

7 November 2018

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Director, Regulation and Compliance
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Sydney NSW 2000

Sydney Water's proposal for system performance standards

Dear Erin,

I am writing to you regarding Sydney Water's proposal for system performance standards in the next Operating Licence, and to provide some preliminary comments on the results of IPART's optimisation model.

Form of regulation

Based on meeting of 24 October, we understand that IPART is considering a change to the way performance standards are expressed in the Operating Licence. In particular:

- Where a robust economic methodology has been able to be applied (e.g., optimisation, cost-benefit analysis), the performance standard would be expressed as a target with a tolerance band (upper and lower limits) to allow for factors that are outside Sydney Water's control.
- Where an appropriate method has not been applied, the performance standard would continue to be expressed as a threshold (effectively an upper limit only), as per the current Operating Licence.

Where a target-based approach is used, we understand that IPART intends for outcomes above the upper limit to be considered a non-compliance against the Operating Licence, while outcomes below the lower limit would not be considered a non-compliance. If Sydney Water operates below the lower limit, this would instead be reviewed as part of the price determination process to ensure we are applying a prudent and efficient level of resourcing. Indeed, in our view the lower limit should not be a major focus during normal business. In the event our performance was below the lower limit, it would not be appropriate to encourage us to take actions to make sure we go above it, as this could incentivise perverse behaviour and unnecessary customer inconvenience.

Proposed system performance standards

As you are aware, we have engaged with customers and have undertaken a cost-benefit analysis of options regarding changes in Sydney Water activities and the estimated change in service

levels. Therefore, the use of a target level and upper limit approach does not need to be tied to IPART's optimisation approach, as we have applied a robust economic cost-benefit framework to assess the costs and benefits of different options.

Our work reveals that customers prefer planned rather than unplanned interruptions, and that longer interruptions are particularly inconvenient. In addition, wastewater interruptions are considered more inconvenient than water interruptions.

These preferences are broadly reflected in the customer willingness-to-pay survey results, and this has informed our cost-benefit analysis work and our proposals for system performance standards in the next Operating Licence.

Water continuity

In the case of water continuity, customer preferences and associated willingness-to-pay are sufficient to support an improvement to service levels. Of the options we analysed, two are likely to deliver a net benefit for customers:

- Improved notification (a reduction of around 1,300 long, unplanned interruptions); and
- New equipment that allows mains to be repaired under pressure, with no interruption to service (a reduction of around 6,000 long, unplanned interruptions).

Both options involve a change in work practices, which may take some time to fully embed in the business, and one involves innovative technology that has only been adopted by one other Australian water utility to date. While we are confident these changes will ultimately deliver a gain for customers, there may be a transition period before the full benefits are realised. Equally, Sydney Water will gain experience in implementing this new technology over time. This may necessitate some flexibility in the new licence, such as a set of transitional targets that are wider at the outset but narrow over the term of the licence.

We support a regulatory framework that promotes better outcomes for customers, but which also supports and encourages innovation. While we take compliance seriously, equally we do not want our perceived risk of non-compliance to hinder our adoption of innovative solutions that could provide a net benefit to customers. We hope IPART approaches the re-setting of the water continuity standard from the same perspective.

Consideration needs to be given to the appropriate baseline. The current threshold of 40,000 was adopted from 1 July 2010, an increase of 5,000 properties compared to the standard that applied in the previous two licence periods. Leading into the current end-of-term review there would likely have been a strong case to again increase the performance threshold, particularly in the context of the significant increase in new connections over the past eight years.

Taking these factors into account, our proposal for a revised Operating Licence standard for water continuity (unplanned interruptions greater than five hours) is shown in the following table:

Water continuity	Absolute number of properties affected	Properties affected per 10,000 connections
Current	40,000	202
Adjusted current	46,000	232
Proposed		
Upper limit	38,610	195
Target	31,680	160
Lower limit	24,750	125

Note: based on 1,980,000 connections. The adjusted baseline represents an increase in connections since 2010, including more medium density development.

