ElectraNet

11 April 2019

Paula Conboy
Chair
Australian Energy Regulator
Level 17, Casselden
2 Lonsdale Street
MELBOURNE VIC 3000

Email: Blair.Burkitt@aer.gov.au

Dear Paula,

Re: SA Energy Transformation RIT-T – Request for determination

The purpose of this letter is to request a determination from the Australian Energy Regulator (AER) under clause 5.16.6 of the National Electricity Rules (Rules) that the preferred option[1] identified in our SA Energy Transformation Regulatory Investment Test for Transmission (RIT-T) Project Assessment Conclusions Report (PACR) satisfies the requirements of the RIT-T.[2]

With the 30 day period for notification of a dispute[3] having expired, and given that the preferred option identified in the PACR is not for reliability corrective action, the prerequisites for requesting a determination in accordance with clause 5.16.6(a) of the Rules are met.

The RIT-T explored options aimed at reducing the cost of providing secure and reliable electricity to South Australia in the near term, while facilitating the longer-term transition of the energy sector across the National Electricity Market (NEM) to low emission energy sources, and concluded with the release of a PACR on 13 February 2019.

The remainder of this letter sets out information relevant to this determination request.

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1 The preferred option is defined in clause 5.16.1(b) of the Rules as the option that maximises the present value of net economic benefit to all those who produce, consume and transport electricity in the market.

2 Consultation documents and accompanying material associated with the SAET RIT-T is available from our website at https://www.electranet.com.au/projects/south-australian-energy-transformation/.

3 As per clause 5.16.5(c) of the Rules.

Background

Our RIT-T assessment commenced in November 2016 with the release of the Project Specification Consultation Report (PSCR) that identified four credible interconnector options, each connecting South Australia with a neighbouring state, and identified opportunities for non-network solutions to provide benefits to the market and assist in the energy market transition.

The identified need for this RIT-T, as stated in the PSCR, is to deliver net market benefits and support energy market transition through:

- lowering dispatch costs, initially in South Australia, through increasing access to supply options across regions;
- facilitating the transition to a lower carbon emissions future and the adoption of new technologies, through improving access to high quality renewable resources across regions; and
- enhancing security of electricity supply, including management of inertia, frequency response and system strength in South Australia.

In June 2018, we published a Project Assessment Draft Report (PADR) which showed that a new 330 kV interconnector between Robertstown in mid-north South Australia and Wagga Wagga in New South Wales, via Buronga, was expected to deliver the greatest net market benefit.

We worked closely with the Australian Energy Market Operator (AEMO) to coordinate the PADR modelling with the development of AEMO's inaugural Integrated System Plan (ISP)[4], providing a 'roadmap' for the transition of the energy sector. The ISP was developed in response to a recommendation of the Finkel review, which highlighted that additional interconnection was likely to form a key feature of the transition and the unlocking of Renewable Energy Zones (REZs).[5]

The PADR also considered AEMO's concurrent Western Victoria Renewable Integration RIT-T[6] and the identification of priority REZs in the Riverland and Murray River areas of South Australia and New South Wales.

The publication of the PADR was delayed to ensure a number of key policy and regulatory developments, affecting both the NEM as a whole and South Australia specifically, were properly understood and reflected in our analysis and to ensure our draft findings were fully coordinated with national planning processes.

In addition to AEMO's ISP, published in July 2018, which identified this investment as a 'Group 2' priority project that should proceed as soon as possible, and AEMO's Western Victoria Renewable Integration RIT-T, for which a PSCR was released in April 2017, these developments included:

- final rule determinations by the Australian Energy Market Commission (AEMC) on emergency frequency control schemes[7] (March 2017), managing the rate of change of power system frequency[8] and managing power system fault levels[9] (both in September 2017),

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4 AEMO, *Integrated System Plan*, 17 July 2018.

5 Finkel, A., *Independent Review into the Future Security of the National Electricity Market – Blueprint for the Future*, June 2017.

