ElectraNet

19 October 2018

John Pierce
Chair
Australian Energy Market Commission
Level 6, 201 Elizabeth Street
SYDNEY NSW 2000

Contact: victoria.mollard@aemc.gov.au

Dear John,

Re: Coordination of generation and transmission investment (EPR0052)

ElectraNet appreciates this opportunity to provide a submission on the Australian Energy Market Commission's (AEMC) Options Paper on its Coordination of Generation and Transmission Investment review, following the Energy Security Board's stakeholder forum in which ElectraNet participated in Melbourne on 11 October 2018.

We note the relatively short timeline for submissions, and offer our submission on the basis it represents our initial perspectives on the Options Paper.

ElectraNet is party to a separate submission from Energy Networks Australia. The following additional comments address a number of specific issues in the Options Paper and draw upon our recent experience in applying the Regulatory Investment Test for Transmission (RIT-T) to strategic, inter-regional projects, particularly the South Australian Energy Transformation (SAET) RIT-T.

Summary

This is a time of significant change for Australian energy markets, driven by the transition to lower carbon emissions, rapidly evolving technologies and changing customer needs. Successful integration of a changing supply mix, while maintaining affordability, reliability and security of supply for customers remains a key priority for the energy sector.

The electricity transmission network has a key role to play in supporting the efficient development of energy markets during this transition, as highlighted by the inaugural Integrated System Plan (ISP) published by the Australian Energy Market Operator (AEMO) in July 2018.

The AEMC's Options Paper sets out five options for making the ISP an 'actionable' plan by examining the steps required in any decision making process and allocating responsibility for each step between AEMO and individual Transmission network Service Providers (TNSPs).

These options range from an enhanced status quo (Option 1) to an option where AEMO assumes full responsibility for all of the decision making steps as part of the ISP (Option 5).

The Options Paper acknowledges that the options presented represent five possible approaches and welcomes the proposal of additional options in order to strengthen the link between the ISP and individual TNSP investments.

We agree that changes to the regulatory framework are needed to make the ISP an actionable, strategic plan. ElectraNet supports balanced reforms that allow AEMO to identify overall system needs and develop solutions consistent with its role as the national transmission planner, while preserving the role of TNSPs in detailed transmission planning and investment decision making.

The remainder of this submission:

- proposes a modified option for implementing an actionable ISP;
- identifies opportunities to streamline regulatory processes, with reference to our current experience in the application of the SAET RIT-T.

Objectives for an actionable ISP

ElectraNet remains fully supportive of AEMO's role as national transmission planner in the strategic planning of the integrated energy supply system and the development of the ISP, including coordinating the development and connection of Renewable Energy Zones (REZs) and 'least regrets' transmission investments in a manner which maintains energy affordability, reliability and security for customers.

In order for AEMO to effectively fulfil this role and make the ISP actionable, balanced regulatory reforms should be guided by the following objectives:

- Preserving the role of TNSPs in detailed transmission planning and investment decision making to maintain clear accountability for regional transmission service outcomes, while enabling broader consideration of NEM-wide strategic benefits and development priorities;
- Efficient coordination of national transmission planning and streamlined decision making processes to deliver timely investment to meet customer needs for affordability, reliability and security of supply;
- Adequate levels of consultation to ensure stakeholder confidence in proposed investments; and
- Timely cost recovery processes to support investor certainty and streamlined investment delivery.

In accordance with these objectives, ElectraNet has developed a modified version of the options set out by the AEMC to make the ISP actionable. This model represents a balanced position drawing upon elements of the options presented in the Options Paper and is most closely aligned with Options 3 and 4.

ElectraNet's proposed model

ElectraNet's proposed ISP investment process builds on current practice and is centred on AEMO identifying a subset of priority least-regrets 'actionable' projects in its ISP that should be pursued in the short term and for which a streamlined version of the RIT-T can be applied.

This provides a measured approach which balances timeliness and rigour for ISP strategic projects, allowing priority NEM-wide reliability and security needs to be efficiently addressed, supported by robust consultation processes and regulatory oversight.

