TransGrid's Response to AER Request for Information- HumeLink

Date received:	22 October 2021
Date responded	28 October 2021
Topic	HumeLink (PEC) RIT-T
RFI	4.0

Questions

Upon reviewing TransGrid's response, we have found that the information we sought in relation to TransGrid's consideration of 100% double circuit Option 1C was not provided. To assist us in finalising the dispute resolution process in a timely manner, we request that TransGrid provide a comprehensive response to the information requested by the AER. In particular, we request the following information:

1. In response to question 1(a) of our information request, TransGrid noted that "*the reduction in cost of Option 1C from the proposed single circuit and double circuit combination to 100% double circuit is less than the reduction in cost of Option 2C or 3C through moving to full double circuit configuration.*"

   Please provide reasons and supporting information for why TransGrid considers the cost reduction achieved with a 100% double circuit configuration of Option 1C is less than the cost reduction of full double circuit configuration of Option 2C or 3C.

   In preparing the conclusions report Transgrid used an approach to screen the credible options and provide further detail on the two highest ranking options. This approach is used to ensure prudent and efficient expenditure when preparing the conclusions report that avoids detailed studies on options that will not rank highest on net benefits.

   The cost estimate at the screening stage, where all credible options are assessed on a like for like basis, placed option 1C as the third best alternative. When considering 100% double circuit as a potential additional option to option 1C (referred to as 1C-new), in retrospect, it would still be ranked third on a cost and benefits basis. To be clear, option 1C remains a lower value option and option 1C-new will improve but still remain below the PACR preferred option.

   Table 1 indicates that the reduction in cost of Option 1C from the proposed single circuit and double circuit combination to 100% double circuit is less than the reduction in cost of Option 2C through moving to full double circuit configuration, but Option 3C has the smallest reduction. This is predominantly due to the single circuit topology of Option 3C requiring a narrower single circuit easement through the geographical area with a higher value biodiversity cost and more of the single circuit located in lower value biodiversity (Wagga to Bannaby).

   Therefore a retraction is appropriate for the following comment in our response to information request 3: "the reduction in cost of Option 1C from the proposed single circuit and double circuit combination to 100% double circuit is less than the reduction in cost of Option 2C or 3C through moving to full double circuit configuration."

   However, the reduction in cost of Option 1C does not outweigh the reduction in benefit of Option 1C compared with Option 2C or 3C and therefore it will not change the ranking of the options. Refer to the answers to Q2 for further details.

Table 1 Option cost reductions from single and double circuit to full double circuit configurations

	Primary Single Circuit + 138 km Double Circuit cost	100% Double Circuit cost	km of previous single circuit	Reduction in biodiversity offset costs to get to full double circuit	Total cost reduction inclusive of substation and lines variations
Option 1C	$3,065m	$2,768m	272km	$451m	$297m
Option 2C	$3,770m	$3,399m	460km	$357m	$371m
Option 3C	$3,509m	$3,317m	366km	$287m	$192m

In regards to the benefit calculation, Option 1C-new remains the third best outcome as described in more detail below. The key reasoning for this is that Option 1C or 1C-new doesn't provide access to the SW REZ or the benefits generated through the additional connection to Project Energy Connect. It should also be noted that Option 1C also significantly limits the credible options in the VNI West project to 1 credible option.

Transgrid maintains the screening process is robust and the outcome is unaltered from the recommendation in the PACR. Further analysis to update the cost and complete a full NPV analysis with competition benefits on Option 1C-new is not prudent and efficient expenditure. However, should the AER consider this to be required, Transgrid can provide a fulsome response with updates on 9 November.

2. Based on your response to question 1(b) of the information request, we understand that TransGrid considers that Option 3C still delivers highest net market benefits even with a 100% double circuit Option 1C. Please provide the net present value analysis undertaken to estimate the net economic benefit of the 100% double circuit Option 1C and the impact on the ranking of the credible options in the PACR.

Net present value analysis was conducted to estimate the net market benefits of the 100% double circuit Option 1C (named as Option 1C-new), excluding competition benefits.

As shown in Table 2, the overall ranking still demonstrates that Option 3C (100% double circuit) has the highest ranking (highest net market benefit), followed by Option 2C (100% double circuit), even when Option 1C-new (100% double circuit) is considered.

Table 1 Screening process for Humelink credible options including Option 1C-new (100% double circuit variation): net market benefit excluding competition benefits

Original Option 1C and Option 1C Variation							
Route	**Option**	**Central**	**Step**	**Slow**	**Fast**	**Weighted**	**Rank**
Route 1	Option 1A	-333	-178	-1,011	-306	-362	6
	Option 1B	-371	-175	-1,389	-331	-422	7
	Option 1C (DC +SC)	-182	7	-1,206	-136	-233	4
	Option 1C-new (100% DC)	**-7**	**182**	**-1,031**	**39**	**-58**	**3**
Route 2	Option 2B	-639	-62	-2,015	-599	-649	8
	Option 2C (100% DC)	-33	537	-1,413	9	-44	2
Route 3	Option 3B	-287	309	-1,660	-248	-293	5
	Option 3C (100% DC)	49	634	-1,340	91	39	1

We would expect that the competition benefit of Option 3C and Option 2C will be equal or higher than Option 1C, due to a higher impact of Option 2C/3C on the efficiency of bidding in the wholesale market. This is associated with the ability of Option 2C/3C to access additional capacity for new renewable generation in South West NSW and allow additional transfer capacity between South Australia / Victoria and via Wagga into NSW major load centres.