Regulating water businesses

Response to Discussion Paper 1
Lifting performance in the sector

8 June 2021

Sydney
WATER

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Executive summary

We welcome this essential review that IPART is conducting. Regulatory reviews in the last decade have had the benefit of the regulated cost of capital falling significantly between determinations. It is not at all clear that the regulatory process would have survived in its current form had the cost of capital been moving in the opposite direction over this time.

Trends in customer bills are not merely an output of the regulatory process. Typically, political pressures become more difficult to manage for regulators, companies and customers as customer bills increase in real terms. While the regulator's role is to maintain objectivity in these scenarios, the approach to regulation itself often changes in response to sustained increases in customer bills in real terms. The energy industry in Australia and the UK can bear witness to this.

This presents a challenge for regulators and the companies they regulate to reinvent the regulatory process to demonstrate its value and its ability to adapt to changing circumstances. The customer and stakeholder demands on water companies are more complex and multi-faceted than they were when the current regulatory model was established more than twenty years ago. At that time the main focus was to ensure that newly corporatised companies did not exploit their monopoly position and that they had incentives to be more efficient.

While these concerns remain important, other imperatives have become more prominent and we see this reflected in the evolution of regulation in other markets. How effectively are the companies acting as stewards of their assets and how do their practices promote fairness across generations? How is the sector contributing to the reduction of carbon emissions and addressing climate change? How can the companies innovate and find way to ensure a cleaner environment and protect natural capital at lower cost to customers? While these are primarily challenges for the SOCs to address, the regulatory process should add more value to the resolution of these issues than it does at present. The players in the ecosystem have an opportunity to redefine key regulatory processes before reform to address these wider concerns becomes inevitable.

There is scope for the SOCs to be more highly performing companies and for IPART to be a more influential change agent in facilitating that performance and ensuring the SOCs produce what customers want. Regulatory processes must be refocused on the long-term issues faced by customers, starting with consideration of a long-term business plan presented by the SOC, generated through a process of engagement with its customers.

Consideration of the strategic direction of a reformed regulatory framework should start with focus on development of three key features:

1. the subject of the review is the company's long-term plan
2. prices are set based on a long-term price trajectory considering customer insight
3. the long-term plan and the price review focus on efficiency and innovation.

The implementation of a new regulatory framework will require a transition plan, agreed by all stakeholders. The next SOC price review submissions to IPART are only two years away. Some interim measures may need to be agreed to decisively shift the focus to the spirit of the new framework, which is to ensure regulatory activity is focused as far as possible on the articulation and resolution of the long-term choices and challenges faced in protecting the interests of customers.

Institutional alignment is required to achieve system-wide policy effectiveness

The delegation by the government to IPART of the responsibility for setting water prices was part of a wave of utility market reforms internationally as part of a transition to more corporate structures in the provision of essential utility services. This reform was underpinned by regulatory processes, with EPA, NSW Health as well as IPART setting parameters for the SOCs operating at arm's length from government.

Decentralised systems of rule-making such as that established in NSW need to be coherent in the sense that different subsets of rules and regulations should, for system-wide policy effectiveness, be mutually supportive of (i.e. complementary to) one another. If not, one aspect of regulatory reform that appears to be an appropriately adjusted response to problems in its own specific context can nevertheless impede the effectiveness of other subsets of rules, even to the point of degrading the performance of the rule system (the institutional system) as a whole.

Regulatory reform should confront this policy co-ordination issue. IPART, EPA, DPIE, NSW Health, Treasury, customers and the SOCs are the main (albeit not the only) players at the heart of the NSW water and wastewater sector. The ecosystem in which they operate collectively produces outcomes from which customers benefit. The way this ecosystem operates is a function not just of the formal parameters (e.g. legal arrangements) that underlie the institutional relationships but of the assumptions, behaviours, cultures, and relationships that have developed between the main players.

While each player in NSW has a vision of its own role, it is not clear to what extent there is a shared vision of how regulatory processes should operate to produce the best customer outcomes. Government's ambition for the sector goes well beyond the efficient supply of existing services to customers (the core focus of IPART reviews), and this will be laid out in the Greater Sydney Water Strategy due in July 2021.

Resilience, carbon reduction, climate change, sustainability, and the challenges of integrated water cycle management all now have more focus, while there is also a stronger expectation of customer insight and engagement in the development of business plans. The government, rather than the SOCs, makes the final decision on the timing of major augmentations, such as new desalination plants, and governments and other regulators (e.g. EPA) control the rate of change over time in other costs (such as environmental regulation costs). This suggests the need for greater collaboration between the SOCs and these stakeholders if customers are to get the best outcomes.

The SOCs and IPART must change the culture and focus of the regulation

There have been positive evolutions in the regulatory framework. These are the result of the SOCs and IPART working together to improve and adapt it. For example, IPART approves higher expenditure than least cost where customer willingness to pay is demonstrated.

However, these changes are incremental. They do not represent a comprehensive reset of the regulatory framework, nor do they provide a vision for how we can maximise benefits and opportunities for customers in the future. A well-functioning ecosystem requires each player to have a vision, beyond its own role, of the behaviour and conduct it needs to demonstrate to promote a shared system-wide vision of what is required for policy and institutional effectiveness. Government clearly has a key role to play as the ultimate steward and authority overseeing the ecosystem.

In this respect, IPART operates a propose-respond price regulation model. This emphasises the separateness of the regulator from its regulatees and places responsibility on the SOC for its business plan. It makes clear that the SOC is unconstrained (subject to delivering plans that fit with its responsibilities) in the nature of the plan it provides for consideration. The SOCs ultimately set the direction of the service customers receive. The IPART Tribunal determines to what extent the SOCs' plans are demonstrated to be in customers' interest and to what extent the associated expenditure should therefore be recoverable through customer prices. While these arrangements serve a purpose and independence of the regulator is of course important, propose-respond does not convey a sense of a mutually supportive endeavour to improve customer outcomes.

