

24 September 2020

Andrew Kingsmill
Head of Network Planning
TransGrid

Submitted via email



Dear Mr Kingsmill,

Submission to Broken Hill Supply Project Assessment Draft Report (PADR)

The Public Interest Advocacy Centre (PIAC) is an independent, non-profit legal centre based in New South Wales. Established in 1982, PIAC tackles systemic issues that have a significant impact upon people who are marginalised and facing disadvantage. We ensure basic rights are enjoyed across the community through litigation, public policy development, communication and training. The Energy + Water Consumers' Advocacy Program represents the interests of low-income and other residential consumers, developing policy and advocating in energy and water markets.

PIAC welcomes the opportunity to respond to TransGrid's Broken Hill Supply RIT-T consultation.

Preferred option

While PIAC supports the use of storage and demand response options considered in the PADR, we have strong concerns with the preferred option identified by TransGrid.

Compressed air storage technology at the scale considered here, is far from commercially viable or proven. PIAC is deeply concerned that TransGrid is considering contracting such a complicated and risky project, particularly from a proponent that has been unable to obtain financing for a smaller, pilot plant to demonstrate the same technology and appears to have neither a material Australian presence nor a firm commitment to establishing one.¹

It would be irresponsible and imprudent for TransGrid to use regulated revenue to trial experimental technologies to provide essential energy supply and meet the NSW transmission reliability standard. Trialling emerging technologies is laudable, but should be funded through sources that are better suited the high risks and uncertainty inherent in a project of this nature, which include technology failure, cost blowouts, project delays, provider insolvency and project abandonment.

TransGrid's approach to technological risk and uncertainty for the compressed air proposal appears inconsistent with its overly risk-averse treatment of inverter-based options where:

[TransGrid has] been unable to comprehensively confirm the technical feasibility of some options put forward at this stage ... [and] has made the conservative assumption that the inverter-based solutions are grid-following inverters, which provide no system strength capability and require synchronous condensers in order to provide adequate system strength to Broken Hill.²

¹ RenewEconomy, [Storage proponent for huge Broken Hill micro-grid fails to land finance for pilot plant](#), 14 August 2020.

² TransGrid, *Maintaining reliable supply to Broken Hill PADR*, August 2020, 19.

While experience of integrating grid-forming inverters into power systems may still be developing, the technology is generally proven and well understood. We do not consider TransGrid's assumptions about inverter functionality to be adequately rigorous to have excluded it from the cost-benefit analysis.

PIAC expects that TransGrid will revise its assumptions about grid-following inverters and the cost-benefit analyses as it receives more detailed information of the options from third parties. PIAC also expects that TransGrid will proactively seek to gather information about non-network alternatives rather than rely on information provided by third parties alone.

We would also welcome an update on this and its impact of the ranking of the options considered ahead of the Project Assessment Conclusions Report.

Ownership

PIAC notes the point TransGrid has raised about the potentially inconsistent treatment of costs in the RIT-T on the basis of proposed ownership of otherwise identical solutions (i.e. whether it is fully owned by a third party or has some portion of TNSP ownership).

PIAC supports TransGrid seeking this issue to be examined further, to establish whether it may lead to material consumer detriment such as efficient solutions being ruled out, and remedied to avoid such detriment. To this end, PIAC would be in strong support of TransGrid pursuing specific exemptions or changes to relevant laws, rules and/or guidelines where these limit the deployment of cost effective options.

Continued engagement

PIAC would welcome the opportunity to meet with TransGrid and other stakeholders to discuss these issues in more depth.

Yours sincerely,

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