the unit cost of energy for the 2027-32 regulatory period

Component	Setting of energy benchmark	Adjustment mechanism
Wholesale energy costs (incl. energy losses)	Before 1 July 2030 – Cost allowances should be based on the prices payable under the GGRP contracts consistent with Pricing Principle 7A of the ToR, plus a benchmark allowance for energy losses and unaccounted for energy (UFE). GGRP contracts allow SDP to acquire as much electricity as required to meet Sydney Water's production requests at a fixed price, avoiding exposure to underlying volatility in electricity wholesale prices.	The EAM should continue to share any gains or losses from the sale of surplus energy relative to the GGRP contract fixed prices until expiry of the GGRP contracts, consistent with the ToR.
	From 1 July 2030 – Market based benchmark price that is based on swaps for the initial APR value, and options to cover potential 6-monthly variation to the APR.	The benchmark price of wholesale energy in meeting Sydney Water's APRs would be updated annually in-period by reference to independently published market benchmarks (refer to Frontier Economics report in Attachment 8 for further information on how the benchmark price would be updated). This provides more up-to-date cost reflective price signals to inform Sydney Water's operational decisions. Where Sydney Water requests production profiles outside the profiles agreed through the APR and 6-monthly revisions, prevailing energy prices (higher or lower than benchmark price) should be taken into account in Sydney Water's operational decision-making, with prudent and efficient incremental costs (or cost savings) subject to an end-of-period true-up by IPART.

Component	Setting of energy benchmark	Adjustment mechanism
Renewable energy certificate costs	Before 1 July 2030 – Cost allowances should be based on the prices payable under the GGRP contracts consistent with Pricing Principle 7A of the ToR. GGRP contracts allow SDP to acquire as many renewable electricity certificates as required to meet Sydney Water's production requests at a fixed price, avoiding exposure to underlying volatility in certificate prices for energy consumed.	The EAM should continue to share any gains or losses from the sale of surplus electricity and Large-scale Generation Certificates (LGCs) relative to the GGRP contract fixed prices until expiry of the GGRP contracts, consistent with the ToR.
	From 1 July 2030 - Market based benchmark costs for Renewable Electricity Guarantee of Origin (REGO) certificates to meet SDP's renewable obligations including compliance with the Energy Savings Scheme (ESS).	Symmetrical end-of-period true-up for movements in the benchmark renewable energy price and network costs in meeting Sydney Water's APRs. The true-up would use observed and updated market and regulatory parameters. The resulting updated benchmark costs would be compared to the allowance in the Determination to calculate annual over/under-recovery and then aggregate adjusting for the time value of money. SDP would then recover (or 'payback') this amount in the period following the 2027-32 regulatory period. (Refer to Frontier Economics report in Attachment 8 for further information on how this adjustment would operate)
Network	Benchmark cost (including for second 132kV feeder) based on peak demand and volume forecasts informed by historical outcomes with ongoing efficiency improvements, and estimated network charges levied by Ausgrid.	
Subordinate costs	Benchmark cost covering subordinate costs e.g. ancillary service charges, market fees, and metering and data costs based on best available information.	No specific mechanism/tool proposed given likely not material cost i.e. end-of-period true-up leaves benchmark allowance unchanged.
Retail operating costs & margin	Benchmark price covering retail operating costs (\$/year) and retail margin (% of other retailer costs including wholesale, renewables, network, and subordinate costs)	No specific mechanism/tool proposed given this component is not volatile or a material cost i.e. end-of-period true-up leaves benchmark allowance (in % terms) unchanged.

The proposed approach to post 1 July 2030 pricing is consistent with ToR Pricing Principles 1 (prices set so that expenditure revenue will recover all efficient costs), 4 (prices structured to encourage SDP to be finally indifferent as to whether it is supplying) and 7 (charges for water supply should reflect all efficient costs that vary with output, including variable energy). A summary of the proposed benchmark energy prices for the 2027-32 regulatory period is provided in Table 34.

Table 34: Benchmark energy costs in the 2027-32 regulatory period (\$2026-27)

	2027-28	2028-29	2029-30	2030-31	2031-32
Fixed energy cost (\$/day)	9,075.36	8,954.33	9,358.17	12,974.22	14,019.04
Variable energy cost (\$/MWh)	■	■	■	■	■

Note: Fixed energy costs include an estimate of forecast network costs (including for a second 132kV feeder) based on historical peak demand and estimated network charges levied by Ausgrid. Given uncertainty over network charges SDP is proposing these network costs be subject to an end-of-period true-up.

Our proposed energy cost allowances based on assumed production of 38GL per year are provided Table 35.

Table 35: Proposed total energy operating costs in the 2027-32 regulatory period (\$2026-27, millions)

	2027-28	2028-29	2029-30	2030-31	2031-32
Total energy cost	26.60	26.38	26.40	22.31	25.14

Note: Forecasts based on assumed production of drinking water of 38GL per year. Forecast energy costs include an estimate of network costs (including fixed daily charge for a second 132kV feeder expected to be commissioned in Quarter 1 2028) based on historical peak demand and estimated network charges levied by Ausgrid. Given the uncertainty over network charges SDP is proposing these network costs be subject to an end-of-period true-up. SDP is also proposing an adjustment to energy cost allowances for 2030-31 and 2031-32 covering the wholesale components (in-period adjustment for movements in future prices for APRs, and end-of-period true-up to manage the incremental cost of emergency response) and renewable components (end-of-period true-up) of the benchmark price.



7.2 How stakeholders have influenced this proposal

Sydney Water continues to support the position that IPART's allowance for the unit cost of energy reflect SDP's actual energy costs under the GGRP contracts through to the expiry of those contracts (other than costs related to surplus energy in relation to which the EAM applies). This has remained Sydney Water's position over three regulatory periods to date (from 2012 to 2027), despite market prices shifting above and below the long-term prices in the GGRP contracts.

The CAP emphasised that, following the expiry of SDP's existing GGRP energy contracts, SDP should seek to minimise guaranteed energy costs to customers through prudent procurement closer to the time energy is required. The CAP also recommended that SDP retain flexibility to respond to changing production requirements in accordance with its Operating Approval obligations by aligning contracted energy volumes with production needs and continue to procure genuinely renewable energy.

The CAP also encouraged SDP to pursue efficiency opportunities to lower energy costs and identify additional revenue streams where any benefits are shared with customers. In this regard, the CAP's final recommendations on energy included the following:

"In developing its proposal, SDP should:

- a. look to minimise guaranteed cost to customers when procuring energy from 2030 onwards, through prudent contracting occurring closer to 2030,*
- b. when contracting, consider the following factors when deciding how much energy to lock in:*
 - i. lock in only the energy necessary to deliver required minimum annual production,*
 - ii. otherwise minimise the locked-in cost to customers,*
 - iii. retain flexibility to respond to Sydney Water's other production requests and broader system needs, and*
 - iv. use an approach that aligns contracted demand with production requirements, in the interests of balancing flexibility, certainty and cost.*
- c. most efficiently procure genuinely renewable energy as outlined in its licence, whatever its source or procurement structure." (emphasis added)*

SDP's proposed approach directly reflects this feedback. Rather than fixing benchmark energy prices for the entirety of the 2027-32 regulatory period in advance, SDP proposes to update benchmark prices annually, closer to the time energy is procured and in alignment with Sydney Water's APRs. This approach ensures that energy procurement remains aligned with expected production requirements, reducing the risk that customers incur unnecessary forward premiums for energy that may not ultimately be required. By updating benchmark prices and volumes over time, the framework also ensures that procurement decisions remain responsive to evolving production requirements, consistent with the CAP's recommendation that contracted energy volumes be aligned with operational needs.

The CAP also highlighted the importance of balancing cost minimisation with operational flexibility. SDP's proposed framework reflects this objective by using option-based products to provide flexibility around production changes that may arise following Sydney Water's mid-year APR review. This approach allows SDP to retain flexibility heading into the more volatile summer period while avoiding the costs associated with fully hedging all possible future production outcomes. Consistent with the CAP's feedback, SDP does not propose that customers fund extensive up-front hedging for uncertain or infrequent production changes. Instead, where production requirements change outside the ordinary APR process, including in response to emergency requests (which it is obliged to under its Operational Approval and Water Supply Agreement with Sydney Water), SDP would continue to work collaboratively with Sydney Water to identify the lowest-cost approach to meeting those requirements.

Sydney Water's feedback was closely aligned with the views expressed by the CAP. Sydney Water highlighted the importance of ensuring that SDP's future operating and procurement arrangements balance cost efficiency with resilience, reliability and operational flexibility. In particular, Sydney Water emphasised SDP's role in supporting Greater Sydney's water security objectives and noted that operational arrangements should remain sufficiently flexible to respond to emergencies, maintenance events and changing production requirements. Sydney Water also noted that revisions to the Annual Baseline Production could enable SDP to optimise energy efficiency and confirmed that energy costs remain an area of active discussion between the parties. In this regard, Sydney Water stated:

"Since SDP's shift from 'drought response' to flexible full-time operation, Sydney Water has relied on SDP to play a greater role in Greater Sydney's water supply, during emergencies and critical maintenance events in accordance with the SDP Decision Framework. In general, any proposed changes to SDP's expenditure or service levels should carefully consider trade-offs between cost, performance, and risk, including impacts on SDP's ability to meet Sydney Water's Emergency and Fixed Production Day production requests." (emphasis added)

SDP's proposed approach seeks to minimise energy costs where production requirements can be reasonably forecast while retaining flexibility to respond to changing operating conditions. Costs are minimised by updating benchmark energy prices annually rather than locking in material forward premiums over an entire five-year regulatory period, and by only procuring hedge protection where it is required to manage the production changes that may arise through the APR review process embedded in SDP's Operating Licence.

At the same time, the proposed framework preserves flexibility to respond to Sydney Water's operational requirements (and meeting SDP's contractual and regulatory obligations to do so). SDP proposes to retain flexibility to adjust production profiles when setting the APR and through the mid-year APR review process. SDP also proposes to retain full flexibility to respond to emergency production requests. However, rather than requiring customers to pay up-front for a fixed quantity of emergency response hedging that may never be used or may prove insufficient during an actual emergency, SDP proposes that the costs associated with emergency production be recovered through end-of-period true-up arrangements, subject to IPART review. SDP considers this to be the prudent and efficient means of balancing flexibility, customer costs and uncertainty regarding the scale and duration of future emergency events.

Both the CAP and DCCEEW highlighted the importance of continuing to procure genuinely renewable energy. SDP proposes to continue procuring certified renewable energy consistent with its Planning Approval obligations and applicable NSW and Commonwealth Government requirements following the expiry of its existing GGRP contracts. However, there is significant uncertainty regarding the future design and cost of renewable certification arrangements post-2030. There is also significant uncertainty relating to cost recovery arrangements for major network infrastructure to support the renewable energy transition. Given these risks are beyond the control of SDP, or any benchmark firm in SDP's circumstances, SDP proposes an end-of-period true-up for renewable energy policy (environmental) and energy network cost components of the benchmark energy price. This approach ensures customers pay no more, and no less, than the efficient cost of complying with SDP's renewable energy obligations.

Finally, the CAP encouraged SDP to pursue opportunities to lower energy costs and identify additional revenue streams where any resulting benefits are shared with customers. In response, SDP has incorporated challenging energy efficiency targets into its proposal and committed to investigating opportunities to generate additional revenue under the proposed regulatory benefit-sharing arrangements. SDP also evaluated opportunities for on-site solar generation and battery storage. The assessment concluded that the current business case for these investments is marginal and found that the largest solar generation installation that could be installed at the Plant would only provide up to 2% of the Plant's energy needs. Accordingly, and consistent with stakeholder feedback and SDP's objective of minimising customer costs, SDP has deferred these investments to a future regulatory period.

7.3 Background and context for energy

7.3.1 The importance of energy in desalination

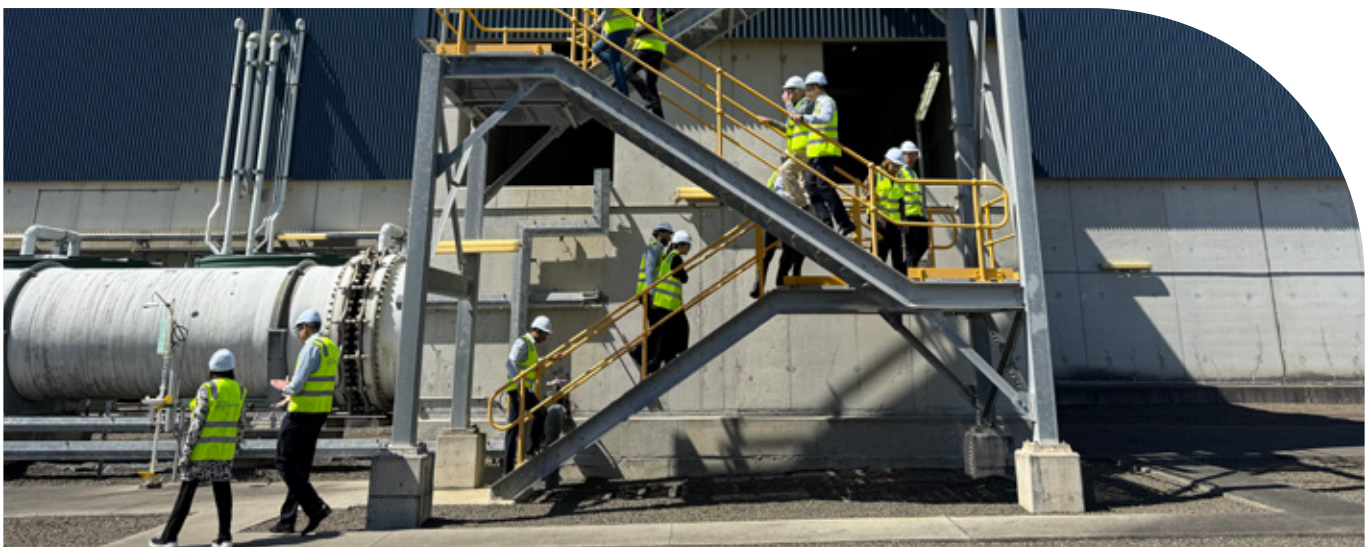
RO desalination is highly energy intensive. As a result, energy consumption represents the single largest and most variable component of SDP's opex. Pricing principle 7 in the ToR recognises that by providing the charges should reflect all efficient costs that vary with output, including variable energy costs. Energy costs therefore play a central role in determining SDP's efficient cost base and, ultimately, the cost of producing drinking water supplied to Sydney Water and its customers.

SDP's approach to energy procurement is shaped by its environmental approval framework. Under the Environmental Planning and Assessment Act 1979, the Project Approval for SDP required the preparation and approval of a Greenhouse Gas Reduction Plan (GGRP) prior to the commencement of operations. The GGRP details a strategic plan to manage, minimise and offset greenhouse gas emissions associated with the Plant's electricity consumption. Critically, it includes a requirement that Sydney Water (and now SDP) source electricity from 100% renewable energy. This obligation has fundamentally influenced SDP's historical approach to energy procurement, including reliance on long-term renewable energy contracts, and will continue to influence decisions regarding future energy contracting, hedging and risk management arrangements.

Managing energy costs is a core focus for SDP. It involves two interrelated objectives.

- First, SDP seeks to operate the Plant in a manner that meets Sydney Water's production requests (and SDP's related obligations under its Operational Approval and Water Supply Agreement with Sydney Water) at the lowest sustainable cost. SDP manages operating profiles, maintenance scheduling and energy use efficiency to optimise overall energy cost efficiency. These activities are guided by our Cost Efficiency Strategy, which supports the ongoing identification and implementation of operational efficiencies.
- Second, SDP must procure energy efficiently in an environment characterised by uncertainty in both wholesale electricity prices and renewable energy certificate markets. This is a major challenge for the 2027-32 regulatory period because SDP's existing long-term GGRP contracts will expire in 2030 at the same time as transformational change is taking place in the Australian electricity market and the Federal Government's renewable certification framework. SDP also faces highly uncertain network costs (including for the second 132 kV feeder) with these charges determined by Ausgrid and approved by the AER. The cost recovery arrangements for major network infrastructure to support the renewable energy transition are significantly uncertain and could impact Ausgrid's network charges.

Efficient management of energy procurement is essential to ensure that SDP can continue to meet customer expectations and its Operational Approval obligations, including 100% renewable electricity use.



7.3.2 Our existing energy contracts

As required by the approved GGRP, Sydney Water at the time entered into contracts with Infigen Energy (now Iberdrola Australia) to acquire electricity and renewable energy certificates (RECs) under an Electricity Services Agreement (ESA) and Renewable Services Agreement (RSA) respectively. There was also a Project Deed entered into for the construction and operation of the Capital Wind Farm to supply renewable energy to SDP. These agreements are known as the GGRP Contracts. They provide SDP with the electricity to operate the Plant flexibly in response to Sydney Water production requests and by providing Large-scale Generation Certificates (LGCs) produced by the Capital Wind Farm that enables SDP to meet its obligation that the Plant be powered by 100% renewable energy. The requirement to procure electricity from 100% renewable resources was not simply a general requirement, but a requirement to procure electricity in a particular way as prescribed in the GGRP through the GGRP Contracts.

Key features of the GGRP Contracts include:

- a requirement that SDP purchase a Minimum Annual Volume amount of 338,400MWh of electricity at a base price fixed as of 31 December 2007 and escalated annually at CPI, and
- a requirement that SDP purchase a Minimum Annual Volume of LGCs equivalent to 180,000 MWh of electricity created by Capital Wind Farm.

The GGRP Contracts were established following a competitive tender process undertaken by Sydney Water and are consistent with the energy procurement practices of most major energy users. These contracts were and remain, a core component of SDP's Project Approval obligations. Compliance with the GGRP forms part of SDP's ongoing legal obligations under the Project Approval and the GGRP requires SDP to acquire electricity and renewable energy certificates through the contracts identified in the GGRP until their expiry.²⁴

The initial design of the Plant was for drought response. This would involve the Plant operating at maximum production or being in standby mode (rather than flexible operation with frequent and sometimes rapid changes in production). The GGRP contracts met SDP's Project Approval renewable energy use obligations and provided a valuable long-term hedge against volatility in the price of electricity and renewable electricity for potentially large volumes of electricity if the Plant was operating at maximum production during drought. This, in turn, contributed to a stable and predictable price for energy.

SDP now operates in a materially different environment. Following changes to its Operating Licence in 2023, the Plant is required to remain operationally available year-round, rather than being maintained in standby mode outside of drought conditions. The Plant is now integrated more flexibly into Sydney Water's supply system and may be required to operate across a broader range of production levels, and to increase or reduce production quickly to support Sydney Water in managing water supply reliability, security or quality.

Retaining the GGRP contract arrangements through to their expiry in 2030 remains a Project Approval requirement. This is reflected in the Minister's ToR to IPART for its determination of SDP's prices, including Pricing Principle 7A, which explicitly recognises the existence of the GGRP contracts and the need for SDP to recover the efficient costs incurred in complying with them. As discussed in the next section, SDP has assessed future options in consultation with the CAP, Sydney Water and DCCEEW.

24. SDP's legal obligation to comply with the GGRP is explained in a confidential attachment to this proposal.

7.3.3 The need to enter new energy procurement arrangements from 2030 onwards

To continue power supply to the Plant once the GGRP contracts expire, SDP will implement new energy procurement and hedging arrangements.

SDP has sought expert advice from energy market experts, Baringa on the range of potential procurement strategies available to a benchmark firm in SDP's circumstances after regulatory year 2029. These circumstances mean that any procurement strategy would need to satisfy several critical objectives including:

- Prudently and efficiently manage the long-term energy costs of meeting SDP's Operating Licence and Operational Approval obligations;
- continue to provide 100% renewable electricity in accordance with SDP's Project Approval requirements and evolving renewable energy certification frameworks (including the REGO framework or any additional State or Federal Government obligations placed on SDP beyond 2030);
- support operational flexibility by enabling SDP to respond efficiently to changes in production requirements, consistent with Sydney Water's Decision Framework, SDP's Operating Licence and Operational Approval, and DCCEE's expectations regarding adaptive operation of the Plant;
- minimise customers' exposure to wholesale electricity, renewable certificates and other energy market price risks, whilst still ensuring efficient and transparent price signals to influence production request decisions;
- minimise volume risk associated with variability in SDP's energy consumption and production profile, recognising the uncertainty associated with future operating patterns and water demand requirements;
- deliver energy services at the lowest sustainable cost to customers, while balancing affordability, price certainty and appropriate risk management outcomes;
- support the benchmark firm's long-term financial sustainability, including by limiting adverse impacts on financeability metrics and ensuring that prudent and efficient costs can be recovered;
- reflect the outcomes of consultation with key stakeholders, including Sydney Water, DCCEE, customers and other stakeholders, and appropriately balance their objectives and expectations; and
- operate within a credible and workable regulatory framework that is transparent, administratively practical and consistent with IPART's Water Regulation Handbook.

SDP and Baringa assessed a long list of procurement strategies against the objectives above before shortlisting several benchmark procurement options and conducting detailed financial and operational feasibility analysis.

The most appropriate option depends on several factors including the trade-off between expected long-term costs, risk sharing between SDP's energy suppliers (e.g. retailers, who in turn may manage these risks through hedging contracts), shareholders and customer(s) (Sydney Water and ultimately its customers via IPART's Sydney Water Determinations), and operational flexibility. Through this analysis, SDP and Baringa sought to identify the option that best balances these considerations to deliver the best long-term outcomes for water customers; that is, consistent with a benchmark firm acting prudently and efficiently. This results in several specific risks being efficiently transferred or shared with retailers (with benchmark energy cost allowance reflecting the efficient cost of this prudent procurement strategy) and several specific risks remaining with the benchmark firm (residual risks) which may be shared with Sydney Water via the risk sharing arrangements in the SDP Determination. The expert reports from Baringa and Frontier Economics respectively address these issues in detail.

SDP's operating environment impacts energy procurement arrangements

Sydney Water's production requests have significant implications for energy procurement and risk sharing. Under SDP's Operating Licence requirements, Operational Approval requirements and the Water Supply Agreement:

- Sydney Water is required to issue SDP with an APR by 1 May each year, specifying the volume of drinking water to be supplied over the following financial year. APRs must be developed in accordance with Sydney Water's Decision Framework, which sets out how production decisions are made having regard to factors such as weather conditions, dam storage levels, broader system maintenance requirements, and SDP's own major maintenance and renewal activities. The APR issued by Sydney Water includes a profiling of the volume required each month. The APR will also include Fixed Production Days which are specific volumes requested to be achieved on specific days within a month.
- SDP is required to comply with an APR within a tolerance band of $\pm 10\%$. This establishes a binding production envelope over the year, within which SDP must plan and operate the Plant.
- Sydney Water reviews APRs every six months and may adjust a financial year's APR on 1 November in response to updated information (for example, changes in hydrological conditions or system requirements). In addition, APRs may be amended at other times by agreement between Sydney Water and SDP.
- In addition to APRs, Sydney Water may issue other production requests, including emergency response requests, short term monthly or weekly production adjustments, and Fixed Production Days. For these requests, SDP is required to use its best endeavours to comply, recognising the operational constraints of the Plant.
- SDP is not required to comply with any production request, including an APR, during the time and to the extent that compliance is prevented wholly or predominantly by events outside its reasonable control.