When the desired outcomes are long-term, complex, and subject to resolution of difficult policy trade-offs, this may be problematic for the good functioning of the ecosystem. A shared understanding of the nature of the policy challenges, arising from deep engagement between the leadership of the different players, is likely to be helpful.

In particular, parties must develop an understanding of when collaboration is needed so that they can together work to improve system-wide policy effectiveness. This understanding can reinforce and help preserve the ecosystem, allowing each party to continue to perform its distinct function in harmony with the rest of the system. Given the differences in their core functions, the different players are likely to often have sharply differing perspectives. This diversity should promote effective dialogue and good decision-making, provided there is a shared belief in the strength of the ecosystem.

In short, the regulatory process in the NSW water sector must be able to adapt to demonstrate its continued relevance to the resolution of new policy challenges. For this to happen, the players must be able to switch between different relationship modes, focusing on maintaining their independence, while also knowing when it is prudent and healthy to collaborate and build shared understanding. Ecosystems are fragile and must be able to adapt to promote their longevity in serving customer interests.

The regulatory process must shift to a long-term customer focus

The investment outlook for NSW, with ageing existing assets in need of replacement and additional expenditure in new assets to support the growth of the city, means real customer bills will most likely increase in the medium-term. Indeed, concerns about future drought in the light of the recent drought experience, may drive early investment in new augmentation, further compounding the affordability challenge. While the re-introduction of developer charges in 2023 may start to provide some countervailing downwards bill pressure, the prospect of an increase in the cost of capital over the next decade suggests a strong possibility of large customer bill increases.

There is a stark contrast between these long-term issues that preoccupy government and customers and the short-term focus of recent SOC price determinations. The SOCs provide a snapshot of their progress in their submissions, and IPART adjudicates on the extent to which the SOCs have successfully made the case for the additional expenditure. However, the regulatory process itself is not adding significant value to the resolution of these long-term issues. While many of these issues are ultimately for government decision, the process for reaching those decisions will be enriched if the regulatory process adds more value to the articulation of the policy choices, representing customer insight and shedding light on trade-offs that will need to be made. IPART is well-placed to help the SOCs articulate these choices to customers.

The current process provides some assurance that the SOCs, as natural monopolies, have plans that have been subject to independent scrutiny. But we should expect more from what is a resource-intensive process for all parties. It has been acknowledged in most other regimes that "*the building blocks approach can result in a disproportionate amount of attention on the costs and efficiencies of inputs used to produce services, with less specific emphasis placed on the value of outcomes delivered to customers or potential value improvements to customers through more innovative service offerings*".[1]

Both the SOCs and IPART should approach the regulatory process in a different way, shifting from an emphasis on cost to an emphasis on value. Expenditure reviews now largely take a cost minimisation perspective. Performance against regulated standards is taken as a key parameter in validating levels of expenditure. Deviations from a 'minimum necessary' perspective need to be justified by evidence of poor performance, cost pressures or customer service demands. The focus is on identifying the minimum cost required for the company to be compliant with its obligations (customer service and environmental obligations, including its obligation to serve new customers), rather than providing the best value service proposition.

There is also little focus on innovation. The relatively short-time horizon for the review (four years) does not encourage or reward experimentation or innovation. IPART's consultants seek evidence of optioneering, and this can make them more supportive of marginal projects. However, speculative projects are likely to be ruled out or may not make it into the plan, given the cost-minimisation focus of the framework resulting in pressure to constrain the overall allowances.

We set our response to IPART's specific recommendations in the graphic overleaf.

[1] Littlechild, S., *Regulation, customer protection and customer engagement*, EPRG Working Paper, 23 June 2011.

IPART'S PRELIMINARY VIEW			OUR VIEW
	Support longer determination periods to promote ongoing engagement and long-term planning, provided there is credible evidence that these proposals are in the best long-term interests of customers		Instead of simply setting longer price paths, we propose shifting the regulatory process to a longer term focus to recognise that the long-term outlook is fundamental to informing the short-term plan. Short-term prices are currently set with little or no regard to the liabilities to which customers are exposed over the long-term. Shifting all participants in the regulatory ecosystem to a stronger focus on the long-term to inform shorter term decision-making is the single biggest improvement that we believe our customers require of us from the regulatory process.
	Develop a framework for customer choice pricing to allow for a personalised service where it would deliver a win-win for the customer and the business		A focus on customer choice may promote a focus on the demand side and perhaps the role of digital meters in helping to engage better with customers and reflect their preferences. However, customers need a stronger focus through the regulatory process on the *entirety* of the service that they receive, to deliver the best value in meeting their collective requirements. A focus on customer choice at this time may be a diversion from the pressing issues that Sydney Water needs to resolve for its customer base and for the community as a whole.
	Provide the option for businesses to propose different forms of price controls (including a revenue cap)		Sydney Water will propose a revenue cap as part of its next IPART business plan submission. We are happy to work with IPART on pricing principles so that our pricing reflects best practice and is informed by our engagement with our customers on tariff structures. The revenue volatility that a regulated business can face as a result of the operation of price caps makes no sense for a business largely based on fixed costs. This conclusion has already been reached by most utility regulators in Australia and the UK.

