EGUsphere, referee comment RC2
https://doi.org/10.5194/egusphere-2022-1417-RC2, 2022

Comment on egusphere-2022-1417

Anonymous Referee #2

Referee comment on "Towards real-time seismic monitoring of a geothermal plant using Distributed Acoustic Sensing" by Jerome Azzola et al., EGUsphere, https://doi.org/10.5194/egusphere-2022-1417-RC2, 2022

The authors provide a description of a fibre optic installation for seismological observations of a geothermal site in southern Germany.

Although this is an ineresting subject and could justify sharing information to the scientific community, to be frank, I struggle to see scientific novelty in the current manuscript. At times it reads more like a marketing brochure or a proposal, with all the emphasis on "novelty" of the approach. There are numerous installations world-wide in the oil and gas industry where a similar data-management approach is applied routinely.

Furthermore, the long delay caused by 1h data files upload to the cloud system hardly make it suitable for real-time monitoring and hazard evaluation. The authors describe in the later part of the paper a 20sec delay system, but it is unclear to me from the current manuscript how this is realised.

I feel the manuscript would benefit from a comparison with the mentioned seismometer network. At the moment, only two events seem to be observed. if that is the case, it should be stated clearly. Otherwise some statistics and comparsion with the surface network would show scientific rigour.

Also some analysis of the noise of the installation: is there difference between day and night; between different months; public holidays?

Finally if would seem appropriate here to clearly state the benefits and down-sides of a fibre-optic system for such cases. Additionally some discussion on the design: would there be benefits in using deviated parts of the well; how could the second fibre be integrated in the workflow and what would the add

Please see attached PDF with comments for more detailed comments.

Please also note the supplement to this comment:
https://egusphere.copernicus.org/preprints/2022/egusphere-2022-1417/egusphere-2022-1417-RC2-supplement.pdf