6 See Western Victoria Renewable Integration RIT-T website.

- AEMO's assessment of system strength in South Australia, published in September 2017[10];
- State and Federal energy policies – specifically 'Our Energy Plan'[11] announced by the SA Government in March 2017 and the National Electricity Guarantee[12] announced by the Commonwealth Government in October 2017; and
- a new generator development approval procedure[13] developed by the Office of the Technical Regulator which became effective 1 July 2017.

The RIT-T outcome

On 13 February 2019, we published a Project Assessment Conclusions Report (PACR) that confirmed the draft finding that a new interconnector between South Australia and New South Wales would deliver substantial economic benefits as soon as it can be built. The preferred option was amended since the PADR to include a transmission augmentation between Buronga in New South Wales and Red Cliffs in Victoria, which separate modelling by AEMO showed provides an incremental increase in net market benefit.[14]

The PACR and supplementary reports show that a new interconnector between South Australia and New South Wales will:

- deliver net market benefits of approximately $900 million over 21 years (in present value terms) including wholesale market fuel cost savings in excess of $100 million/year as soon as it is energised;
- provide diverse low-cost renewable generation sources to help service New South Wales demand going forward, particularly as existing coal-fired generators retire;
- avoid substantial capital costs associated with enabling the integration of renewables;
- recover the project capital costs within nine years of completion;
- reduce annual residential bills by about $66 in South Australia and $30 in NSW, and annual small business customer bills $132 in South Australia and $71 in NSW (as estimated by ACIL Allen)[15]; and

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7 AEMC, *Rule Determination, National Electricity Amendment (Emergency frequency control schemes) Rule 2017*, 30 March 2017.

8 AEMC, *Rule Determination, National Electricity Amendment (Managing the rate of change of power system frequency) Rule 2017*, 19 September 2017.

9 AEMC, *Rule Determination, National Electricity Amendment (Managing power system fault levels) Rule 2017*, 19 September 2017.

10 AEMO, *South Australia System Strength Assessment*, September 2017.

11 See https://virtualpowerplant.sa.gov.au/sites/default/files/public/basic_page_attachments/4/24/441088034/our-energy-plan-sa-web.pdf.

12 Energy Security Board, *Energy Security Board (ESB) Advice on a Retailer Reliability, Emissions Guarantee and Affordability*, 13 October 2017.

13 Office of the Technical Regulator, *Generator Development Approval Procedure*, 1 July 2017.

14 See Appendix E of the PACR.

15 ACIL Allen, *SA-NSW Interconnector – Updated Analysis of Potential Impact on Electricity Prices and Assessment of Broader Economic Benefits*, 11 February 2019.

- improve the ability of parties to obtain hedging contracts in South Australia and help relieve the tight liquidity in hedging markets currently.

We updated the modelling from our PADR to take into account the latest available data and information, including AEMO's ISP and its August 2018 Electricity Statement of Opportunities (ESOO).[16]

This included improving our wholesale market modelling approach to allow a fully integrated assessment of the benefits associated with the deferral of transmission investment that ISP projects would otherwise require to unlock priority REZs.

Our consultation process

Customer and stakeholder engagement and consultation have been a central feature of this RIT-T process to ensure the identified need for investment, as well as the options to address it, were thoroughly tested. The extent of engagement and consultation on this RIT-T, which has taken over two years to complete, has exceeded that of any other RIT-T undertaken in the NEM and ensures the assessment has been as thorough as possible.

In addition to the three required RIT-T documents (the PSCR, PADR and PACR), we have released:

- 10 supplementary reports plus spreadsheet models, providing additional information on network technical assumptions, cost estimates, possible non-interconnector solution options, market modelling methodology and results and net present value (NPV) analysis;
- 8 reports from independent consultants that corroborate and further investigate aspects of the analysis and points raised in submissions; and
- 2 reports assessing the expected price impacts for electricity customers in South Australia and New South Wales.

Following publication of the PADR we held separate public forums and 'deep dive' sessions in both Adelaide and Sydney, to help explain the assessment to stakeholders and to hear stakeholders' views. These sessions were an effective way to present and explain our analysis and the information published, which then facilitated interrogation and discussion of the assessment with interested parties. The sessions also ensured that parties had an open forum to raise questions and queries outside of the formal submission process.