Introduce a shadow price for leakage to encourage efficient water conservation	We agree with IPART that SOC incentives to reduce leakage should be strengthened. With investment in augmentation of water supplies likely to be required in the future, SOCs should face the full cost of the water that is lost through leakage. This will support business cases to reduce leakage, will help to promote water conservation and will be in line with government policy as government publishes the Greater Sydney Water Strategy later this year. This is a much better use of the capacity of the SOCs to bear some limited financial risk than price caps, which expose SOCs to financial risk from fluctuations in water demand relative to a forecast made several year earlier.
Establish a Regulators Advisory Panel to promote information sharing and better regulatory decisions	We support the creation of a Regulatory Advisory Panel. This is an important recognition that SOCs are currently required to manage the competing demands of multiple regulators without any co-ordination to consider what customers and the community would most like from their water service provider and what they are prepared to pay for it. While the SOCs try to address the conflicting requirements through their business planning, it is clear there is significant scope to achieve better customer and environmental outcomes at lower cost if there is better design and co-ordination of the regulatory requirements that are placed on SOCs.
How should pricing decisions and performance standards align? Should performance standards be set at minimum levels or optimal levels?	We propose that the Operating Licence is reviewed ‘by exception’ to focus on areas of greatest value and make the best use of available resources. Operating Licence performance standards should reflect minimum standards, allowing trade-off decisions about service levels and prices to be made within the context of a price determination as a whole.

A long-term approach does not necessarily mean longer price paths, although a five-year determination at a minimum is sensible for future planning. We propose shifting the regulatory process to a longer term focus to recognise that the long-term outlook is fundamental to informing the short-term plan. Growing expenditure requirements and challenges in the industry have been masked by a historic low cost of capital. Future bills will likely be unaffordable if the problem is not addressed. A key opportunity for a reformed regulatory approach is to adopt a long-term approach when setting prices.

Shifting all participants in the regulatory ecosystem to a stronger focus on the long-term to inform shorter term decision-making is the single biggest improvement that we believe our customers require of us from the regulatory process. Sector-wide changes in culture need to be made so we can together ensure our regulatory processes focus on the highest value issues for customers.

We agree that longer determinations will require better long-term information because IPART will want to ensure prices are broadly cost-reflective over time. However, IPART needs to be aware of biases in its own decision-making processes which risk encouraging short-term focused determinations. It is clear that the SOCs need to improve their long-term planning processes, but IPART needs to work with the SOCs to assist them to make this cultural change. To the extent that the focus of the regulatory process remains short-term, it is customers that will lose out. Where SOC business plans do not fully recognise future liabilities facing customers, these costs are simply being stored up for future customers to pay. This is not a good result for customers or the sector as a whole.

Expenditure allowances granted by IPART to the SOCs are only as good as the information from the companies from which they are derived. They do not become cost reflective (or efficient) simply because they are based on costs that have been subject to IPART scrutiny. Likewise, the short-term prices the SOCs charge are not necessarily reflective of the long run costs or liabilities that customers face. We should not overstate the virtues of the status quo in considering the case for change.

Indeed, current prices are not cost reflective in the narrow sense meant by IPART. Sydney Water expects to spend 30% more on capital expenditure than allowed by IPART in this 2020-24 period, and we have a good record of IPART approving that expenditure in ex-post review. In addition, Sydney Water currently expects to recover about 3% ($300m) less in revenue than allowed for by our revenue requirement (as a result of lower than forecast water demand). So at least in this regulatory period, there is a significant element of deferral of cost recovery. Some capital cost incurred in this period will be recovered in the period from July 2024 and some operating cost deemed efficient by IPART either will not be incurred at all, will be incurred at the expense of the shareholder or will perhaps be deferred into the next period.

There may always be some difference between targeted and actual revenue recovery in any regulatory cycle. But the more important point is IPART should have more regard to how what customers are paying over this period corresponds to the long-term exposures and prices they are likely to face, and correspondingly less on the accuracy of cost recovery relative to prices in a particular cycle. While we do not claim a perfect understanding of customer preferences, evidence suggests that what customers care about is how what they pay now corresponds to meeting their short- *and* long-term needs. They want to know their contributions help deliver a sustainable water supply system, not necessarily that their current bill is as cheap as it can be. Sydney Water, together with IPART and all other stakeholders, is committed to improving the regulatory process to help provide this information to customers so that they can make more informed decisions about the services they receive and their affordability in both the short- and the long-term.

1 Response to IPART's questions

Q1. How should each review period be sequenced to promote outcomes in the best long-term interests of consumers?
We believe the long-term interests of consumers could be best achieved by taking a long-term focus and implementing changes in the regulatory ecosystem as discussed such as those considered in Chapter 2. On a practical level, reviewing the Operating Licence 'by exception' and with a two-year gap between OL and price review represents a better use of scarce regulatory resources. Licence review should be focused on resolving specific challenges, rather than having regular periodic reviews with no specific strategic purpose (see Chapter 3).
Q2. Should the determination period be based on a set of principles? Or should we set a default determination period that we would only deviate from in exceptional circumstances?
The approach to determining the length of a price path should be flexible and take account of the business in question. We broadly support the principles IPART identifies to do so. We also note that, as with any principles IPART has regard to, this list should include the long-term interests of customers. We also support the continued use of the suite of pricing principles contained in the National Water Initiative where relevant.
Q3. How should performance standards be set, for businesses with, and without, an Operating Licence?
For businesses with an Operating Licence, we consider the licence should reflect minimum performance standards. Performance above those standards should be agreed with customers via the price review. See Chapter 3.
Q4. How best to align pricing decisions and performance standard setting to enable businesses to make trade-offs between the two. For businesses with an Operating Licence, should IPART's Operating Licence and price review processes be run concurrently?
Not setting an 'optimal' level of performance for standards relating to service interruptions in the Operating Licence would allow trade-off decisions about performance against these aspects of service to be made more holistically in the context of the overall bill and service package. To smooth resourcing burdens and establish clear minimum standards up-front, there would ideally be a two-year gap between the conclusion of the Operating Licence review and the price review. See Chapter 3 for further detail.

