



21 June 2019

Dr Kerry Schott AO  
Chair, Energy Security Board  
Submitted by email to <mailto:info@esb.org.au>

Dear Dr Schott,

### **Converting the Integrated System Plan into Action**

ENGIE Australia & new Zealand (ENGIE) appreciates the opportunity to comment on Converting the Integrated System Plan into Action. ENGIE is a member of the Australian Energy Council (AEC), supports the AEC's submission, and makes the following additional comments.

In the main, ENGIE supports the ESB's proposed approach to the Integrated System Plan (ISP). However, dealing with policy uncertainty will be the dominant factor when developing the ISP and its implementation. The tension between early investments in transmission and optimal cost to consumers whilst not jeopardising market-based investments in generation is considered a major challenge for policy makers and investors alike and has shaped existing transmission investment frameworks successfully.

### **Development and selection of scenarios**

The electricity sector is characterised by capital intensive and long-lived assets. The supply mix is heavily impacted by climate change policy and sectoral trajectories for carbon dioxide emissions. Private investors are expected to manage a wide range of market risks, including fuel costs, technology developments and costs, plant performance risks, and construction risks. However, investors cannot manage the unprecedented and rapid change in policies (introduction of a cost of carbon dioxide emissions, state based renewable targets, and foreshadowed "out of the market" investments by government entities (i.e. Snowy 2.0)).



In this context, development of the electricity sector in an economically efficient manner is a formidable challenge. Dealing with a high degree of uncertainty is a critical success factor and an effective scenario-based planning process forms an essential ingredient. Managing this through an ISP may be possible but is unlikely without a market which appropriately allocates risk where it can best be managed. ENGIE does not believe the current levels of policy risk can be effectively managed in the market by private investors.

### **Is there a better way? - Revisiting scenario development and use**

The use of effective scenarios in the ISP and Regulatory Investment Test – Transmission (RIT-T) process is imperative when dealing with the range of uncertainties and distinctly different possible futures.

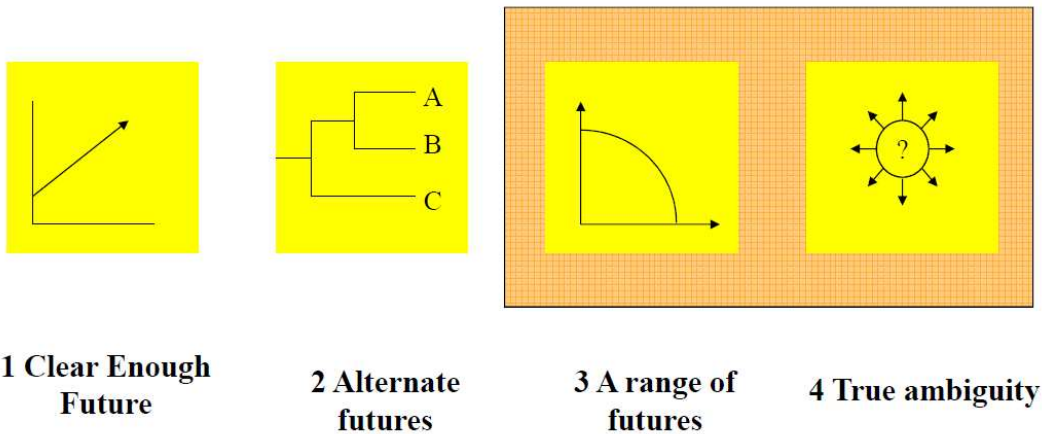
The process for developing scenarios by the Australian Energy Market Operator (AEMO) has varied over time, and whilst it is improving it remains somewhat simplistic and more suited to a reasonably “certain future”, rather than a range of “stretching” futures or high level of ambiguity.

The current AEMO approach delivers scenarios that are clustered together and are more representative of a single scenario with several sensitivities. Use of the McKinsey Framework illustrated on the following page, is best suited to uncertainty levels 1 and 2 in the diagram below. But the policy space in the electricity sector is far more uncertain and needs techniques applicable to uncertainty levels 3 and 4.

To deal with a broader and higher levels of uncertainty, fundamentally different techniques are needed, and scenario planning as pioneered by Shell is considered more appropriate. The scenario planning process is a planning technique that produces a set of scenarios with a special set of properties. Whilst the technique provides a holistic approach to assessing strategic options, it is the scenario development attribute that is advocated here.