Sydney Water's production requests directly shape SDP's required output and timing of production, which in turn drives SDP's renewable electricity costs in an underlying renewable energy market where prices are highly time-sensitive. SDP's ability to adjust production in response to short term movements in energy prices is limited. Coordination with Sydney Water's production scheduling, the need to maintain readiness to respond to emergency water requirements, and the physical and operational constraints of the Plant mean that SDP cannot optimise production timing (hourly, daily, monthly or seasonally) solely based on prevailing or expected energy market conditions. Sequana's assessment of the Plant's operational flexibility found that higher levels of energy price-driven flexibility could create unacceptable service reliability and asset management risks. This constraint is a key consideration in the design of SDP's energy procurement strategy and the associated regulatory framework.

7.3.4 Energy markets are undergoing material change

In addition to the uncertainties related to Sydney Water's operational requirements reflected in the APRs, the energy market that SDP will operate within following the expiry of its current GGRP contracts is characterised by significant uncertainty. This uncertainty arises from three broad sources: volatility in wholesale electricity prices, uncertainty regarding future renewable energy certification arrangements, and structural changes underway in the National Electricity Market (NEM) because of the ongoing energy transition. As a result, it is neither practical nor efficient to 'set and forget' the efficient cost of energy procurement for the period 2030-32 several years in advance.

Wholesale electricity prices are inherently volatile and are influenced by a range of factors including fuel costs, generation availability, weather conditions, network constraints and electricity demand. Prices in the NEM can vary significantly over short periods and have historically experienced substantial fluctuations, including the elevated prices observed during 2022-23 arising from fuel market disruptions, coal generation outages and post-pandemic demand recovery. While prices have moderated since that period, wholesale electricity markets continue to exhibit significant short-term and long-term volatility.

Looking ahead, uncertainty is expected to increase as the NEM undergoes a period of substantial structural change. Australia's electricity system is transitioning from a generation fleet dominated by coal-fired generation to one increasingly reliant on renewable generation, storage and other firming technologies. This transition is being shaped by a range of evolving Commonwealth and NSW Government policies and investment schemes, including the Capacity Investment Scheme, Renewable Energy Zones (REZs) and Long-Term Energy Service Agreements. While these policies are intended to support the development of replacement generation and storage capacity, they also create uncertainty regarding the timing, location and commercial arrangements of future supply. At the same time, uncertainty remains regarding the timing of coal-fired generator closures, potential life extensions for existing plants, and the future role and cost of gas-fired generation in maintaining system reliability. As a result, wholesale market outcomes in the early 2030s remain extremely uncertain.

The evolving nature of the energy transition also increases the uncertainty associated with establishing efficient long-term energy costs. The further into the future prices are forecast, the greater the likelihood that actual market outcomes diverge from those forecasts. This reflects both uncertainty regarding underlying market fundamentals and uncertainty regarding future government policy interventions. Liquidity in electricity hedge markets declines materially for longer-dated products, with standard swap and cap products generally most liquid within a two to three-year timeframe. This limits the ability of market participants to efficiently hedge energy costs many years in advance and reduces confidence that long-dated forward market prices accurately reflect efficient future costs.

In addition to wholesale electricity price uncertainty, significant uncertainty exists regarding the future cost of renewable energy certification. SDP is required under its Planning Approval to operate using 100% renewable energy and therefore must procure renewable energy certificates in addition to electricity. The current Large-scale Renewable Energy Target framework, under which LGCs are issued, is scheduled to conclude in 2030. Following this transition, Renewable Energy Guarantee of Origin (REGO) certificates are expected to become the primary renewable certification mechanism. However, the REGO market remains nascent, with future pricing, liquidity and contracting arrangements yet to be established. Future certificate prices will depend on the evolution of voluntary demand for renewable certification and may also be affected by future policy developments relating to more granular forms of renewable energy matching. Consequently, understanding the efficient cost of renewable certification beyond 2030 remains highly uncertain.

Taken together, these factors mean that energy costs for the period 2030-32 cannot be forecast with a high degree of confidence several years in advance. The uncertainty is driven not only by future wholesale electricity prices, but also by ongoing changes to market structure, government policy and interventions, renewable energy certification arrangements and the availability and pricing of risk management products. These features of the energy market are relevant considerations in designing both SDP's future procurement arrangements and the associated regulatory framework.

Further information on expected changes in the energy market in the future are covered in Baringa's Energy Procurement Options Assessment report in Attachment 9.

7.3.5 The need to consider energy unit costs and forecast volumes

Assessing future energy costs requires explicit consideration of both:

- the forecast unit cost of energy consumed (expressed in \$/day and \$/MWh); and
- the forecast volume of energy consumed (MWh).

Both elements are required to derive total forecast energy expenditure. Given the expiry of the GGRP contracts during the 2027-32 regulatory period, SDP's proposed approach segments the assessment of energy costs into the period prior to 30 June 2030 and the period from 1 July 2030 onwards.

7.4 IPART's approach to energy cost allowances for the 2023-27 regulatory period

In its 2023 Determination, IPART largely retained the same approach to setting SDP's energy cost allowance that it had applied in previous regulatory periods.

7.4.1 Market-based benchmark for energy procurement costs

In meeting the Terms of Reference (Pricing Principle 7A) which explicitly recognises the existence of the GGRP contracts and the need for SDP to recover the efficient costs incurred in complying with them, IPART set SDP's energy allowance using a benchmark estimate of the efficient cost of procuring energy having considered the GGRP contracts.

This benchmark unit cost of energy (wholesale and renewable energy costs) has on average been above SDP's actual contractual costs over the 2023-27 regulatory period. The benchmark for the 2023-27 regulatory period was developed by Marsden Jacob Associates (MJA) and supported by IPART in its determination. The benchmark was intended to reflect the costs that a prudent and efficient retailer would incur to supply energy to a customer with SDP's highly variable load profile.

The 2023-27 benchmark comprised both fixed and variable components. The fixed component reflected the cost of maintaining the optionality required for SDP to operate across a wide range of production levels, including the cost of purchasing electricity swap contracts to hedge wholesale price risk. MJA considered that purchasing swaps for maximum forecast demand represented the most efficient strategy for managing wholesale electricity price risk given Sydney Water's ability to materially vary SDP's production requirements.

The benchmark also incorporated expected costs associated with renewable energy compliance, including the cost of LGCs and Small-scale Technology Certificates (STCs), as well as other cost stack components such as ancillary services, market fees, metering costs, and a retail margin.

7.4.2 Recovery of actual network costs through a pass-through arrangement

IPART determined that SDP should continue to recover its actual electricity network costs via a cost pass through mechanism that has been in place since the initial 2011 IPART determination (RP1).

This approach recognised the uncertainty associated with SDP's flexible operating regime and the difficulty of accurately forecasting future network costs. The network prices levied on SDP by Ausgrid and overseen by the AER are difficult to forecast accurately and are outside the control of the benchmark firm (as IPART has acknowledged in the context of energy network costs incurred by WaterNSW's in transporting water on the Broken Hill Pipeline).²⁵

The volume of energy, including the level of peak network demand, is also outside SDP's control given SDP has limited ability to influence when and how energy is consumed in responding to Sydney Water's production requests.

25. IPART, Review of prices for WaterNSW's Murray River to Broken Hill Pipeline services from 1 July 2026, Final Report, 2026, p.43.

7.4.3 Energy Adjustment Mechanism for surplus energy sales

The Minister's ToR initial to IPART for its determination of SDP's prices requires IPART to retain the Energy Adjustment Mechanism (EAM) to address gains and losses arising from the sale of surplus electricity and renewable certificates under SDP's GGRP contracts.

The need for the EAM arises because the GGRP contracts require SDP to purchase, at a minimum, 100% of its contracted electricity volumes and just over 50% of its contracted Large-scale Generation Certificates (LGCs), regardless of actual production. As a result, when the Plant operates below full capacity, SDP may be required to sell electricity and, in some circumstances, excess LGCs in response to its operational requirements. These surplus positions are sold into the market. Where market prices are below SDP's contractual purchase prices, SDP incurs losses on the sale of surplus electricity and LGCs. Conversely, where market prices exceed contractual prices, SDP generates gains from these sales.

The EAM shares gains and losses arising from the sale of surplus electricity and LGCs that fall outside a specified core band between SDP and its customers. IPART previously considered that this sharing approach achieved an appropriate balance between risk allocation and incentives. It protects customers from significant windfall gains or losses associated with movements in energy markets, while preserving incentives for SDP to manage its energy portfolio and maximise value from the sale of surplus energy and renewable certificates.





7.5 Principles for setting SDP's energy cost allowance for the 2027-32 regulatory period

The approach used to develop an allowance for the unit cost of energy for the 2027-32 regulatory period should reflect the guidance and principles in the ToR, including SDP's ability to recover all costs it incurs in complying with the GGRP and broader regulatory objectives including promoting efficiency in SDP's supply of services and sending efficient price signals to customers.

In developing this framework, SDP has considered:

- IPART's regulatory objectives and precedents including IPART's preference for benchmark cost allowances where possible and energy risk management mechanisms where IPART is confident they meet its CPT principles²⁶; and
- SDP's unique circumstances including SDP's operating regime and the transition that will occur when the existing GGRP contracts expire in 2030. The benchmark allowance should be set with reference to SDP's circumstances (as efficiency is measured by reference to a benchmark firm in those same circumstances).

SDP considers that the following principles should guide the development of an allowance for the unit cost of energy for the 2027-32 regulatory period.

7.5.1 Provide appropriate incentives for prudent energy procurement and risk management

The regulatory framework should encourage SDP to actively manage energy procurement risks and pursue efficient procurement strategies over time. Energy costs are one of SDP's largest operating cost categories and are subject to considerable uncertainty due to movements in wholesale electricity markets, renewable certificate markets and the permitted flexibility in Sydney Water's production requests.

A forecasting approach that removes all exposure to energy procurement risks could weaken incentives for SDP to efficiently manage these risks. Conversely, a forecasting approach that places excessive risk on SDP may expose the business to factors that are largely outside its control (creating windfall gains and losses) which could increase financing and/or customer costs.

The objective should therefore be to establish an energy cost allowance that rewards prudent procurement and risk management decisions while ensuring customers are protected from inefficient costs. That is consistent with the requirement in the ToR that prices should be set to generate expected revenue that recovers the efficient costs of providing the services.

26. For example, IPART stated that energy cost true-up mechanism proposed by WaterNSW was consistent with IPART's true-up and cost pass-through principles because (amongst others) the 'trigger events' are clearly defined and externally determined, the impact on efficient costs can be transparently calculated using public data, the potential impact is material, given the size and volatility of these components, the costs are beyond the control of the business as they are market and regulatory outcomes, and the mechanism is symmetric. IPART, Review of prices for WaterNSW's Murray River to Broken Hill Pipeline services from 1 July 2026, Final Report, 2026, p43.

7.5.2 Benchmark prices should be capable of being matched or achieved by SDP acting prudently & efficiently

Any benchmark energy price adopted by IPART needs to reflect SDP's circumstances. This consideration is particularly important for SDP because, unlike many large industrial energy users that can choose when to produce and consume energy, the timing and volume of production driving SDP's electricity consumption is determined by its customer, Sydney Water's, production requests. SDP must comply with Annual Production Requests (within a +/-10% band) and use its best endeavours to comply with other production requests issued under the Operational Approval and Water Supply Agreement. As a result, SDP has limited ability to alter production patterns in response to changing electricity prices or market conditions.

Benchmark prices should therefore reflect the procurement strategies and risk management arrangements that are realistically available to a business acting prudently under these constraints, rather than those available to a business that can freely adjust electricity consumption in response to market signals.

Benchmark prices that are not achievable by SDP acting prudently would undermine the principle of efficient cost recovery as reflected in the ToR and expose SDP to risks that cannot be efficiently managed.

7.5.3 Energy prices should reflect SDP's renewable energy obligations

Another principle for setting SDP's energy cost allowance is that it should reflect the costs of complying with SDP's renewable energy obligations. As noted above, under its Project Approval and associated GGRP Contracts, SDP is required to procure electricity from renewable energy sources.

While the current GGRP Contracts remain in place, compliance with this obligation requires SDP to procure electricity under those contracts.

This obligation has materially influenced SDP's historical energy procurement arrangements and will continue to influence future procurement strategies following the expiry of the current contracts.

Accordingly, any benchmark energy price should include the efficient costs associated with complying with renewable energy obligations, including the acquisition of renewable energy products and certificates where required.

Failure to reflect these obligations would result in benchmark prices that are not representative of the costs faced by a prudent and efficient desalination business operating under SDP's regulatory framework.



7.6 Wholesale and renewable costs

7.6.1 Approach to setting allowance prior to expiry of GGRP contracts

For the period until the expiry of the existing GGRP Contracts, SDP proposes that its energy cost allowances should be based on the prices payable under those contracts. This approach is appropriate for the following reasons.

7.6.1.1 SDP has a legal obligation to purchase energy through the GGRP contracts

SDP is legally required to procure electricity and RECs through the GGRP contracts. Compliance with the GGRP forms part of SDP's ongoing statutory obligations under the Project Approval. The GGRP identifies the electricity supply and renewable energy certificate contracts entered into following Sydney Water's competitive tender process as the means by which SDP is required to satisfy its commitment to operate using 100% renewable energy. The GGRP requires SDP to acquire electricity and renewable energy certificates through those contracts until their expiry in 2030. As a result, SDP does not have discretion to procure its energy requirements through alternative arrangements while the contracts remain in force. The costs incurred under the GGRP contracts are therefore unavoidable costs of providing regulated services and should be reflected in the energy cost allowance.

7.6.1.2 The GGRP contracts are prudent and efficient

The GGRP Contracts were entered into following a competitive procurement process and reflected the efficient market terms available at the time they were executed. The contracts were designed to secure long-term renewable energy supply, manage price risk and deliver certainty for customers. They therefore represent a prudent and efficient response to SDP's energy procurement requirements. The fact that market prices may subsequently diverge from the contracted prices does not alter this conclusion. Regulatory allowances should recognise the efficient costs resulting from prudent decisions made at the time those decisions were taken, rather than reassessing those decisions with the benefit of hindsight.

This conclusion is supported by the independent ACIL Allen report, which found that the GGRP Contracts reflected the efficient cost of renewable generation capacity available at the time of SDP's commissioning, were comparable to other renewable energy PPAs executed during the same period and provided an appropriate mechanism for satisfying SDP's planning approval requirements while reducing customer exposure to electricity and renewable energy price volatility. ACIL Allen further concluded that the bundled contract price was efficient when compared with other observable PPAs available at the time the contracts were executed.²⁷

7.6.1.3 The proposed approach is consistent with Pricing Principle 7A

Pricing Principle 7A requires IPART to consider SDP's ability to recover the costs incurred in complying with the GGRP and the GGRP Contracts (excluding costs associated with surplus energy to which the EAM applies). The most direct and transparent means of giving effect to this principle is to base the energy cost allowance on the prices payable under the contracts themselves. Doing so ensures that SDP can recover the efficient and unavoidable costs that it is legally required to incur, while providing customers with a clear and predictable link between regulated prices and underlying energy procurement costs.

27. A copy of ACIL Allen's report was provided with our 2023-27 pricing proposal and is available on IPART's website.

7.6.1.4 IPART's 2023 determination

In its 2023 Determination, IPART based the energy cost allowance on a market-based benchmark of efficient energy costs for the 2023-27 regulatory period.

However, it did recognise the importance of Pricing Principle 7A, which requires IPART to consider SDP's ability to consider all costs it incurs in complying with the GGRP and GGRP contracts, which are conditions of SDP's Project Approval. IPART stated:

"In our consideration of the pricing principle 7A, we assessed the potential for SDP to recover its costs in complying with the GGRP, and with the GGRP contracts, under the following two scenarios:

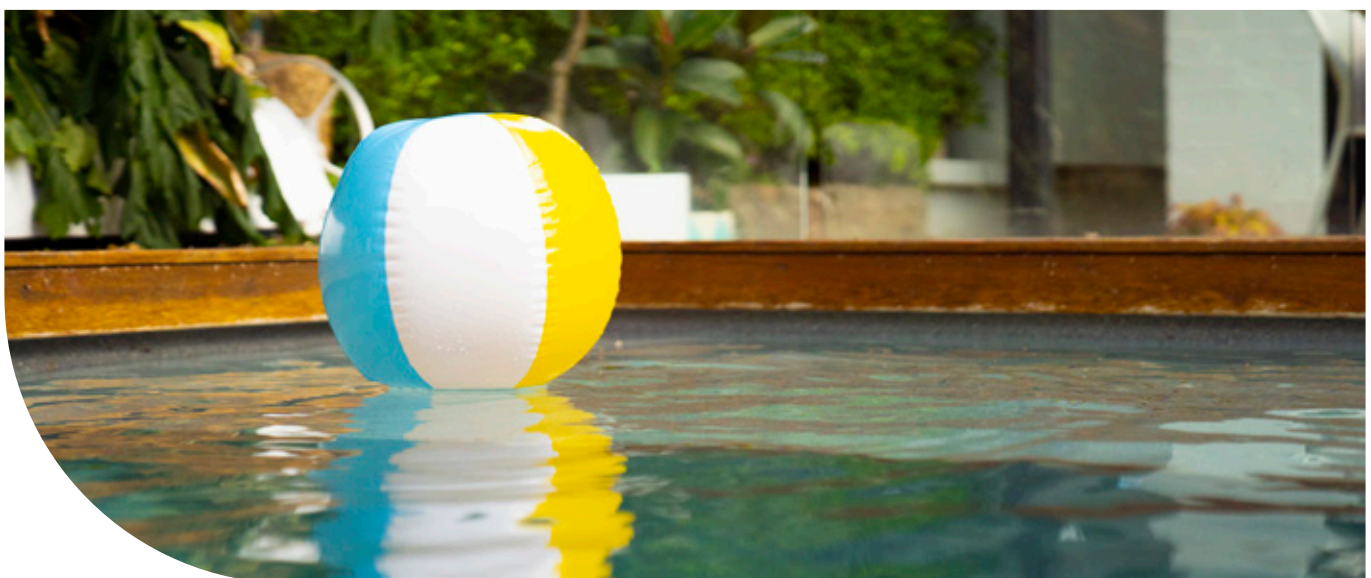
- 1. If we set SDP's energy cost allowance based on its actual GGRP contract costs, and*
- 2. If we set SDP's energy cost allowance based on a market-based benchmark.*

In relation to the first scenario, our assessment concluded that setting SDP's energy cost allowance based on its actual contract costs would, by definition, enable it to recover the costs it incurs in complying with the GGRP and GGRP contracts. In relation to the second scenario, our analysis of forecast and historical benchmark costs found that the benchmark approach would, to the extent reasonably foreseeable, also allow SDP to recover its costs in relation to the GGRP and the GGRP Contracts.

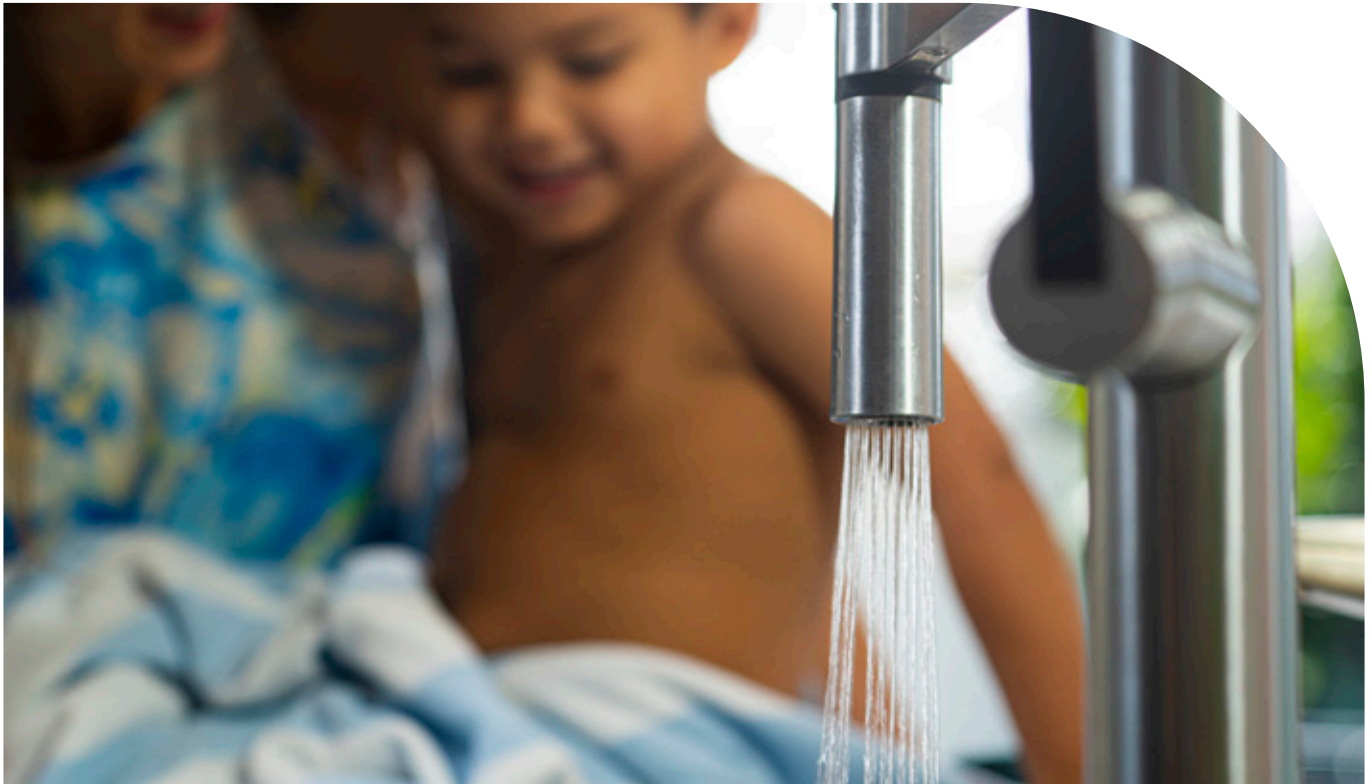
This analysis was supported by the forecast benchmark calculated for the 2023 determination period, which considers all foreseeable costs that SDP may incur in complying with the GGRP, and in procuring its energy from 100% renewable sources."²⁸

At the time of IPART's 2023 Determination, prevailing energy market conditions meant that a market-based benchmark could be used while still enabling SDP to recover the costs it incurred under the GGRP contracts. However, given the significant volatility in energy markets since then, it is uncertain whether forecast market prices at the time of the 2027 Determination will be above or below SDP's contracted renewable energy costs. As a result, it is no longer clear that setting the energy cost allowance by reference to benchmark market prices for 2027-28 to 2029-30 would enable SDP to recover the costs it is required to incur in complying with the GGRP and GGRP contracts.

