AER asset replacement forum: Discussion summary

Matter name:	Asset replacement planning industry application note (Application Note)
Date:	Tuesday 26 February 2019
Time:	10:00 am to 4:00 pm (AEST)
Location:	PARKROYAL Melbourne airport

This document provides an overview of the main points discussed during the AER Stakeholder Forum on its draft Application Note. Its use is purely informative.

The Australian Energy Regulator (AER) held a stakeholder forum on 26th February 2019, after having published its final Application Note on 25 January 2019. AER Chair, Paula Conboy opened the forum, which was followed by presentations from John Thompson and Ali Hassan. Presentation slides are available on the project page of the AER's website.

1. Submissions received

The AER discussed the main themes arising from the submissions it received on its draft Application Note, which was published in September 2019. The AER discussed how the final Application Note addressed these main themes by providing more clarity around:

- What relevant costs to include in the base case, which the AER still recognised as a complex topic for further discussion.
- How to capture risks, including how the Application Note does not encourage economic assessments to factor in reputational risks and how the treatment of compliance risk varies for 'hard' versus 'best endeavours' obligations.
- The value of customer reliability (VCR), non-network options, 'least regrets' and high impact low probability (HILP) events.
- How to deal with asset fleets, which is an area that the Application Note makes a good start on, but should be expanded on further in the next version of the Application Note.

On non-network options, it was raised that there may be cases where there is a less obvious role for non-network options, such as the replacement of secondary systems. The AER noted that, while less common, there might still be a role for non-network options in this case (for instance, if the validity of the primary system itself came into consideration).

On VCR, it was raised that there are still legacy issues where a small amount of load can have a high customer impact, such as where traffic is affected by power outages in tunnels. The AER advised on seeing such problems through the frame of whether the price/service level satisfies the customer. It was also noted that customers with high VCRs have greater scope to control their own supply. For instance, in the above example, it might be more economical for the owner of the tunnel to invest in their own supply security. This creates a reason for utilities to push the expense of high customer reliability onto those customers.

2. Clarifying the 'base case' or counter-factual

The AER described what the 'base case' is, which is used interchangeably with several other terms, such as the 'counter-factual' or 'the business as usual (BAU) case'. The AER also talked through a few examples where network businesses have poorly articulated the base case in a way that would create subsequent analytical challenges. The AER also noted that framing the 'identified need' well is important for framing the 'base case' well.

There was some concern around taking action at the last minute, and how to determine optimal investment timing was discussed.

It was also noted that several network businesses were having difficulties with how the AER wants them to present the base case. Specific queries included:

- Whether to assume you will have reactive replacement after running an asset to failure in the base case.
- Whether the base case better reflects business as currently is rather than BAU, as businesses will usually do something differently under BAU.
- How to relate risks in the base case to likelihood. The AER supported probabilistically weighting the base case and noted the importance of justifying values, especially if a HILP event is driving the investment.
- How to model risks after asset replacement. The AER noted that risk changes after replacement because an old asset is being replaced by a new asset (and noted that some businesses err in assuming a like-for-like replacement).
- Whether minor replacements form part of the base case. The AER noted that the regulatory investment test (RIT) application guidelines and the Application Note recognise that this as question of the minor replacements' materiality.

There was some discussion around how to characterise the base case where this assumes running an asset to failure (noting that the relevant risk might come from safety rather than asset failure):

- What should be considered 'failure' was raised. Specifically, if the base case entails a loss in the level of service, to what extent should businesses assume the service deteriorates or is corrected by corrective maintenance? The AER clarified that once corrective maintenance becomes material, it is a credible option in of itself as opposed to the base case.
- Data scarcity and measurement difficulties were raised given that assets are not run to failure often, particularly for explosive failures. The AER discussed models for using hidden data in absent data conditions. Moreover, while data is important, the AER's main concern is with the reasonableness of the approximation. The AER therefore scrutinises data that seem implausible (e.g. Weibull curves greater than 5)—it looks for red flags and the materiality of the underpinning assumptions.

Some areas of analytical difficulty were raised. For instance:

- It was noted that there are difficulties with justifying consequence for issues around voltage and quality of supply. The AER noted that there are often hard reliability requirements around these issues, which should mitigate some of these difficulties.
- A stakeholder noted that while lots of the discussion had been around primary systems, economic analysis around secondary systems is becoming more difficult. These assets are often small and have high redundancy, which makes analysis particularly costly.

3. Regulatory investment tests

The AER provided an update of material in the December 2018 RIT application guidelines on replacement projects, and also highlighted some recurring RIT compliance issues. The AER emphasised the importance of framing the identified need in a way that avoids biasing towards particular solutions. It also emphasised the importance of drafting non-network options reports (and project specification consultation reports) in a way that provides scope for hybrid network/non-network options.

On non-network options screening notices (Screening Notices) in the RIT for distribution, it was noted that:

- Some network businesses have been taking their Screening Notices to their consumer consultative committees. Such actions are valuable as they help network businesses to frame their Screening Notices for a consumer audience and to check whether consumers agree with the position.
- This screening is often based on threshold levels of $/kVA or if the location of load prevents generation from forming a solution. The AER did not consider this approach to be unreasonable, but noted that there are many moving targets in this area, especially with the AER's demand management incentive scheme about to come into effect.

The challenge of comparing non-network options with network assets was noted where these options have different levels of reliability. The AER noted that these challenges will vary on a case-by-case basis as they depend on the network asset being considered.

The function of the RITs was questioned where network businesses had already been shown to be efficient via the revenue determination process. The AER explained the importance of the RITs in justifying projects transparently to stakeholders on a project-by-project basis. It was recognised that RITs are also valuable in allowing non-network options to be considered on a project-by-project basis, where this may not have been done at the revenue determination stage.

4. Annual planning reports and asset retirement planning

The AER explained how it is aiming for annual planning reports (APRs) to improve in quality to the point that they clearly follow on from each other year-to-year and provide a clear picture. The AER spoke about how the quality of APRs has been improving, but this is an area for continued work. The AER explained that its strategy is to continue working with industry to improve APRs, rather than to take a compliance role. Given changes have occurred to the National Electricity Rules around replacement expenditure, there is an onus on the network businesses to ask whether their APRs remain compliant.

The distinction between asset replacement and retirement was discussed. The AER explained that the first thing we need to ask is whether to retire the asset – this is the asset retirement decision. Once it is determined that the asset should be taken away, the next question to ask is about how to address the service gap. There are several options for maintaining the service, one of which is to replace the asset – if this option is chosen, this is the asset replacement decision.

Stakeholders raised the difficulties with having information available 5 to 10 years in advance, and the effort involved in its collection. The AER noted that network businesses are expected to make reasonable forecasts based on the data they have, rather than to accurately predict the future. The AER typically has less data available to it than what network businesses have, but focusses on sense-checking the analysis. For example, insurance premiums might provide a reasonable sense-check to test any claims that network businesses have made about particular risks that they are carrying.