Thank you for the comments and suggestions. We appreciate your effort and tried to make the remarked sections more clear and added relevant information. Please find our details answers below:

Line 17: “Geological latent”. Unclear. Please, revise the statement.

-> Latent heat storage is a fixed term. The use of geological formations as storage volume is tested in this research project, therefore geological latent heat storage. This is explained in line 25-35.

Lines 22-60: Any link between your research and Equivalent Porous Medium models to enhance geothermal energy usage in quaternary deposits? See relevant literature below: - Case studies of geothermal system response to perturbations in groundwater flow and thermal regimes. Groundwater, 61, 255-273.

-> Of course the plant operation will affect groundwater flow and the thermal regime in the subsurface, however in this manuscript we do not address this topic. The focus of our work is on the feasibility of imaging the development of a frozen volume in the subsurface with geophysical methods.

Lines 43-44: “Electrical Resistivity Tomography (ERT) has been regularly used for monitoring of geological storages”. Please, insert recent review paper that discusses electrical geophysical methods in the field of geothermal energy; Review of Discrete Fracture Network Characterization for Geothermal Energy Extraction. Frontiers in Earth Science, 11, 1328397:

-> Many thanks for the reference to the inspiring paper. We checked it carefully and do not see relevance of the proposed article, since it does not address the use of ERT and focuses on fracture characterization, while this project is set in unconsolidated sediments, where no fractures are present. The remark, that the whole project setting is in unconsolidated sediments will be added in the site description.

Line 60: You should have only one aim and 3-4 specific objectives looking at the content of this paper. Please, revise the final part of your introduction.:

-> The paragraph will be changed to specify the goals more clearly.

Line 63/64: Insert detail on the thickness of the quaternary glacial sediments and nature of the bedrock below.

-> We have no information on the total thickness of quaternary glacial sediments and only operate in the first <20m. Prior site investigations give no indications on being close to bottom of the quaternary deposit, so bedrock does not have an influence on our measurements.

Line 67: Provide detailed description on the sedimentary heterogeneities and lithologies in glacial deposits. Several experts in geophysics, hydrogeology and civil engineering might be not familiar.:

-> Many thanks for pointing out these issues. We will extend information concerning glacial deposits.

Line 181-190: Have you got information on the stratigraphy of the boreholes to describe the nature of low and high hydraulically conductive layers?:

-> We do have a core from drilling point MP055. See lines 186-188: “Sediment coring at MP055 matches the high hydraulic and low electric conductivity with a sand layer and the low hydraulic and high electric conductivity with higher clay content.” Information will be provided in Figure 4 additionally.

Line 196: You should have cores to address the comment above.

-> See comment above, information on the stratigraphy are provided.

Line 340: Remind to the reader that the sediments are of glacial origin in the conclusions.:
- > We will add in the conclusion that our investigations are performed in glacial sediments.

Figure 1: The spatial scale of the figure is unclear.:

-> Thank you for pointing that out. Depths information will be added to get an idea about spatial scale.

Figure 6: The black line is unclear in the graph.:
-> The legend will be updated to clarify the meaning of the black lines.