IPART's 2023 Determination identified several valid reasons for preferring a market-based benchmark of efficient energy costs where this is practicable. These include promoting efficient procurement decisions, benchmarking costs against prevailing market outcomes and encouraging prudent management of energy procurement risks. SDP agrees that these principles are appropriate once the existing GGRP contracts expire and future procurement decisions are again within SDP's control.



28. IPART, Sydney Desalination Pty Ltd Review of prices to apply from 1 July 2023 – Final Report, June 2023, p.44.



However, there are compelling reasons why these principles are less applicable during the remaining term of the GGRP contracts. SDP is required to comply with the GGRP and associated contractual commitments, which materially constrain its ability to alter its renewable energy procurement arrangements in response to changing market conditions.

In these circumstances, a market benchmark provides limited additional incentives for efficient procurement, while creating a risk that SDP may not recover costs it is required to incur under the GGRP and GGRP contracts. It is these considerations that fundamentally underpin Pricing Principle 7A, which requires IPART to have regard to SDP's ability to recover the costs incurred in complying with the GGRP and GGRP contracts.

The position changes after 2029-30, when the existing GGRP contracts expire. At that point, SDP will once again be required to make decisions regarding its renewable energy procurement strategy and the rationale for a market-based approach becomes considerably stronger. Consistent with the principles identified by IPART in the 2023 Determination, SDP has worked with expert advisers, including Baringa and Frontier Economics, to develop a prudent and efficient market-based pricing framework for the post-2030 period.

The proposed approach is designed to replicate the outcomes of efficient market procurement while reflecting customer and stakeholder preferences identified through SDP's pricing proposal engagement program.

This should provide IPART with confidence that SDP will continue to face appropriate incentives to prudently and efficiently manage its renewable energy procurement following expiry of the GGRP contracts.

7.6.1.5 Stakeholder support

Sydney Water has consistently supported the use of SDP's actual GGRP contract costs when determining energy cost allowances across all three regulatory periods to date. Sydney Water recognises that the contracts represent committed costs arising from a prudent procurement process and considered that prices should appropriately reflect those costs. This longstanding support was recently restated, and reinforces the view that an allowance based on actual GGRP contract prices provides a more cost-reflective and transparent outcome for customers than a hypothetical market benchmark.

7.6.2 Approach to setting allowance after expiry of GGRP contracts

As the GGRP contracts expire in 2030, SDP will need to enter new energy procurement arrangements to efficiently manage price risk in responding to Sydney Water production requests and to meet its renewable energy obligations. The expiry of these contracts will fundamentally change SDP's energy cost risk profile.

Consistent with the principles underpinning IPART's preferred market-based approach, SDP has developed a benchmark energy cost forecast for the post-2030 period that is intended to replicate the costs that would be incurred by a prudent and efficient retailer providing these services to a business in SDP's circumstances. SDP considers there remains considerable merit in the broad cost build-up approach adopted by IPART in the 2023 Determination as it seeks to estimate the efficient costs that would be incurred by a prudent retailer managing SDP's energy requirements. Accordingly, SDP's proposed approach retains the key elements of this methodology, with targeted refinements to the benchmark approach to reflect market circumstances and SDP's operating requirements. These refinements preserve incentive properties within IPART's benchmark approach and promote efficient price signals being provided to Sydney Water for its operational decisions, while protecting end-customers from unnecessary price volatility.

This section sets out SDP's proposed benchmark forecast and the mechanisms by which it should be updated over time to ensure that it continues to reflect efficient market costs (to preserve the ToR requirement in pricing principle 1, to set prices so that expected revenue generated will recover efficient costs and principle 4 to maintain SDP's financial indifference as to its level of production).

We note that there is a short transitional period within the 2029-30 regulatory year, after the GGRP contracts expire and the start of the 2030-31 regulatory year. Our proposed approach to this transitional period is set out in the Frontier Economics expert report.

7.6.2.1 Benchmark wholesale energy prices

Following expiry of the GGRP contracts, benchmark wholesale electricity prices should reflect prevailing market conditions. Consistent with the principles adopted by IPART in its 2023 determination, benchmark prices should represent the best available estimate of the competitive market price of energy, provide efficient incentives for future energy procurement and ensure customer prices reflect the efficient cost of procuring energy. These all should reflect a benchmark firm in SDP's circumstances.

As noted above, under the Water Supply Agreement, Sydney Water issues APRs and may revise those requests part way through the year in accordance with the Operating Licence, Operational Approval and the Decision Framework. SDP is required to comply with the APR request within a tolerance band of $\pm 10\%$.

SDP engaged Baringa to undertake an independent assessment of alternative energy procurement approaches and identify a prudent and efficient approach for a benchmark firm in SDP's circumstances for the post-2030 period. Baringa's detailed report is provided in Attachment 9.

Baringa has advised that if a benchmark firm sought to contract with a sophisticated electricity retailer to manage this load requirement, the retailer would initially hedge the volume specified in Sydney Water's APR through forward swap contracts procured annually once the APR is known. These contracts provide a fixed price for the expected electricity load and largely eliminate wholesale electricity price exposure for that defined volume. Consistent with this procurement approach, SDP's proposed wholesale energy benchmark has been derived using forecasts of NSW electricity swap contract prices. These forecasts draw on currently available market information, including published NSW ASX electricity futures prices where available, together with market-based forecasting techniques where observable prices do not exist for the relevant period.

However, forward swap contracts alone would not fully manage the load variability inherent under SDP's Operating Licence, Operational Approval and Water Supply Agreement obligations. The mid-year APR review within SDP's Operational Approval allows Sydney Water to revise production requirements after 6-months in response to changing water demand and operational circumstances. The mid-year or 6-monthly review creates the potential for material changes in SDP's electricity requirements during the financial year compared to forecast requirements at the start of a year. To efficiently manage this variability, Baringa has advised that a sophisticated retailer would supplement its forward swap position with option contracts that

provide protection against both increases and decreases in required production volumes. This would be achieved through a combination of call and put options covering the range between minimum load, forecast load and maximum load. Such an approach provides an efficient mechanism for managing the volume flexibility required under the Operating Licence and the Decision Framework.

This approach to estimating a benchmark price based on the procurement strategy of a business in SDP's circumstances is analogous to the approach adopted by MJA in its review of SDP's energy costs for IPART's 2023 Determination. MJA recognised the need for the energy allowance to account for SDP's highly variable production profile and associated fluctuations in energy demand, noting that a prudent retailer would incur costs to provide the operational flexibility required for the Plant to operate across a wide range of production levels.

"The fixed price reflects the cost incurred by the prudent, efficient, retailer to provide the optionality for the Plant to operate across a wide range of water production and associated electricity demand."

The costs of these option contracts should be recognised as a prudent and efficient cost of supplying drinking water under SDP's Operating Licence and Water Supply Agreement obligations post-2030 and should be reflected in the benchmark energy allowance. Their purpose is to manage an operational risk that arises directly from SDP's obligation to respond to Sydney Water's APRs. Without option protection, the benchmark firm in SDP's circumstances would face significant exposure to spot market prices whenever production requirements differ from forecast levels likely breaching the financial indifference principle within the ToR (Pricing Principle 4) and failing to recover efficient costs likely breaching the recovery of efficient costs principles within the ToR (Pricing Principle 1 and 7). Option premiums represent the efficient cost of maintaining operational flexibility and ensuring that SDP can continue to meet its licence obligations while managing energy procurement risk. We note that IPART's existing benchmark methodology already recognises hedge premiums as a legitimate component of benchmark energy costs. Consistent with this approach, SDP considers that prudent option premiums should also form part of the benchmark energy allowance.

Baringa has developed forecasts of the benchmark wholesale energy costs for the period from 1 July 2030 to 30 June 2032, consistent with the approach described above.²⁹

SDP considers that the proposed framework provides an appropriate benchmark for the efficient cost of meeting the flexibility requirements under its Operating Licence and Water Supply Agreement obligations. However, consistent with feedback from stakeholders, SDP will undertake a robust competitive procurement process to ensure that it obtains the best possible energy contract outcomes. This would likely include retail suppliers leveraging their own generation facilities to provide physical hedges to meet the competitive market prices reflected in ASX swap and option prices. Our proposed benchmark approach to setting the wholesale energy cost allowance would provide strong incentives for SDP to contract prudently and efficiently.

However not all Sydney Water production-related risks can be efficiently managed through retailer hedging arrangements. Production changes that occur outside the APR and revised APR process (6 monthly), including monthly rescheduling requests, changes to Fixed Production Days (FPDs) and emergency production requests, are generally confirmed too close to delivery to support efficient forward hedging. Attempting to transfer these risks to a retailer would require customers to fund substantial flexibility premiums and maintain hedge positions that may never be utilised, resulting in higher expected costs. Baringa's expert report provides further detail on which risks can be efficiently transferred to retailers to form the basis of the benchmark energy cost allowance. Frontier Economics expert report provides further detail on how some of those risks can be efficiently shared with Sydney Water via annual in-period adjustments and end-of-period true-up of movements in the benchmark wholesale in meeting Sydney Water's production requests.

29. Further information on the methodology applied to develop our wholesale energy cost forecasts for the period 1 July 2030 to 30 June 2032 is provided in Baringa's separate report.

7.6.2.2 Benchmark renewable energy prices

SDP's forecasts of renewable certification costs have been developed on the basis that, following the expiry of the current GGRP contracts, compliance with its renewable energy obligations will be achieved through the purchase and retirement of renewable certificates under the emerging REGO framework. This approach reflects SDP's current obligations and the requirements most likely to apply from 2030 onwards. It does not assume compliance through more ambitious voluntary schemes, such as Climate Active, RE100 or SBTi-aligned hourly matching frameworks, nor does it assume that SDP contracts directly with a specific renewable generator or renewable project. The forecasts also include the expected costs of compliance with the NSW ESS.

This position has been shaped by stakeholder feedback received through the RP4 consultation process. Stakeholders recognised that SDP had already made a significant contribution to the renewable energy transition through the Capital Wind Farm arrangements established under the GGRP contracts. Neither Sydney Water nor the CAP expressed a preference for SDP to continue supporting additional renewable generation specifically through dedicated renewable Power Purchase Agreements (PPAs) or other forms of additionality beyond 2030. Rather, stakeholder feedback focused on ensuring that SDP continues to procure genuinely renewable energy while minimising costs to customers.

However, there remains considerable uncertainty regarding the future structure and cost of renewable certification markets. REGOs will replace LGCs as Australia's primary renewable energy certificate from 2030, but the market remains nascent and long-term pricing outcomes are uncertain. Unlike LGCs, REGOs are time-stamped and will support annual, quarterly, monthly or hourly matching of renewable generation and consumption. This creates the potential for differentiated certificate products or sub-markets to emerge over time, including certificates associated with particular periods of the day, periods of renewable scarcity, or more granular renewable matching requirements.

At present, SDP is not required under either NSW or Commonwealth policy to match renewable generation and electricity consumption on an hourly basis. However, future policy settings remain uncertain. More stringent renewable matching obligations could emerge over time, or governments and stakeholders may seek additional renewable outcomes if SDP's energy requirements increase materially in future. Such developments would materially affect the efficient cost of complying with SDP's renewable energy obligations. Accordingly, SDP's renewable energy forecasts are based on annual renewable matching, which is consistent with SDP's current obligations and the most likely application of the REGO framework following 2030.

Consistent with these assumptions, Baringa has developed forecasts of REGO and ESS costs based on current expectations regarding post-2030 renewable energy compliance requirements and the likely evolution of the renewable certification market.³⁰



30. Further information on the methodology applied to develop our forecasts of REGO and ESS costs for the period 1 July 2030 to 30 June 2032 is provided in Baringa's report.



7.6.2.3 Ensuring benchmark wholesale and renewable cost allowances reflect prevailing policy, regulatory and market conditions

As noted above, a central objective of the regulatory framework should be to provide appropriate incentives for prudent energy procurement and risk management.

This requires a clear distinction between outcomes that arise from SDP's procurement decisions and outcomes that arise from changes in external energy markets, which has limited ability to control or mitigate. Under SDP's proposed benchmark approach, SDP would continue to be incentivised to procure energy efficiently, as it would bear the consequences of procurement decisions that differ from those assumed by the benchmark. However, the benchmark itself should continue to represent the efficient cost that a prudent entity would face in the market at the time procurement decisions are made.

This is particularly important because IPART historically determines benchmark energy prices several years before those prices apply. The benchmark energy price is influenced by wholesale electricity prices, renewable certificate prices and other highly volatile market-based inputs that are outside SDP's control and inherently uncertain. As IPART recently noted in its WaterNSW 2026 Broken Hill Pipeline Final Decision:

“the trigger events (movements in wholesale, network and environmental benchmark prices) are clearly defined and externally determined...WaterNSW cannot influence the trigger events or their effects, as they are market and regulatory outcomes...[yet] the potential impact is material, given the size and volatility of these components”³¹

Actively traded hedging products are not available across the full regulatory horizon and therefore any benchmark price established at the commencement of the 2027-32 regulatory period will necessarily be based on forecasts rather than observed market prices.

31. IPART, Review of prices for WaterNSW's Murray River to Broken Hill Pipeline services from 1 July 2026, Final Report, 2026, p43.

As wholesale electricity and renewable certificate markets evolve, benchmark prices based on historical forecasts may diverge materially from prevailing market conditions, resulting in customer prices that no longer reflect the efficient cost of energy.

In these circumstances, mechanisms to ensure the benchmark wholesale and renewable cost allowances reflect prevailing policy, regulatory and market conditions will better promote cost reflectivity of prices for water supply services and reduce the risk of sustained divergences between efficient costs and prices for water supply services (which would be inconsistent with pricing principles 1 and 7 in the ToR). This in turn is critical to encouraging Sydney Water to make informed choices when ordering water from SDP³², and is consistent with the financial indifference principle in the ToR and the objective that benchmark prices should be capable of being matched or achieved by SDP.³³

At the same time, SDP should continue to bear the consequences of procurement decisions that differ from those of an efficient benchmark entity. The purpose of mechanisms to update the benchmark allowance is not to protect SDP from procurement risk, but to remove the effects of forecast error in benchmark energy prices. These outcomes would be unrelated to procurement performance and would risk benchmark prices becoming disconnected from the costs that an efficient and prudent market participant could reasonably achieve. Updating benchmark prices using contemporary policy, regulatory and market information ensures that the benchmark remains achievable, cost-reflective and aligned with prevailing market conditions, in line with the ToR, while preserving efficient incentives for prudent procurement and risk management.

Accordingly, SDP proposes mechanisms to update the benchmark wholesale, renewable energy and network prices using transparent and self-executing formulas. For the proposed in-period adjustment to the benchmark wholesale allowance of meeting Sydney Water's APRs, the benchmark price would be recalculated ex ante each year using observable market information, including one-year NSW ASX futures prices and ASX-traded options prices over a defined sampling period. This would ensure that the benchmark price used to set prices for water supply services in each year of the regulatory period reflects prevailing market and regulatory conditions rather than forecasts prepared several years earlier. For the proposed end-of-regulatory period adjustment for movements in the benchmark price of renewable energy policy (environmental) costs in meeting Sydney Water's APRs this would be recalculated ex post, also over a defined sampling period.

SDP notes that IPART recent precedent supports mechanisms to reconcile benchmark energy costs where differences arise due to factors outside the regulated business's control. In particular, IPART adopted a benchmark energy cost true-up for WaterNSW's Broken Hill Pipeline, recognising that regulated businesses should not bear the consequences of unavoidable forecasting error. The same principle applies to the benchmark firm in SDP's circumstances.

Further information on the proposal is set out below and further detailed in Frontier Economics report on the "Regulatory treatment of SDP's energy costs for 2027-32 regulatory period" in Attachment 8.

32. This in turn promotes competition between SDP and other water sources available to Sydney Water and considerations of demand management (matters under section 14A(2) of the IPART Act).

33. Sydney Water determines the level of production required from SDP through the APR process under the Operator Licence and Water Supply Agreement. The benchmark firm should therefore be financially indifferent to whether Sydney Water requests higher or lower levels of production. This is best achieved when the benchmark energy allowance reflects the prevailing efficient cost of energy at the time production decisions are made. By updating benchmark prices regularly, changes in energy costs are reflected in the benchmark allowance rather than creating windfall gains or losses that are unrelated to either Sydney Water's production decisions or SDP's performance.

7.6.2.4 Timing of cost recovery

While annual benchmark updates address price risk, a separate issue is the timing of recovery of those benchmark price adjustments.

Once the benchmark price is recalculated for a given year, IPART must determine when that updated allowance is reflected in SDP's regulated revenues. There are broadly two options. The first is an in-period or ex ante update, whereby regulated prices are adjusted during the 2027-32 regulatory period before the allowances in the Determination take effect to reflect the revised or updated benchmark price (no adjustment for time value of money). The second is an end-of-period or ex post true-up, whereby differences between the original benchmark price and the updated benchmark price are carried forward and recovered in a future regulatory period (adjusted for time value of money).

The choice between these approaches does not affect the efficient benchmark cost ultimately recovered by SDP. Rather, it affects the extent to which price signals provided to Sydney Water are cost reflective and the timing of cost recovery for SDP (lag between revenues and costs) and therefore SDP's cashflow exposure. Under an end-of-period true-up, SDP would incur energy costs based on the annually updated benchmark price but may not recover those costs nor repay over recovered costs to customers until several years later. This could result in inefficient price signals being provided to Sydney Water in its operational decision making and create a financing requirement that exposes SDP to material cashflow volatility through the regulatory period which is demonstrated in Baringa's report.

The larger the divergence between prevailing market prices reflected in the updated benchmark price and the benchmark prices included in IPART's determination, the greater the risk of inefficient price signals and cashflow exposure.

SDP considers that wholesale energy costs should be updated annually and recovered through an in-period adjustment mechanism. Wholesale energy costs are by far the largest and most volatile component of the benchmark energy price, and self-executing annual updates that reference publicly available market prices would ensure that the allowance remains aligned with prevailing market conditions and the efficient costs faced by a benchmark entity. Annual updates would therefore reduce the accumulation of forecast errors, improve the cost-reflectivity of price signals provided to Sydney Water and better support the financeability of the benchmark firm.

The use of in-period adjustment mechanisms for wholesale energy costs is consistent with regulatory precedent for other regulated utilities facing significant wholesale energy market risks. Prior to the deregulation of retail electricity prices in New South Wales, IPART updated wholesale energy cost allowances through annual reviews when setting regulated electricity prices for small customers, including in its 2010 and 2013 determinations. These reviews reflected IPART's view that wholesale energy costs changed materially over time and should be updated regularly to maintain alignment between regulated allowances and efficient costs. IPART noted:

"While we account for many risks within specific cost allowances, for our determination, we decided that certain risks were best addressed through annual reviews of specified cost allowances within the determination period (to address non-systematic risks stemming from uncertainty in the market, policy and regulatory environment, which affects the level and volatility of wholesale electricity prices)".

Annual updates to wholesale energy costs would provide several benefits.

- Efficient benchmark prices can be observed objectively and updated using transparent market information prior to the costs being incurred. Wholesale electricity market prices are published, widely observable and can be incorporated into benchmark allowances through a mechanical and objective process.
- Annual updates better maintain cost-reflective prices. By aligning benchmark prices with prevailing market conditions, annual updates ensure that regulated allowances more closely reflect the efficient costs faced by a benchmark entity in line with the ToR. This reduces the risk of persistent divergences between efficient costs and allowed revenues over the regulatory period.

- Annual updates reduce the accumulation of over- and under-recoveries. An end-of-period true-up would allow forecast errors to accumulate over several years before being corrected. In contrast, annual updates address these forecast errors as they emerge, reducing the size of subsequent reconciliations and improving the stability of cost recovery outcomes.
- Annual updates improve cashflow and financeability outcomes. Adjusting benchmark prices during the regulatory period reduces the period over which SDP is required to finance under-recoveries or retain over-recoveries. This lowers financing costs associated with regulatory lag and supports a timelier recovery of efficient costs.
- Customer price stability is unlikely to be materially affected. Annual updates to SDP's wholesale electricity allowance would not be expected to create any material within period price volatility for end-use customers. Instead, they would improve the cost-reflectivity of price signals provided to Sydney Water, while supporting the timely recovery of efficient costs faced by the benchmark firm.

SDP proposes that renewable certificate costs be reconciled through an end-of-period true-up mechanism, consistent with IPART's approach in its 2026 Final Determination for WaterNSW's Broken Hill Pipeline. Unlike wholesale electricity costs, which can be updated through an in-period adjustment mechanism using observable market benchmarks, there is currently no independently published benchmark for REGOs and no liquid forward market capable of supporting reliable ex ante forecasts. In addition, significant uncertainty remains regarding the future structure of the REGO market, including market liquidity, contracting arrangements, whether certificate values will vary according to the timing of renewable generation and the precise renewable energy obligations that may ultimately apply to large electricity users. These factors could materially affect the efficient cost of renewable certification and are outside the control of a benchmark entity. As a result, efficient REGO costs may only become apparent once procurement has occurred.

Accordingly, SDP considers that an end-of-period true-up is the most appropriate mechanism for renewable certification costs. This approach would ensure that customers ultimately pay no more, and no less, than the efficient cost of complying with SDP's renewable energy obligations, while avoiding reliance on highly uncertain long-term forecasts. The proposed approach is consistent with IPART's treatment of energy cost uncertainty in its WaterNSW Broken Hill Pipeline determination, where IPART accepted an ex post reconciliation mechanism for energy cost components that were highly uncertain and difficult to forecast reliably at the time prices were set, and the ToR requirements to set prices to recover efficient costs. The impact of costs changes associated with renewable energy price changes are expected to be less material to customers and SDP than the potential prices changes associated with wholesale electricity costs.