This approach offers a number of key benefits:

- Streamlines regulatory processes and minimises duplication of assessment, reducing overall investment timeframes;
- The ISP identifies and narrows down the range of options that are subject to further detailed analysis and consultation by TNSPs as part of the RIT-T.
- Undertaking a NEM-wide cost benefit analysis as part of the ISP enables broader consideration of reliability and security benefits and development priorities in order to identify the most efficient overall outcome, addressing a potential shortcoming of the current RIT-T framework;[1]
- TNSPs are able to rely on the identified needs, inputs, assumptions, scenarios, market modelling and development pathway identified through a robust consultation process in the ISP;
- Provides opportunity for input from governments to reflect national infrastructure and policy objectives in the ISP;
- The implementation of high priority actionable projects identified in the ISP as realising immediate benefits upon completion is supported by streamlined approval processes;
- The TNSP's role in the detailed planning of transmission investments and accountability for regional transmission service outcomes is preserved, allowing TNSPs to use local knowledge, resources and project expertise to optimise ISP projects identified as actionable by AEMO and manage interactions with intra-regional needs not considered by the ISP; and
- The AER's independent revenue approval role is preserved, ensuring the most cost effective outcomes.

Table 1 below provides a detailed breakdown of the ISP development, RIT-T and TNSP implementation processes under our proposed model. Similar to the approach for the five options in the Options Paper, the table below considers the steps required in the decision making process and allocates responsibility for each step. The proposed model is divided into two main parts, with AEMO responsible for all steps in Part A and various responsibilities assigned in Part B.

A graphical summary of the proposed model is included as an attachment.

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[1] One of the key recommendations of the COAG Energy Council's review of the RIT-T was that the AER review its RIT-T Application Guidelines with a "view to better reflect the net system benefits of options, including those relating to system security" and "to better accommodate high impact, low probability [HILP] events". (See COAG Energy Council, Review of the regulatory investment test for transmission, 6 February 2017, p.4&5.) The AER's review of its guidelines is currently in progress and several submissions have identified the limitations of the RIT-T in adequately assessing HILP events. The AER's draft guidance restates the approach currently adopted in practice. The AER's draft guidance and subsequent submissions are available on its website.

Table 1 – Breakdown of ElectraNet's proposed model

PART A: AEMO DEVELOPS THE PLAN	
STEP 1: ISP SCENARIO DEVELOPMENT • AEMO develops and consults with industry on inputs, assumptions and scenarios relevant to the ISP • Inputs include demand forecasts and generation technology costs	
Responsibility: AEMO	
STEP 2: IDENTIFY SYSTEM NEEDS • AEMO identifies NEM-wide reliability, system security and risk resilience needs • TNSPs identify regional reliability, system security and risk resilience needs based on local requirements via the Transmission Annual Planning Report (TAPR) process which AEMO takes into account for ISP • AEMO applies agreed public policy needs and COAG Energy Council provides guidance on resilience and energy security risks that should be reflected in the ISP analysis	
Responsibility: AEMO/TNSPs	
STEP 3: IDENTIFY CREDIBLE OPTIONS • AEMO identifies potential credible options that address the needs, in consultation with TNSPs • Credible options include non-network options, based on consultation with proponents through the ISP process	
Responsibility: AEMO	
STEP 4: CONSULT ON INPUTS, ASSUMPTIONS AND SCENARIOS • AEMO consults on outputs of steps 1-3, including inputs, assumptions, scenarios, identified needs and credible options, by publishing an 'ISP consultation document' • ISP consultation document provided to TNSPs for comment prior to publication • Provides a thorough reporting and consultation process which takes the place of the PSCR in the RIT-T • *Publication: ISP*	
Responsibility: AEMO	*Publication:* ISP Consultation Document
STEP 5: MARKET MODELLING AND COST BENEFIT ANALYSIS • Using the outputs of steps 1-4, AEMO conducts a NEM-wide market modelling and cost benefit analysis to determine the combination of credible options that most efficiently meets system needs • Results shared with TNSPs for comment via joint planning processes and feedback taken into account for next step	
Responsibility: AEMO	
STEP 6: PUBLISH DRAFT ISP • AEMO publishes Draft ISP • Draft ISP identifies preferred projects forming the proposed transmission development pathway • Preferred projects identified may include non-network options and enhancements to existing assets • A subset of these preferred projects are identified as 'actionable' least regrets projects that should be pursued in the short term and for which a streamlined version of the RIT-T can be applied • Draft ISP provided to TNSPs for comment prior to publication • AEMO consults on Draft ISP and addresses submissions on ISP consultation document	
Responsibility: AEMO	*Publication:* Draft ISP

STEP 7: PUBLISH FINAL ISP

- AEMO publishes Final ISP which takes into account submissions on Draft ISP and updated market modelling and cost benefit analysis
- In consultation with the AER, AEMO finalises the actionable projects included in the ISP
- Final ISP provided to TNSPs for comment prior to publication
- Addresses issues raised in submissions on Draft ISP

