

Review of: "Technical and Financial Viability of a 1 MW CSP Power Plant with Organic Rankine Module: Case Study for a Northeastern Brazilian City"

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Potential competing interests: No potential competing interests to declare.

This paper estimated a 1 MWe parabolic trough concentrating solar power plant using an Organic Rankine Cycle to convert thermal power into electricity. Several different configurations differing in number of collectors and size of thermal energy storage are compared. The technology and economy of the system are analyzed. However, there are still some issues that need to be revised.

1. Some abbreviations need to be explained when used first time, like CSP.
2. The system model is described in chapter 2, but there is no detailed system diagram and layout, it is difficult for non-specialists to understand.
3. The ORC system model and calculation are not detailed enough, the ORC system net electrical efficiency of 23.8% is too ideal, the actual ORC system efficiency is affected by operating conditions, the author should describe it in detail.
4. Some technical results are given in Table 6, but there is no detailed thermodynamic model.
5. There is a lot of research on CSP, author should compare more literature on LCOE and plant efficiency.