SDP proposes that the treatment of renewable certification costs from 1 July 2030 to 30 June 2032 be reviewed as part of the following regulatory period. By that stage, the REGO market is expected to be more mature, greater clarity should exist regarding future renewable compliance obligations, and independently observable pricing benchmarks may have emerged. This will provide an opportunity to assess whether renewable certification costs continue to warrant an end-of-period true-up mechanism or whether a more predictable benchmark-based framework can be adopted.

Further information on the operation of the proposed update mechanisms for wholesale and renewable energy prices is provided in the Frontier Economics expert report.

7.6.3 Treatment of production requests outside of the APR process

Baringa advised SDP that not all production-related risks can be efficiently managed through retailer hedging arrangements. Production changes that occur outside the APR and revised APR process, including monthly rescheduling requests, changes to Fixed Production Days (FPDs) and emergency production requests (which Sydney Water has rights to make under the Water Supply Agreement), are generally confirmed too close to delivery to support efficient forward hedging. Attempting to transfer these risks to a retailer would involve a material increase in the benchmark allowance meaning customers would fund substantial flexibility premiums and maintain hedge positions that may never be utilised. Baringa advises that this is not likely to be a cost-effective way of managing this risk. It is also not consistent with customer preferences expressed through the CAP that we should seek to minimise the 'locked-in' energy costs to customers.

For this reason, SDP considers that a prudent benchmark entity in SDP's circumstances would not seek to fully transfer these risks through retailer contracts. Frontier Economics' expert report demonstrates that the regulatory framework does not compensate the benchmark firm for managing these residual risks, and there is a need for the regulatory framework to efficiently share the risks associated with responding to these events with Sydney Water. The following sections summarise SDP's proposed treatment of production requests that fall outside the normal APR and Revised APR framework. The impact of costs changes associated with energy price changes related to fixed production days and emergency response requests are expected to be less material to customers and SDP than the potential prices changes associated with wholesale electricity costs.

7.6.3.1 Emergency production requests

Emergency production requests are inherently unpredictable in both timing and magnitude. Baringa's assessment indicates that it is not prudent nor efficient to procure energy products specifically designed to manage all potential emergency scenarios. Attempting to hedge these events would require customers to fund protection against a wide range of possible outcomes, many of which may never eventuate. This approach also aligns with customer preferences expressed through the CAP that we should seek to minimise the locked-in costs to customers.

Consistent with efficient risk allocation principles, the costs associated with emergency production requests should be borne by the party driving the underlying production requirements and the party best able to manage these needs. Sydney Water has visibility of the broader water supply system needs and the levers at its disposal to determine the most prudent and efficient course of action on behalf of customers, including when an emergency production request should be issued to SDP. By contrast, a business in SDP's circumstances has limited ability to influence either the occurrence of an emergency event or the resulting energy requirements. Outside of a material increase in the benchmark allowance to enable transfer of these risks to a retailer, the business would also have limited flexibility within its procurement arrangements to manage these events. Frontier Economics' expert report demonstrates that the regulatory framework does not compensate the benchmark firm for managing these residual risks. Allocating these costs to SDP would therefore expose it to risks that it cannot efficiently manage or mitigate and is not compensated for. SDP's Operating Licence requires us to undertake our best endeavours to respond, and the regulatory settings within the ToR aim to make SDP financially indifferent to decisions on the level of production. In this context, SDP should be incentivised to respond rapidly in response to any emergency request, and receive the efficient cost of such response, rather than trying to first assess the potential financial impacts of doing so.

SDP proposes that a symmetric end-of-period true-up mechanism should apply to incremental (higher or lower) wholesale electricity and renewable energy costs (or savings, relative to the benchmark energy cost allowances) arising from emergency requests that fall outside the normal APR framework. This approach would ensure that SDP remains financially indifferent when responding to requests outside its control, while preserving appropriate incentives for Sydney Water to consider the cost implications of emergency operational decisions. It would also ensure that the treatment of emergency production requests remains separate from the benchmark energy price adjustment mechanism, reflecting the fundamentally different nature of the underlying risk.

7.6.3.2 Other production requests outside the APR framework

SDP acknowledges that Sydney Water may occasionally seek production changes outside the annual APR process, six-monthly review process and emergency response framework. Under SDP's proposal, the first step would be for SDP and its energy supplier to utilise available contractual flexibility and optimise production profiles to manage costs within the benchmark allowance. Where changes can be accommodated within those arrangements, no additional adjustment would be required.

Where SDP can demonstrate that it has taken reasonable steps to manage costs within the benchmark allowance, and Sydney Water nevertheless requests a production change that gives rise to incremental efficient energy costs, those costs should be subject to an end-of-period true-up mechanism. Any claim for recovery above the benchmark allowance would be subject to IPART's ex post review of the prudence and efficiency of SDP's response to the production request.

This review should not assess whether Sydney Water should have issued the production request (as this should be considered by IPART as part of its regulatory review for Sydney Water and SDP is obliged to comply with such a request). Rather, it would focus on whether SDP responded prudently and efficiently to that request, including the actions taken to procure any additional energy required to meet the requested production level. Any adjustment would therefore be limited to efficient incremental costs that IPART is satisfied were reasonably incurred in responding to the request.

This approach preserves incentives for efficient cost management while ensuring that customers only fund prudently incurred costs arising from production requests outside the assumptions underpinning the benchmark allowance.

7.6.4 Summary of proposed wholesale and renewable costs

The proposed benchmarks for the wholesale energy and renewable certificate components of the benchmark energy price are presented in Table 36.

Table 36: Proposed wholesale and renewable energy cost benchmarks for the 2027-32 regulatory period (\$2026-27)

	2027-28	2028-29	2029-30	2030-31	2031-32
Wholesale energy costs					
Energy purchase costs, incl losses (\$/MWh)	████	████	████	████	████
Option premiums (\$/day)	0.00	0.00	0.00	████	████
Unaccounted for energy (\$/MWh)	Included in GGRP contract costs			0.00	0.00
Renewable energy policy costs					
Renewable electricity price (\$/MWh)	████	████	████	In REGO and ESS	
REGO costs (\$/MWh)	Included in GGRP contract costs			████	████
ESS costs (\$/MWh)	Included in GGRP contract costs			████	████

7.7 Energy network costs

7.7.1 Factors affecting network costs

Network costs are largely driven by factors outside SDP's control.

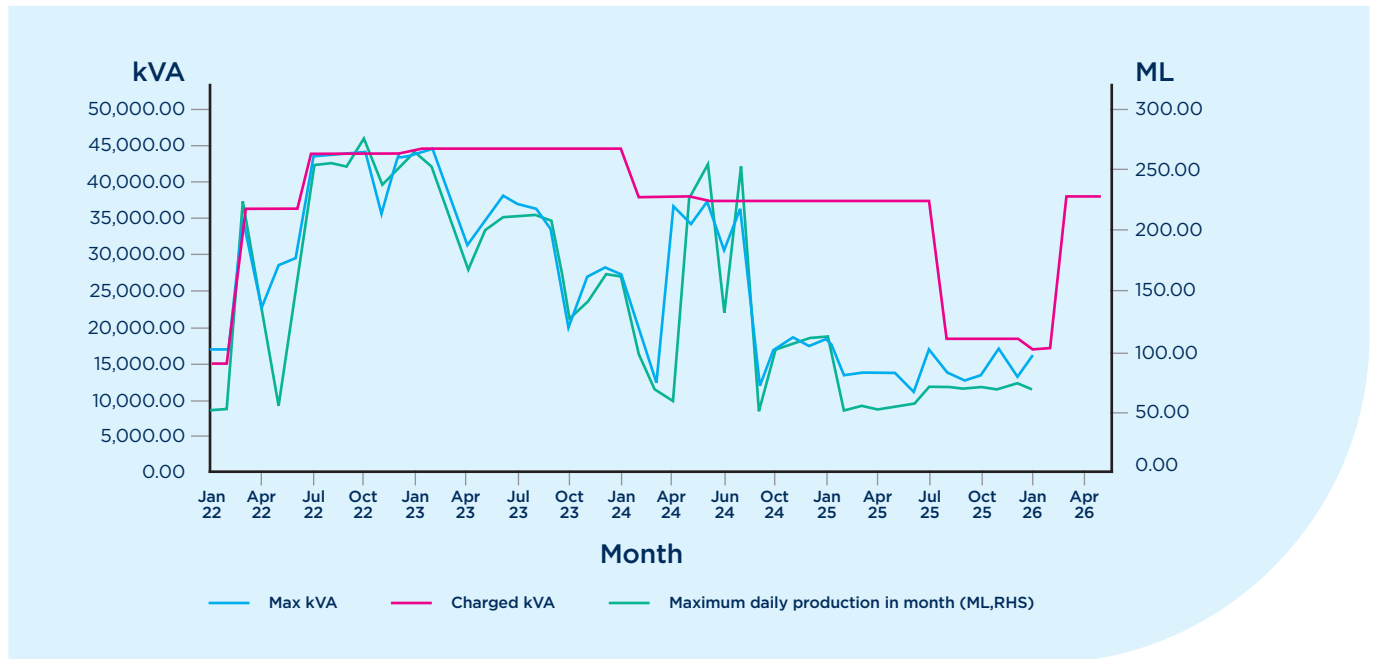
Both the prices charged by Ausgrid and the manner in which the Plant is required to operate can materially affect the network charges incurred by SDP during the 2027-32 regulatory period. In addition, SDP is currently progressing the installation of a second high voltage 132 kV feeder connection to the Plant. This additional feeder will improve network redundancy and resilience, reducing the risk of supply interruptions and supporting reliable operation of the Plant during periods of high or maximum production. While the additional feeder will marginally increase network charges, SDP considers that the benefits associated with improved reliability and operational resilience justify the investment and are consistent with prudent and efficient operation of a critical water security asset.

From a pricing perspective, network charges are determined by regulatory and pricing decisions made by the AER and Ausgrid. The network charges incurred by SDP will depend on a range of factors, including the level of network revenue approved by the AER, the tariff structures adopted by Ausgrid, and the allocation of those revenues across tariff classes and charging components. Ausgrid sets a site-specific charge for SDP due to its significant size and applies a cost-reflective network pricing methodology to set SDP's network charges based predominantly on maximum capacity utilisation. These decisions are outside SDP's control and are not known when IPART sets prices for the 2027-32 regulatory period. Consequently, the network charges incurred during the period may differ materially from the forecast costs underpinning the network allowance due to factors that SDP cannot predict or influence.

From a volume perspective, network costs are driven primarily by peak demand and capacity requirements and, to a lesser extent, total energy consumption. Critically, for the main feeder, SDP is currently required to pay a fixed daily charge and a capacity charge based on maximum demand measured over a rolling 12 month period. That is, the peak demand drives the resulting network costs for the following 12 months regardless of maximum daily production (see Figure 22). Despite daily drinking water production and peak demand (measured in kVA) being highly variable over the 2022-26 period, the chargeable maximum demand (kVA) has largely exceeded 37,000 kVA.

As a result, network charges depend heavily on how the Plant is required to operate, including the timing, duration and magnitude of production requests issued by Sydney Water. These production requirements are inherently uncertain and may vary materially as a result of APRs, revised APRs, fixed production day requirements and emergency production requests. Such factors cannot be forecast with precision at the commencement of the 2027-32 regulatory period and may give rise to material differences between forecast and realised network costs for reasons outside SDP's control.

A summary of peak demand outcomes for the existing 132 kV feeder is provided in Figure 22.

Figure 22: Peak demand on the existing 132kV feeder (rolling 12-month maximum)

7.7.2 Approach to accounting for network costs in the 2023-27 regulatory period

Recognising the uncertainty associated with both network prices and the operating conditions that drive network demand, IPART adopted specific pass-through mechanisms in the 2023 Determination to allow SDP to recover efficient network costs as they are incurred.

Under the 2023 Determination, SDP's electricity network costs are recovered through two cost pass-through mechanisms: a Variable Network Charge (VNC) adjustment, based on regulated network prices and benchmark energy volumes, and a Fixed Network Charge (FNC) adjustment, based on regulated network prices and actual maximum demand (being the highest demand recorded over the 12 months preceding each billing month).

In its 2023 Determination, IPART indicated that it would revisit the appropriateness of these arrangements as part of its 2027 Determination, including whether the continued use of network cost pass-through mechanisms remains in the long-term interests of customers.

7.7.3 Approach to forecasting network costs for the 2027-32 regulatory period

For the 2027-32 regulatory period, SDP proposes to replace the existing pass-through arrangements with a forecast allowance for network costs incorporated within benchmark energy prices, alongside an end-of-period true-up as per IPART 2026 WaterNSW's Broken Hill Pipeline Final Decision.

Network cost forecasts have been derived using the following assumptions:

- **Peak demand** – Forecast peak demand of 37,791 kVA for the existing 132 kV feeder. This estimate is based on historically observed peak demand that reflects annual full production tests and fixed production days at full capacity, notionally 250ML/day. Although production and maximum capacity could be higher if drought conditions occur and SDP targets maximum output, we have not included this in our forecast.. Forecast peak demand for the 11 kV feeder has been based on the average observed peak demand since November 2023, equivalent to 714.18 kVA. These values have been adopted for 2026-27, with the forecast adjusted from 2027-28 onwards to reflect SDP's proposed energy efficiency improvements.

- **Energy volumes** – For the 11kV feeder, energy volumes have been forecast using the average consumption recorded over the previous two financial years. No forecast of energy volumes is required for the 132kV feeder since this is not subject to a volumetric tariff.
- **Efficiency factor** – Forecast peak demand and energy consumption have been adjusted to reflect SDP's proposed energy efficiency improvements, with an annual efficiency factor of 0.3% applied to fixed energy usage and 0.5% applied to variable energy usage from 2027-28 onwards, consistent with SDP's proposal on energy volumes presented in section 7.10 below.
- **Network tariffs** – Forecast network charges are based on Ausgrid's published forward tariffs where available. The forecast adopts Ausgrid's published 2026-27 tariffs and projects 2027-28 and 2028-29 tariffs using the annual growth rates implied by Ausgrid's indicative tariff forecasts for those years. For the main feeder, the published tariffs have been adjusted to reflect SDP's current individually calculated tariff structure, which comprises a lower daily charge and higher capacity charge than the standard published transmission tariff. This adjustment was made by calibrating the tariff components using the ratio between SDP's current individually calculated tariff and Ausgrid's published transmission tariff. For years beyond FY2029, network charges have been escalated using Ausgrid's X-factor from its current regulatory determination.
- **New 132 kV feeder** – A new 132 kV feeder is assumed to be commissioned in January 2028. The forecast assumes that the new feeder will be subject to the same individually calculated tariff structure as the existing 132 kV feeder. Accordingly, an allowance has been included for the additional fixed daily charges associated with the new connection. However, no additional capacity charges have been included, as the forecast assumes that SDP's maximum capacity will remain the same across the existing and new 132kV feeder. This is on the basis that only one feeder will be operational at any one time and the maximum capacity draw won't exceed existing maximum capacity.

A summary of our network cost inputs is provided in the Table 37.

Table 37: Summary of network cost inputs

	2027-28	2028-29	2029-30	2030-31	2031-32
Network charges					
Network access charge 132 kVA (\$/day)	268.64	256.99	286.05	318.40	354.41
Network access charge 11 kVA (\$/day)	88.96	84.61	87.27	90.01	92.84
Capacity charge 132 kVA (\$/kVA/day)	0.0820	0.0785	0.0874	0.0972	0.1082
Capacity charge 11 kVA (\$/kVA/day)	0.3522	0.3363	0.3469	0.3578	0.3691
Peak energy charge 11 kVA (\$/MWh)	39.79	37.57	38.75	39.97	41.23
Off-peak energy charge 11 kVA (\$/MWh)	19.65	18.34	18.92	19.51	20.13
Network usage					
Peak demand 132 kVA (kVA)	37,783.59	37,597.10	37,411.53	37,226.88	37,043.14
Peak demand 11 kVA (kVA)	714.18	710.66	707.15	703.66	700.19
Peak energy 11 kVA (MWh)	28.53	28.39	28.25	28.11	27.97
Off-peak energy 11 kVA (MWh)	190.34	189.40	188.46	187.53	186.61

7.7.4 End of period true-up for network costs

SDP considers that an ex ante allowance for network costs should be supported by an end-of-period true-up mechanism. While forecast network charges can be estimated using the best information available at the time of the determination, they remain subject to a number of uncertain inputs that are outside SDP's control.

These include future Ausgrid tariff decisions, AER determinations, changes to network charging structures, contractual obligations to undertake annual capacity testing and the operating profile required to reliably service Sydney Water's production requests. The introduction of the second 132 kV feeder further reinforces the importance of an appropriate true-up mechanism, as future costs will depend on the final network charging arrangements and utilisation of the enhanced connection infrastructure.

Given these uncertainties, attempting to forecast network charges several years in advance inevitably requires assumptions about future regulatory decisions, tariff structures and operating requirements that may subsequently prove incorrect. Without a reconciliation mechanism, customers are likely to either overpay or underpay for network services due to forecasting variances that bear little relationship to the efficiency of SDP's operations. An end of period true-up mechanism ensures that such differences are transparently reconciled and that prices remain aligned with efficient underlying costs as required by Pricing Principle 1 in the ToR.

This approach is consistent with IPART's 2026 determination for WaterNSW's Broken Hill Pipeline, where IPART recognised that network costs are largely driven by external regulatory and market factors and adopted an end-of-period reconciliation mechanism to ensure efficient costs are ultimately reflected in prices. SDP considers that the same principle applies here. Network charges are substantially determined by decisions of third parties and by operational requirements associated with providing water security services, making an end-of-period true-up the most appropriate mechanism for maintaining cost-reflective pricing and promoting outcomes in the long-term interests of customers.

In its 2023 Determination, IPART indicated that it would further consider the extent to which SDP can alter its operating profile to influence network charges. SDP has subsequently examined this issue as part of its broader review of future energy procurement and operating arrangements. This review found that we do not have a material ability to reduce network costs by increasing or decreasing production in response to network pricing signals. This is because:

- production must remain aligned with Sydney Water's drinking water supply requirements and production requests;
- significant and rapid changes in production levels create operational inefficiencies and may increase plant wear and maintenance requirements.

The primary purpose of the Plant is to satisfy Sydney Water's production requirements in accordance with SDP's Operating Licence, its Operational Approval, Sydney Water's Decision Framework and the Water Supply Agreement between SDP and Sydney Water. Production levels are therefore driven principally by water system needs rather than energy market or network pricing considerations. While there may be limited scope to discuss annual production profiling and the scheduling of certain fixed production days, SDP does not possess the degree of operational flexibility required to routinely optimise operations around network charging periods.

Further information on the operation of the proposed true-up mechanism is provided in the Frontier Economics report on the "Regulatory treatment of SDP's energy costs for RP4" in Attachment 8.

7.7.5 Summary of proposed network costs

The proposed network costs for the 2027-32 regulatory period are presented in Table 38.

Table 38: Proposed network costs for the 2027-32 regulatory period (\$2026-27, millions)

	2027-28	2028-29	2029-30	2030-31	2031-32
Network costs ¹	1.45	1.42	1.57	1.73	1.91

Note: (1) Covers both the existing 132kV and 11kV feeders, and the second 132kV feeder.

7.8 Subordinate energy costs

SDP engaged Baringa to develop forecasts of ancillary service and market fee costs (Table 39).³⁴ The forecasts have been developed using Baringa's market expertise and forecasting methodologies. Consistent with the approach adopted in RP3, metering and data costs have been forecast using SDP's actual metering costs. The forecast also includes metering costs associated with the new 132 kV feeder expected to be commissioned in January 2028, with those costs estimated by reference to the actual metering costs incurred for the existing 132 kV feeder. SDP is not proposing that these costs be included in the proposed energy cost true-up given they are not expected to be material.

Over the 2027-32 Regulatory Period, SDP may also incur additional retailer pass-through cost. This includes Reliability and Emergency Reserve Trader (RERT) charges, Intervention Direction Charges, Market Suspension Costs and Peak Demand Reduction Scheme (PDRS) charges. Given the uncertainty surrounding both the incidence and magnitude of these costs, they have not been included in the benchmark energy price. To the extent that such costs are incurred during the 2027-32 Regulatory Period, SDP proposes that IPART provide an appropriate mechanism for their recovery in the subsequent regulatory period.

Table 39: Proposed subordinate energy costs for the 2027-32 regulatory period (\$2026-27)

	2027-28	2028-29	2029-30	2030-31	2031-32
AEMO market fees (\$/MWh)	0.55	0.55	0.55	0.55	0.55
Ancillary service charges (\$/MWh)	0.15	0.15	0.15	0.15	0.15
Metering and data costs (\$/day)	10.96	10.96	10.96	10.96	10.96

7.9 Energy retail costs

An electricity retailer supplying electricity to SDP must cover its retail margin. The retail margin covers a contribution towards a retailer's overheads. Baringa has advised that the retail margin for commercial and industrial customers is typically in the range of 2-3%. For this proposal, we have adopted a mid-point estimate of 2.5%.³⁵ The retail margin is applied on the entire benchmark energy cost stack (including wholesale energy costs, renewable energy costs, network costs and subordinate energy costs) for the period 1 July 2030 to 30 June 2032.

Table 40: Proposed energy retail costs for the 2027-32 regulatory period (\$2026-27)

	2027-28	2028-29	2029-30	2030-31	2031-32
Retail operating margin (%)	Included in GGRP contract costs			2.5%	2.5%

34. Further information on the methodology applied to develop forecasts of ancillary service and market fee costs has been provided to IPART in a confidential attachment to this proposal.

35. Further information on the methodology applied to develop our forecasts of the retail margin is provided in Baringa's 'Energy Price Forecasts' report, which has been included as non-public Attachment 25.

7.10 Our energy volume forecasts

7.10.1 Energy consumption and operating context

Energy consumption is a significant contributor to the cost of desalinated water, and continuous improvements in energy efficiency remain an important means of reducing costs for customers. Consistent with this objective, SDP and its Operator have focused on energy optimisation throughout the 2023-27 regulatory period and continue to pursue opportunities to lower energy consumption through process optimisation, operational improvements and targeted capital investments.

These initiatives are consistent with SDP's published Cost Efficiency Strategy, which documents productivity improvements achieved during the current period and identifies further opportunities to improve value for customers through ongoing efficiency and cost reduction initiatives over the 2027-32 regulatory period.

While SDP actively manages energy consumption through efficient operations and asset management, a range of factors affecting energy use are outside its control. These include seawater temperature, salinity, water quality and, importantly, the production volumes and operating profile requested by Sydney Water. SDP is required to operate flexibly and respond to Sydney Water's requirements while maintaining compliance with licence obligations, water quality standards and reliability requirements. As a result, energy consumption reflects both the efficiency of Plant operations and the operating conditions under which the Plant is required to run.