Responsibility: AEMO	*Publication:* Final ISP

PART B: TNSPs IMPLEMENT THE PLAN

STEP 8: DETAILED OPTIONS ANALYSIS

- TNSPs progress RIT-Ts on actionable projects identified in the ISP based on the identified need and the high-level specification set out in the ISP for each project.
- TNSP undertakes detailed options analysis focusing on option variants for actionable projects identified in the ISP, including any identified non-network projects, to meet the identified need
- Where a non-network solution forms part of an actionable project, TNSPs issue a 'non-network option request' to elicit firm offers
- Analysis seeks to optimise the delivery of the project by considering alternate technology, sizing, routing and staging solutions
- Analysis does not reconsider non-preferred options already assessed as part of the ISP
- TNSPs adopt the identified needs, inputs, assumptions, scenarios, market modelling and development pathway identified in the ISP and build on or update these where this is justified
- TNSP publishes a PADR and invites submissions

Responsibility: TNSP	*Publication:* PADR

STEP 9: IDENTIFY PREFERRED OPTION

- TNSP addresses submissions on PADR and updates options analysis to identify preferred option
- On the publication of PACR, AEMO confirms that the RIT-T outcome is consistent with the ISP
- AEMO is responsible for approval of the RIT-T outcome
- TNSP is responsible for the RIT-T and publication of the PACR

Responsibility: AEMO & TNSP	*Publication:* PACR

STEP 10: REVENUE APPROVAL

- Once AEMO has confirmed that the preferred option is consistent with the ISP, TNSP submits contingent project application with the AER
- A robust and expanded ISP consultation process and AEMO approval of the RIT-T outcome removes the need for a RIT-T dispute process and AER RIT-T determination process
- AER's revenue approval role is preserved via the contingent project application process

Responsibility: AER	*Publication:* Contingent project decision

STEP 11: IMPLEMENT THE PROJECT

- TNSPs undertake detailed project planning and implementation
- For network investments, this includes obtaining land, easements and environmental approvals, developing functional specifications and procuring assets
- For non-network investments, this includes finalising contracts with non-network providers

Responsibility: TNSP	

Streamlining regulatory processes

The AEMC acknowledges in its Options Paper the concerns of many stakeholders that the current regulatory framework is not facilitating the delivery of the transmission investments needed to deliver the ISP within the timeframes identified in the ISP.[2] The following section expands further on how regulatory approval processes are streamlined under ElectraNet's proposed model, with reference to the current framework.

Regulatory changes are needed in order to progress ISP projects identified as 'actionable' in a timely manner. ElectraNet has considerable recent experience in applying the RIT-T to national, strategic transmission development projects.

In March 2014, the AER provided contingent project approval for the Heywood Interconnector Upgrade project following the successful completion of a RIT-T process which commenced in October 2011.[3]

The Options Paper includes a reference to this project in figure A.3 which shows the total time between publication of the consultation report and the final report was 66 weeks. This provides a useful indication of the RIT-T timeframe for a strategic project, bearing in mind that it constitutes one part of the broader regulatory and revenue approval process that must be completed. Following completion of the RIT-T, ElectraNet completed AER determination and contingent project approval processes that extended the total timeframe from commencement of the RIT-T to contingent project approval to almost 2.5 years.[4]

We are currently progressing the SAET RIT-T, the most progressed interconnector project identified in the ISP, having published a PADR in June 2018.[5] This RIT-T assessment has been undertaken in an environment of significant regulatory and policy changes, which has extended the RIT-T timeframe well beyond minimum consultation periods.[6]

To demonstrate the benefits of streamlining investment decision making processes under ElectraNet's proposed model for a project such as the SAET RIT-T, Figure 1 below compares regulatory approval timeframes under the current framework and ElectraNet's proposed framework.

As shown in Figure 1, the time taken to complete the RIT-T process for the SAET RIT-T under the current framework is expected to be about 24 months.[7] The expected timeframe to complete the RIT-T under ElectraNet's proposed model is around 9 months.

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2 AEMC, *Coordination of generation and transmission investment: Options Paper* (Options Paper), p. 17.

3 ElectraNet and AEMO conducted a joint RIT-T which commenced with the publication of a Project Specification Consultation Report in October 2011. Considerable studies and preparatory work preceded the publication of that report.

