

Review of manuscript: A multi-stage methodology for wind park inter-array cabling: graph preparation, layout, and sizing

Second review

Page 15:

As conductor capacity and cost do not scale linearly with diameter,

Comment:

Specify the sublinear relationship and add a reference to the newly added Appendix C.

Page 15:

the shortest trench or cable layout does not necessarily correspond to the minimum total investment cost.

Comment:

How does this conclusion follow from the premise?

Page 18:

Table 1. Baltic Eagle [DE] and Moray East [GB-SCT] minimum path finding solutions

Comment:

The “Type” column in the table must use some short handle that helps to identify the different methods. Using subsection numbers is too obscure.

Page 20:

Horn Rev 2 [DK] (Fig. 7(e),7(f)) illustrates how the routing mechanism can identify non-direct string layouts to optimise interconnections.

Comment:

Changing from the previous manuscript’s “hook-shaped strings” to “non-direct string” is not actually clarifying what is meant here.

By the description in the answer to the reviewers, it seems that you mean that the turbine sequence within a string does not have a monotonic distance-to-substation profile.

However, by pointing that out, you seem to assume either that a monotonic profile was expected or that such profile results from alternative solution methods. Neither of these assumptions seems reasonable to me without supporting evidence.

Page 23:

non-linear approach is applied. Assuming an LCoE of 91 e/MWh and 5,170 full load hours

Comment:

Losses are non-linear, but the presentation of the input data suggests that the losses calculation assumed nominal current during the yearly full-load hours. Is this a reasonable assumption?

Page 34:

Table D1. Integrated CSS wind test systems detailed results

Comment:

The “Total cost” value in this table seems wrong (it is not the sum of conductor+installation costs). Table D2 makes more sense. The previous manuscript version also made sense.