Following the PADR public forums and deep dive sessions, we released seven reports and spreadsheets in response to requests made during these sessions which provided additional detail on the economic and wholesale market modelling undertaken, as well as further information on the specification of the credible options assessed. In light of this further information and interaction we twice extended the submission closing date to provide stakeholders maximum opportunity to respond.

The extent of information released to stakeholders and consultation undertaken since the PADR was published, which is available on our website, is illustrated in Attachment 1. The key milestones

[16] AEMO, *2018 Electricity Statement of Opportunities*, August 2018.

of our stakeholder engagement for this project are outlined in Attachment 2. Updates and materials provided to our Consumer Advisory Panel (CAP) throughout the assessment are listed in Attachment 3.

Key issues raised in submissions

Our assessment has benefited from extensive stakeholder engagement having received a total of 71 submissions to the PSCR and PADR (non-confidential submissions are listed in Attachment 4).

We received submissions from 35 parties in response to the PSCR, which addressed topics falling into the following five broad categories:

- submissions on network options;
- proposals or submissions in relation to non-network options;
- general information or feedback regarding the RIT-T process;
- specific comments on RIT-T analysis; and
- feedback on the market modelling approach.

Section 4 of the PADR summarised each issue raised and described how it was addressed in detail.

We received submissions from 36 parties in response to the PADR and additional documents released, which addressed topics falling into the following six broad categories:

- the assumptions and findings made regarding the ongoing operation of South Australian gas-fired generators;
- feedback on the market modelling approach and assumptions, including the length of the assessment period;
- the viability and assumed cost and composition of the non-interconnector option;
- costs and specification of the interconnector options – in particular the HVDC options and alternative routings for a new South Australia-New South Wales interconnector;
- potential for option staging, and coordination with other investments; and
- specific comments on the RIT-T analysis framework.

These submissions were explicitly taken into account in the market modelling and analysis presented in the PACR. In particular:

- the interconnector options included in the analysis were modified, and new option variants included, reflecting points raised in submissions and subsequent further analysis;
- the costs of the battery component of the non-interconnector option were reduced, reflecting submission comments on alternate revenue sources;

- an interim non-interconnector option was considered;
- additional detail in relation to the modelling approach and assumptions was provided in a further market modelling report accompanying the PACR, to address requests for increased transparency;
- the wholesale market modelling assumptions were updated to reflect cycling constraints on gas generators;
- the 'high scenario' was modified to reflect the current 3 Hz/s South Australia rate of change of frequency (RoCoF) requirement; and
- additional sensitivities were tested, reflecting feedback in submissions, including higher than anticipated New South Wales coal prices, different assessment periods, lower costs for non-interconnector support, lower avoided transmission costs associated with connecting REZs and the interaction with the coincident Western Victoria Integration RIT-T.

Section 4 of the PACR provides a summary of the key matters raised in submissions to the PADR and how each matter was addressed. Appendix C to the PACR provides a detailed listing of all points raised as part of consultation on the PADR and the manner in which these issues were addressed.

Further information was provided in Appendix F which responds to the various matters raised by The Energy Project (and other respondents that refer to The Energy Project analysis), Appendix G which responds to points raised by ARCMesh and Appendix E which presents AEMO's assessment of the additional incremental benefits of the Buronga to Red Cliffs augmentation, which was commented on in a number of submissions.

Contingent project application

In April 2018, the AER accepted our revenue proposal for the 2018-2023 regulatory period that included a contingent project to allow for revenue recovery in respect of the SAET project.[17] In May 2018, the AER accepted an equivalent contingent project in TransGrid's revenue determination.[18]

Should this project proceed, the associated revenue allowance for the contingent project will be determined by the AER through a separate assessment process, following the completion of the applicable trigger events for the project specified by the AER.

The status of these trigger events is outlined in Table 1 below.

The AER approved equivalent trigger events for this project in TransGrid's revenue determination.

This application for a determination is therefore lodged for the purposes of satisfying the corresponding trigger event specified in the current revenue determinations of both ElectraNet and TransGrid.

[17] AER, *Final Decision – ElectraNet transmission determination 2018 to 2023, Attachment 6 – Capital expenditure*, April 2018, p. 19.

