

# Review of: "Longevity of Electric Vehicle Operations"

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**Potential competing interests:** No potential competing interests to declare.

Dear authors, before anything else, I would like to thank you for submitting your work. The subject is very relevant for the scientific community and the topics approached in the manuscript are aligned with the proposed title. However, I have felt the absence of important components for an article structure. First, the abstract does not mention either the novelty of the work, the method(s) applied, or brief conclusions. Without these, it is not possible to have a simple and clear idea of the contributions and impacts of the article. Please add brief statements regarding these features in the abstract. In addition, it would be interesting to present some information about the presence of EVs in the market (e.g., figures of EV sales in the last years worldwide, future sales tendencies, energy consumption share of electric mobility, etc). Also, the novelty of this manuscript is not clearly stated in the introduction. I would suggest stating three contributions (more or less) organized in bullets, as this organization will help the readers to understand the advances presented to the scientific community in relation to similar research.

Next, there is no dedicated section presenting the methodology used in your article. Without it, I could not understand which type of analysis was performed (e.g., a simple analysis, a literature review, etc). Please provide a section describing the methodology adopted and the advantages in comparison with other approaches. The aspects covered are well organized in the overall text and aligned with what is proposed in the abstract. However, for a better comprehension, these could be renamed as subsections of a general section comprising these research fields (e.g., "Section III – Main dimensions of EV operations"), avoiding too many sections and confusion for the readers. Also, there could be more references supporting the advances identified in each dimension. For example, at the end of the second paragraph of Section IV, it is stated that some regions announced plans to terminate the production and sales of new internal combustion engine vehicles entirely. Could you add some references regarding this information?

At the conclusions, some of the points discussed above are missing. It is suggested that the authors write a paragraph regarding the contributions presented and the methodology chosen, followed by another one mentioning the main advances and challenges identified for each dimension approached in the manuscript. Finally, a paragraph regarding the future works is missing in the conclusions. It is important to present what are the next steps of your research, or the fields in which new works can be developed by other researchers. Please add a paragraph regarding this subject. In this sense, major improvements must be done before the work can be published. I hope that the suggestions have contributed.

Suggested literature:

1. Ritchie, H.; Roser, M.; Rosado, P. CO2 and Greenhouse Gas Emissions. Our World in Data 2020.

<https://ourworldindata.org/co2-and-other-greenhouse-gas-emissions>.

2. IEA. Global EV Outlook 2023: Catching up with climate ambitions 2023.

3. Ellabban, O.; Abu-Rub, H.; Blaabjerg, F. Renewable energy resources: Current status, future prospects and their enabling technology. Renewable and Sustainable Energy Reviews 2014, 39, 748–764.

<https://doi.org/10.1016/J.RSER.2014.07.113>.

4. Commission, E. Zero emission vehicles: first 'Fit for 55' deal will end the sale of new CO2 emitting cars in Europe by 2035. [https://ec.europa.eu/commission/presscorner/detail/en/ip\\_22\\_6462](https://ec.europa.eu/commission/presscorner/detail/en/ip_22_6462).