Q5. What are the appropriate pricing principles for customer choice pricing?
IPART's principles for customer choice pricing are appropriate. However, focus should be on the collective requirements of customers, not individual opt-in services. See Chapter 4.
Q6. How can IPART assist the water businesses in utilising customer choice pricing?
Relative to the imperative to shift the regulatory process to a long-term focus, we do not think customer choice pricing should be a major focus at this time. See Chapter 4.
Q7. What would be the appropriate side constraints and pricing principles under a revenue cap approach, or a weighted average price cap, to ensure efficient and equitable outcomes?
Sydney Water will be proposing a revenue cap at its next review. Measures can be considered to address concerns about bill volatility within period, although these concerns should not be overplayed. Service charges already adapt on an annual basis to reflect the operation of SDP. See Chapter 5.
Q8. Should the value of water used in the shadow price be based on a short run marginal cost or a long run marginal cost of supplying water?
The usage price less the costs businesses already incur from leakage appears to be an appropriate shadow price.
Q9. How we can account for unbilled water under a shadow price for leakage?
The shadow price should reflect the uncertainties in reported leakage from unmetered use and other unforeseeable circumstances through an element of discretion or a small uncertainty band.
Q10. What would be the goals of the Regulatory Advisory Panel (RAP)?
The overarching goals of a Regulatory Advisory Panel (RAP) should be to promote regulatory decisions that are in the long-term interests of customers, by enhancing co-ordination and information-sharing, encouraging best-practice regulation and promoting regulatory innovation. See Chapter 7.

Q11. Who might participate in the RAP?
Members should include current regulators and government agencies who have a significant role in establishing policy or regulatory obligations for water businesses, such as the Department of Planning, Industry and the Environment. Customer representative groups should also attend as needed. See Chapter 7.
Q12. How would the panel operate?
We broadly support the draft charter presented in IPART's Discussion Paper. We recommend that the panel meet at least twice a year, with its effectiveness independently reviewed after an agreed trial period. See Chapter 7.

2 A long-term focus

Key messages

Consideration of the strategic direction of a reformed regulatory framework should start with focus on development of three key features:

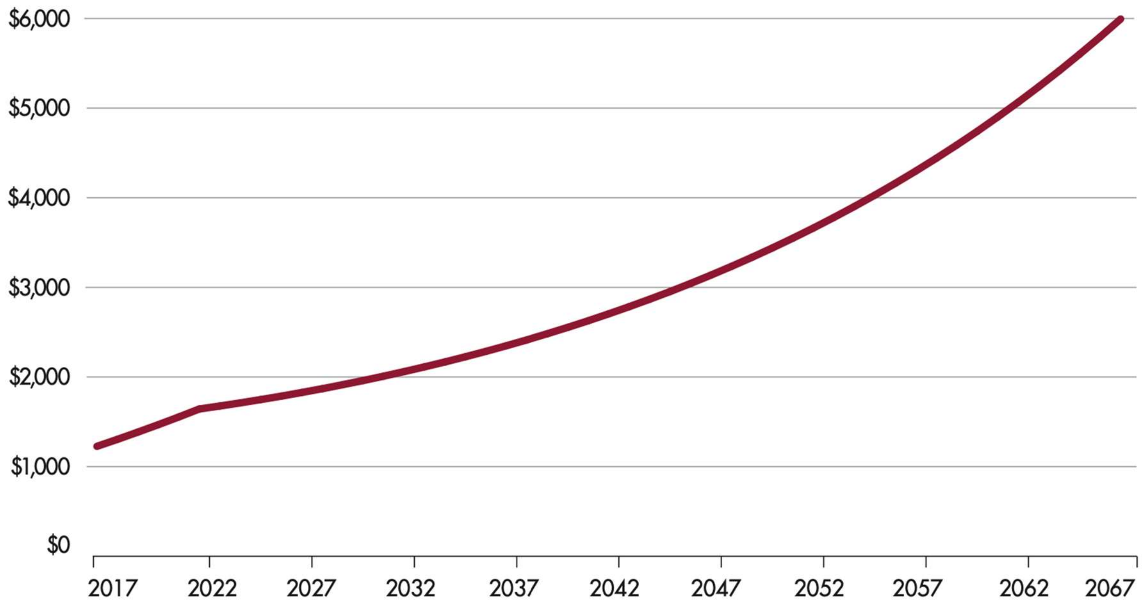
1. the subject of the review is the company's long-term plan
2. prices are set based on a long-term price trajectory considering customer insight
3. the long-term plan and the price review focus on efficiency and innovation.

The implementation of a new regulatory framework will require a transition plan, agreed by all stakeholders. The next SOC price review submissions to IPART are only two years away. Some interim measures may need to be agreed to decisively shift the focus to the spirit of the new framework, which is to ensure regulatory activity is focused as far as possible on the articulation and resolution of the long-term choices and challenges faced in protecting the interests of customers.

A long-term focus is needed

In 2017, Infrastructure Australia estimated that the average water and wastewater bills for customers would increase by $600 in real terms to 2027 as shown in in Figure 1.

Figure 1: Projected increase in average residential customer bills



Source: Infrastructure Australia, Reforming Urban Water – A national pathway for change, 2017, p 30.

Price increases of this magnitude would run the risk of undermining customer confidence in the water sector and could prompt calls for a new approach to regulation and pricing as a means of 'keeping water affordable'. There may of course be different views about likely future industry costs. However, whatever view one takes, the scenario does raise the following questions:

- to what extent are current customers paying the same or less than the costs that future customers will pay?
- what is the basis on which we charge customers now: if future investment turns out to be very expensive, should customers pay for it as it is incurred (pay-as-you-go), or should they be paying a rate that better reflects the best estimate of the long run costs, accepting that estimates of the long run costs will be refined over time as new technology and customer preferences develop?

Our view is that a central task of the regulatory process should be to add more value to the challenge of answering these questions. The following is our summary of how the regulatory process should change, recognising that the next price reviews are likely to be part of a transition to a new stronger long-term focus.

The subject of the regulatory review is the company's long-term plan

The regulatory process needs to be based on a review of the company's long-term plan, and the proposed deviation to that plan in the light of company performance, new challenges, and customer feedback. This should be the natural process, given that most expenditure presented at each review will have been approved at levels close to these amounts in previous reviews, so it is likely to present little novelty. In addition, while new expenditure will be spent in the next period, much of the customer benefit that flows from it will only be apparent in future periods.