[18] AER, *Final Decision – TransGrid transmission determination 2018 to 2023, Attachment 6 – Capital expenditure*, May 2018, pp. 137-8.

Table 1 – Status of the SAET contingent project trigger events

Trigger event	Status
1. Successful completion of the South Australian Energy Transformation RIT-T with the identification of a preferred option or options: (i) demonstrating positive net economic benefits; and/or (ii) addressing a reliability corrective action	**Complete.** This trigger event was satisfied by the publication of the PACR on 13 February 2019 that identified a preferred option which demonstrated positive net economic benefits.
2. Determination by the AER that the proposed investment satisfies the RIT-T.	**Pending.** This letter requests that the AER undertake its determination process under clause 5.16.6.
3. ElectraNet Board commitment to proceed with the project subject to the AER amending the revenue determination pursuant to the Rules.	**Complete.** The ElectraNet Board has made a commitment to progress the preferred option identified in the PACR and incur capital expenditure estimated at approximately $400 million if the project passes regulatory approvals, subject to the AER awarding incremental revenue commensurate with the capital and operating costs of the project under the Rules.
4. Clauses 1 and 2 do not apply if a change in the law occurs that allows the inclusion of the proposed investment in ElectraNet's maximum allowed revenue under this revenue determination even if a RIT-T is not carried out.	**Not applicable.** The SAET RIT-T is now complete and the AER's determination and contingent project assessment processes are proceeding under the current law.

Streamlining regulatory processes

On 10 August 2018, the Council of Australian Governments (COAG) Energy Council requested that the Energy Security Board (ESB) report on how 'Group 1' projects in the ISP could be delivered as soon as practicable and how 'Group 2 and 3' projects should be progressed.

On 19 December 2018, the COAG Energy Council agreed that a rule change request[19] be lodged by the ESB to allow the AER to undertake post RIT-T regulatory processes concurrently for two Group 1 projects, minor upgrades of the Queensland-New South Wales Interconnector (QNI) and the Victoria-New South Wales Interconnector (VNI), and tasked the ESB to consider how these reforms could be applied to other ISP priority projects such as the SAET project.

On 14 February 2019, the ESB submitted a rule change request to the AEMC to allow the AER's determination process that the preferred option satisfies the RIT-T and contingent project assessment process to be undertaken concurrently for the SAET project, rather than sequentially, potentially reducing the time needed to complete these processes by a total of 5-6 months. [20]

On 4 April 2019, the AEMC made a final Rule to streamline post regulatory processes for the SAET project and minor upgrades of QNI and VNI.[21] The final Rule allows ElectraNet to submit a contingent project application for the SAET project before the AER has made a determination that the preferred option satisfies the RIT-T. This rule change was processed on an expedited basis and the final Rule commenced today, 11 April 2019.

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19 Dr Kerry Schott AO, *Early Implementation of ISP Priority Projects*, rule change request, 21 December 2018.

20 Dr Kerry Schott AO, *Streamlining regulatory processes for ISP Group 2 Project – South Australia Energy Transformation (SAET)*, rule change request, 14 February 2019. On 14 March 2019, the AEMC consolidated this rule change request and the earlier rule change request dated 21 December 2018 in respect of the QNI and VNI projects.

21 AEMC, *Rule Determination, National Electricity Amendment (Early implementation of ISP Priority Projects) Rule 2019*, 4 April 2019.

Given the advanced status of the SAET project and timing of the Rule change process, the proposal did not allow for a request for a clause 5.16.6 determination to occur prior to the expiry of the dispute notification period (i.e. 15 March 2019) as was approved for the QNI and VNI projects.

However, there is nothing in the Rules that prevents a request for a clause 5.16.6 determination being made following expiry of the 30 day dispute notification period, whether or not a dispute notification is received.[22]

In its final determination, the AEMC specifically considered this matter and confirmed that it is a matter for the AER as to whether it commences consideration of a preferred option assessment during the dispute resolution period.[23] This request for a determination pursuant to clause 5.16.6 is therefore lodged on this basis.

