Editor's comment:

Thank you for improving this paper which I know has been a long way in the process. Please do include the extended uncertainty discussion as suggested by the second reviewer and the associate editor. Sincerely, Jakob Mann

Dear Editor,

In order to address this issue, we added a new section at the end of the manuscript and we modified the end of the conclusion :

4.4 Uncertainty discussion of cost of energy

In the present study, the economic feasibility is based on broad assumptions that undoubtably include considerable uncertainty. That uncertainty has been taken into account by considering ranges for the cost parameters. The ranges were determined based on suppliers and/or experts' recommendations, and/or publicly available literature. The uncertainty was propagated by applying the most optimistic cost data (respectively most pessimistic cost data) to determine the low end (respectively high end) of the levelized cost of methanol.

Regarding energy production, no uncertainty was applied. This is because energy production results from a deterministic numerical model. Comparisons with experiments (which are not yet available) are necessary to determine its level of accuracy. This may lead to the higher end of the cost of methanol estimate actually be underestimated should the actual energy production be significantly smaller than that predicted by the numerical model. On the other hand, if the design of the energy ship was optimized for the specific purpose of increased profitability, the proposed system might become significantly more competitive compared to the current design.

5. Conclusion

(…)

However, one should note that the present study is based on many broad assumptions that include considerable uncertainty. Further work is needed to confirm the findings. Moreover, one should note that the cost of FARWIND-produced methanol is based on a particular energy ship design, which might be optimized to reduce costs.

We hope that it corresponds to your request.

Best regards,

Aurélien Babarit