Energy efficiency is also closely linked to production volumes. The Plant achieves its lowest specific energy consumption when operating at higher output levels, while some identified efficiency opportunities cannot be fully realised at lower production volumes. Consequently, SDP does not have complete control over its energy performance, as annual, monthly and daily production requirements are determined by Sydney Water's operational needs. SDP remains committed to responding efficiently to these production requests and does not seek to adjust production schedules in a manner that would compromise customer outcomes simply to meet an energy target.

The reverse osmosis process is the Plant's largest energy consumer, with energy use primarily driven by high-pressure pumping, energy recovery and reverse osmosis membrane performance. SDP manages these drivers through long-term asset strategies that assess investments on a whole-of-life basis, taking into account maintenance requirements, asset condition, risk and energy outcomes.

Consistent with this approach, and in response to suggestions from IPART and its consultants, SDP investigated and evaluated high-pressure pump impeller modifications. The assessment concluded that these modifications would not deliver the lowest whole-of-life cost solution. Instead, SDP identified that progressively replacing DWEER energy recovery devices with modern pressure exchanger technology across the 2027-32 regulatory period and beyond provides the optimal whole-of-life outcome and lowest lifecycle cost. This replacement program is expected to deliver significant cumulative energy savings over the next decade while maintaining asset performance and reliability.

Our latest membrane condition assessment found that salt passage, rather than increasing feed pressure, will be the principal driver of future membrane replacement. However, salt passage also affects front permeate bypass ratio, with implications for overall RO energy efficiency. Implementing our membrane replacement strategy will therefore help maintain or improve energy performance while ensuring continued water quality outcomes.

These programs form part of SDP's broader approach to balancing energy efficiency, treatment chemical consumption, reliability and overall production costs.

7.10.2 Energy consumption in the 2023-27 regulatory period

In the 2023 Determination, IPART adopted benchmark energy consumption allowances based on historical operating data, an allowance for operational factors and an ongoing annual efficiency factor of 0.7%. Since that time, SDP has implemented a series of initiatives that have improved energy efficiency and reduced specific energy consumption. These include the review and reclassification of water quality monitoring critical control points unlocking:

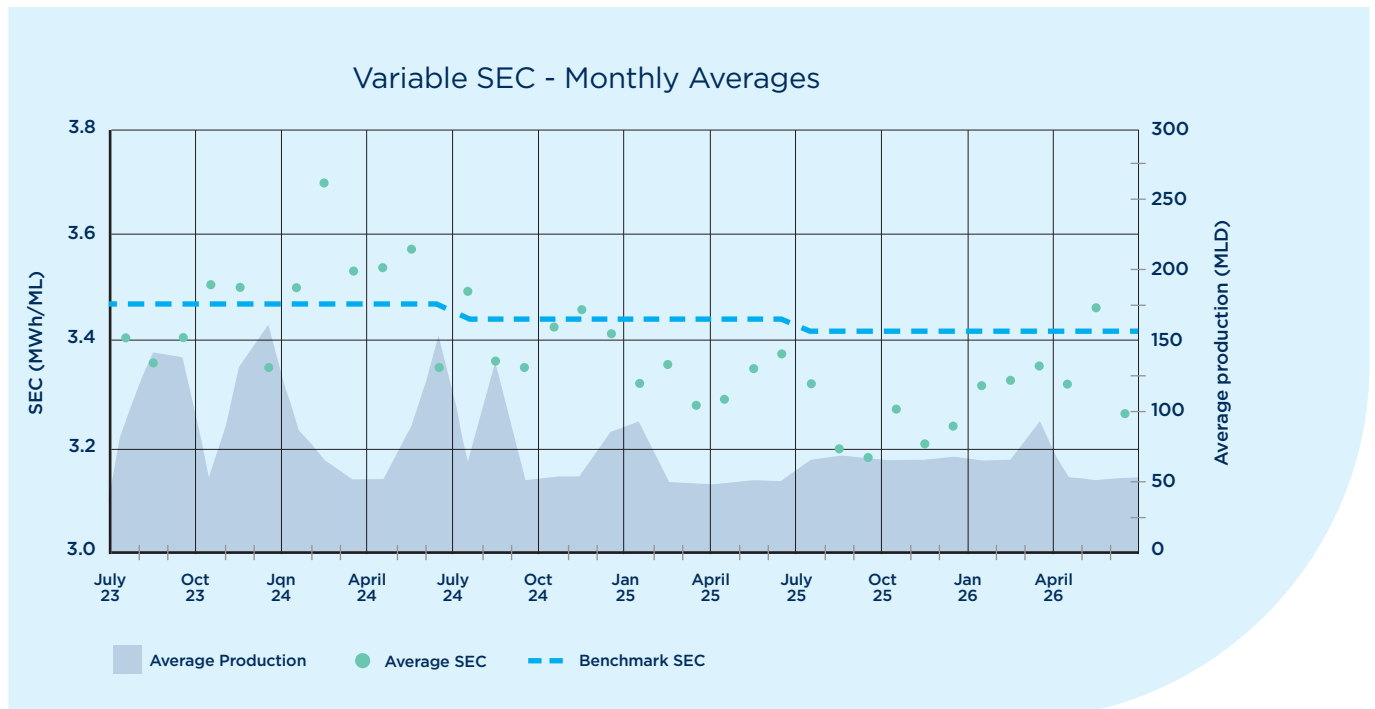
- automated front permeate control,
- production optimisation initiatives to understand most efficient 'low production' settings,
- recovery and flow optimisation trials to reduce energy losses across pressure control valves, and
- broader process optimisation activities.

These initiatives have delivered measurable reductions in energy consumption while maintaining compliance with water quality and reliability requirements (noting again that some of these efficiency opportunities cannot be fully realised at lower production volumes).

The Plant has now accumulated a substantial operating history under the continuous and flexible operating regime. This provides a robust evidence base for assessing efficient future energy consumption and demonstrates SDP's ability to operate efficiently while meeting Sydney Water's requirements and delivering an enhanced service offering to customers.

Historical performance also shows that the opportunities for further reductions in energy consumption have become progressively more challenging over time and more reliant on transformational capex linked initiatives, particularly as many of the more significant optimisation opportunities have already been implemented.

Figure 23: Comparison of actual energy consumption against benchmark energy consumption



7.10.3 Proposed energy consumption benchmarks for the 2027-32 regulatory period

Consistent with the approach adopted by IPART in its 2023 Determination, SDP proposes that future benchmark energy consumption should continue to be based on observed operating performance using a linear regression analysis of historical operating data. This approach uses actual operating experience under the flexible operating regime as the primary evidence of efficient energy consumption and remains the most reliable method for forecasting future performance.

In developing the 2027 Determination benchmark, SDP has considered two key factors. First, the benchmark reflects SDP's proposed long-term investment plan and key asset strategies, including the planned replacement of DWEERS and membranes over the regulatory period. These investments are expected to support ongoing improvements in energy efficiency and form an important foundation for the proposed benchmark trajectory.

Second, the benchmark recognises that future operating conditions remain uncertain. Production volumes, production profiles, seawater conditions and other operational factors can materially affect energy consumption but are largely outside SDP's control. Accordingly, the benchmark should reflect efficient performance while recognising the need for SDP to maintain flexibility and reliability in responding to Sydney Water's requirements.

On this basis, SDP proposes a starting variable energy benchmark of 3.394 MWh/ML aligned with the IPART allowance for the final year of the 2023 Determination. This is equivalent to the linear regression estimate of 3.357 MWh/ML plus a 0.037MWh/ML allowance for operational uncertainty, consistent with the methodology applied in the 2023 determination.

SDP also proposes ongoing annual efficiency targets of 0.5% for variable energy consumption and 0.3% for fixed energy consumption both applied from Year 1 of the 2027 regulatory period. Applying these targets results in a Year 1 variable energy benchmark of 3.377 MWh/ML and a Year 1 fixed energy benchmark of 28.12 MWh/day, with further annual reductions applied throughout the regulatory period (Table 41).

While lower than the 0.7% applied in the 2023 Determination, these targets remain challenging and reflect the increasing difficulty of delivering incremental energy reductions after the substantial improvements already achieved during the 2023-27 regulatory period.





Importantly, SDP is proposing benchmark energy consumption levels in 2027-28 that are below the 2023-27 regulatory settings, paired with continued year-on-year reductions in energy consumption. This ensures that customers continue to share in the benefits of sustained efficiency improvements and lower energy consumption over time.

Overall, SDP considers that the proposed benchmarks strike an appropriate balance between providing customers with the benefits of ongoing efficiency improvements and ensuring energy targets remain achievable within SDP's operating environment.

The proposed benchmark trajectory incorporates efficiency improvements expected to arise from SDP's proposed capital investments, including membrane and DWEER replacement programs. Regulatory acceptance of these investments is therefore an important assumption underpinning the proposed energy efficiency benchmarks.

Without approval of these investments, SDP would not reasonably be expected to achieve the proposed benchmark levels.

The proposal maintains incentives for continuous improvement while recognising that energy consumption is influenced by factors outside SDP's control and that SDP must continue to meet customer, regulatory and reliability obligations under a flexible operating regime.

Table 41: Proposed energy consumption benchmarks for the 2027-32 regulatory period

	2027-28	2028-29	2029-30	2030-31	2031-32
Fixed energy (MWh/day)	28.12	28.03	27.95	27.86	27.78
Variable energy (MWh/ML)	3.377	3.360	3.343	3.327	3.310
Fixed Energy % Change YoY	-0.3%	-0.3%	-0.3%	-0.3%	-0.3%
Variable Energy % Change YoY	-0.5%	-0.5%	-0.5%	-0.5%	-0.5%

8. REVENUE REQUIREMENT

Key messages

- We have proposed revenue requirements that reflect the efficient costs of providing services (consistent with pricing principle 1 in the ToR) and in accordance with SDP's approval and licence requirements, the Decision Framework and the Water Supply Agreement, including meeting our legal and regulatory obligations.
- Our proposed revenue requirements for the Plant and Pipeline are based on annual production of 38 GL per year over the 2027-32 regulatory period.
- We have proposed a total revenue requirement of \$1,247.96m (\$2026-27) over the 5-year 2027-32 regulatory period, which (on an average annual basis) is 2.2% higher than the revenue requirement IPART determined for the 4-year 2023-27 regulatory period, if the level of production is normalised at 38 GL per year.
- In developing our proposed revenue requirements, we have addressed all relevant ToR requirements using the building block approach established by IPART.

8.1 Overview of our proposed revenue requirement 2026-27 to 2031-32

The notional revenue requirements (or building block costs) represent the amount of revenue we need over the 2027-32 regulatory period to allow us to recover the efficient costs of providing our drinking water supply and water security services. This includes the costs of efficiently and prudently investing in, operating and maintaining our assets and providing a reasonable return on investment to attract and retain debt and equity funding.

This section sets out our proposed revenue requirements for the Plant and Pipeline and is based on annual production of 38 GL per year.

8.1.1 Plant and Pipeline

The annual building block components for the Plant and Pipeline are presented in Table 42. We have proposed a total revenue requirement of \$1,247.96m (\$2026-27) over the 5-year 2027-32 regulatory period. On an average annual basis, this is 2.2% higher than the average revenue requirement IPART determined for the 4-year 2023-27 regulatory period, if the level of production is normalised at 38 GL per year.

The principal drivers for the changes in our revenue requirements include:

- A higher allowance for a return on capital, and
- A higher allowance for taxation.

Table 42: Notional revenue requirement - Plant and Pipeline (production 38 GL per year) for 2027-32 regulatory period (\$2026-27, \$millions)

	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	Total 2027-32
Operating expenditure	80.46	80.03	80.16	80.29	78.24	80.75	399.47
Return on capital (funding costs)	77.95	83.11	81.15	79.46	78.01	76.34	398.07
Return of capital (depreciation)	74.60	71.92	73.48	74.59	76.91	79.16	376.05
Tax costs (net of imputation)	11.91	13.79	14.43	14.07	14.07	14.20	70.56
Return on working capital	1.95	1.65	1.66	1.58	1.58	1.61	8.07
Other revenue adjustments	-6.20	-0.49	-1.04	-0.29	-1.23	-1.23	-4.27
Total notional revenue requirement	240.67	250.00	249.84	249.70	247.58	250.83	1,247.96
% Change		3.88%	-0.07%	-0.05%	-0.85%	1.31%	

Note: Forecasts based on production of drinking water of 38 GL per year. 2026-27 Plant and Pipeline costs and notional revenue requirements are based on IPART's allowance adjusted to a production level of 38 GL per year.

The sections below discuss the revenue requirement for the Plant and Pipeline separately.

8.1.2 Plant

The annual building block components for the Plant are presented in Table 43. These total to a notional revenue requirement of \$1,025.40m (\$2026-27) over the 5-year 2027-32 regulatory period. On an average annual basis, this is 0.3% higher than the revenue requirement IPART determined for the 4-year 2023-27 regulatory period, if the level of production is normalised at 38 GL per year.

The principal drivers for the changes in our revenue requirements for the Plant include:

- A higher allowance for a return on capital, and
- A higher allowance for taxation

**Table 43: Notional revenue requirement - Plant (Production 38GL per year)
for 2027-32 regulatory period (\$2026-27, \$millions)**

	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	Total 2027-32
Operating expenditure	79.94	78.98	79.11	79.24	77.19	79.70	394.22
Return on capital (funding costs)	45.69	47.78	46.10	44.73	43.61	42.28	224.49
Return of capital (depreciation)	66.25	63.54	65.03	66.11	68.40	70.64	333.72
Tax costs (net of imputation)	13.70	14.54	14.48	14.02	13.93	13.92	70.89
Return on working capital	1.65	1.32	1.32	1.23	1.24	1.26	6.36
Other revenue adjustments	-6.20	-0.49	-1.04	-0.29	-1.23	-1.23	-4.27
Total notional revenue requirement	201.02	205.67	204.99	205.04	203.13	206.57	1,025.40
% Change		2.31%	-0.33%	0.02%	-0.93%	1.69%	

Note: Forecasts based on production of drinking water of 38 GL per year. 2026-27 Plant costs and notional revenue requirements are based on IPART's allowance adjusted to a production level of 38GL per year.

We propose:

1. A notional revenue requirement for the Plant over the 2027-32 regulatory period as set out in Table 43.

8.1.3 Pipeline

The annual building block components for the Pipeline are presented in Table 44. These total to a notional revenue requirement of \$222.55m (\$2026-27) over the 5-year 2027-32 regulatory period. On an average annual basis, this is 12.0% higher than the revenue requirement IPART determined for the 4-year 2023-27 regulatory period, if the level of production is normalised at 38 GL per year.

The principal drivers for the changes in our revenue requirements for the Pipeline include:

- Higher operating expenditure.

Table 44: Notional revenue requirement - Pipeline for 2027-32 regulatory period (\$2026-27, \$millions)

	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	Total 2027-32
Operating expenditure	0.53	1.05	1.05	1.05	1.05	1.05	5.25
Return on capital (funding costs)	32.26	35.33	35.05	34.73	34.40	34.06	173.58
Return of capital (depreciation)	8.35	8.38	8.45	8.48	8.51	8.52	42.33
Tax costs (net of imputation)	-1.78	-0.76	-0.05	0.05	0.14	0.29	-0.32
Return on working capital	0.30	0.33	0.34	0.35	0.35	0.35	1.71
Other revenue adjustments	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total notional revenue requirement	39.66	44.33	44.85	44.66	44.45	44.26	222.55
% change		11.80%	1.16%	-0.42%	-0.47%	-0.42%	

Note: Forecasts based on production of drinking water of 38 GL per year. 2026-27 Pipeline costs and notional revenue requirements are based on IPART's allowance.

We propose:

2. A notional revenue requirement for the Pipeline over the 2027-32 regulatory period as set out in Table 44.

8.2 Rolling forward our regulatory asset base (RAB) to 30 June 2027

The opening value of the Regulatory Asset Base (RAB) is a key input to determining the return on capital and return of capital allowance, as it represents the (as yet) unrecovered past capital investments we have made to provide services to our customers.

The value of the RAB changes over time. As we invest in new assets, this expenditure is added to the RAB. As our assets depreciate, this value is subtracted from the RAB. If we dispose of assets, these proceeds are subtracted from the RAB.

The opening value of the RAB for the 2027-32 regulatory period (i.e., at 1 July 2027) should reflect the closing value of the RAB in 2026-27, after this closing value is determined by rolling forward the RAB from 2022-23 to 2026-27 to account for actual capex and inflation over this period.

The rolled-forward values of the Plant and Pipeline RABs over the 2023-27 regulatory period are presented in Table 45 and Table 46, respectively.

We propose:

3. An opening value of the Plant RAB for the 2027-32 regulatory period equal to the closing value of the Plant RAB in 2026-27, as set out in Table 45.

Table 45: Regulatory asset base roll forward 2023-27 regulatory period – Plant (\$nominal, \$millions)

	2022-23	2023-24	2024-25	2025-26	2026-27
Opening balance	1,215.06	1,239.96	1,236.09	1,208.48	1,198.99
Net capex	5.84	9.70	10.06	10.27	11.04
Depreciation	54.35	60.87	63.73	67.09	67.35
Indexation	73.41	47.30	26.06	47.33	34.93
Closing balance	1,239.96	1,236.09	1,208.48	1,198.99	1,177.61

We propose:

4. An opening value of the Pipeline RAB for the 2027-32 regulatory period equal to the closing value of the Pipeline RAB in 2026-27, as set out in Table 46.

Table 46: Regulatory asset base roll forward 2023-27 regulatory period – Pipeline (\$nominal, \$millions)

	2022-23	2023-24	2024-25	2025-26	2026-27
Opening balance	764.82	804.28	827.38	837.07	861.64
Net capex	0.14	0.30	0.25	0.18	0.10
Depreciation	6.77	7.77	7.94	8.25	8.49
Indexation	46.10	30.57	17.38	32.65	24.99
Closing balance	804.28	827.38	837.07	861.64	878.24

8.3 Proposed RAB for 2027-28 to 2031-32

We have calculated the RAB values for the 2027-32 regulatory period consistent with IPART's RAB roll-forward methodology. This involved:

- taking the opening RAB values for 2027-28 (being the rolled-forward, closing RAB values for 2026-27, as explained above)
- adding the value of forecast capex in each year over the 2027-28 to 2031-32 period, and
- deducting the value of regulatory depreciation in each year over the 2027-28 to 2031-32 period.

We propose:

5. A RAB roll forward for the Plant over the 2027-32 regulatory period as set out in Table 47.

Table 47: Regulatory asset base roll forward 2027-32 regulatory period – Plant (\$2026-27, \$millions)

	2027-28	2028-29	2029-30	2030-31	2031-32
Opening balance	1,177.61	1,135.36	1,092.60	1,066.11	1,034.40
Net capex	22.58	23.59	40.97	38.07	35.53
Depreciation	64.83	66.35	67.45	69.79	72.07
Closing balance	1,135.36	1,092.60	1,066.11	1,034.40	997.86

We propose:

6. A RAB roll forward for the Pipeline over the 2027-32 regulatory period as set out in Table 48.

Table 48: Regulatory asset base roll forward 2027-32 regulatory period – Pipeline (\$2026-27, \$millions)

	2027-28	2028-29	2029-30	2030-31	2031-32
Opening balance	878.24	871.84	864.04	855.86	847.66
Net capex	2.14	0.82	0.48	0.48	0.03
Depreciation	8.55	8.62	8.65	8.68	8.69
Closing balance	871.84	864.04	855.86	847.66	839.00

8.4 Our proposed return of assets over 2027-28 to 2031-32

8.4.1 Method for calculating regulatory depreciation (return of assets)

The appropriate asset lives and depreciation method for SDP's assets are key assumptions in determining the return of assets allowance (or regulatory depreciation). SDP proposes to retain the straight-line method of depreciation, consistent with IPART's standard approach.

8.4.2 Asset categories and asset lives

SDP proposes some minor changes to the economic life of asset categories in the 2027-32 regulatory period, including:

- An economic life of 10 years for 'Periodic Maintenance – Plant' instead of 6.6 years used in the 2023-27 regulatory period. The 6.6 years was derived based on the weighted average economic life of maintenance tasks forecast in the 2023 Determination. Updating this methodology produces an estimate close to 10 years and we propose that IPART adopts a standard economic life of 10 years going forward.
- A new RAB category of 'Periodic Maintenance – Pipeline' with an economic life of 20 years. This category will capture the forecast increase in periodic maintenance on the Pipeline. We have assessed that 20 years is a better estimate than 10 years for the type of periodic maintenance that is forecast to occur on the Pipeline. The proposed 20-year economic life is based on the weighted average economic life of the pipeline capital works tasks forecast in the LTIP. This category includes renewal and replacement of pipeline assets and components with lives that extend beyond 10 years. A 20-year life therefore better reflects the expected benefit period of the expenditure and is more appropriate than a 10-year assumption.

While SDP considers the economic life of some asset categories should be reduced, we are not proposing any further changes for the 2027-32 regulatory period. However, we note that:

- the Water Supply Agreement (WSA) has an expiry date and IPART will need to consider the role of accelerated depreciation closer to the expiry date to allow SDP to recover the full RAB values.
- while we have not proposed a reduction in the Pipeline's asset life because of the impact on customer bills, we consider the design life of 100 years is appropriate.

We propose:

7. The Standard and remaining asset lives as set out in Table 49.

Table 49: Standard and remaining asset lives for Plant and Pipeline asset categories (years)

Category	Standard lives	Remaining lives
Plant	30.0	12.4
Intake Infrastructure	90.0	72.0
Outlet Infrastructure	100.0	82.0
Pumping Station	25.0	8.5
Pre-operations Payment	20.0	2.1
Project Development	44.0	26.0
Periodic Maintenance - Plant	10.0	5.3
Membranes	11.0	0.0
Corporate	5.0	2.4
Pipeline	116.0	101.0
Periodic Maintenance - Pipeline	20.0	0.0



8.5 Proposed return on assets over 2027-28 to 2031-32

The rate of return is applied to the RAB to calculate the return on capital allowance. The rate of return represents the costs of funding investments in SDP through borrowings from debt markets and investments from equity holders. It is estimated by calculating the Weighted Average Cost of Capital (WACC), which represents the weighted average cost of debt and equity. SDP needs to be able to earn an adequate rate of return on capital to continue to invest in, operate and maintain drinking water supply services as required under our Operating Licence.

8.5.1 We have applied IPART's 2018 WACC methodology in all respects

We applied all aspects of IPART's 2018 WACC methodology to calculate SDP's proposed rate of return.³⁶

8.5.2 We propose an end-of-period true-up to account for changes in the trailing average cost of debt

IPART's 2018 WACC methodology decision concluded that IPART would adopt a trailing average approach to set the return on debt allowance. This means that the WACC changes every year over a regulatory period as new debt tranches are added to the trailing average costs of debt (both current and long term) and old tranches drop out.