In short, the expenditure required for each period and the customer benefits that flow from it are not discrete and unique to that period. The links between expenditure and performance are mostly only observable over the long-term. The regulatory process should be designed to add the most value, given this reality. The current process does seek to gather evidence to identify long-term trends, and some decisions follow from this. However, the process is dominated by a review of performance in the three prior years and review of expenditure for the next four, with relatively little reference to the long-term challenges faced by the company and its customers.

This is not well aligned with customer requirements. In a long-term asset-based industry dominated by sunk costs and assets for which customers pay over decades, the long-term focus must be far more central to the process. The responsibility to provide the information to enable and facilitate that discovery process falls heavily on the companies. If the companies do not on their own initiative deliver a business plan with sufficient data quality to support a meaningful discussion about long-term policy priorities, then the regulator should require them to provide it and should encourage the cultural change necessary for the company to do so if necessary. In summary, the regulatory system needs to move to operate on a more continuous basis, with the four-yearly regulatory determinations being 'check points' rather than stand-alone events.

Long-term plan means a single expenditure plan for the company, looking ahead at least 10 years.[2] Long-term planning should force the company to think about all possible impacts on customer bills, consider the relationship between its revenue requirement and customer bills, and therefore put it in a position to consider intergenerational equity issues. In NSW, the government, rather than the SOCs, makes the final decision on the timing of major augmentations, such as new desalination plants; governments and other regulators (e.g. EPA) control the rate of change over time in other costs (such as environmental regulation costs). Precisely because many of the cost levers are outside of the SOC's control, it is important that the company brings together in its plan a complete picture of future long-term customer costs so that this can be considered by customers and the community.

Prices are set based on a long-term price trajectory considering customer insight

Whenever prices are reset, the key factor in determining prices relative to the last time they were set, is major deviations in expenditure and the change in the WACC relative to the WACC used in the last review. It is traditionally argued that prices should reflect the current opportunity cost of the capital employed at the time the regulator makes the determination. Therefore, the regulated cost of capital for the cycle is based on a point-in-time estimate at each price reset.

As experience has shown in recent years, this creates volatility in prices between review periods. While changes in cost of capital match to some extent changes in the cost of financing the business (for instance, debt costs are indexed), there is an opportunity to take a long-term approach to customer prices, based on a longer term view of the regulated cost of capital. This can enable a smoother price trajectory further into the future, with a reset of the rate of increase/reduction in prices considered at each subsequent price review.

It will be more customer-centric for prices to be set based on a long-term view of the revenue required to recover costs, while also ensuring that over the long run, shareholder returns reflect the capital invested by the NSW government in the SOCs and the performance of the SOCs in meeting customer expectations. This will also require the SOCs and IPART to take a long-term view of future system costs and to plan for them at each review. Future supply augmentations, future asset renewal costs at a replacement cost that is higher than the historic cost reflected in the RAB and the cost of future environmental compliance are all costs that the SOCs should be factoring into their forward price projections.

The discipline of the long-term planning process should be used to work with stakeholders to provide to customers a long-term outlook for customer prices. In Scotland, for instance, the December 2020 settlement provides for Scottish Water's prices to rise between CPI+1% p.a. to CPI+2% p.a. from 2020-40, with prices increasing between that range in the current period (2021-27). The publication of this future price trajectory should encourage other stakeholders and the

[2] Scottish Water, for instance, provides required capex investment over 25 years (2020-45), including long-term asset replacement costs for existing assets, service enhancement and growth investment (i.e. new assets), and future replacement costs for those new assets. Scottish Water also develops a more detailed shorter term 6-year rolling with long-term estimates of expenditure and customer demand to calculate revenue requirements and associated price caps over the current determination period and longer term from 2020-2045.

SOCs to anticipate and be transparent about future requirements that could impact system costs and customer bills.

The long-term plan and the price review focus on efficiency and innovation

The short-term pressure to keep bills affordable may mean some necessary expenditure is deferred by the SOCs. While an imperative to reduce costs can drive innovation and change, equally, hard budget constraints (through fixed opex allowances) can lead to cost savings that do not necessarily reflect improved efficiency. It is, for instance, easy to generate financial savings by reducing capital maintenance budgets without any short-term, noticeable deterioration in network performance.

Regulated businesses do not have the same risk/reward profile as businesses in competitive markets. SOCs do not benefit from increased long-term market share or higher profits if they are more innovative than their peers. Equally, while the SOCs face WICA competition, the commercial threat of losing revenue and market position may not be as strong in the short-term as it is for companies in competitive markets that can lose their customer base in a very short time period if they are not performing well.

While SOCs undertake research and innovation activities, more could be done if the regulatory framework were to provide explicit incentives or dedicated funding to do so. Sydney Water invests a low percentage of revenues on research and development relative to other utilities in Australia and internationally. This is influenced by the current regulatory framework, and the expenditure review process, with its focus on efficiency and least cost. The expenditure review process may disallow or deem inefficient any expenditure for innovation. Not all desirable innovative initiatives will satisfy expenditure efficiency tests because their outcomes are generally uncertain.

Most economic regulators have introduced in the last decade or so additional funding sources to overcome this bias against innovation. Sometimes this has been in the form of competitions for limited funding between peer companies (e.g. water and energy regulation in Great Britain). Competitions allow the regulator to apply tests to ensure the funding goes to valuable projects, while factoring in the higher risk profile of an innovative project in a way the SOC may not when comparing the project to more conventional projects.

