Updating the Energy Adjustment and Efficiency Carryover Mechanisms

In 2012, we published a Methodology Paper[1] setting out the design of and approach to applying the Energy Adjustment Mechanism (EAM) and Efficiency Carryover Mechanism (ECM). The Terms of Reference for our determination of the Sydney Desalination Plant's (SDP's) prices allow us to update the Methodology Paper from time to time.

As part of our SDP 2017 Price Review, we reviewed and updated the 2012 Methodology Paper to ensure it remains appropriate for future determinations. The updated EAM and ECM methodologies are set out in the 2017 Methodology Paper. These updated methodologies will be applied at the 2022 price review and factored into prices over the 2022 determination period. The updated methodologies will influence SDP's incentives to manage its surplus energy and deliver efficiency savings over the 2017 determination period.

Enhanced incentives for SDP to manage its surplus energy

The purpose of the EAM is to transfer a portion of the gains and losses SDP incurs on the sale of its surplus energy from SDP to customers (when SDP is shutdown or in restart). This transfer of risk from SDP to customers affects SDP's incentive to manage its surplus energy prudently and efficiency. Given that SDP is best placed to manage this risk, we consider it important that SDP retain sufficient incentive to manage this risk prudently and efficiently.

The 2017 Methodology Paper strengthens SDP's incentive to manage its surplus energy by:

1. Increasing SDP's share of gains or losses on the sale of its surplus energy.

Under the 2012 EAM (applying from 1 July 2012 to 30 June 2016), SDP retains 10% of gains and losses on the sale of its surplus energy outside a core band.[2] Our energy consultant found that this 10% share of gains and losses outside the core band limits SDP's incentive to pursue potential gains from forward selling at least a portion of its surplus electricity when in shutdown or restart.

Our decision is to increase SDP's share outside the core band from 10% to 20%. This change is symmetric in that SDP will retain a slightly larger share of both gains and losses on the sale of its surplus energy outside the core band.

Our decision will strengthen SDP's incentives to prudently manage its surplus energy, which we consider is in the best long term interests of both SDP and customers.

2. Setting the core band relative to the contract value of surplus energy sold in the year.

Under the 2012 EAM, the core band was plus or minus 5% of the total value of energy contracted by SDP in each year (ie, both energy used by SDP as well as surplus energy in each year.) For the 2017 EAM, we have set the core band at plus or minus 5% of the contract value of surplus energy **sold** in each year. Because the contract value of surplus energy sold can vary each year, our updated approach to setting the core band will better

1 IPART, *Sydney Desalination Plant – Efficiency and Energy Adjustment Mechanisms - Methodology Paper,* April 2012.

2 The 2012 EAM specifies a core band of plus or minus 5% of the total value of SDP's energy contracts. Under the 2012 EAM, SDP retained 100% of gains and losses on the sale of its surplus energy within the core band and 10% of incremental gains and losses outside the core band.

match the contract value of surplus energy sold over time. This will remove any potential incentive for SDP to time the sale of Renewable Energy Certificates (RECs) to retain a larger share of gains and a smaller share of losses under the EAM.

This also has the effect of slightly narrowing the core band (ie, because energy used by SDP is no longer factored into the core band), reducing SDP's exposure to risk under the EAM.

3. Strengthening the prudency test of SDP's surplus energy management to apply at the next SDP price review.

We have decided to strengthen the prudency test of SDP's surplus energy trading policy and activity to a general test of the prudency of SDP's surplus energy management. We agree with Sydney Water's submission that the 2012 Methodology Paper test of no manifest imprudence set a standard that does not provide adequate incentives.[3]

When assessing the prudency of SDP's management of its surplus energy contracts at the next review, with the assistance of an expert energy consultant, we intend to review SDP's policies, procedures, trading records, and other related documentation to understand how SDP has managed its surplus energy contracts over the review period.

We have decided to provide additional funding of $0.52 million over the 2017 determination period to complement the strengthened prudency test and facilitate the prudent management of SDP's surplus energy contracts. We note that SDP is best placed to decide how to prudently manage its surplus energy contracts. We are not prescribing how this should be done.

We have also refined and clarified some other areas of the EAM methodology, including:

- how gains and losses on the sale of surplus energy are calculated
- how financing costs are calculated and applied, and
- that the EAM has not been extended to partial modes of production, consistent with the Terms of Reference.

SDP has appropriate incentives to deliver permanent efficiency savings

The ECM is intended to remove the potential incentive for SDP to delay efficiency savings. It allows regulated businesses to retain permanent efficiency savings for a period of time before they are passed on to customers through lower prices. In the case of savings that might otherwise be delayed without an ECM in place, customers will benefit through lower prices sooner. This relies on SDP responding to the incentive provided by the ECM to achieve efficiency savings as soon as they are identified.

We have refined the ECM by:

1. Clarifying the purpose of the ECM to focus on identifying, delivering, and passing through permanent efficiency savings to SDP's customers.

The Terms of Reference require efficiency savings, net of efficiency losses, to be carried over by SDP before being passed on to customers. Therefore, the ECM passes through efficiency gains to customers, but not efficiency losses. This is appropriate, as it maintains SDP's incentive to manage its costs and avoid inefficient cost increases.

3 Sydney Water, Response to IPART Issues Paper, November 2016, p 46.

2. Ensuring appropriate incentives for both general and mode-specific efficiency savings.

We have maintained our approach in relation to mode-specific efficiency savings, which are to be retained for up to five consecutive years while SDP is in that specific mode, beginning when the efficiency saving is first achieved. This approach:

- is consistent with the Terms of Reference
- means that savings are not carried over for an indefinite period until SDP re-enters a specific mode, and
- does not over-incentivise mode-specific savings relative to general savings.

3. Clarifying the scope of costs that are subject to the mechanism.

The ECM applies to operating costs across all modes of operation. There are some elements of SDP's operating costs, however, that are not relevant when it comes to setting regulated prices and are therefore excluded from the ECM. Specifically:

- The prices in SDP's energy contracts are excluded from the ECM because we set prices based on benchmark energy prices that may be different to SDP's actual energy prices.
- Any operating costs that are outside the scope of SDP's regulated prices are excluded from the ECM.

4. Ensuring efficiency savings are retained by SDP for a maximum of five consecutive years.

The 2012 ECM methodology effectively allows for efficiency savings to be held for up to six years. We have corrected for this by adding a clawback feature to the 2017 ECM.