

Sharing the risk: Alternative approaches to infrastructure funding

Getting infrastructure built at the right time and in the right places has been an issue for Australia since European settlement in 1788, and has been the preoccupying public policy question for at least the last decade. Energy infrastructure is essential to continued economic growth in two industries critical to the future of Australia's economy: mining and renewable energy.

Australia is rich in both mineral and renewable energy resources with an ever-evolving list of proponents keen to develop new mines, drill new geothermal wells or erect new wind turbines. Generally located far from traditional load centres or existing energy infrastructure, mining and renewable energy resources share a number of common factors that contribute to the difficulty of funding new infrastructure. In addition to their isolated location, the resources are inevitably developed by numerous parties over an extended period of time, with new projects coming on-line (or being moth balled) depending on a number of factors. The resultant uncertainty of demand for energy infrastructure creates daunting financial risk for prospective financiers.

Predictions are difficult, particularly about the future (demand)

Since certainty of end-user demand is the central issue in infrastructure financing, providing or underwriting that certainty is a key point of leverage. But costs and lead times to build energy infrastructure tend to be large and long, while demand for the commodities produced by the resources industry can be volatile. So who should take the risk that the demand will not emerge?

In economists' dreams, investors would take the risk. Perhaps some investment bank or syndicate with deep pockets and a healthy risk appetite would stand ready to take up and on-sell any capacity that became available, in exchange for a premium from the asset owner. If the sums of money involved were large enough to warrant the establishment expense and the mood of the financial markets were benign, this approach might be feasible. At least one investment bank is rumoured to have looked at playing such a role for funding power infrastructure in Western Australia's Mid-West region – but rejected it as providing an inadequate return.

At the other end of the spectrum, the risks could be spread among the broader community. Federal or State Governments could fund the infrastructure directly from general revenue and own, or retain an interest in, the assets themselves. This is old-school State Development thinking – which is not to say that it is wrong, but that it is out of favour among Governments that mostly have limited funding capacity and long lists of hospitals, schools and other 'social infrastructure' for which they are responsible.

“Private players should not hesitate to explore their own options independent of Government action.”

A significant change in regulation for renewable energy resources, through the imminent Scale Efficient Network Extension (SENE) rule, effectively allows network businesses to socialise the cost of any over-capacity within predefined zones with significant renewable energy potential. (As an example, one recent study of South Australia’s Eyre Peninsula showed that up to 2,000 MW of new capacity could be connected at an annual SENE shared charge of \$50 million; at an assumed capacity factor of 20%, this represents a cost of less than \$12 per MWz generated.) Previous models for infrastructure development, built on bilateral agreements between project proponents and network businesses, provided no commercial incentive to build network extensions to an efficient scale for potential future connections: if these connections do not occur as anticipated, the network business is left with significant over-capacity. The Australian Ministerial Council for Energy has effectively agreed that consumers will cover the asset stranding risk for transmission infrastructure in those zones, in order to facilitate the connection of low-cost, efficient renewable generation.

Mining in the Mid-West

Second-tier iron ore producers (and prospective producers) in the Mid-West region face a similar problem to that which the SENE rule change aims to solve. They currently have a choice between high-cost local generation and high-cost connection to the grid. A full-scale local power station could serve all users and would-be users at an attractively low cost, but financial distress in any of the foundation customers would render the station uneconomic – so it has yet to be built.

The SENE approach is one example of what Governments can do to cut the Gordian knot by allowing risks to be socialised in limited circumstances. But private players also have necessary roles to play in overcoming what, on face value, appears to be a significant market failure. They should not hesitate to explore their own options independent of Government action.

Everyone could be a winner... maybe

It seems clear that in the Mid-West, would-be users of the new energy infrastructure waiting to be built can rely on neither a perfect market nor a beneficent Government for its provision. How then might the risks be shared among users of the assets themselves?

If there were sufficient foundation users and the benefits of the new infrastructure were great enough, those users could insure one another, standing ready to pick up the tab for any capacity that became available through default. A Government wanting to provide a positive, but light-handed influence could underwrite the last tranche of unutilised capacity, effectively limiting the downside for users.

The development of such mechanisms represents a formidable commercial, regulatory and negotiating challenge. The mechanism would need to consider the possibilities of new users seeking access to the infrastructure, existing users wanting to leave or defaulting, the requirements to operate within financing covenants, and the conditions under which capacity would be expanded. A reasonably efficient pricing structure would need to be devised and commercial arrangements for settlement put in place. Some of

the potential sticking points would be:

- Agreeing on an effective mechanism for resolving disputes
- Governance processes that ensure equitable arrangements, particularly in the absence of an 'open book'
- Regulatory treatment of the assets: Is it a private network? Can others demand access?

While the challenges are significant, we believe they are not beyond a motivated and imaginative group of end-users – who are, after all, the group with the most to gain from the removal of infrastructure road-blocks. With the right advice and facilitation, everyone could be a winner.

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