In Scotland, with a water industry comparable to NSW in terms of public ownership and independent regulation, the Scottish water regulator (WICS) has recently concluded that:

> *Regulators have focused on funding regulated businesses for a regulatory control period to establish and maintain the hard budget constraint. In so doing, regulators and utilities have not been able to have full regard either to the long-term horizon of investment or the application of whole-life cycle cost analysis…..The hard budget constraint addresses cash costs – it does not address non-cash costs such as environmental externalities. Such externalities have typically not been included in the setting of charges of regulated utilities*

and, not surprisingly, regulated companies have had little focus on reflecting non-cash costs into their investment choices.[3]

To address this concern WICS has set up a ring-fenced allowance of $250m for the period 2021-27 designed to be available for projects where the company may be able to secure a better environmental outcome (e.g. lower emissions) but where short-term cash considerations may prevent it making the most welfare-enhancing long run investment choice for customers.

In summary, strategic reform should seek to promote both efficiency and innovation. For efficient firms, strategic innovation is a necessity. Reform can maintain the efficiency properties of price reviews, while at the same time providing solutions designed to overcome the downsides of hard budget constraints on cash, and the relatively weak strategic imperative to promote innovation that follows from the SOCs' market position and their regulatory framework.

IPART has a key role as an agent of change in promoting the long-term focus

Sydney Water welcomes more strategic engagement between IPART and the SOCs. A feature of the regulatory process that needs to change is that senior management on both sides should spend more of their time focused on the big long-term issues that will determine the quality of service and price that customers receive in the long-term.

We have already tried to move to more engagement with IPART through the introduction of annual meetings between the Sydney Water Board and the IPART Tribunal. These meetings review the strategic outlook, supported by a performance and expenditure update provided by Sydney Water.

We welcome the concept of a strategy and high level planning meeting halfway through the regulatory cycle, as suggested by IPART. The concept is that we would present our vision for the review to IPART. As IPART suggest, the objective would be to encourage "*the business to develop and present robust earlier in the process*" and also to encourage the business to engage with its customers. This type of meeting may be part of developing a culture of collaboration between the SOCs and IPART, so that SOC price review submissions contain fewer surprises for IPART and so that there is a greater sense of the SOCs and IPART together guiding the regulatory process so that it focuses on the most important long-term issues for customers. It is perfectly possible, and highly desirable, for the SOCs and IPART to review together the strategic focus of future SOC submissions, while fully respecting their independence and accountability for their own particular functions.

[3] Water Industry Commission of Scotland, *Strategic Review of Charges 2021-27, Final Decision Paper*, 2020 p 18.

3 Understanding price-quality trade-offs

Key messages

- The Operating Licence should reflect minimum standards. Customer preferences around levels of service are best considered within the context of the SOC business plan presented during the price review.
- We propose that our Operating Licence is reviewed ‘by exception’ to focus on areas of greatest value and make the best use of available resources.
- Sydney Water’s view is that all of our regulatory processes with IPART need to be more strongly focused on addressing the issues that will most affect the service and price that Sydney Water provides in the years to come. It is not consistent with that approach to continue to do unfocused operating licence reviews that do not have a clear strategic purpose.

The Operating Licence should reflect minimum standards

Operating Licences generally contain minimum standards to protect consumers. By comparison, customer preferences based on willingness to pay are typically used by regulated businesses to consider price-quality trade-offs as part of its price proposal or overall business plan.

For businesses with an Operating Licence, we consider the licence should reflect minimum performance standards. Performance above those standards should be agreed with customers via the price review. This would allow more explicit consideration of price-quality trade-offs and a more holistic consideration of these trade-offs in the context of the overall bill. This would include the impact of other cost drivers that can affect bills, such as changes in environmental standards or water quality guidelines, or the need for future supply augmentation.

Performance standards in the Operating Licence would ideally reference a rolling average to reflect how multiple factors affect performance (including weather and demand). Performance for most service standards cannot be flexed up and down quickly. Rather there is a longer term relationship between investment, both capital and maintenance, and performance.

It is worth noting that the Operating Licence focuses on service standards relating to the service experienced by an individual customer (i.e. at a property level), while environmental standards are set by the EPA in Environment Protection Licences. These environmental standards also affect the service levels that customers pay for, and are a significant driver of our costs. Accordingly, just considering standards as defined by the Operating Licence does not provide a full picture of the service provided by Sydney Water, the standards we must meet, or how well we are performing against those standards. To effectively look at service/price trade-offs, and to ensure that customers (and communities) receive services that are in their long-term interests, it is important to look holistically at all regulated standards that affect the service that customers receive. This should be considered by the Regulatory Advisory Panel.

The Operating Licence review should adopt a ‘by exception’ approach

We propose that our Operating Licence is reviewed ‘by exception’. Recent operating licence reviews have served no clear strategic purpose. If we are to transition to the price review process being better used to focus on the long-term customer interest and the SOC’s long-term plan for customers, it follows that IPART and SOCs together have to let go of regulatory processes that are not adding sufficient strategic value to justify the time and resource that they entail. Rather than automatically revisiting every clause in each end-of-term licence review, a review could be conducted as needed. Reviews could be targeted to issues of particular concern to IPART, stakeholders and customers, with the strategic purpose of the review being more clearly articulated up-front.

The aim of this approach is to focus on issues of greatest value and to reduce the regulatory burden on all parties involved. IPART’s Operating Licence review is resource intensive. In our last review, we received 17 formal requests for information from IPART over a seven-month period, containing over 200 individual questions, as well as ad hoc requests throughout the review. Some responses required a month of work to provide the information requested. This was in addition to the significant internal preparation work that had occurred prior to the release of IPART’s Issues Paper. Moreover, the last licence review was completed only two years ago in 2019.

4 Customer choice pricing

Key messages

- A focus on customer choice may promote a focus on the demand side and perhaps the role of digital meters in helping to engage better with customers and reflect their preferences. To this extent we support IPART's focus on customer choice pricing.
- However, customers need a stronger focus through the regulatory process on the entirety of the service that they receive, to deliver the best value in meeting their collective requirements. A focus on customer choice at this time may be a diversion from the pressing issues that Sydney Water needs to resolve for its customer base and for the community as a whole.