On 20 February 2019, the ESB submitted a further rule change request that seeks to amend relevant clauses of the Rules so that they no longer prevent transmission and distribution businesses from submitting a contingent project application to the AER in the 90 business days before the end of a regulatory year. The AEMC will similarly assess the proposed rule under its expedited rule making process, requiring it to publish a final determination by 2 May 2019.

Conclusion

ElectraNet seeks a determination from the AER pursuant to clause 5.16.6 that the preferred option identified in the SA Energy Transformation PACR satisfies the requirements of the RIT-T.

This determination is sought for the purposes of the relevant contingent project triggers approved by the AER in the prevailing revenue determinations for both ElectraNet and TransGrid in respect of the SA Energy Transformation (SA-NSW interconnector) project.

We look forward to progressing this application with the AER, and would be pleased to discuss any aspects further.

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

Yours sincerely

Rainer Korte
Group Executive Asset Management

cc: Gerard Reiter, Executive Manager Network Planning and Operations, TransGrid
Tony Meehan, Executive Manager Policy and Corporate Affairs, TransGrid
Jason Conroy, Chief Financial Officer, TransGrid

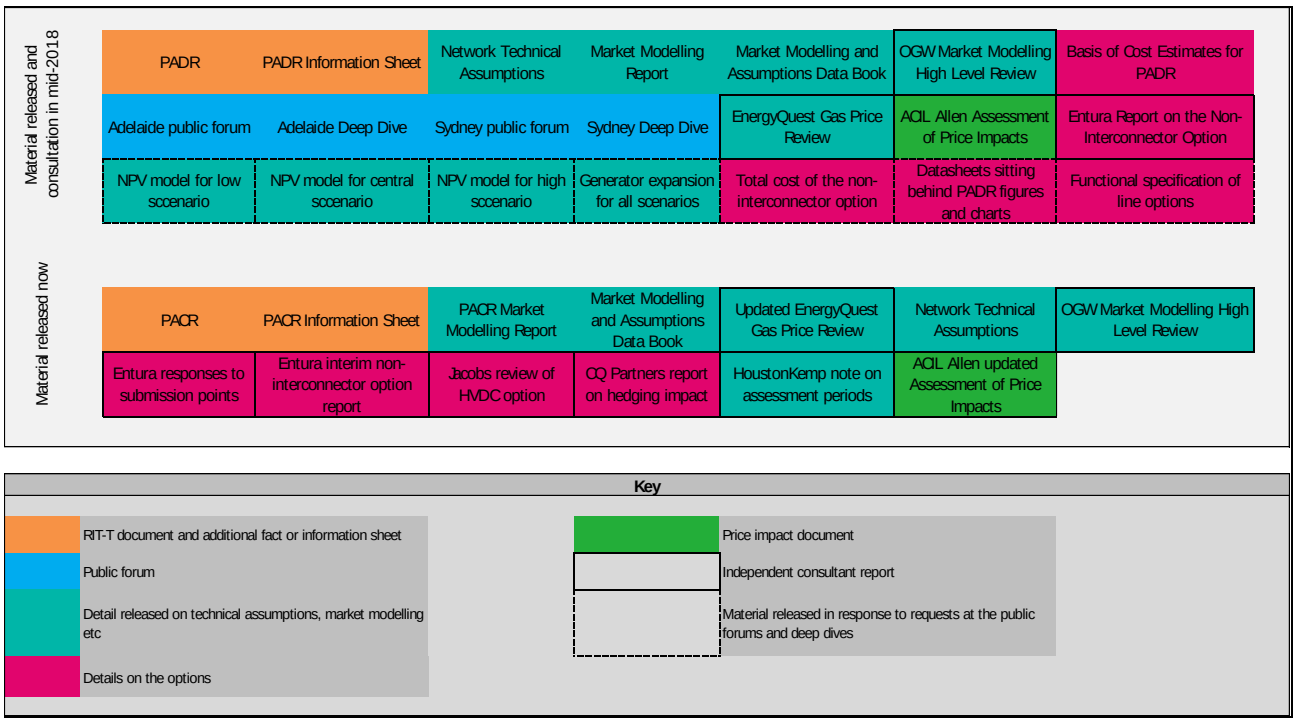
[22] It is noted that a dispute notification was lodged by the South Australian Council of Social Service (SACOSS) on 15 March 2019 and is currently being assessed by the AER. See: https://www.aer.gov.au/communication/aer-receives-notification-of-rit-t-dispute-from-sacoss.

