Improving guidance to support cost benefit analysis in network investment

What cost benefit analysis underpins network investment?

In the National Electricity Market (Market), when a network business is considering making a large investment, it must apply a cost benefit analysis to select the best way to meet the need for that investment.

This 'best way' must have the highest net economic benefit across the Market, whilst meeting the required service standards. We call this cost benefit analysis the regulatory investment test, or 'RIT'. There are two types of RIT, one for the transmission network (the RIT–T) and one for the distribution network (the RIT–D).

Promoting the interests of electricity consumers

When applying our cost benefit analysis, network businesses will evaluate all credible options for meeting the needs of their networks. Network businesses will then select the option with the highest net economic benefit, thereby delivering efficient investment outcomes.

We see this as contributing to the National Electricity Objective (NEO) to promote efficient investment in, and efficient operation and use of, electricity services for the long-term interests of consumers of electricity.

Our cost benefit analysis also encourages efficient outcomes in the longer term by supporting efficient market development and performance. The RITs promote these longer term outcomes by promoting a predictable network development framework around which competitive investments in the Market can be made without bearing unnecessary risks arising from inefficient investment.

Our cost benefit analysis further promotes investment efficiency by imposing transparency and accountability on major investment decisions. This contributes to the NEO to the extent that other efficiency incentives under regulatory regime are imperfect, or relatedly, the economic interests of network businesses differ from what maximises the net economic benefit across the Market.

What is our guideline review about?

We have separate guidelines for the RIT–T and RIT–D (guidelines) where we provide practical guidance to help network businesses apply a consistent, efficient and effective cost benefit analysis under the current regulatory framework.

It is worth noting that the Energy Security Board's work to convert the Australian Energy Market Operator's (AEMO's) integrated system plan into action may lead to regulatory changes that will lead to further review of the guidelines, as well as the RITs themselves. That said, it is still valuable to update our guidelines following recommendations that the Council of Australian Governments Energy Council made when reviewing the RIT–T in February 2017. Our updates also follow a rule the Australian Energy Market Commission made in July 2017 to extend our cost benefit analysis framework to replacement expenditure projects.

The guidelines reflect, where possible, the perspectives our stakeholders have offered throughout this review. We received a number written submissions on Draft Guidelines we published in July 2018 and an Issues Paper we published in February 2018. Also, a number of stakeholders provided their views in public forums we held in March and August 2018. A summary note of the input we received is available on the project page for this review on the AER website.

Promoting better engagement

Our improved guidelines respond to feedback on the quality of consumer and non-network engagement during the RITs. We now place a greater emphasis on the value of early, continuous engagement, recognising that the RITs occur in a broader network planning context. This includes recognising the value of transparency including when providing user-friendly information in annual planning reports.

We have also introduced guidance on consumer engagement during the RITs. We now guide network businesses to frame their investment proposals as a proposed objective to deliver better outcomes for consumers. We also provide high-level principles and draw on our current 'consumer engagement guidelines for network service providers'.

Helping navigate policy and market changes

The new guidelines will assist network businesses to apply the RITs in the changing regulatory and market environment. This includes improved guidance on how to account for:

- Market-wide impacts:

While the RITs have always required network businesses to value how their proposed investments affect other parties and other regions in the Market, the need for this task is ever growing. We have introduced guidance to assist network businesses in applying AEMO's integrated system plan to inform their cost benefit analysis. This new guidance will not only assist network businesses in selecting input assumptions, but will also help them more effectively account for the market-wide impacts of their investments.

- Policy changes:

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We have updated our guidance on how to take government policy into account when applying RITs. This includes guidance on treating compliance costs, calculating cost savings in meeting mandated targets, and considering potential policy developments when exploring different reasonable scenarios.

- System security:

While the RITs can already capture the value of system security, there has been a demand for more guidance in this area. We have heard this demand, and have provided clear guidance on how network businesses can account for the impact of high impact, low probability events within their RIT cost–benefit analysis.

Guiding the assessment of efficient replacement projects

Following a rule change we requested, the RITs now apply to large replacement projects, rather than just augmentation projects. Replacement projects are those where network infrastructure is in poor condition and needs to be retired.

To get the most out of this rule change, we have extended our current guidance and worked examples to assist network businesses in applying the RITs in this new area.

Following stakeholder submissions, we have clarified that network businesses should value proposed replacement projects against a 'business as usual' base case. This is where the network businesses conducts ongoing, economically prudent activities to operate with its existing infrastructure instead of applying a credible option, such as replacing the poor condition asset.

Can the analysis capture social policy objectives?

Since electricity consumers in the Market ultimately fund network investments, our cost benefit analysis aims to improve Market outcomes. That is, our cost benefit analysis captures Market benefits, rather than broader policy goals (for example, regional employment benefits).

However, our cost benefit analysis is sufficiently flexible to work within the broader policy context. It recognises that it is fit-for-purpose for the relevant beneficiaries, rather than electricity consumers, to fund broad social benefits.

Our cost benefit analysis achieves this by recognising that when a party from outside the Market (say, a government or government body) puts funding towards an investment, this will be treated as an external capital contribution that increases that investment's net economic benefit under the cost benefit analysis.

How else are we supporting better network investment decisions?

Improved guidance only goes so far to encourage better outcomes for electricity consumers. As such, we are taking a holistic approach to encourage efficient network investment.

- Improving information:

Network businesses have good information on the strengths and limitations of their networks. By sharing this information, non-network businesses are able to develop ways to assist network businesses in meeting the needs of their customers. Following the repex rule change, network businesses must provide asset retirement and de-rating information in their 'annual planning reports'.

We have also been improving the consistency and useability of the planning information that network businesses provide. Last year, we published an information template to help distribution businesses provide this information in a fit-for-purpose format. This year, we will publish a similar template for transmission businesses.

- Improving incentives:

In 2017, we introduced a demand management incentive scheme. This encourages distribution businesses to undertake a transparent market testing process and to manage demand as part of its preferred option when doing so is efficient.

- Encouraging compliance:

Network businesses, or AEMO in the case of Victorian transmission planning, are responsible for applying the RIT cost benefit analysis. In contrast, we actively monitor, assess and provide guidance on how network businesses apply the RITs. We also have a dispute resolution role where network businesses have misapplied a RIT under the National Electricity Rules or have made a manifest calculation error.

We plan to take a more active role on reporting RIT compliance. Doing this will provide transparency and identify any systemic concerns that arise. This is particularly important because, after the repex rule change, RITs have become more common and many network businesses are applying them for the first time.

We can also encourage network businesses to apply an effective cost benefit analysis by considering this information when setting their revenue allowance. Each regulatory period, we consider a range of information when forecasting what level of capital expenditure would be efficient. RITs are typically useful for informing these decisions, and we plan to have greater regard to this information in future decisions.