IPART considered two options to account for annual WACC changes:

- Store the present value of the revenue adjustments caused by the changing WACC, and apply a true-up at the next regulatory period (end-of-period true-up)
- Annual price changes to reflect the changing WACC (annual true-up).

We note that IPART has considered this issue in recent water price reviews and has opted to apply an end-of-period true-up (including for the 2023 Determination).

Although SDP considers it would be more efficient to annually update prices to reflect changes to the trailing average cost of debt, we understand that IPART's preference is to maintain the end-of-period true-up approach and so we propose to retain the end-of-period true-up approach to account for changes in the trailing average cost of debt.

³⁶. IPART, Review of our WACC method, Final Report, February 2018.

8.5.3 No transition period is applicable to the trailing average current cost of debt

Under IPART's 2018 WACC methodology, SDP's current cost of debt allowance for the 2023-27 regulatory period was subject to a transition from the prevailing 'on the day' cost of debt to a five-year trailing average cost of debt. The transition to a trailing average was complete in the current cost of debt allowance for the year ending 30 June 2027. Consequently, the current cost of debt allowance should be calculated as a five-year trailing average for the 2027-32 regulatory period.

8.5.4 Our proposed sampling period

SDP proposes that the sampling periods used to set the rate of return allowances for the 2027-2032 regulatory period be determined according to the sampling periods set out in a confidential attachment to this proposal.

We propose:

- A placeholder post-tax real rate of return of 4.1%³⁷
- Sampling periods for the purposes of estimating the rate of return for each of the years of the 2027-32 regulatory period in line with the sampling periods set out in a confidential attachment, and
- An end-of-period true-up to reflect annual changes in the cost of debt allowance.

Table 50 summarises the methodology and individual assumptions that are used to estimate the proposed rate of return used in this proposal.



37. Preliminary estimates using placeholder estimates for 2027-28 market rates, inflation forecast and current MRP. To be updated.

Table 50: Summary of approach to estimating each rate of return parameter

	Current	Long term
Risk-free rate for cost of equity allowance	Five-year trailing average of individual tranches. Individual tranches calculated as 40-day averages of annualised yields on 10-year Commonwealth Government Securities (CGS) obtained from the RBA. 2026-2027 tranche used as a placeholder for the 2027-28 tranche for this proposal. Current risk-free rate estimate fixed for the duration of the regulatory period.	Ten-year trailing average of individual tranches. Individual tranches calculated as 40-day averages of annualised yields on 10-year Commonwealth Government Securities (CGS) obtained from the RBA. 2026-2027 tranche used as a placeholder for the 2027-28 tranche for this proposal. Long-term risk-free rate estimate fixed for the duration of the regulatory period.
Risk-free rate for cost of debt allowance	As above, but current risk-free rate to be updated annually.	As above, but long-term risk-free rate to be updated annually.
Inflation	Assume that inflation will turn out in line with the RBA forecast of inflation to June 2028 (May 2026 Statement of Monetary Policy used as a placeholder) for 2027-28, and then 2.5% for every subsequent year of the 2027-32 regulatory period. Then compute the geometric average of the five assumed changes in the inflation index.	
Debt premium	The difference between the annualised cost of debt, using a 5-year trailing average of the debt margin for 10-year BBB-rated corporate bonds and the long-term risk-free rate estimate, and the annualised long-term risk-free rate estimate. The corporate bond yield for each historical year is determined using a two-month average over the relevant sampling period. 2026-27 tranche corporate bond yield used as a placeholder for the 2027-28 tranche for this proposal. Current debt premium to be updated annually.	The difference between the annualised cost of debt, using a 10-year trailing average of the debt margin for 10-year BBB-rated corporate bonds and the long-term risk-free rate estimate, and the annualised long-term risk-free rate estimate. The corporate bond yield for each historical year is determined using a two-month average over the relevant sampling period. 2026-27 tranche corporate bond yield used as a placeholder for the 2027-28 tranche for this proposal. Long-term debt premium to be updated annually.
Debt raising costs	12.5 basis points.	
Market Risk Premium	Derived using six methods, including IPART's five variations of the Dividend Growth Model, and the economic indicators method. To be sampled at the same date as the 2027-28 risk-free rate. IPART's January 2026 estimate used as a placeholder.	6.0%, based on IPART's long-term MRP estimate.
Gearing	60% based on 2018 IPART methodology.	
Gamma	0.25 based on 2018 IPART methodology.	
Equity beta	0.70 based on IPART's beta methodology to adopt the status quo estimate unless the empirical evidence has departed materially and for a prolonged period (two regulatory periods or more) from that level.	

Note: Preliminary estimates, to be updated.

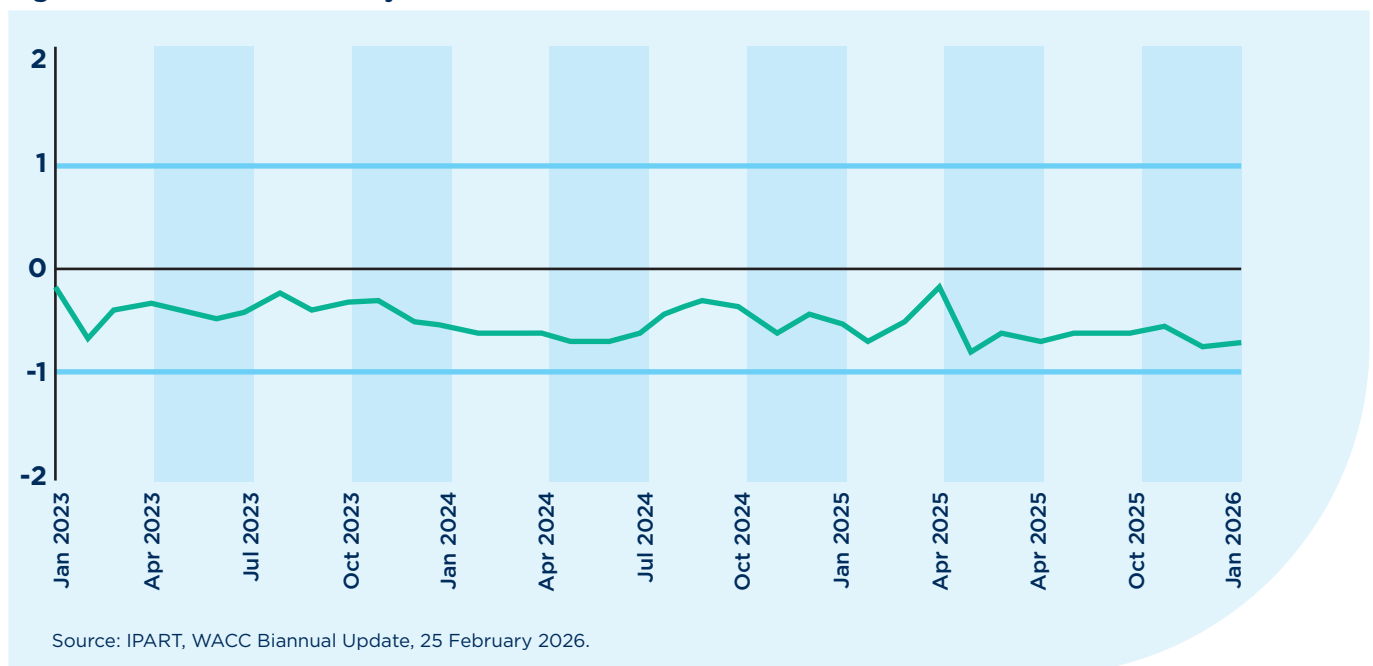
We applied IPART's standard 2018 WACC methodology to calculate the WACC. Under this approach we estimate one WACC based on current market data and one based on long-term average data. We note that IPART's uncertainty index was within one standard deviation of its mean value as at January 2026, shown in Figure 24. Accordingly, we select the mid-point of the current and long-term WACC values. Table 51 sets out the parameters used to derive SDP's 4.1% post-tax real WACC.

Table 51: Summary of each rate of return parameter estimate for the 2027-32 regulatory period

	Current	Long term
Nominal risk-free rate	4.40%	3.30%
Inflation	2.50%	2.50%
Implied Debt Margin	1.80%	2.00%
Market Risk Premium	5.9%	6.0%
Debt funding	60%	60%
Equity funding	40%	40%
Total funding (debt + equity)	100%	100%
Gamma	0.25	0.25
Corporate tax rate	30%	30%
Effective tax rate for equity	30%	30%
Effective tax rate for debt	30%	30%
Equity beta	0.70	0.70

Note: Preliminary estimates, to be updated

Figure 24: IPART's uncertainty index



We propose:

8. A placeholder post-tax real rate of return of 4.1% as set out in Table 52.³⁸

38. Preliminary estimates using placeholder estimates for 2027-28 market rates, inflation forecast and current MRP. To be updated.

Table 52: Proposed rate of return parameter estimates for the 2027-32 regulatory period

	Current	Long term	Midpoint
Cost of equity (nominal post-tax)	8.5%	7.5%	8.0%
Cost of debt (nominal pre-tax)	6.2%	5.3%	5.8%
Inflation	2.5%	2.5%	2.5%
Gearing	60%	60%	60%
Gamma	0.25	0.25	0.25
Corporate tax rate	30%	30%	30%
Nominal vanilla (nominal post-tax) WACC	7.1%	6.2%	6.7%
Post-tax real WACC	4.5%	3.6%	4.1%
Pre-tax nominal WACC	8.1%	7.1%	7.6%
Pre-tax real WACC point estimate	5.5%	4.4%	5.0%

Note: Preliminary estimates, to be updated

8.6 Proposed working capital allowance for 2027-28 to 2031-32

SDP has adopted IPART's established method for calculating the proposed return on working capital allowance.³⁹ IPART's method, which is set out in its 2018 Policy Paper on the method for determining the working capital allowance, involves two key steps:

- First, forecast the business's net working capital requirements over the regulatory period; and
- Then, apply the nominal WACC to the forecast working capital balance in each year to determine the required return on working capital.

The net working capital requirement is computed using the following relationship:

Net working capital = Receivables - Payables + Inventory + Prepayments

The method for determining each component of the formula above is explained in IPART's Policy Paper, which SDP has adopted.

We propose:

9. The return on working capital allowance is as outlined in Table 42, which is calculated using the values set out in Table 53.

Table 53: Proposed return on working capital allowance parameters

	Proposal	Explanation
Receivables (days)	45	Calculated using historical data on SDP's actual receivables and IPART's prescribed methodology.
Inventory (\$2026-27, \$millions)	\$0	SDP holds no inventories.
Payables (days)	30	Adopting IPART's benchmark number of days for payables.
Prepayments (\$2026-27, \$millions)	\$3.46	Reflecting projected prepayment of insurance premiums.

39. IPART, Working capital allowance, Policy Paper, November 2018.

8.7 Proposed tax allowance for 2027-28 to 2031-32

As IPART has moved to a real post-tax WACC, a regulatory allowance for corporate tax liabilities is provided through a separate allowance in the building block calculations.

The tax allowance calculations in Table 54 (Plant) and Table 55 (Pipeline) are in accordance with IPART's methodology incorporating the following elements:

- Regulated revenue (excluding tax) and operating costs consistent with regulatory building block allowances;
- Tax depreciation consistent with SDP's fixed asset register; SDP does not forecast to receive any non-cash capital contributions that would be treated as taxable revenue or included in SDP's tax asset base for the purposes of estimating tax depreciation expense;
- Interest costs based on benchmark debt gearing and cost of debt (ie the same assumptions used to estimate the WACC);
- Corporate tax rate of 30%; and
- Gamma of 25%.

As part of calculating the tax costs for the 2027-32 regulatory period, SDP forecasts tax depreciation using the tax asset base, standard ATO asset life assumptions and tax depreciation rules. This is consistent with the approach in calculating the actual tax obligations faced by SDP.

As was the case in the 2023-27 regulatory period, tax depreciation forecasts for the Plant result in a positive tax allowance. However, Pipeline tax depreciation forecasts result in a tax loss in the first two years, due to accelerated tax depreciation and material variations between tax and regulatory pipeline asset lives.

SDP proposes that Plant and Pipeline tax allowances should be combined in recognition that 'SDP Pty Ltd' is taxed as a single entity. This allows tax losses for the Pipeline to offset tax payable for the Plant.

We propose:

10. Tax allowances for the Plant and Pipeline as set out in Table 54 and Table 55 respectively.

Table 54: Tax allowance calculations – Plant (\$nominal, \$million)

	2027-28	2028-29	2029-30	2030-31	2031-32
Regulated revenue (excluding tax)	196.41	201.25	206.02	210.21	219.35
Operating costs	58.86	60.43	61.72	58.75	63.35
Tax depreciation	22.49	24.63	27.88	31.33	34.52
Interest	41.62	41.11	40.80	40.72	40.42
Taxable income	51.35	52.40	52.00	52.95	54.24
Tax (before adjustment for franking credits)	19.88	20.28	20.13	20.50	21.00
Adjustment for franking credits	-4.97	-5.07	-5.03	-5.12	-5.25
Tax allowance (\$nominal)	14.91	15.21	15.10	15.37	15.75
Tax allowance (\$2026-27)	14.54	14.48	14.02	13.93	13.92

Note: Forecasts based on production of drinking water of 38 GL per year.

Table 55: Tax allowance calculations – Pipeline (\$nominal, \$million)

	2027-28	2028-29	2029-30	2030-31	2031-32
Regulated revenue (excluding tax)	46.22	47.17	48.04	48.91	49.76
Operating costs	1.08	1.10	1.13	1.16	1.19
Tax depreciation	16.69	14.58	14.58	14.56	14.33
Interest	31.12	31.65	32.15	32.64	33.13
Taxable income	-2.67	-0.17	0.18	0.55	1.11
Tax (before adjustment for franking credits)	-1.03	-0.06	0.07	0.21	0.43
Adjustment for franking credits	0.26	0.02	-0.02	-0.05	-0.11
Tax allowance (\$nominal)	-0.77	-0.05	0.05	0.16	0.32
Tax allowance (\$2026-27)	-0.76	-0.05	0.05	0.14	0.29

Note: Forecasts based on production of drinking water of 38 GL per year.

8.8 Proposed opex allowance for 2027-28 to 2031-32

Our proposed operating expenditure for the Plant and Pipeline was set out in Chapters 6 and 7 and summarised in Table 56 and Table 57 respectively.

We propose:

- Operating expenditure allowances for the Plant and Pipeline as set out in Table 56 and Table 57 respectively.

Table 56: Operating expenditure – Plant (\$2026-27, \$million)

	2027-28	2028-29	2029-30	2030-31	2031-32
Operating expenditure (excluding energy)	\$52.38	\$52.73	\$52.84	\$54.88	\$54.56
Operating expenditure (energy)	\$26.60	\$26.38	\$26.40	\$22.31	\$25.14
Total Plant operating expenditure	\$78.98	\$79.11	\$79.24	\$77.19	\$79.70

Note: Forecasts based on production of drinking water of 38 GL per year.

Table 57: Operating expenditure – Pipeline (\$2026-27, \$million)

	2027-28	2028-29	2029-30	2030-31	2031-32
Total Pipeline operating expenditure	\$1.05	\$1.05	\$1.05	\$1.05	\$1.05

8.9 Proposed adjustments for the EAM

Consistent with its ToR, IPART has developed a mechanism to adjust SDP's price allowances to allocate gains or losses, outside a core band, from the sale of surplus electricity and LGCs under the GGRP contracts. This mechanism is known as the Energy Adjustment Mechanism (EAM). SDP has calculated the EAM carryover amounts in accordance with IPART's 2023 Methodology Paper. Consistent with that paper, the first year of the 2023 EAM application period has been assessed using the 2017 EAM methodology. The carryover amounts have therefore been calculated on the following basis:

- Application period: 2022-23 to 2025-26
- Adjustment period: 2027-28 to 2031-32
- Core band: 5% in 2022-23, and 2.5% in 2023-24 to 2025-26
- Sharing ratio: SDP retains 20% of gains or losses outside of core band, Sydney Water/customers receive the remaining 80%.

Table 58 summarises our proposed EAM adjustments for each year of the 2027-32 regulatory period.

We propose:

12. EAM adjustments for the 2027-32 regulatory period as set out in Table 58.

Table 58: EAM adjustments included in 2027-32 regulatory period (\$2026-27, \$millions)

	2027-28	2028-29	2029-30	2030-31	2031-32	Total 2027-32
EAM adjustments	-1.23	-1.23	-1.23	-1.23	-1.23	-6.14

8.10 Proposed adjustments for the ECM

The Efficiency Carryover Mechanism (ECM) allows SDP to carry over demonstrated efficiency savings, net of efficiency losses, in operating expenditure in providing drinking water supply services for a period of 4 years following the year in which the efficiency saving is achieved.

IPART refined the ECM in the June 2023 to:

- remove the mode-specific components of the ECM
- calculate two separate ECM components to estimate permanent efficiency savings for fixed and variable operating costs
- ensure permanent efficiency savings are retained by SDP for up to five years (i.e. the year the permanent efficiency saving is made plus another 4 years).

Table 59 summarises our proposed ECM adjustments for each year of the 2027-32 regulatory period. We are proposing a small ECM adjustment of \$1.87m which includes carryover of efficiency savings into 2027-28, 2028-29 and 2029-30.

Table 59: ECM adjustments included in 2027-32 regulatory period (\$2026-27, \$millions)

	2027-28	2028-29	2029-30	2030-31	2031-32	Total 2027-32
ECM adjustments	0.74	0.19	0.94	0.00	0.00	1.87

We calculated our proposed ECM adjustment consistent with the scope, definitions and process described in IPART's refined 2023 Methodology Paper. This involved:

- Identifying whether SDP permanently reduced total in-scope fixed or variable operating costs below the regulatory allowance used by IPART in setting maximum prices. We identified:
 - Incremental efficiency savings in energy volumes in 2022-23, 2024-25 and 2025-26, offset by a small incremental efficiency loss in 2023-24.
 - Incremental efficiency savings in variable operating costs excluding energy in 2023-24 and 2025-26, offset by incremental efficiency losses in 2022-23 and 2024-25.
 - We did not identify any efficiency savings in fixed operating costs.
- Calculating the ECM adjustment for variable operating costs by summing the incremental efficiency savings and losses across energy volumes and variable operating costs excluding energy and carrying them forward for an appropriate period. For example, savings achieved in the second year of the application period are carried forward to the first year of the 2027-32 regulatory period.

The net impact of these two adjustments is reflected in the ECM amounts set out in Table 59.

8.11 Proposed adjustments for the cost of debt true-up

We have calculated the required adjustments for the 2023-27 cost of debt true-up using the IPART true-up calculator. We find that the value of the true-up is nil. IPART set a real pre-tax cost of debt allowance for SDP of 2.9% for the 2023-27 regulatory period.

We find that the updated pre-tax cost of debt allowance for each year of the 2023-27 regulatory period was 2.9%. Accordingly, that no cost of debt true-up is required for the 2023-27 regulatory period.

In calculating this adjustment, we took the regulatory asset base values as per the final report for IPART's 2023 Determination (as per the true-up model instructions) and calculated updated cost of debt inputs for 2024-25, 2025-26 and 2026-27.



8.12 Financeability

8.12.1 Role of financeability tests in IPART's framework

IPART explains that the purpose of its financeability test is to check whether its pricing decisions are likely to give rise to a financeability concern and to identify the reasons for any concern.⁴⁰

IPART's framework involves the application of two separate financeability tests:

- The benchmark test is designed to assess whether a benchmark efficient business — which incurs the costs that IPART deems to be efficient, adopts the benchmark level of gearing, and raises debt at the benchmark cost of debt assumed by IPART — would be able to raise finance and maintain a set of credit metrics consistent with a BBB (Standard and Poor's) rating or Baa2 (Moody's) under IPART's pricing decision. The role of the benchmark test is to determine if regulatory allowances for a given regulatory period have been set below the level that would be required in order for "an efficient investment grade rated business to raise finance and remain financeable during the regulatory period."⁴¹ IPART explains that the benchmark test is intended to "identify any estimation and cash flow impacts arising from our building block approach."⁴²
- The actual test is designed to assess whether the actual business — with its actual gearing and cost of debt — would be able to maintain a set of credit metrics consistent with a BBB rating under IPART's pricing decision (i.e., whether the actual business would be financeable, with a BBB rating, during the regulatory period).

The benchmark test is an important check on the internal consistency of regulatory decisions by ensuring that the revenue requirements over a regulatory period would be sufficient to ensure the regulated business is able to maintain the benchmark credit rating used to set the allowances in the first place. IPART has explained that if the benchmark test showed the business faced a financeability concern it would reassess its pricing decisions and adjust its regulatory settings. Because the benchmark test is a particularly important safeguard against inadvertent regulatory errors that involve setting allowances too low, and which would undermine the financeability of a benchmark efficient business over the regulatory period, SDP has focused its analysis on the outcomes of the benchmark test.

40. IPART, Review of our financeability test, Final Report, November 2018, p. 10.

41. IPART, Review of our financeability test, Final Report, November 2018, p. 2.

42. IPART, Review of our financeability test, Final Report, November 2018, p. 2.

8.12.2 Limitations of IPART's benchmark test

Whilst SDP supports IPART's application of the benchmark test to confirm the internal consistency and reasonableness of its revenue determination, SDP has concerns about the specification of IPART's benchmark test. As SDP previously submitted to IPART during the 2018 review of IPART's financeability tests, and during the review of prices for the 2023-27 regulatory period:

- IPART's benchmark test assumes that the benchmark efficient business raises real (i.e., inflation-linked and capital indexed) rather than nominal debt and therefore faces real rather than nominal interest cost obligations. SDP's expert advisers noted that it would be more appropriate for the benchmark test to assume that the benchmark efficient business faces nominal interest cost obligations. Such an approach would be more appropriate for assessing the financeability of Australian businesses without State support, because such businesses raise nominal debt exclusively. It is extremely rare for Australian businesses to issue inflation-linked debt.
- IPART's benchmark test assumes implicitly that the efficient costs (i.e., operating and capital expenditures) the benchmark business will incur over the regulatory period match the cost allowances provided by IPART in its pricing decision. Such an approach would fail to identify any financeability concerns that could arise if IPART were to inadvertently underestimate efficient costs. IPART cannot determine the efficient expenditures of a benchmark business with complete certainty, so must estimate efficient costs with imperfect and limited information. Such an exercise is fraught with uncertainty and scope for error.
- The benchmark test should recognise this uncertainty rather than assume IPART is able to always set expenditure allowances perfectly in line with the true level of efficient costs. This could involve, for example, performing sensitivity testing of plausible scenarios for expenditure over the regulatory period to assess whether the benchmark efficient business would remain financeable if its prudent and efficient expenditure turned out to be higher than the forecasts used to set allowed revenues over the regulatory period.
- IPART's benchmark test excludes the Debt Service Coverage Ratio (DSCR), which is an important financial ratio used by lenders to assess the financeability of firms operating under a limited term concession, and firms with amortising debt profiles. These circumstances apply to SDP, but not State Owned Corporation water businesses regulated by IPART. The DSCR is used to assess the ability of a firm under such a concession to not only make interest payments on debt, but to also repay principal, within the term of the concession. We note the DSCR is a standard credit metric used by credit rating agencies including Moody's and Standard and Poor's, when rating firms subject to a limited concession life like SDP.