[23] AEMC, *Rule Determination, National Electricity Amendment (Early Implementation of ISP Priority Projects) Rule 2019*, 4 April 2019, p.17.

Attachment 1

Extent of consultation and information published since PADR release

The figure below shows the consultation undertaken after the PADR was released. The RIT-T commenced in November 2016 with the release of the PSCR, together with an accompanying Market Modelling Approach and Assumptions Report and a public forum being held with interested parties in December 2016, and concluded with the publication of the PACR and full range of supporting material and information on 13 February 2019.



Attachment 2

Stakeholder engagement chronology

Milestone	Date
Project Specification Consultation Report (PSCR) published	**7 November 2016**
Adelaide public forum for PSCR	8 December 2016
Close of submissions on PSCR (extended)	27 February 2017
Project Assessment Draft Report (PADR) published	**29 June 2018**
Adelaide public forum for PADR	18 July 2018
Sydney public forum for PADR	16 August 2018
Sydney deep dive session	16 August 2018
Adelaide deep dive session	17 August 2018
Close of submissions on PADR (extended)	31 August 2018
Project Assessment Conclusions Report (PACR) published	**18 October 2018**

ElectraNet also met with a number of key stakeholders, held briefings for various interested parties and provided regular ongoing briefings to its Consumer Advisory Panel throughout the course of the RIT-T assessment, as detailed further in Attachment 3.

Attachment 3

Consumer Advisory Panel briefings

We provided ongoing updates on this RIT-T to the Consumer Advisory Panel (CAP) throughout the course of the assessment. Presentation material and notes from relevant CAP meetings, available from the CAP section of our website[24], are listed below:

Meeting	Item
CAP Meeting 6 - 31 October 2016	• Meeting notes
CAP Meeting 7 - 17 January 2017	• Meeting notes • Presentation
CAP Meeting 8 - 10 April 2017	• Meeting notes
CAP Meeting 9 - 18 July 2017	• Major projects and developments • Meeting notes
CAP Meeting 10 - 8 November 2017	• Major projects and developments • Meeting notes
CAP Meeting 11 - 23 January 2018	• Major projects update presentation • Meeting notes
CAP Meeting 12 - 25 May 2018	• Major projects update presentation
CAP Meeting 13 - 16 October 2018	• Major projects update presentation

[24] https://www.electranet.com.au/our-approach/community/consumer-advisory-panel/

Attachment 4

Parties to non-confidential RIT-T submissions[25]

PSCR Submissions[26]

- AEMO
- Australian Energy Council
- Business SA
- Clean Energy Finance Corporation
- Delta Electricity
- Energy Australia
- Energy Infrastructure Investments
- Engie
- Epic Energy
- Hydro Tasmania
- Kimberly-Clark Australia
- Powerlink
- SACOME
- SEA Gas
- Smart Wires
- Snowy Hydro
- TransGrid
- Tom Geiser
- University of Queensland

PADR Submissions[27]

- AGL
- ARCMesh
- Ausker
- AusNet Services
- Australian Energy Council
- Business SA
- Central Irrigation Trust
- Charles Sturt University
- Delta Electricity
- Energy Australia
- Energy Consumers Australia
- Energy Users Association Australia
- Engie
- Fresh Eyre
- Havilah Resources
- Lyon Group
- Maoneng Australia
- Meridian Energy
- Origin
- Powerlink
- Public Interest Advocacy Centre
- Renew Estate
- SACOME
- SACOSS
- Science Party NSW
- SEA Gas
- Solar Reserve
- South Australian Government
- Smart Wires
- Snowy Hydro
- The Energy Project
- Tilt Renewables
- Tasmanian Dept. State Growth
- Total Environment Centre
- TransGrid

[25] Links to the non-confidential submissions made by the parties listed are available on our website: https://www.electranet.com.au/projects/south-australian-energy-transformation/.

[26] An additional 16 confidential submissions were received in response to the PSCR.

[27] One additional confidential submission was received in response to the PADR.