The proposed upper limit represents a reduction of around 7,300 properties compared to an adjusted baseline limit of 46,000. The adjusted baseline limit reflects a reasonable allowance for growth in new connections since 2010.

We propose that the revised standard be expressed as the number of properties affected per 10,000 properties connected to Sydney Water’s water systems. This metric is also consistent with how the improvement options were presented to customers in the willingness-to-pay survey. This is a more meaningful way to communicate the risk of a customer experiencing a service interruption in any given year. The upper limit would therefore be expressed as 195 properties / 10,000 properties.

Changing the standard to a number per 10,000 properties also provides a way for the service standard to automatically adjust for population growth over time.

We propose that the target level of performance be set at 160 properties / 10,000, equivalent to around 31,700 properties in absolute terms. The target level proposed here broadly reflects performance over the last few years, with a downward adjustment that reflects the revised upper limit of 195 properties / 10,000. As such, the proposed target reflects most of the gains expected from full implementation of our improvement options.

Our proposed lower limit of 125 properties / 10,000 simply reflects the difference between our proposed target and upper limit values, providing a symmetrical performance band around the target.

We note that these numbers are based on the results of our customer engagement to date and may be subject to change pending the outcome of Phase 3 of our engagement program. In Phase 3 we will ask customers to consider willingness to pay for changes in levels of service in the context of the overall bill and other projects on which we are seeking customer views.

In terms of repeat interruptions, our analysis of the options we have developed (within the short time period available in this review) indicates that there would be minimal impact on the number of repeat interruptions experienced by customers.

Wastewater overflows

In terms of the dry weather wastewater overflows system performance standards, our work to date also indicates that there would not be a net benefit in changing current service levels.

We understand that IPART has not been able to identify an optimal level of service for wastewater overflows and may therefore propose to retain a single threshold limit. While we consider our cost-benefit approach to be robust, we do not propose a revised target or upper / lower limits for wastewater performance standards.

There are advantages in expressing the single performance threshold in a similar format to the water continuity standard. Due to the relatively low risk of customers experiencing a wastewater overflow, we would propose that the standard be expressed in terms of properties affected per 1,000 wastewater properties. For the current threshold of 14,000, this would equate to around 7 properties per 1,000 wastewater properties.

Water pressure

With regards to the water pressure failure system performance standard, we maintain our position that the current standard should be replaced with a reporting obligation.

Comments on IPART's optimisation modelling results

We thank the Secretariat for its recent presentation of its optimisation modelling results.

We appreciate the effort that has gone into this approach, and the attempts to amend inputs to better reflect network configuration and performance. The conversations between IPART and Sydney Water have been helpful in understanding our different perspectives.

We have some concerns with some of the assumptions in IPART's modelling. For example:

- More crews are assumed to lower the number and duration of interruptions to customers. In many cases this would not be true, as duration is strongly influenced by other factors such as the complexity and location of the break. Developing a method to reflect this in modelling inputs is not achievable within the review timeframe.
- Only two strategies are assumed to have an impact on the number of long unplanned interruptions – choice of asset management strategy ('avoid fail' or 'run to fail') and the number of staff available. However, decisions about asset management strategies and crew staffing levels would have impacts on multiple objectives, not just SPS compliance. Any change to SPS based on this assumption may not effectively consider the impact on other services or our ability to meet other regulatory requirements. We also note that there are other (lower cost) options available that could affect SPS performance that are not considered under IPART's approach.

- Critical water mains are assumed to experience a significantly lower rate of breaks or leaks per kilometre because of the avoid fail management strategy used. It is assumed that applying a different asset management strategy to reticulation mains would affect their break rate in the same way. This does not account for other factors that have an impact on break rates, such as the type of pipe used, pressure, pipe depth in the ground, and the amount of potential external interference, etc. We acknowledge that Sydney Water was unable to provide some of these data inputs to IPART.

Overall, we have concerns that the use of the optimisation approach could lead to the setting of standards that oversimplify or misrepresent our network and the relationship between costs and performance and customer outcomes.

If you have any questions, please do not hesitate to contact me on [REDACTED].

Yours sincerely

[REDACTED]

Philip Davies
Head of Regulatory Economics