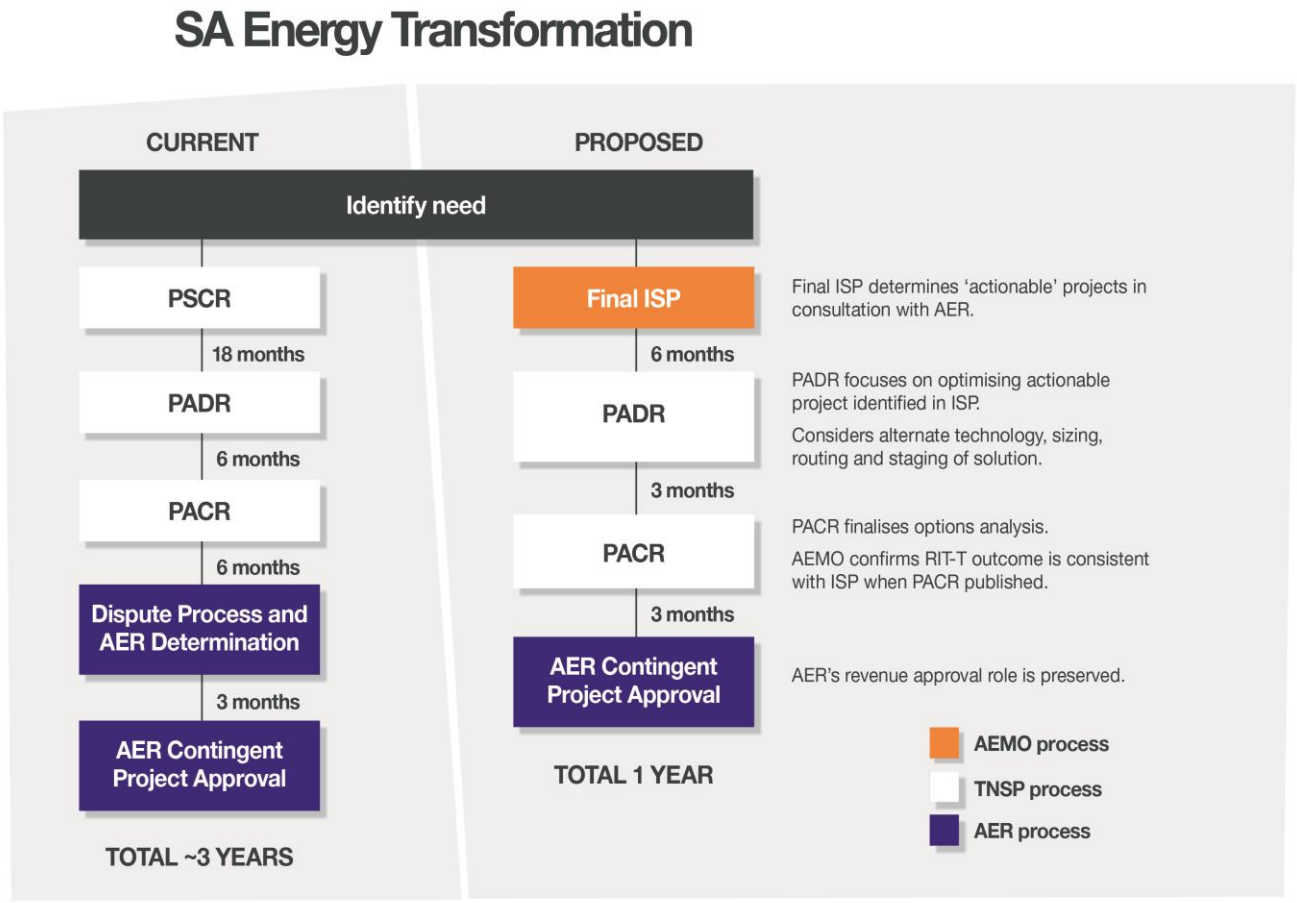
4 On 4 September 2013, the AER made a determination in accordance with clause 5.16.6 of the Rules that the preferred option identified in the Project Assessment Conclusions Report satisfies the RIT-T. On 28 March 2014, the AER provided contingent project approval.

5 ElectraNet, *SA Energy Transformation RIT-T: Project Assessment Draft Report* (SAET RIT-T PADR), 29 June 2018.

6 Significant regulatory and policy changes include the Finkel Review, AEMC rule changes regarding emergency frequency control schemes and managing power system fault levels and the rate of change of power system frequency, AEMO's declaration of a system strength gap in South Australia and a number of key policy changes and announcements by the South Australian Government .

7 Taken as the time between publication of the PSCR and PACR. The 18 month period prior to publication of the PADR (in June 2018) is based on actual publication dates. The 6 month period prior to publication of the PACR is based on the expected publication of the PACR in December 2018.

