SA Water Regulatory Determination 2020:
Guidance paper 8

Treatment of capital expenditure - addressing uncertainty

July 2019

Public – I2 – A2

Enquiries concerning this Guidance Paper should be addressed to:

Essential Services Commission
GPO Box 2605
ADELAIDE SA 5001

Telephone: (08) 8463 4444
Freecall: 1800 633 592 (SA and mobiles only)
E-mail: escosa@escosa.sa.gov.au
Web: www.escosa.sa.gov.au

Any queries on SA Water Regulatory Determination 2020 should be directed to:

Nathan Petrus, Director Consumer Protection and Pricing

Related reading

This Guidance Paper should be read in conjunction with the Framework and Approach paper and other Guidance Papers released by the Commission for SA Water Regulatory Determination 2020. Those papers and other information about SA Water Regulatory Determination 2020, are available on the Commission's website:

https://www.escosa.sa.gov.au/industry/water/retail-pricing/sa-water-regulatory-determination-2020

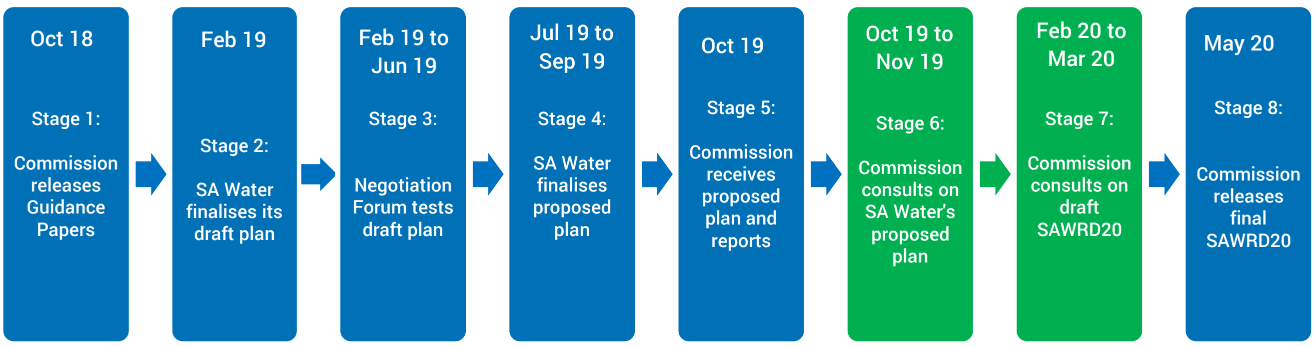
Timing for this review and upcoming consultation opportunities

While the Commission remains responsible for making the final regulatory determination, which will require SA Water to provide the water and sewerage retail services valued by customers for the lowest sustainable cost, the review process will involve multiple opportunities for stakeholders to be involved prior to that final determination.

Input from a diverse range of stakeholders is important, as it helps the Commission to make better informed and more inclusive decisions. The Commission will therefore draw on the full range of evidence provided by all stakeholders in making the final determination.

The timing of the key stages in SA Water Regulatory Determination 2020 are illustrated below, with the Commission's key consultation stages shown in green.

SAW RD20 review timeline



SA Water Regulatory Determination 2020 (SAW RD20) will set maximum revenues and minimum service standards for SA Water's drinking water and sewerage services, as well as setting pricing requirements for other miscellaneous retail services, to apply from 1 July 2020 to 30 June 2024.

SAW RD20 will challenge SA Water to:

- provide water and sewerage services at the lowest sustainable price for the quality and reliability levels valued by customers, and
- have in place sound long-term asset management, operating and financing strategies, which support the provision of those services for customers of today and tomorrow.

Those intended outcomes are consistent with the Commission's primary objective of protecting the long-term interests of consumers with respect to the price, quality and reliability of essential services.

Purpose of this document

In July 2018, the Essential Services Commission (**Commission**) established the framework and approach for SA Water Regulatory Determination 2020 (**SAW RD20**), which is intended to deliver the lowest sustainable prices for the services that SA Water's customers value.[1]

This is the eighth of a series of Guidance Papers released by the Commission to explain the requirements, methodology and process that will apply to SAW RD20. This Guidance Paper sets out how the Commission proposes to address uncertain costs or benefits in SA Water's capital expenditure plan for the SAW RD20 period. Further, it provides specific guidance on matters that the Commission considers to be relevant in determining the prudent and efficient costs of SA Water's Zero Cost Energy Future (**ZCEF**) program of works.

What is the issue?

Since 1 July 2016, SA Water has undertaken a number of large capital expenditure projects that were not part of its 2016-2020 Regulatory Business Proposal and, consequently, did not form part of the expenditure amounts incorporated into SAW RD16. Largely as a result of those projects, SA Water forecasts that it will incur capital expenditure of approximately $1,700 million during the current period, approximately $500 million (40 per cent) more than the amount incorporated into SAW RD16. SA Water's revenues are fixed for the SAW RD16 period and customers will not pay higher prices in this current regulatory period for the additional capital expenditure. As discussed later, customers may pay for the additional capital expenditure in the next regulatory period (from 1 July 2020), but only if the Commission determines the expenditure to be prudent and efficient.