SDP considers that these shortcomings of the benchmark test mean that genuine financeability problems that ought to be addressed through the regulatory process may go undiagnosed. Notwithstanding these concerns, SDP has applied IPART's existing benchmark test to assess financeability under this proposal. SDP submits that IPART's next review of its financeability tests should consider anew the issues we have identified above.



8.12.3 Results from the benchmark financeability test

Table 60 below presents the results of IPART's benchmark financeability test when applied to SDP's revenue proposal.

Table 60: Outcome of benchmark financeability test applied to SDP's proposal

	Target	2027-28	2028-29	2029-30	2030-31	2031-32
Interest coverage	>2.2x	3.91	3.96	4.03	4.10	4.20
FFO over net debt	>7.0%	9.2%	9.4%	9.6%	9.8%	10.1%
Gearing	<70%	60%	60%	60%	60%	60%

The benchmark test assesses financeability using three key financial metrics:

- Interest coverage;
- FFO over net debt; and
- Gearing.

The benchmark efficient business is assumed under IPART's framework to maintain a gearing ratio of 60% in every year of the regulatory period. The target gearing ratio under IPART's benchmark is 70%. Hence, the benchmark test is, by construction, passed in every year of the 2027-32 regulatory period.

Table 60 shows that the benchmark efficient firm would be financeable under SDP's revenue proposal on the two cash flow metrics considered by IPART: the interest coverage ratio and the FFO over net debt ratio.

9. REGULATORY FRAMEWORK AND SETTINGS

Key messages

- We propose a 5-year regulatory period, from 1 July 2027 to 30 June 2032, consistent with IPART's default length of a regulatory period.
- We propose that IPART does not regulate (or defers regulation of) SDP's prices to customers other than Sydney Water. This would incentivise SDP to seek additional customers and enhance the probability of cost savings to Sydney Water and its customers. There are also regulatory precedents and examples where IPART has elected not to regulate (or to defer regulation of) monopoly water services of other providers.
- We do not propose application of IPART's 3Cs financial incentives schemes (the CESS, EBSS and ODI schemes). Customers did not express support for these incentive schemes. The CAP and Sydney Water preferred performance outcomes to be targeted via the performance monitoring framework rather than an ODI. Further, SDP already faces strong incentives to be as efficient as possible and meet the service needs of our customers, therefore the imposition of these incentive schemes would add unnecessary complexity to the regulatory framework.

9.1 We propose a 5-year regulatory period

We propose a pricing (or regulatory) period of 5 years (1 July 2027 to 30 June 2032). We are confident our forecasts in this proposal are sufficiently robust to set efficient prices for this period, and a 5-year determination period provides price certainty to SDP and customers and minimises regulatory costs.

Under the 3Cs Framework, IPART's default length of regulatory period is 5 years. According to IPART, this is to facilitate and encourage better long-term planning. IPART also notes that a business can propose a shorter or longer regulatory period, but this would need to be justified in its pricing proposal and supported by customers.

The length of the regulatory period is an important element of the regulatory framework. A shorter period will reduce the incentives and scope for efficiency gains, increase regulatory costs (as prices are reviewed and reset more frequently) and reduce price certainty for the business and its customers, but it reduces the risk there will be a difference between the business's cost allowance used to set prices and actual efficient costs over the period.

A longer period will enhance incentives for efficiency gains, reduce regulatory costs and provide greater price certainty to the business and its customers, but it increases risks of differences between cost allowances used to set prices and actual efficient costs over the period.

SDP's current regulatory period is 4-years, from 1 July 2023 to 30 June 2027, consistent with SDP's 2022 proposal to IPART. Under normal circumstances, SDP would have proposed a 5-year regulatory period in 2022 as this usually achieves an optimal balance of the pros and cons of shorter versus longer pricing periods.

However, IPART's last SDP price determination was delayed by 12 months to enable the NSW Government to make changes to SDP's Operating Licence to shift it from drought-response to flexible full-time operation. Prior to this delay, SDP had undertaken long-term debt raising and hedging activities assuming a price determination from 1 July 2022 to 30 June 2027 and so IPART considered it prudent and efficient to set SDP's rate of return allowances on this basis along with a regulatory period that ended on 30 June 2027.



9.2 We propose IPART does not determine prices for supply to entities other than Sydney Water

9.2.1 Current price and cost sharing arrangements

Our only customer currently is Sydney Water. IPART's determination sets the maximum prices we can charge Sydney Water. It also sets the maximum prices that SDP can charge other potential customers directly supplied by SDP. As IPART has noted:

*"we consider that there is merit in continuing to set maximum prices for potential other purchasers. This is because it would provide flexibility to SDP in case it gets approached by other potential purchasers of desalinated water."*⁴³

Under the 2023 Determination, SDP's:

- usage charge would be levied to Sydney Water and other purchasers, based on their water take
- fixed Plant service charge and Pipeline charge (if applicable) would be pro-rated between Sydney Water and other purchasers based on their water take as a proportion of total SDP supply capacity.

9.2.2 Concerns with current price and cost sharing arrangements

SDP must comply with Sydney Water's APRs and use its best endeavours to comply with other Sydney Water supply requests, consistent with our Operational Approval, the Decision Framework and the Water Supply Agreement. As a result, SDP would likely offer any service to another purchaser on a non-firm and incidental basis, subordinated to Sydney Water's requirements, limited to available capacity after satisfying Sydney Water's daily requirements, and subject to interruption.

However, these supply arrangements with Sydney Water and other potential customers directly supplied by SDP raise several concerns with the cost sharing approach in the 2023 Determination:

- First, the cost shares do not reflect the priority given to Sydney Water in supply and hence Sydney Water's call on SDP's supply capacity. In other words, under current arrangements, fixed costs would not be allocated between Sydney Water and the other customer in proportion to each party's contribution to the need to incur the costs.
- Second, given the current cost shares and the non-firm supply, it would be extremely challenging for SDP to attract other customers.
- Third, SDP has no financial incentive to pursue other customers. SDP would incur costs to attract and service new customers but the revenue benefits would be fully abated against SDP's fixed charges to Sydney Water.

These points mean that SDP is unlikely to attract another customer under the cost share arrangements in the 2023 Determination. In turn, this means that Sydney Water (and its customers) will likely:

- pay 100% of fixed service and pipeline charges (rather than a lesser share given the presence of another customers)
- pay more (and therefore be "worse off") than if Sydney Water was to pay a higher share of fixed service and pipeline charges (but less than 100% of these charges) if there is supply to another party.

Therefore, there would be benefits to Sydney Water and its customers from providing SDP with a stronger incentive and opportunity to pursue other water customers.

43. IPART, Sydney Desalination Plant Pty Ltd, Review of prices to apply from 1 July 2023, Final Report, p 105.

9.2.3 Our proposed approach to determining prices and cost sharing arrangements with other water purchasers

We propose that IPART should not determine prices, or should defer determining prices, for SDP's supply of non-rainfall dependent drinking water to purchasers other than Sydney Water.

This approach would allow SDP to negotiate prices and service terms with potential purchasers that reflect the commercial value of the service offered, including its non-firm and interruptible nature, while preserving IPART's regulation of SDP's prices to Sydney Water.

This approach would better reflect the service that SDP can practically provide to other customers. Sydney Water would continue to receive priority access to SDP's capacity under the existing regulatory and operational framework. Other purchasers would receive a materially different service, because SDP could only supply them when capacity remained available after satisfying Sydney Water's APR and other relevant Sydney Water supply requirements.

Our proposed approach would also recognise that potential third-party purchasers may have choices. For example, a third party could consider buying water from Sydney Water, other suppliers, or directly from SDP. Those alternatives would limit SDP's ability to exercise monopoly pricing power, particularly where SDP can offer only a non-firm service.

We propose that Sydney Water should continue to pay regulated prices for the regulated service it receives from SDP, including the plant service charge, the pipeline charge where applicable, and the usage charge. We would then treat revenue from negotiated third-party water supply agreements as revenue from a non-regulated activity. As per IPART's approach to non-regulated activities outlined in its Water Regulation Handbook, SDP proposes a default position of sharing profits from these activities 50:50 with Sydney Water but bear 100% of any losses from third-party supply arrangements.

SDP would calculate profit as revenue from the third-party arrangement less the incremental costs of providing the service, including any directly attributable operating costs and a reasonable allocation of shared incremental costs where relevant. SDP would then return Sydney Water's share of those profits through an NPV-neutral deduction from SDP's notional revenue requirement at a future determination or through an NPV-neutral true-up mechanism where the revenue is uncertain at the time of the price review.

This asymmetric treatment of profits and losses protects Sydney Water and its customers, while giving SDP a clear incentive to identify commercially viable opportunities that make better use of existing assets.

This framework would make Sydney Water and its customers better off where SDP successfully supplies another purchaser, because customers would share in profits without bearing losses. It would also improve SDP's incentive to pursue third-party opportunities, because SDP would retain a share of any profit it creates while continuing to protect regulated customers.

However, SDP notes that recent increases in data centre construction and government policy may drive a need for new water intensive data centres to source or utilise non-rainfall dependent water supply that could include capacity matching or direct supply from sources including desalinated or recycled water. This could materially change the dynamics of third-party supply by SDP and the charging parameters of both Sydney Water and SDP. Should this occur, we propose that this be considered independently of the framework set out above. SDP is well placed to support the resilience of the drinking water supply system and we look forward to engaging with IPART on these new developments in water policy and pricing regulation.

We also note there is precedent for IPART electing to not regulate (or defer regulation of) prices for monopoly water services. This includes, for example, Sydney Water and Hunter Water's prices of:

- recycled water services to residential and non-residential customers
- "wholesale" water and wastewater services to WIC Act licensees.



9.3 We also propose to share profits of any other non-regulated revenue

For any other non-regulated revenue that SDP might receive over the 2027-32 regulatory period, we propose that this is treated generally consistent with IPART's approach as outlined in its Water Regulation Handbook. Under this approach, forecast profits from non-regulated activities would be apportioned between customers and SDP. However, any losses associated with non-regulated activities would be borne 100% by SDP. This approach generally balances incentives and risk allocation under IPART's standard profit sharing approach. It allows Sydney Water (and its customers) to share in the benefits generated from the use of SDP's regulated assets while protecting these customers from exposure to any losses that may arise from activities that fall outside SDP's regulated services.

Examples of other potential sources of non-regulated revenue include SDP leasing part of the site to a third party, engaging in waste disposal (i.e. sale of lime sludge) or undertaking energy projects (e.g. receiving demand management payments from AEMO).

We propose that IPART's standard approach of sharing profits 50:50 with customers should apply to non-regulated revenues that are lower risk and potentially easier to develop, and could include leasing part of the site or engaging in the sale of waste. As a variation from IPART's standard approach, we propose that for at least one regulation period a sharing ratio of 80:20 is applied to activities that have a higher risk and cost of developing, such as energy demand response and management.

At this stage, we do not envisage any non-regulated revenue over the upcoming 2027-32 regulatory period. However, if such revenue does arise, we would advise IPART and propose the application of an end of period adjustment to share any profits with Sydney Water (and its customers).

9.4 We do not propose IPART's 3Cs financial incentive schemes

We propose that, for the 2027-32 regulatory period, IPART not apply its 3Cs Operating Expenditure Efficiency Benefit Sharing Scheme (EBSS), Capital Expenditure Efficiency Sharing Scheme (CESS) or Outcome Delivery Incentive (ODI) framework to SDP.

Instead, we propose that efficiency and performance incentives continue to be delivered through the existing regulatory arrangements, including SDP's efficiency commitments, expenditure allowances, the performance monitoring framework and the existing operating expenditure efficiency carryover mechanism (ECM). This approach best reflects SDP's operating environment, its role as a monopoly bulk water supplier with a single customer, and the preferences that the CAP and Sydney Water expressed through the development of this proposal.

9.4.1 Engagement feedback did not support SDP adopting IPART's Incentive Schemes

As part of our engagement program we discussed whether SDP should adopt IPART's 3Cs Incentive Scheme Framework. Feedback from Sydney Water and the CAP showed a lack of support for SDP proposing to apply IPART's 3Cs Incentive Scheme Framework (see Table 61).

Table 61: How we incorporated CAP Recommendation 10 and Sydney Water's response into this proposal

Customer Advisory Panel recommendation	Sydney Water's response
<p>10. That it is not essential for SDP to adopt IPART's three inter-related financial incentive schemes – EBSS, CESS and ODIs. The CAP regards efficient operation and delivery of required outcomes as fundamental, regardless of whether the schemes are adopted. If SDP elects to adopt the schemes, the customer share of the benefit/penalty must be passed on to end customers.</p>	<p>Sydney Water understands the CAP's concerns around the proposed incentive schemes and agrees that efficient operation of the plant and delivery of the required outcomes should be business as usual (BAU).</p> <p>Sydney Water remains open to SDP proposing an ODI, where it can drive performance above and beyond BAU requirements and there is a clear and material additional benefit for customers.</p> <p>SDP is currently working on an emergency response ODI, which it recently shared with Sydney Water in June 2026. Under the proposed ODI, a fixed \$25,000 reward/penalty would apply each time SDP delivers/fails to deliver a target volume of 45 megalitres (ML) within 12 hours and a target volume of 150ML in total within 24 hours. The total reward or penalty is capped at \$50,000 per emergency event.</p> <p>As it stands, Sydney Water considers that a number of changes are required in order for SDP's proposed emergency response ODI to deliver a clear and material additional benefit for our customers.</p> <p>An alternative option may be to include customer outcome reporting to measure SDP's performance on meeting emergency response requests, without financial reward or penalty, instead of pursuing an emergency response ODI.</p>
<p>How we incorporated this recommendation</p> <p>We have proposed not to adopt IPART's three inter-related financial incentive schemes based on feedback from our CAP and Sydney Water. We have incorporated the ODI designed with Sydney Water into our performance measures framework.</p>	

We explored the development of a bespoke Outcome Delivery Incentive scheme in consultation with Sydney Water and the CAP. Between September 2025 and July 2026, we worked with Sydney Water to develop potential outcome-based incentives linked to emergency production response capability and service performance beyond minimum licence and approval requirements.

While this process demonstrated that a workable ODI could be developed, we ultimately decided not to propose such a scheme. Feedback from Sydney Water and the CAP indicated a preference for incorporating these measures into our performance monitoring framework rather than attaching financial rewards or penalties to performance outcomes. As a result, we propose that the relevant measures be included as performance measures for the 2027-32 regulatory period (as outlined in Chapter 3) rather than as a financial incentive scheme.

9.4.2 The existing framework provides strong incentives for enhanced efficiency and performance

We remain strongly incentivised to operate efficiently and deliver value to customers, notwithstanding our proposal not to adopt IPART's standard EBSS, CESS and ODI mechanisms.

Our operating framework already contains strong incentives for enhanced efficiency and performance. For example:

- Under the Minister's ToR to IPART and the current ECM methodology, operating expenditure efficiency savings, net of efficiency losses, are carried forward for four years after the year in which the saving is achieved. This arrangement ensures that SDP has a financial incentive to pursue efficiency gains evenly throughout the regulatory period, before such gains are ultimately passed through to customers.
- Our proposed expenditure forecasts incorporate challenging efficiency commitments, and SDP continues to be exposed to the financial consequences of outperforming or underperforming against efficient expenditure allowances. We will only recover the efficient costs approved by IPART, and we remain accountable to our customer and stakeholders for delivering services within those allowances. This creates powerful ongoing incentives to pursue productivity improvements, innovation and cost efficiencies throughout the regulatory period.
- We will remain publicly accountable through our performance reporting framework and ongoing monitoring arrangements. IPART's 3Cs framework emphasises transparency, monitoring, customer accountability and delivery of customer outcomes, creating significant reputational incentives for SDP to meet or exceed stakeholder expectations.
- As our only direct customer, Sydney Water has a strong ability to scrutinise SDP's performance and influence future planning and operational decisions. SDP's engagement program has strengthened these accountability arrangements and established clear expectations regarding service delivery, affordability and continuous improvement.
- Our operations and performance, including responsiveness to Sydney Water's needs, are regulated through our Operator Licence, Scheme Approval and Operational Approval – which are administered by IPART under the Water Industry Competition Act 2006.



10 3CS GRADING

Key messages

- We have self-assessed our proposal using IPART's grading rubric as a Standard Proposal. Our self-assessed grading considered our individual assessment against each of the 12 Principles as outlined in Attachment 7.
- Throughout the development of our proposal, we sought to put forward our best offer and be ambitious against the 3Cs framework. Our self-assessment shows we have developed a high-quality proposal, which includes many aspects of an Advanced proposal. We have, however, decided to self-assess as Standard because:
 - we heard from workshop participants and through analysis of Sydney Water's engagement findings that affordability is important and have decided not to apply for the Advanced Grading financial incentive
 - we seek clarity from IPART on the application of the 3Cs framework to SDP, particularly given the proposed and required changes to our energy regulatory framework post 2030.
- This proposal demonstrates a step change in SDP's customer focus and engagement, including direct and ongoing collaboration with Sydney Water, a dedicated CAP and DCCEEW, as well as analysis of more than 30,000 customer insights obtained from Sydney Water's extensive customer engagement program. Workshop participants influenced the engagement agenda, session design and deliberation topics.
- This proposal is strongly aligned with customer priorities and long-term interests. We have adopted Sydney Water's Customer Outcomes and all of the CAP's recommendations, ensuring that our services, expenditure decisions and performance measures reflect the outcomes valued by the people and businesses of Sydney.
- Affordability has been a central consideration throughout the proposal. Customer feedback consistently emphasised fair and affordable bills, efficient expenditure and the deferral of non-essential investment. We have responded by deferring projects, applying ongoing efficiency targets and ensuring that proposed expenditure is supported by robust evidence and clear customer benefits.
- The proposal reflects robust and evidence-based expenditure planning. Expenditure forecasts are supported by proportionate business cases, long-term asset management planning, condition-based assessments, cost-benefit analysis and independent expert review.
- The proposal demonstrates a strong commitment to continuous improvement and delivering value for customers. It includes a Cost Efficiency Strategy, annual efficiency targets for operating and capital expenditure, improved performance reporting, and a commitment to ongoing engagement processes.

IPART's 3Cs Framework introduces the requirement for businesses to self-assess the 'quality' of their proposals against guidance in the Water Regulation Handbook. This requirement is outlined in the box below.

Self-assessment against IPART's 3Cs framework

- Under IPART's 3Cs framework, as outlined in its Water Regulation Handbook, each regulated water business must assess whether its proposal is Standard, Advanced or Leading when evaluated against IPART's 12 principles, made up of 6 Customer principles, 4 Cost principles and 2 Credibility principles.
- The self-assessment is intended to demonstrate how the proposal promotes customer value, provide evidence that proposed expenditure and outcomes are justified and deliverable and inform IPART's regulatory approach, including eligibility for financial rewards.
- IPART does not expect businesses to grade each principle individually. Instead, it expects an overall assessment of the proposal as a package, supported by qualitative and quantitative evidence demonstrating how the proposal promotes customer value, cost efficiency and credible delivery.
- In terms of each grade:
 - Standard represents good practice in the NSW water sector, where the business conducts meaningful customer engagement, demonstrates a credible path towards the cost-efficiency frontier, proposes customer outcomes linked to customer preferences, provides efficient and justified expenditure forecasts, and demonstrates deliverability and accountability
 - Advanced demonstrates a very strong understanding of customers, performance broadly at the cost-efficiency frontier, greater customer influence over decision-making, stronger evidence linking expenditure to customer value, and measurable improvements in outcomes and service levels beyond standard practice
 - Leading demonstrates that the business is an industry leader in customer understanding and engagement, innovating in how services are delivered, driving significant cost efficiencies, delivering step changes in customer value, and co-designing important elements of the proposal with customers.
- The self-assessment is intended to be a Board-owned view of the proposal. Before lodgement, the business must obtain board endorsement and provide an attestation that the proposal represents the business's best customer value proposition, delivers services at lowest sustainable cost, has been prepared using the best available information and has undergone a quality assurance check.
- The grade of the proposal is determined by IPART, which assesses the proposal against the same 12 principles and determines whether the proposal is Standard, Advanced or Leading. The resulting grade influences reputational outcomes, financial incentives and potentially the depth of IPART's regulatory review.



10.1 Our self-assessment grading is Standard

Overall, we consider this proposal to be at the upper end of Standard and could meet the threshold of being considered an Advanced proposal. SDP has self-assessed that we meet the Advanced grading for five principles, Standard grading for six principles, and found one principle not applicable given SDP's role as a monopoly bulk drinking water supplier with a single direct customer.

The proposal is characterised by:

- our most extensive customer and stakeholder engagement program to date
- direct incorporation of customer and stakeholder feedback into expenditure, performance measures and regulatory positions
- adoption of Sydney Water's Customer Outcomes as SDP's own outcomes
- strong governance, assurance and Board oversight throughout the development of the proposal
- robust expenditure forecasting, informed by prudent long-term planning
- significant external review and challenge across expenditure, deliverability, engagement and self-assessment processes
- a strong focus on affordability and efficient expenditure.

A summary of our self-assessment against the Customer, Cost and Credibility principles is outlined below. Our more detailed assessment against each principle in IPART's 3Cs Grading Rubric is presented in Attachment 7.

10.2 Customer principles

We consider our performance against the Customer principles is predominantly Advanced. This proposal demonstrates a strong commitment to understanding customer preferences, embedding those preferences into planning and decision-making, and ensuring that expenditure, service outcomes and performance measures in this proposal reflect customer priorities.

SDP's engagement program represents the most comprehensive customer and stakeholder engagement process undertaken by the business to date and included direct engagement with Sydney Water, NSW Government stakeholders, establishing a dedicated CAP and the use of more than 30,000 customer insights obtained through Sydney Water's broader engagement program.

