

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

Orlando Corigliano<sup>1</sup>

<sup>1</sup> University of Calabria

Potential competing interests: No potential competing interests to declare.

The article is interesting but must be revised to improve its quality. Based on my expertise, I found some concerns, therefore I give some suggestion in the following lines.

1. The state of the art analysis is discussed by means of old references. My suggestion is to replace them, or to accompany them with recent works.
2. In the abstract emphasize on the technical analysis as preparatory for the financial one.
3. The authors must clarify why they have chosen to couple CSP with ORC and therefore clarify which is the working fluid which is adequate for this matching. A preliminary analysis on this aspect is completely missing.
4. The study is too much centered on the CSP unit. Little information is present on the ORC system, apart from references to the manufacturer.
  1. Which are the thermodynamic stadiums of the ORC?
  2. Which are the working temperature?
  3. Which are the ORC plant components?
  4. Which is the working fluid?
  5. Which is the analysis behind the choice of the working fluid of the ORC?
5. This part must be explored and reported.
  1. It is necessary to report the model of the ORC, hence the main governing equations.
6. It is necessary to showcase the thermodynamic cycle which is behind the functioning.
7. The overall energy plant layout is missing and must be reported.
8. Some equations must be re-written by using symbols rather than entire words.

Based on the above report, the manuscript needs to be revised according to the suggestions.