One of the unforeseen capital projects, ZCEF, is a discretionary project, aimed at reducing SA Water's electricity costs (currently around $60 million per annum), principally by installing solar panels and batteries across up to 90 SA Water sites, at a cost of up to $390 million. Given the scale and discretionary nature of these works, the Commission has prepared this Guidance Paper to provide SA Water and other stakeholders with information about how the Commission proposes to treat any uncertainties surrounding the costs and benefits of the project. In addition, it provides guidance on the Commission's proposed regulatory approach for dealing with capital projects that may arise in the next regulatory period (1 July 2010 to 30 June 2024) that were not foreseen when making SAW RD20.

[1] See Commission (2018), 'SA Water Regulatory Determination 2020: framework and approach', July 2018, available at: https://www.escosa.sa.gov.au/projects-and-publications/projects/water/sa-water-regulatory-determination-2020-framework-and-approach.

Current Approach

The Commission's approach to reviewing SA Water's proposed expenditure looks to protect the long-term interests of consumers by only allowing prudent and efficient capital expenditure to be added to SA Water's regulated asset base (RAB).

Broadly speaking, expenditure on an activity will be considered prudent where there is a clear justification for that activity. This will be informed by an assessment of whether the expenditure is driven by:

- a legislative or regulatory obligation, with which SA Water must comply
- an expectation that the activity will deliver benefits to consumers that outweigh the costs, or
- a clear expectation from customers that an outcome should be achieved, and that they are willing to pay for that outcome.

Proposed expenditure is likely to be considered efficient where it represents the lowest sustainable (or long-term) cost of achieving the intended outcome, from the range of plausible options that have been considered. This includes evidence that both the operating and capital costs have been considered.

In the process of making a regulatory determination, the Commission assesses SA Water's capital expenditure on a forecast basis (for a forthcoming regulatory period) and an actual basis (for capital expenditure incurred in the previous regulatory period).

The assessment of SA Water's forecast capital expenditure plan has regard to the robustness of SA Water's systems and processes for planning and delivering capital works. It considers forecasts of efficient costs and expected benefits to be derived from those costs, based on the evidence available at that point in time. The Commission generally undertakes that task by assessing a sample of SA Water's proposed programs and projects, given the large number of capital programs and projects that make up a regulatory business plan. It does not assess every individual business case and seek to provide an approval or otherwise of capital expenditure at the disaggregated level. For SAW RD20, this will be the capital expenditure plan covering the period 1 July 2020 to 30 June 2024, which SA Water will submit to the Commission in October 2019.

The Commission's assessment of SA Water's actual capital expenditure during the SAW RD16 period (1 July 2016 to 30 June 2020) will review the extent to which that expenditure has been prudent and efficient. Where total capital expenditure during the period exceeds the capital expenditure amount that was included in SAW RD16, the Commission may disallow any capital expenditure that is not prudent and efficient from being included in SA Water's RAB.

In undertaking that assessment, the Commission would not seek to remove or exclude the actual capital expenditure incurred on the basis that, with the benefit of hindsight, a different or more efficient option was available, to the extent that such an option was not foreseeable at the time the actual expenditure decisions were made. However, the review may identify evidence that SA Water has not adjusted its capital delivery program during the regulatory period in response to actual (or reasonably foreseeable) changes in the costs and/or benefits of its original plans.

Application of the Current Approach to Zero Cost Energy Future

SA Water's ZCEF initiative is best characterised as a program of works containing a series of discretionary (and discrete) projects aimed at managing SA Water's overall electricity costs. SA Water has stated that it will be considering each project on a site by site basis, and each project will only be approved internally if the project delivers benefits that outweigh the costs.

SA Water has stated that the primary objective of ZCEF is to reduce its overall electricity costs, with a secondary objective of reducing variations in its electricity costs relative to purchasing via a retailer or through the wholesale market. Determining whether or not a particular project in that wider program is prudent will therefore be based on SA Water demonstrating that the forecast benefits are reasonably expected to exceed the costs for that project.

To ensure that consumers receive the maximum net benefit from ZCEF, SA Water should provide robust evidence of the expected costs and benefits and be able to demonstrate due consideration of the relevant non-financial issues (eg. development approvals; grid connections; environmental issues) for each project.

The Commission expects the business cases for certain ZCEF projects to be finalised and incorporated into SA Water's regulatory business plan by the time it is submitted to the Commission in October 2019. However, it is likely that some of the business cases will not be finalised until after the SAW RD20 determination is made in May 2020, which raises the question as to the process for reviewing whether or not those projects are prudent and efficient.

For any new ZCEF projects developed after SAW RD20 is made, it is important that a robust process for regulatory review, including stakeholder consultation, is undertaken (similar to the process for reviewing those projects incorporated into SA Water's regulatory business plan). In the absence of any regulatory review of forecast costs, SA Water faces the risk that new projects may not meet the Commission's test of prudent and efficient expenditure when reviewing actual capital expenditure at the end of the period and may not be included in SA Water's regulated asset base. That uncertainty may encourage SA Water to defer those projects to the following regulatory period, which may not be in consumers' interest as the potential overall cost savings to consumers would also be deferred.

