

# AEMO's plan is just the first step

**Energy future** Despite all the headlines about decades of coal to come, AEMO has prepared a cautious and considered path ahead.



Sarah McNamara

Don't get too excited about some of the media commentary around this week's release of the Australian Energy Market Operator's first Integrated System Plan. If you think it feels like a rebadged version of an earlier model, you are right. While the headlines might suggest otherwise, the plan is simply the first step in a process to align the transmission system with a rapidly changing generation mix.

The new model ISP sets out to guide the state-based transmission companies into developing their networks in a nationally cohesive way. The old model was called the National Transmission Network Development Plan and was produced by AEMO for a decade until the Finkel review last year recommended a name change. But both models do the same job: they provide a central independent plan for the NEM.

AEMO's work reinforces two main points that everyone in the energy industry already knows. The first is that the Australian energy sector is in the midst of a transformative and unprecedented rate of change.

The second is that coal-fired power stations will remain the cheapest provider of energy for several decades and have a role to play as we make the transition to greater renewable energy sources. Again, this revelation is not new and reflects the economic life of these large-scale assets. In fact, more important for these and subsequent investments will be landing the National

Energy Guarantee. In electricity, the "market" really only applies to the business of generating and storing

electricity, and engaging with customers. The grid is a natural monopoly and is fully regulated and paid for by captive customers. Generators don't pay to use it. It's analogous to the way roads are built, used and paid for.

As a monopoly, the grid must be centrally planned by someone outside the market. This is a very challenging role, as they have to predict the market well in advance – they don't themselves determine what generators get built – and their decisions will in turn greatly affect the market.

To ensure the planner acts in the best long-term interests of customers, every large network development is subject to a detailed cost-benefit test overseen by the Australian Energy Regulator (AER). This is a crucial assessment, and fulfils two functions.

First, it strives for cost effectiveness for the customer. For example, there is much valid criticism of past network investments made to meet peak demand growth that proved to be unnecessary.

Second, it creates a predictable framework around which the market-facing parts of the industry can invest. Every network investment will "move the deckchairs" in the market, creating winners and losers. An investor might, for example, assume a small investment that creates a lot of useful capacity will pass the test, while a large speculative line reaching into the desert will probably not.

AEMO's ISP is basically the first step in the process. It attempts the enormously difficult task of predicting the way the market will develop at a time of great change, and from that identifies those transmission projects that are likely to pass a cost-benefit test and when.

The ISP is a considered plan. Some large projects, such as the South

Australia-New South Wales interconnector, are already being tested by the companies and were assumed by AEMO to be developed.

After this, the ISP recommends immediate testing of three new projects, each of which are relatively low cost and incremental in scale.

It then proposes more substantial investments to occur from the mid-2020s and into the 2030s. These include a \$2.7 billion project to build new lines

between the Snowy scheme and Victoria via South West New South Wales and North West Victoria, and a proposal for a second \$900 million Tasmanian cable. Importantly, the ISP recommends that testing on these should wait until more market investments emerge to justify them.

An area of particular interest for this ISP was the much-discussed concept of "Renewable Energy Zones"; areas with prospective solar and wind resources into which major lines are built, before the generators emerge. The ISP studied a large wish list of potential zones, enthusiastically promoted by renewable developers along with transmission companies and state governments, but has responded with sensible caution.

The majority of remote zones were not recommended for development until at least the 2030s, or "beyond 2040", meaning they can't be justified within the planning horizon. For example, in NSW the ISP concludes it will be more efficient to either encourage generation to locate in areas of existing network capacity, or to develop zones that are part of stronger links between the states.

These are unremarkable conclusions. Unlike coal, sun and wind exist everywhere. While it is often at a greater intensity remote from our population centres, the cost savings of harvesting it don't outweigh the cost of transporting it the extra distance.

While the ISP presents a useful plan for the transmission companies to broadly follow, it remains crucial that each individual project passes the regulator's cost-benefit test on its own merits. The ISP has only given a total cost-benefit estimate were all the projects in its list to be developed.

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