Figure 1 – Proposed investment process – indicative timeline



SAET approval processes under the proposed model

As explained above, under ElectraNet's proposed model, the ISP process is expanded to include identification of and consultation on system needs, inputs and assumptions, methodologies, scenarios and credible options (including non-network options) relevant to projects affecting national transmission flow paths.

Expanding the scope of the ISP in this manner effectively absorbs the role of the PSCR in the RIT-T framework, including the framing of the identified need, the identification of credible options and consideration of submissions from non-network proponents.

For actionable projects identified in the ISP, the RIT-T process to be undertaken by TNSPs requires detailed options analysis in order to optimise the solution by considering different technology, sizing, routing and staging.

For example, if the ISP identifies a SA-NSW interconnector as an actionable project, the detailed options analysis would focus on variants of that preferred option (such as Options C.2, C.3, C.3i and C.4 in the SAET PADR which focus on differing solutions for the delivery of increased SA-NSW transfer capacity[8]) without needing to re-analyse non-preferred options considered during the

[8] See SAET RIT-T PADR, pp. 51-62.

ISP process (for example interconnection options to other regions or non-interconnector solutions) or to re-establish the identified need.

This allows the RIT-T to be streamlined and comprise draft and final reports focused on optimising "least-regrets" actionable ISP-identified projects whilst maintaining the consultation timeframes and rigour required of the current RIT-T framework.

Currently, a determination from the AER that the preferred option identified in the PACR satisfies the RIT-T[9] is a trigger event that must be met before ElectraNet can lodge an application for contingent project approval.

Under ElectraNet's proposed model, on the publication of the PACR, AEMO would be required to confirm that the RIT-T outcome is consistent with the ISP. This provides an increased level of assurance in the approval of actionable projects identified in the ISP, and removes the need for a separate determination process by the AER for these projects. This could be achieved either through removing of the 5.16.6 process for ISP projects or discontinuing the current practice of requiring such a determination as a trigger for a contingent project application.

Similarly, AEMO's approval, together with a robust and expanded ISP consultation process and early and continuous engagement with stakeholders by TNSPs during the RIT-T process, removes the need for a RIT-T dispute process for these projects. ElectraNet's proposed model preserves the AER's current revenue approval role via the contingent project approval process, which would follow.

As shown in Figure 1, the total expected timeframe to obtain necessary regulatory and revenue approvals for the SAET RIT-T is anticipated to approach three years. Under the proposed framework, ElectraNet expects that the same approvals could be achieved in about one year.[10]

This approach would retain a robust decision making framework and comprehensive consultation process, building on current practice. The SAET RIT-T assessment has frequently exceeded RIT-T requirements, underlining the rigour and transparency of the assessment process.

In addition to publishing consultation documents (PSCR and PADR), addressing submissions and working with non-network proponents as required under the Rules, ElectraNet's stakeholder engagement practices have included: [11]

- public forums and deep dive sessions;
- market modelling approach and assumptions reports;
- additional consultation material including independent reports and modelling outputs;
- regular briefing sessions for key stakeholders, including the AER and ElectraNet's Consumer Advisory Panel; and
- customer price impact analysis.[12]

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9 With reference to clause 5.16.6 of the Rules.

10 The 6 month period prior to the AER determination (in accordance with clause 5.16.6 of the Rules) includes the 30 day period for lodging a RIT-T dispute (in accordance with clause 5.16.5) and assumes no dispute is lodged.

11 All information is available on ElectraNet's website at https://www.electranet.com.au/projects/south-australian-energy-transformation/.

ElectraNet looks forward to further engagement with the AEMC on this review, and would be happy to discuss any aspects of this submission further.