Under the current SAW RD16 determination, SA Water would have to rely on the cost pass through mechanism or a re-opening of the entire determination to allow revenues to be adjusted during the regulatory period to incorporate any new projects. Those processes exist for unforeseen and uncontrollable events that materially impact SA Water's costs and it is unlikely that ZCEF projects would meet those criteria as they are controllable. Consequently, the Commission intends to introduce a new type of expenditure review mechanism under SAW RD20 to address any new ZCEF projects, or other major SA Water expenditure initiatives, that were not incorporated into SAW RD20.

Proposed Approach for SAW RD20

Given the experience during the SAW RD16 period of a number of major projects (including ZCEF) being undertaken that were not part of the SAW RD16 determination, the Commission will enhance its approach to reviewing capital expenditure for the SAW RD20 period. This will benefit consumers by providing greater regulatory scrutiny of any major SA Water initiatives prior to those initiatives being implemented.

A review of SA Water's forecast capital expenditure plan for the SAW RD20 period will be carried out using the current approach. However, as a further measure, an intra-period review mechanism will be introduced from 1 July 2020, similar to that used (in various forms) by other economic regulators, such as the Australian Energy Regulator. Those mechanisms allow for any major unforeseen capital expenditures to be reviewed by the regulator, through a transparent process involving public consultation, and provide for revenues to be adjusted (including by removing previously approved operating expense allowances) in the event that the capital expenditure is found to be prudent and efficient.

While the details of such a mechanism will be determined following further stakeholder consultation, its aim is to allow for a transparent regulatory process to review major projects in a timely manner, to allow stakeholders the opportunity to comment on the proposals, and to provide certainty to SA Water and customers about their regulatory treatment (as compared to reviewing actual capital expenditure at the end of the regulatory period).

Where the Commission finds a project to be prudent and efficient, SA Water's maximum revenues would be adjusted within the regulatory period to allow for the recovery of those efficient costs and to remove any offsetting operating expenditure.

As part of the SAW RD20 process, SA Water should submit a “contingent projects” list, providing some early sight of further projects which, though there is material uncertainty as to the scope/scale and/or timing, may be required to be undertaken during the SAW RD20 period, should a trigger event occur. The Commission would expect that, given SA Water’s long-term planning horizon, the majority of projects submitted for intra-period review would be from this contingent project list.

Addressing uncertainties about the benefits of ZCEF

As the main purpose of ZCEF is to reduce SA Water’s total electricity costs, forecasting the electricity costs that it would avoid as a result of ZCEF is a critical input into the cost-benefit analysis for each project. Part of that avoided cost will relate to energy purchase costs and part will relate to avoided electricity network charges. SA Water may also derive benefits from exporting energy to the grid at times where energy produced is not required for own use.

Factors that the Commission expects SA Water to consider, when estimating the future benefits of ZCEF, include:

- Greater uncertainty about future electricity prices, including the value of energy exported, the longer the projected time horizon. That uncertainty should be taken into account in projected cash flows through a probabilistic approach
- Sensitivities analysis should be undertaken around future assumed electricity prices, value of Renewable Energy Certificates (**RECs**) and other factors that influence future benefits
- Possible double counting of project risks, by including uncertainties in the future cash flows (described above) and also in the discount rate used to derive a present value of costs and benefits. The discount rate should reflect SA Water’s cost of capital, rather than the specific risks of the project, to avoid double counting of risk.

The Commission expects SA Water to use conservative assumptions in its analysis, to ensure that the only sites progressed to construction are those are reasonably certain of deriving benefits that exceed the costs.

What happens if the net benefits of ZCEF do not arise as expected?

There is a chance that, despite a robust and conservative approach to forecasting costs and benefits of ZCEF, the expected net benefits will not arise because of unforeseen events. For example, future electricity prices may fall below the range that was accepted as reasonable during the review of forecast costs and benefits. If such a situation arose, the Commission would need to decide if that cost (or lower than expected saving) should be passed on to customers.

There will be an opportunity to review the actual electricity cost savings made by SA Water during the 2024 regulatory determination and determine the extent to which the forecast savings were realised. If electricity prices are significantly different to those forecast, that information could be used to determine revenues going forward, but should not be applied to claw back revenues during the SAW RD20 period.

Using the benefit of hindsight to correct for forecast errors when those forecasts were accepted as reasonable at the time of the initial assessment would undermine the incentives built into the existing regulatory framework. If the net benefit realised by SA Water is greater than that forecast, SA Water would be able to keep that additional benefit for the remainder of the regulatory period. If the actual net benefit is lower than that forecast, SA Water would incur that additional cost for the remainder of the period. The Commission would, however, use the latest evidence of costs and benefits to inform any future ZCEF projects that may be proposed following the commencement of the SAW RD20 period or for future periods.