Focus should be on our customers' collective requirements

IPART and SOCs need to make choices about where to best focus their program to improve SOC performance through changes to the regulatory framework. It is clear to many stakeholders that the focus should be on ensuring the process adds more value to the resolution of some of the major challenges that will determine the service customers receive in the long run. Another way to describe this is the reform should focus on the wider package of services that all customers receive.

Against this background, customer choice has the potential to be a significant distraction:

- Compared to other utilities, much of the service provided by water companies is a shared community product. It is not possible for a customer to opt in or opt out of a specific quality of their drinking water or of the environmental standards that are met in their area.
- Many of the major decisions that will affect the nature and price of the service, such as the augmentation of water supplies, are not decisions likely to be influenced in any practical sense by whether customers opt in or opt out of a related service. There is a significant requirement to engage customers and seek their views in making decisions, but a retail choice framework is not likely to make a significant impact on these decisions (and even to create those options, will itself incur a significant investment cost).

Also, some of the examples IPART identifies are a subject of discussion with our *entire* customer base.[4] IPART's opt-in approach for these services may not provide sufficient funding to deliver projects that will deliver broader customer and community benefits.[5] Therefore, limited uptake under an opt-in approach for particular services will result in nominal benefits while imposing significant administrative costs. Rather, these services should be reflected in our broader service package.

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[4] In particular, smart meters, carbon offsetting and environmental programs: Atkins, *Sydney Water Corporation Expenditure and Demand Forecast Review, Final Report*, 2020; Office of Environment and Heritage, *Achieving Net-Zero Emissions by 2050*, 2016.

[5] For example, preliminary analysis suggests that business benefits from digital metering may be contingent upon a broad-scale roll-out. The potential benefits will not be realised under limited uptake.

We appreciate that in many industry structure contexts, harnessing the buying power of customers can drive innovation and reform. We do not rule this out in the water sector. For instance, given the shape of peak and off-peak flows that we see in water demand, there may in time be scope to offer customers different tariff structures based on their anticipated demand. This in turn may enable SOCs to make more efficient investment decisions to service those customers, and it may support the case for the rollout of digital to the residential customer base.

However, given the pressing case that already exists for major reform of current regulatory processes, we find it hard to imagine that a major investment in developing customer choice is going to provide a good return for customers at this time.

5 Allowing different forms of price control

Key messages

- Sydney Water will propose a revenue cap at its next price review.
- Revenue caps separate the company's revenue from pricing policy, enabling the company's capacity to bear risk to be targeted to areas of performance which it can aim to influence, such as leakage.
- We will work with IPART to ensure we price according to appropriate pricing principles.

Revenue caps are the efficient solution for companies with high fixed cost structures

We support IPART encouraging utilities to propose different forms of price control. Regulation seeks to align revenues with costs, subject only to placing risk and incentives on companies to seek to improve performance. Revenue caps are inherently better designed to perform this task than price caps. Revenue caps have supplanted price cap regulation in Great Britain over time, and both the AER and the ESC in Victoria have moved in the direction of price caps in recent years.

As shown in the table overleaf, the AER, the QCA and the ACCC apply revenue cap regulation to industries with a heavy reliance on fixed assets like Sydney Water (e.g. electricity networks, ports and railways). Price caps are preferred only where businesses are asset light (e.g. postal sector) or where a dominant regulatory objective is to promote competition (e.g. gas pipelines and telecommunications sectors).[6]

[6] For gas pipelines, price caps are also only the alternative to where parties cannot agree through commercial negotiation. This is not reflective of IPART's framework for Sydney Water.

Regulator	Sector	Segment	Control mechanism
ESC	Water	Local	Price, Revenue, Hybrid, and Tariff Basket Caps
ESCOSA	Water	State	Revenue cap
ICRC	Water	State	Hybrid price and revenue cap
IPART	Water	Local	Hybrid price and revenue cap
OTTER	Water	State	Price cap
QCA	Water	LGA	Hybrid price and revenue cap
	Port	State	Revenue cap
	Rail	State	Revenue cap
ACCC	Post	National	Price cap
	Rail	Hunter Valley	Revenue cap
	Rail	Interstate	Revenue cap
	Telecom	National	Price cap
	Telecom	NBN	Revenue cap with price controls
AER	Electricity	Transmission, Distribution	Revenue cap
	Gas	Transmission, Distribution	Price cap

Ofwat moved to revenue caps in a decision in 2008 based on (a) avoiding disincentives to promote water efficiency and (b) removing the scope for the company to outperform or underperform on revenue due to demand. In 2013 the AER decided that "*under a revenue cap…a distributor's revenue is fixed by the AER over the regulatory control period. Distributors can therefore increase profits by reducing costs. This creates an incentive for distributors to undertake demand side management projects that reduce costs*".

Sydney Water currently expects to recover about 3% ($300m) less in revenue than allowed for by our revenue requirement (as a result of lower than forecast water demand). This is the equivalent of a large unintended efficiency challenge, as if IPART had granted us 3% less opex in our opex allowance. While this misalignment is a result of deviation in consumption from our own water demand, placing such a premium on our ability to forecast inherently uncertain demand is not a good use of the company's ability to bear risk. It is far better to place any revenue risk on a variable that Sydney Water can seek to improve to benefit customers.

We support side constraints under a revenue cap that are aligned to the National Water Initiative's pricing principles. However, concerns about customer bill volatility are often significantly overstated. Firstly, the main reason for variability in a customer's bill is likely to be their pattern of consumption over time. Customers tend not to consume exactly the same volume from one period to the next. Secondly, we already adjust the service charge to take account of the operation of SDP in the previous period. In summary, the Sydney Water service charge and the bill faced by the average customer is *already* subject to variability within period.