Customer Centricity

Customer preferences directly influenced this proposal and informed our strategic and operational decision-making. We have developed and published a Customer and Stakeholder Engagement Strategy, established a CAP to help us understand customer views, held workshops with the CAP, Sydney Water and DCCEEW (allowing workshop participants to genuinely influence the engagement agenda and deliberation topics), analysed data from extensive customer research and incorporated all recommendations of the CAP into this proposal. We also adopted Sydney Water's customer outcomes framework to ensure alignment with customer preferences.

Customer engagement

Engagement activities were specifically designed to focus on matters most important to Sydney Water and its customers, including affordability, reliability, service levels and expenditure priorities. Sydney Water and the CAP were provided with information about expected bill impacts, service implications and trade-offs associated with different options, with their feedback incorporated into the proposal. Through a structured deliberative process, Sydney Water and the CAP weighed the benefits, costs and risks associated with alternative approaches before finalising their advice for inclusion in this proposal. We also adjusted engagement approaches based on stakeholder feedback throughout the process.

Customer Outcomes

We have adopted customer outcomes that were directly informed by customer engagement and aligned with Sydney Water's customer outcomes framework; and we have linked proposed expenditure, performance measures and targets to the outcomes. Our proposal also includes mechanisms for public reporting and accountability, including reporting our performance against 10 performance measures and 12 performance targets. While we originally developed an Outcome Delivery Incentive (ODI) alongside Sydney Water, stakeholder feedback ultimately supported retaining outcome accountability through performance measures rather than a formal ODI framework.

Community, Environment and Choice of Service

We have incorporated broader community and environmental considerations into this proposal. We will continue to procure renewable energy, pursue energy-efficiency opportunities, comply with environmental requirements and improve reporting on our community, environmental and climate-related performance. However, we note that some aspects of these principles are more directly applicable to retail water utilities with broader retail customer responsibilities.

10.3 Cost principles

We consider this proposal achieves a mix of Standard and Advanced ratings across the Cost principles.

This proposal includes prudent expenditure forecasting, robust long-term planning, strong consideration of asset management risks and a commitment to ongoing efficiency improvement, while also reflecting SDP's operational realities – including our Operator Licence and Operational Approval and Sydney Water's supply needs.

Overall, our cost proposals appropriately balance affordability, efficiency, risk management and long-term asset sustainability.

Robust costs

Our proposed expenditure allowances are supported by business cases, long-term asset management planning and evidence demonstrating customer value. We have also deferred capital projects to the next regulatory period and re-profiled some expenditure into later years of the 2027-32 regulatory period where possible. Forecast operating expenditure is based on a base-trend-step approach, while capital expenditure proposals are supported by asset condition information, lifecycle planning and cost-benefit analysis. We also obtained independent expert reviews of both our capital forecasting processes and expenditure proposals to provide additional assurance regarding prudence and efficiency.

The proposal demonstrates strong consideration of operating and capital expenditure trade-offs and includes transparent reporting commitments to improve accountability over expenditure outcomes.

Balance risk and long-term performance

We have a robust asset management framework, systematic risk management practices and demonstrated ability to reprioritise expenditure where appropriate while maintaining service reliability. Our planning processes provide a strong basis for balancing customer costs, operational risks and long-term asset performance.

Commitment to improve value

We have developed and published a formal Cost Efficiency Strategy that includes annual efficiency factors for operating expenditure, capital expenditure and energy costs. The strategy documents productivity improvements achieved during the current period and identifies further opportunities to improve value for customers over the 2027-32 regulatory period. Consistent with customer feedback, this proposal places a strong emphasis on delivering affordable services through ongoing productivity improvement and efficiency initiatives (as outlined in our Cost Efficiency Strategy).

Equitable and efficient cost recovery

Our proposed tariff structure remains consistent with the requirements of the Minister's ToR to IPART for its determination of SDP's prices, including the principle that SDP should be financially indifferent as to whether drinking water is supplied. Our proposed price structure and prices are also cost reflective, transparent and efficient. Given our wholesale business model and single customer structure, some elements of the higher-order tariff design criteria in IPART's 3Cs Grading Rubric are less applicable than they would be for retail water businesses.

10.4 Credibility principles

Our proposal is strongly aligned with the Credibility principles of IPART's 3Cs framework. This proposal demonstrates both the capability to deliver the proposed outcomes and a commitment to continuous improvement through transparent reporting, performance monitoring and incorporation of lessons learned from previous regulatory periods.

Delivering

Our proposed expenditure programs, performance targets and service outcomes are realistic, achievable and supported by appropriate governance frameworks. This proposal has been subject to Board oversight throughout development and was supported by a comprehensive assurance process. We also propose enhanced public reporting on expenditure, performance measures and key investments to improve transparency and accountability during the 2027-32 regulatory period.

This proposal demonstrates a clear understanding of foreseeable challenges, including demand uncertainty, asset replacement requirements, climate-related risks and future plant expansion requirements. SDP has developed planning processes and long-term strategies to manage these risks, while maintaining service reliability and customer value.

Continual improvement

We have incorporated feedback from previous determinations, regulator reviews and stakeholder engagement into our current planning approaches. Examples include enhancements to expenditure forecasting methodologies, improvements to customer engagement, formalisation of governance processes and adoption of recommendations from previous IPART reviews. We have also identified opportunities for future improvement and committed to ongoing refinement of our engagement, reporting and performance monitoring approaches.



GLOSSARY

Term	Definition
Annual Production Request (APR)	Sydney Water's request specifying the volume of drinking water SDP is to produce and supply over a year (July to June), including any agreed adjustments made in accordance with SDP's Operational Approval and the Water Supply Agreement.
Asset lives	The economic lives of assets used to provide SDP's regulated services (estimates of economic lives are used to calculate the allowance for regulatory depreciation or return of capital investment).
Asset Management Plan	A plan that describes how the Plant and Pipeline will be managed to ensure assets are maintained, renewed and enhanced to meet performance targets and while balancing cost, risk and performance. It establishes service objectives focused on safety, water quality, environmental compliance, reliability and sustainability, while supporting Sydney's water security needs.
Base-Trend-Step	The approach IPART will use when setting operating expenditure allowances. 'Base' refers to the efficient recurring expenditure required each year, calculated from recent past data. 'Trend' refers to predictable changes in expenditure over time due to known factors such as demand growth or inflation. 'Step' refers to changes in expenditure caused by new requirements or new processes.
Building block	IPART's standard methodology to establish notional revenue requirement (comprised of allowances for efficient operating expenditure, a return on capital, a return of capital, working capital and tax)
Bulk water supplier	Entity or utility that provides water on a wholesale basis to other water distributors, councils, or commercial entities rather than directly to individual residential households
Capacity of the Plant and Pipeline	The capacity of the existing Plant is 250ML per day measured as a rolling average over 365 days. The capacity of the Pipeline is an annual daily average of up to 500ML per day
Capex	Capital expenditure
Capital Efficiency Sharing Scheme	An incentive scheme to provide water businesses with a fixed share of any efficiency gains (or losses) associated with capex during a determination period.
Capital expenditure	Money spent by a business or organization on acquiring or maintaining fixed assets, such as land, buildings, and equipment. In SDP's case this includes relevant expenditure on the Plant and Pipeline and associated assets, including periodic maintenance and specific capital projects
Cost Efficiency Strategy	SDP's formal plan for delivering services at the lowest sustainable price for customers.
Cost of Debt Allowance	The minimum rate of return required by debt investors in a benchmark efficient regulated business.

Term	Definition
Consumer Price Index	The Australian All Groups Consumer Price Index number (Weighted average of eight capital cities) published by the Australian Bureau of Statistics.
Customer Advisory Panel	The independent panel of customer and community representatives established to advise SDP during development of its 2027–32 price proposal, with a focus on customer priorities, affordability and service outcomes.
Customers	Sydney Water, as SDP's direct customer, and the households and businesses supplied by Sydney Water that ultimately benefit from and contribute to the cost of SDP's services.
Debt Service Coverage Ratio	Ratio of operating income available to debt servicing for interest, principal and lease payments.
Decision Framework	The framework used by Sydney Water to decide when and how much drinking water to request from SDP, having regard to system needs, water security, operational considerations and customer costs.
Determination Period	The period of time over which a determination of maximum prices applies.
Drinking Water Pump Station	Transfers water from the Plant's drinking water tank via the Pipeline into Sydney Water's distribution network at Erskineville.
Efficiency Benefit Sharing Scheme	An incentive scheme to provide water businesses with a fixed share of any efficiency gains (or losses) associated with opex during a determination period.
Efficiency Carryover Mechanism	A financial incentive scheme for SDP to pursue operating expenditure efficiencies regardless of when they may be realised within a regulatory period, as outlined in the ToR and IPART's Efficiency Carryover Mechanism Methodology Paper.
Efficiency factor	Factor applied to a business's forecast expenditure, when appropriate, to adjust it for ongoing or continuing productivity improvements.
Emergency production request	A request from Sydney Water to SDP to produce a specified volume of water (over a specified period) for an emergency response
Emergency response	SDP's response to an emergency production request from Sydney Water, including ramping up the Plant and delivering the requested drinking water volumes within and over the required timeframes (on a best endeavours basis).
Energy Adjustment Mechanism	As per the ToR, the energy adjustment mechanism is to provide for the carryover and pass-through to SDP's customers of gains or losses, outside a core band, associated with the sale of surplus electricity and RECs.
Energy network costs	Component of benchmark energy price based on estimated Ausgrid network charges
Energy retail operating costs & margin	Component of benchmark energy price covering retail operating costs and retail margin.
Energy volume	The amount of energy consumed, forecast, or purchased (as relevant) in Megawatt-hours.
Expansion	The potential future expansion of the Plant to facilitate capacity for an additional 250ML per day of production.

Term	Definition
Financeability	The capacity of a business to finance its activities – including its day-to-day operations and its capital investments to renew and expand the infrastructure required for these activities.
Flexible full-time operations	SDP's operation under its Operating Licence in which the Plant remains always operational, ready and flexible to deliver varying volumes of water as required.
Fixed production days	Indicative dates during which SDP must use best endeavours to supply a specific (minimum) quantity of Drinking Water to align with planned events as requested by Sydney Water under the Water Supply Agreement.
Focus Principles	SDP's nominated focus principles, amongst the 12 principles in IPART's 3Cs framework, as outlined in the Water Regulation Handbook.
Grading Rubric	IPART's framework for assessing the quality of water business price proposals, as outlined in Appendix B of its Water Regulation Handbook.
Greenhouse Gas Reduction Plan	A strategic plan for the management, minimisation and off-set of greenhouse gas generation associated with electricity supply for the Plant required under s75J of the EP&A Act 1979 (NSW).
GGRP contracts	SDP's electricity and renewable energy certificate contracts entered into under its Greenhouse Gas Reduction Program, which apply until their expiry in 2030.
Greater Sydney Water Strategy	The NSW Government's long-term strategy, released in August 2022, for resilient and sustainable water and wastewater services across Greater Sydney, including the role of desalination in the supply system.
IPA2 Public Participation Spectrum	An international framework created by the International Association for Public Participation to help organisations define the public's role in any community engagement process.
Long-Term Investment Plan	SDP's primary framework for outlining efficient capital and operational expenditure over an extended timeframe.
Minimum Baseline Production Amount	The minimum amount of water that Sydney Water must order each year from SDP under the Water Supply Agreement.
Minimum Water Usage Charge	A charge (\$ per day) reflecting the costs SDP incurs in producing small volumes of water to maintain the Plant's function during zero to very low production days to keep the Plant ready to increase production when requested by Sydney Water.
Net Present Value	The discounted value of a stream of benefits (or costs) taking into account the time value of money.
Non-regulated revenue	Revenue earned from services that are not subject to economic regulation (i.e., revenue from services that are not monopoly services subject to price regulation by IPART).
Notional Revenue Requirement	The sum of SDP's building block cost components.
O&M contract	Operating and maintenance contracts between SDP and Veolia (the plant operator).

Term	Definition
Operating expenditure	Expenditure incurred in facilitating the functioning of the Plant in line with Good Industry Practice, as required under SDP's Operating Licence, including corporate administrative and organisational activities, but excluding Capex.
Operational Approval	The approval issued under the Water Industry Competition Act 2006 that authorises and sets operational requirements for SDP's water infrastructure and services.
Operator	Veolia Water Australia (Veolia), which is contracted to operate the Plant under the current O&M contract
Operator Licence	SDP's Operator Licence issued under the Water Industry Competition Act 2006
Operating Licence	SDP's operations and performance are regulated by a Scheme Approval, an Operational Approval and an Operator Licence, issued under the NSW Water Industry Competition Act 2006 (the WIC Act). These approvals and licences replaced SDP's Network Operator's Licence, following changes to the WIC Act. We often refer to these approvals and licences collectively as our licence requirements or our Operating Licence.
Opex	Operating expenditure
Outcome Delivery Incentive Scheme (ODI)	An incentive scheme to provide financial benefits (penalties) for achieving (not achieving) customer agreed outcomes
Performance measure	Measures of SDP's performance in delivering customer outcomes over the regulatory period
Plant	The Sydney Desalination Plant at Kurnell, including the infrastructure used to take in seawater, produce drinking water by reverse osmosis and discharge the resulting seawater concentrate.
Plant Service Charge	A charge (\$/day) to reflect the fixed costs SDP incurs in maintaining the Plant.
Pipeline	The drinking water pipeline and associated infrastructure that transport water produced by the Plant to Sydney Water's supply network.
Pipeline Service Charge	A charge (\$/day) to reflect the fixed costs SDP incurs in maintaining the Pipeline.
Production Request	A request made by Sydney Water to SDP to produce water in accordance with SDP's Operator Licence, Operational Approval, the Decision Framework and Water Supply Agreement.
Proposal	SDP's submission to IPART seeking prices and regulatory arrangements for the five-year period from 1 July 2027 to 30 June 2032.
Project Approval	When the Sydney Desalination Plant project was first developed, a detailed Project Approval under former/s75J of the Environmental Planning and Assessment Act 1979 was put in place. The Project Approval included requirements on how the Plant was to be built and how it should be operated and maintained.
Regulatory Asset Base	The present value of SDP's unrecovered efficient historical capital investment. The Regulatory Asset Base (RAB) is used as the basis for calculating allowances for a return on and of capital expenditure.

Term	Definition
Regulatory period	The period over which prices are determined.
Renewable Energy Certificate	A tradable certificate representing the renewable attributes of electricity generation and used to demonstrate compliance with renewable energy obligations; for the 2027–32 period this includes applicable LGC or REGO certificates.
Renewable Energy Guarantee of Origin (REGO) scheme	A national framework administered by the Clean Energy Regulator to track, verify and certify the exact source, location and time of renewable electricity generation.
Renewable Energy Zones	Zones where clusters of large-scale renewable energy projects can be developed using economies of scale, supported by network infrastructure.
Return on assets	An allowance to account for the opportunity cost of capital invested to provide regulated services. Calculated by multiplying the RAB by the WACC.
Return of assets	An allowance to provide for the return of capital invested to supply regulated services, over the economic life of assets. Otherwise known as regulatory depreciation.
Revenue requirement	The sum of SDP's building block cost components.
Reverse Osmosis (RO)	A water purification process that uses a partially permeable membrane to remove salt and other minerals from seawater to produce drinking water.
Reverse Osmosis Membrane	Component of the reverse osmosis process that removes dissolved salt and other minerals from seawater or brackish water under high pressure.
RO Membrane Replacement	Capital expenditure on new reverse osmosis membranes to replace used membranes in the reverse osmosis system. It includes removal of used membranes and installation of new membranes.
Scheme Approval	The approval under the Water Industry Competition Act 2006 for the water industry infrastructure scheme comprising the Plant and Pipeline, including the conditions applying to the scheme.
Subordinate energy costs	Component of energy cost covering secondary cost components e.g. ancillary service charges, energy market fees, and metering and data costs.
Tax allowance	An allowance to reflect the tax liability the benchmark business would incur in providing the regulated services.
Terms of Reference	The NSW Government's directions to IPART setting the matters and pricing principles it must consider when determining SDP's prices for the 2027–32 regulatory period.
Veolia	Veolia Water Australia Pty Ltd, the Plant Operator under the current O&M contract.
Variable charge	Water Usage Charge.
Water Regulation Handbook	IPART's guidance document to regulated water businesses, which explains its expectations and how it will assess price proposals.
Water Supply Agreement	The agreement between SDP and Sydney Water governing the request, production, delivery and payment arrangements for drinking water supplied by SDP.

Term	Definition
Water Usage Charge	A volumetric charge (\$ per ML of drinking water supplied) to reflect the costs to SDP of supplying a ML of drinking water to Sydney Water.
Weighted Average Cost of Capital (WACC)	Weighted average of debt and equity costs required for a benchmark efficient business to invest in necessary infrastructure.
Wholesale electricity costs	The bulk prices that energy retailers pay generators for electricity before adding network, environmental, and retail business charges.
Working capital allowance	An allowance in the notional revenue requirement to ensure the business recovers the costs it incurs due to the time delay between providing a service and receiving the money for it (i.e. when the bills are paid).
2023 Determination	IPART determination on the maximum prices SDP may charge from 1 July 2023 to 30 June 2027.
2027-32 regulatory period	The five-year regulatory period from 1 July 2027 to 30 June 2032 covered by this proposal.
2023-27 regulatory period	The four-year regulatory period from 1 July 2023 to 30 June 2027 covered by IPART's current SDP price determination.
3Cs regulatory framework	IPART's regulatory approach (focusing on 12 principles under Customer, Cost, and Credibility), as outlined in its Water Regulation Handbook

ABBREVIATIONS

Abbreviation	Definition
3Cs	IPART's Customer, Cost and Credibility framework, as outlined in its Water Regulation Handbook
ABS	Australian Bureau of Statistics
ACN	Australian Company Number
ADWG	Australian Drinking Water Guidelines
AEMO	Australian Energy Market Operator
AER	Australian Energy Regulator
AIR	Annual Information Return
AMP	Asset Management Plan
APR	Annual Production Request
ASX	Australian Securities Exchange
BI	Business interruption
BTS	Base-Trend-Step
CAP	Customer Advisory Panel
CEO	Chief Executive Officer
CESS	Capital Expenditure Sharing Scheme
CPI	Consumer Price Index
DCCEEW	NSW Department of Climate Change, Energy, the Environment and Water
DEI	Diversity, Equity and Inclusion
DSCR	Debt Service Coverage Ratio
DWEER	Dual Work Exchanger Energy Recovery
DWPS	Drinking Water Pump Station
DWT	Drinking Water Tank
EAM	Energy Adjustment Mechanism
EBSS	Efficiency Benefit Sharing Scheme
ECM	Efficiency Carryover Mechanism
EPA	Environment Protection Authority
ERD	Energy Recovery Device
ERN	Emergency Response Notice
ESG	Environmental Social and Governance
ESS	Energy Savings Scheme
FNC	Fixed Network Charge

Abbreviation	Definition
FPD	Fixed Production Day
GHG	Greenhouse gas
GGRP	Green State Power Greenhouse Gas Reduction Program
GL	Gigalitre
GRC	Governance, risk and compliance
GSWS	Greater Sydney Water Strategy
IAP2	International Association for Public Participation
IPART	Independent Pricing and Regulatory Tribunal of New South Wales
JEC	Justice and Equity Centre
kV	Kilovolt
kVA	Kilovolt-amperes
LGCs	Large-Scale Generation Certificates
ML	Megalitre
MFP	Multifactor productivity
MWh	Megawatt-hour
NEM	National Electricity Market
NPV	Net Present Value
NRR	Notional Revenue Requirement
NSW EGWWS WPI	New South Wales Electricity, Gas, Water and Waste Services Wage Price Index
ODI	Outcome Delivery Incentive
O&M	Operations and Maintenance
PAMP	Pipeline Asset Maintenance Plan
PDRS	Peak Demand Reduction Scheme
PM	Project Management
RAB	Regulatory Asset Base
RECs	Renewable Energy Certificates
REGO	Renewable Electricity Guarantee of Origin
RO	Reverse osmosis
RERT	Reliability and Emergency Reserve Trader
REZs	Renewable Energy Zones
RSA	Renewable Services Agreement
SDP	Sydney Desalination Plant Pty Limited
SIR	Special Information Return
STCs	Small-scale Technology Certificates

Abbreviation	Definition
ToR	Terms of Reference
UFE	Unaccounted for energy
UTA	Utilities Trust Australia
VNC	Variable Network Charge
VSDs	Variable Speed Drives
WACC	Weighted average cost of capital
WHS	Workplace Health and Safety
WIC Act	Water Industry Competition Act 2006
WICA	Water Industry Competition Act 2006
WPI	Wage Price Index
WSA	Water Supply Agreement

APPENDIX

1. Public Attachments

Attachment 1 - Customer and Stakeholder Engagement Strategy 2025

Attachment 2 - Customer Engagement Report (Tingwall)

Attachment 3 - Letter from Customer Advisory Panel (CAP)

Attachment 4 - Letter from Sydney Water

Attachment 5 - Long Term Investment Plan

Attachment 6 - Cost Efficiency Strategy

Attachment 7 - Self-assessment against IPART's 3Cs Grading Rubric

Attachment 8 - Regulatory treatment of SDP's energy costs for RP4 (Frontier Economics)

Attachment 9 - Energy Procurement Options Assessment (Baringa)

Attachment 10 - Asset Replacement Model and Deliverability Review (Sequana)

2. Other information provided to IPART

- Land Tax Liability Assessment Report (JLL)
- Insurance reports (Aon, Marsh, WTW)
- Cost Escalation Report (Oxford Economics)
- WSAA Benchmarking Totex Study for SDP (WSAA)
- Operational Flexibility Assessment Report (Sequana)
- Systems and Processes Review (Frontier Economics)
- SDP 2027-32 Cybersecurity Strategy (McGrathNicol)
- Letter from DCCEEW
- Draft RP4 Outcome Delivery Incentive Scheme (Houston Kemp)
- Averaging periods (CONFIDENTIAL)
- SDP Procurement Policy
- SDP Capital Works Procedure
- SDP Capitalisation Policy and Procedure
- EAM Compliance Review (Seed Advisory)
- Membrane Replacement Strategy (SDP)
- Energy Recovery Device (ERD) Strategy (SDP)
- Pipeline Opex and Capex Reports (KBR)
- Business cases (Second Drinking Water Tank, Drinking Water Pump Station Reliability Project, 1132Kv Feeder, Warehouse)
- Energy Price Forecasts Report (Baringa)
- GGRP Review Briefing (Baringa)
- Analysis of GGRP Contracts (ACIL Allen)
- Economic Asset Lives and Regulatory Precedents (Frontier Economics)
- Customer Engagement Materials
- Various models (RP4 Post-Tax Revenue Model; opex, capex, energy price, chemical price and specific energy calculation models)