

Review Form2

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| Book Name:               | <a href="#">Current Approaches in Engineering Research and Technology</a>                      |
| Manuscript Number:       | Ms_BPR_2379                                                                                    |
| Title of the Manuscript: | Electricity as an Energy Vector: A Performance Comparison with Hydrogen and Biodiesel in Italy |
| Type of the Article      | Book chapter                                                                                   |

PART 1: Review Comments

| Compulsory REVISION comments                                                                                                                                                                                                         | Reviewer's comment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Author's Feedback(Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here) |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Please write a few sentences regarding the importance of this manuscript for the scientific community. Why do you like (or dislike) this manuscript? A minimumof 3-4 sentences may be required for this part.                        | <p>With a focus on aluminum smelter power requirements in the southern Italy, paper compares three energy vectors a) electricity, b) hydrogen, and c) biodiesel. The analysis based on mixed method approach cover following aspects of energy vectors 1) the land area required for producing renewable energy, 2) the efficiency of the energy supply chain, 3) initial capital expenditure (CapEx) requirements. The paper discusses practicalitiesof implementing three energy vectors in an industrial setting.</p> <p>Not covering geographic context for energy production in this paper is one of the limitations. As renewable energy production cost and load factor of solar plant is location depended, therefore, author should make an attempt to explain how findings in this paper can be applied to other locations of Italy.</p> |                                                                                                                                                             |
| Is the title of the article suitable?<br>(If not please suggest an alternative title)                                                                                                                                                | Yes, it is suitable                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                             |
| Is the abstract of the article comprehensive? Do you suggest the addition (or deletion) of some points in this section? Please write your suggestions here.                                                                          | Yes, it is sufficient                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                             |
| Are subsections and structure of the manuscript appropriate?                                                                                                                                                                         | Please make a separate section for Conclusion                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                             |
| Please write a few sentences regarding the scientific correctness of this manuscript. Why do you think that this manuscript is scientifically robust and technically sound? A minimumof 3-4 sentences may be required for this part. | <p>The study is based on mixed-method approach. This research approach combines quantitative data analysis with qualitative evaluation of selected energy vector's with a focus on Italy's energy landscape. The qualitative assessment permits authors add contextual perspective to the findings.</p> <p>Authors have clearly mentioned research limitations which will help audience make informed judgement about the robustness of the findings, thus improves research credibility.</p>                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                             |
| Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.                                                                                                  | In the analysis, data used for energy consumption and production cost etc. are based on single data sources. Authors should use data from multiple sources to avoid any biases and improve research quality.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                             |

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| Minor REVISION comments                                                               | Yes, it is suitable                                                                                 |  |
| Is the language/English quality of the article suitable for scholarly communications? |                                                                                                     |  |
| Optional/General comments                                                             | Revisions required to refer additional data sources for energy consumption and production cost etc. |  |

PART 2:

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|----------------------------------------------|-----------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                              | Reviewer's comment                                                    | Author's comment(if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here) |
| Are there ethical issues in this manuscript? | (If yes, Kindly please write down the ethical issues here in details) |                                                                                                                                                                              |

Reviewer Details:

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|----------------------------------|------------------------|
| Name:                            | Abhijeet Acharya       |
| Department, University & Country | Walden University, UAE |