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## SOUTH AUSTRALIAN ENERGY TRANSFORMATION

### NON-INTERCONNECTOR SOLUTIONS

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**Date:** Wednesday 22 August 2018

**Distribution:** Public

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#### 1. Introduction

ElectraNet engaged Entura to provide an optimal configuration of non-interconnector solutions to meet the identified need of the South Australian Energy Transformation (SAET) Regulatory Investment Test for Transmission (RIT-T) assessment. The technical specifications of non-interconnector solutions to the SAET RIT-T can be found in the [SAET Supplementary Information Paper](#).

This note summarises the total estimated cost of these solutions compared with the costings modelled in the RIT-T assessment.

#### 2. Description

The performance of the combined non-interconnect solution against the key criterion of ensuring South Australia withstands a non-credible loss of the Heywood Interconnector without a system wide black out and against other criteria specified in the supplementary information paper can be found in Entura's [Consolidated non-interconnector report](#).

Entura identified the following combination of solutions as best meeting the identified need.

1. Two grid scale battery storages
2. Solar Thermal Power Station
3. Augmentation of Murraylink to allow transmission of Frequency Control Ancillary Services
4. Pumped Hydro storage
5. Grid support with existing gas fired generation
6. Minimum load control

Based on submissions the costs of providing this solution is as follows:

- Total capital cost of \$1.4B in 2018
- Present value of total operating costs of \$1.2B
- Total present value costs of \$2.6B

The SAET assessment has calculated benefits based on the present value of costs that would be required from ElectraNet in the form of network support payments to the proponents of the solutions. This does not account for the full capital and operating costs of the solution as identified above. Some revenue would be required from other sources for the solutions above to recover their full costs. The total present value costs assumed by the SAET are \$1.1 billion with maximum annual grid support payments of around \$130 million. Detailed breakdowns of the total annual payments out to 2040 can be found in the economic assessment models.