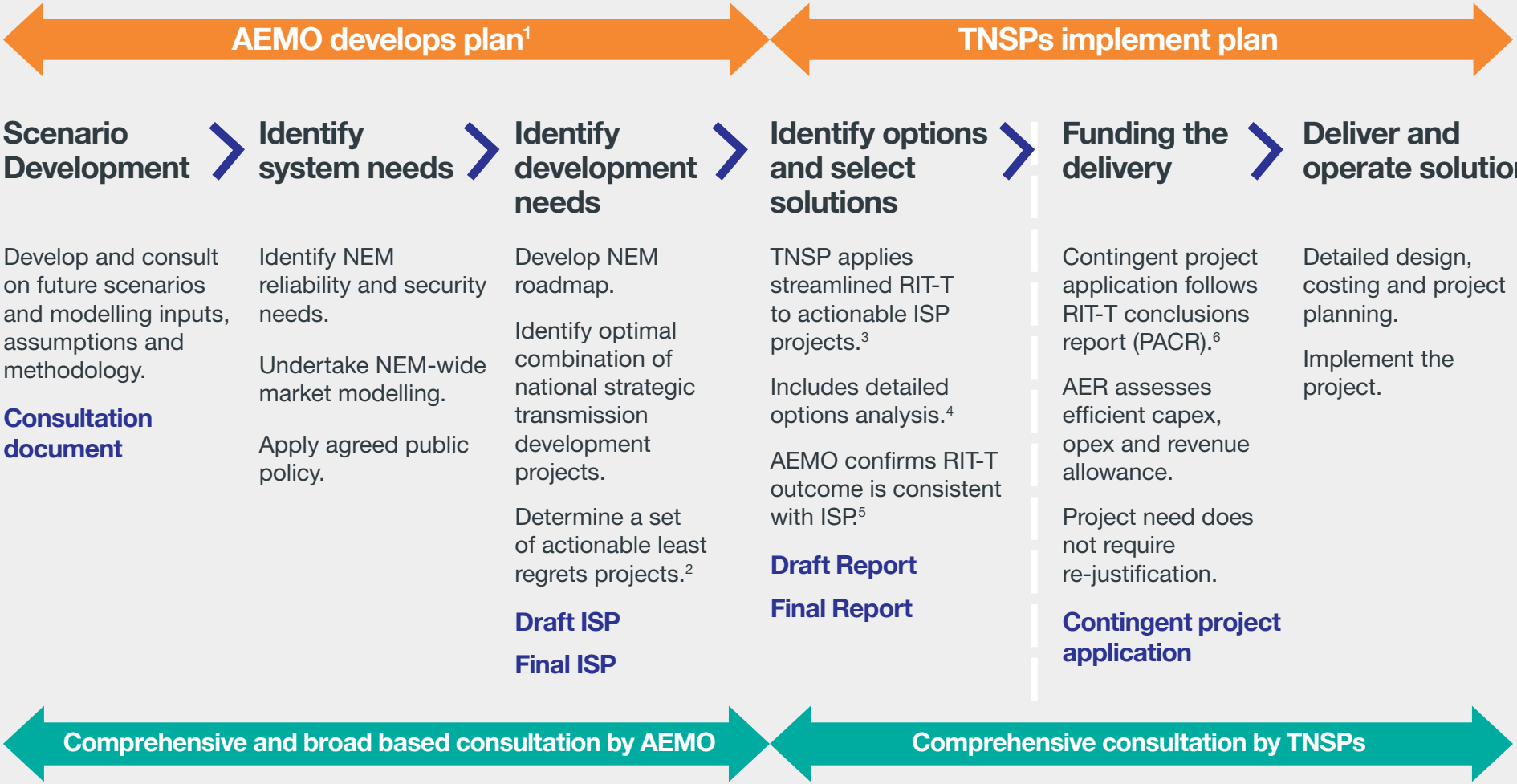
Please direct any queries in relation to this submission to Simon Appleby in the first instance on (08) 8404 7324.

Yours sincerely

Rainer Korte
Executive Manager Asset Management

[12] This analysis, based on independent modelling by ACIL Allen, indicated that the distributive impact of the proposed investment was an estimated overall reduction in the average annual residential customer bill of up to about $30 in South Australia and $20 in New South Wales, based on the downward impact on wholesale energy prices

Proposed ISP Investment Process



1. AEMO to develop ISP in consultation with TNSPs, customer and stakeholders. Two-step formal consultation process including first upfront consultation on future scenarios, modelling inputs, assumptions and methodology and second on a draft ISP. Objective is broad ownership and standing of ISP outcomes.
2. AEMO determines actionable projects (a subset of ISP identified projects that require TNSPs to apply RIT-T) in consultation with stakeholders including the AER
3. Identified need for RIT-T is defined by ISP resulting in a narrower range of options to be considered. Current need for PSCR is replaced by ISP consultation.
4. TNSP does detailed options analysis (technology, sizing, routing, staging etc.) and publishes PADR for consultation. PACR follows.
5. AEMO determines if RIT-T outcome is consistent with ISP prior to PACR publication. If confirmed then no need for current RIT-T dispute process.
6. Once RIT-T is concluded project need and economic case is confirmed. AER determination (clause 5.16.6 process) no longer required for actionable projects.