The technique uses a rigorous process to identify key uncertainties and provides a framework for building them into an internally consistent scenario set describing the different futures.

The following shows shaded areas where scenario planning is useful and appropriate when there is a large uncertainty, such as a range of futures or true ambiguity (ie uncertainty levels 3 and 4).



(Ref 20/20 Foresight, Hugh Courtney, McKinsey & Co)

### **Costs to customers are certain but benefits are highly uncertain**

In the current very uncertain environment it is far from clear that large interconnectors, if built, will be sufficiently utilised to deliver benefits to customers over their asset life.

Firstly, the expected generation used to justify the transmission augmentation may not be built because of policy uncertainty and unmanageable risks to investors. Hence customers pay for the speculative investment in transmission without receiving commensurate benefits.

Secondly, if generators are built in the expected locations, they will benefit from these transmission investments and thus effectively receive a subsidy from customers by gaining free transmission access. This behaviour and investment outcome represent a wealth transfer from customers to generators.

These possible outcomes make it very uncertain that interconnectors deliver enough customer benefits to underwrite their high capital costs.

Additionally, system conditions and technological developments over time are likely to change the economic benefits. The long lead-time and long asset life of large transmission augmentations means that the claimed benefits under a RIT-T may no longer exist by the time the interconnector is constructed or “evaporate” down the track, yet customers remain committed to funding these projects over their full asset life. Under the current regulatory model, risks of underutilised transmission are passed onto consumers.

As a result, it is incorrect to assume that a large transmission build is an easy answer and without significant downside risk. Therefore, a high degree of caution is necessary to ensure that consumers are

not further disadvantaged by expediting the transmission augmentation assessment and regulatory approvals process and increasing the quantum of fixed transmission costs.

### **Converting plans into action**

It is imperative that this process doesn't exacerbate the investment uncertainty for market-based investments and specifically doesn't attempt to second guess government policy.

For example, additional interconnectors are likely to reduce the profitability of existing generation assets in importing regions and lead to premature exit of generation assets from the market. Should these assets continue to be required by the system, additional streams of revenue (yet more costs levied on consumers) would be needed to prevent their exit.

The implementation of the ISP must develop synergies and timing with the AEMC Coordination of Generation and Transmission (COGATI) review. For example, generators could underwrite the costs of transmission augmentation in return for a defined level of transmission access. In this way transmission development would be driven by generation projects, would be co-optimised between generation and transmission, and would remove the need for customers to underwrite speculative investments in transmission.

It should be noted that in a highly uncertain environment, it is often the case that least cost is achieved when lower capital cost projects are incurred at the latest possible time (i.e. "small bets late"). The focus on early implementation of transmission augmentations and the potential use of an underwriting fund are heading in the opposite direction. Therefore, the probability is high that as part of actioning the ISP, "large bets early" will be made, which deliver uneconomic investments and increase costs to consumers without commensurate benefits.

In summary, in economic studies "spending someone else's money for someone else's benefit" typically results in lowest levels of economic efficiency. The COGATI approach is considered a more economically effective instrument and only lacks the attraction of centralised planning which has regained appeal more recently in some quarters.

### **Dispute resolution**

Given the importance of the ISP to the RIT-T, it is important that disputes can be raised during all stages of the process and taken to the AER. There should be avenues to keep the RIT-T process relevant and efficient and the steps that AEMO follows as part of the ISP development must be open to the dispute resolution process. This places additional checks and balances on AEMO during the development of the ISP. The governance arrangements need to be flexible and to strike the right balance between the

materiality of issues considered and the time and cost needed to consider them, to ensure material issues of merit are effectively addressed.

## **Conclusion**

ENGIE acknowledges the extensive work undertaken by AEMO and now the ESB in considering the benefits of the ISP. Nevertheless, ENGIE expresses caution in expediting progress of processes that may ultimately prove disadvantageous for customers.

ENGIE trusts that the comments provided in that the response are of assistance to the ESB consultation on Converting the Integrated System Plan into Action. Should you wish to discuss any aspects of this submission, please do not hesitate to contact me on, telephone, 0417 343 537.

Yours sincerely,

**David Hoch**  
Regulatory Strategy and Planning Manager