6 A shadow price for leakage

Key messages

- We support a shadow price on leakage. It provides a clearer financial signal for the cost of leakage for the business to respond to and aligns to government policy and other water conservation initiatives.
- However, calibration of the shadow price and baseline leakage target require further work by IPART to prevent over-investment in leakage reduction.

We support a shadow price for leakage

We consider IPART should begin implementing the shadow price in the next determination period, based on performance in 2024 onwards.

IPART's proposed shadow price strengthens the incentive for Sydney Water to reduce leakage. In particular, it provides a clearer financial signal for the cost of leakage for the business to respond to. We support this proposal – SOCs should face the full cost of water that is lost through leakage. It would also be complementary to other water conservation initiatives, including government policy relating to the Greater Sydney Water Strategy being published later this year. Together, these initiatives benefit customers in the long-term by deferring costly supply augmentation.

Within period adjustments for leakage performance fit well under a revenue cap

IPART proposes to compare actual leakage performance with the target over the previous determination. We consider in-period pass-throughs will better benefit consumers.[7] Doing so on an annual basis will bring greater transparency to leakage performance and ensure consistent leakage management by SOCs. So long as IPART's baseline leakage target is reasonable, there will be little change to average customer bills.[8]

This would operate well in a revenue cap framework. Previous year leakage performance could be passed through service charges together with shortfalls or over-recovery in revenue from demand volatility. Side constraints can prevent instability in customer bills to appropriately balance risks between our shareholder and customers, and minimise the impact to customer bills between periods. Because a revenue cap would also rebalance water conservation incentives for SOCs, together these schemes would encourage more water conservation in the round.[9]

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[7] These in-period adjustments are the norm for similar Outcome Delivery Incentives set by Ofwat in *PR19:* Ofwat, *PR19 final determinations: Delivering outcomes for customers policy appendix*, 2019.

[8] Even with Sydney Water's worst leakage performance in recent history in 2020FY, a shadow price would have only penalised annual revenue in the following year by an estimated $20m.

[9] We also note that a shadow price is a much better use of the capacity of the SOCs to bear some limited financial risk than price caps, which expose SOCs to financial risk from fluctuations in water demand relative to a forecast made several years earlier.

Importantly, this is also a much better use of the SOC's limited capacity to bear risk. Revenue risk from a shadow price is more controllable than revenue risk from variation in water demand under price caps.

7 A Regulatory Advisory Panel

Key messages

- We support a Regulatory Advisory Panel as it could enhance co-ordination and information sharing between regulators and policy makers.
- A focus area of the panel should be to encourage regulation that adopts best practice principles and explore new and innovative approaches that can increase value that the ecosystem delivers to our customers and the community.

We support a Regulatory Advisory Panel

We support a Regulatory Advisory Panel to promote regulatory decisions that are in the long-term interests of customers. Enhanced co-ordination and information sharing between regulators can avoid potentially conflicting or misaligned requirements, encourage best practice regulation and promote innovation.

To be effective, the panel should adopt best practice regulatory principles to guide its activities. In its submission to the NSW Productivity Commission, IPART commented that regulatory requirements imposed on water utilities should be subject to:

> *best practice regulatory principles, including consideration of all viable options and the adoption of approaches that achieve objectives at lowest net cost or greatest net benefit – i.e., value for money.*[10]

A key focus area of the Regulatory Advisory Panel should be ensuring greater transparency in the methodology used to establish new regulatory standards and the evaluation of the impacts of these standards on regulatory businesses and their customers. The panel should focus on ensuring such standards have regard to customer preferences, rigorous cost-benefit analysis and that appropriate funding is provided to meet those standards. It should also provide a forum within which government policy objectives can be discussed, for example, around climate change.

The Regulatory Advisory Panel might also assist in encouraging more innovative regulatory approaches. For example, IPART has supported market-based mechanisms to achieve environmental objectives:

> *Pollution mitigation is a major driver of costs in sewerage management. At present, most environmental regulations license a business or plant to pollute a certain amount in each period. Creating a cap and trade scheme would lead to a more efficient allocation of pollution rights and increase flexibility, allowing environmental objectives to be met at least cost. It might also facilitate greater competition in the provision of sewerage treatment (particularly inland, where pollution mitigation costs are the greatest).*[11]

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[10] IPART, *Submission to the NSW Productivity Commissioner - Kickstarting the productivity conversation*, 2019, p 3.
[11] IPART, *Opportunities for further reform – IPART's submission to the Competition Policy Review Issues Paper*, 2014, p 22.

Sydney Water is collaborating with the EPA to understand the role of nutrients in the Hawkesbury-Nepean River. This will lead to improved trading ratios for offset proposals with the EPA, making this a cost-effective option to tackle waterway quality degradation and improve river health. Discussing such initiatives in the panel would encourage continuous improvement and innovation in regulatory practice.

Feedback on the draft charter

We support the suggested charter; however, it could make the objective of promoting the long-term interests of customers more explicit. We agree that minutes and decisions should be made public, to support transparency and accountability.

We note the draft charter states the panel will meet at least twice a year, which we support. Meeting more than twice a year may be required, especially in the initial stages of information sharing and collaboration. Ultimately, the panel's success will depend on the level of engagement from its members. To assess its effectiveness, the panel could establish clear measures to ensure it is achieving its objectives. Performance against these measures should be periodically and independently reviewed. It would be sensible to assess the effectiveness of the panel after an agreed trial period.

We agree members should include the EPA, IPART, NSW Health and DPIE. We support extending membership to the NRAR as it has a regulatory role in the sector. There may also be value in inviting central government agencies, such as Treasury and the Department of Premier and Cabinet, to some meetings. We do not think that membership needs to be extended to customer groups or utilities but agree such groups should be provided with the opportunity to present to the panel on key issues. Similarly, regulators from other industries or jurisdictions could share their challenges and regulatory innovations.

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