

Betreff: Manuscript ID: RSE-22100001 Minor Revision

Von: ELSP Manuscripts Tracking System <mstracking@elspub.com>

Datum: 02.11.2022, 14:37

An: <ajanovic@eeg.tuwien.ac.at>

Dear Prof. Ajanovic:

We have received the reviewers comments for your manuscript, please revise it according to the reviewers' comments and return it by the due date: {%deadline%}. The comments of the reviewer(s) are included at the bottom of this letter.

Manuscript ID: RSE-22100001

Title: Heading towards low-carbon passenger car mobility: electricity vs hydrogen

Authors: Amela Ajanovic, Reinhard Haas

E-Mails: ajanovic@eeg.tuwien.ac.at, haas@eeg.tuwien.ac.at

Please marked up the revisions (preferably highlighted or in colored text) you have done and made them easily readable for the editors and reviewers. Please also provide a response letter in a point-by-point way explaining the details of the revisions and your responses to the reviewers' comments. The revised version will be inspected by the editors and reviewers again.

Please make sure to upload the source file of the revised version and a response letter. For any questions or issues, please immediately contact the editorial office.

Kind regards,
Sincerely
Dr. Wey Zhang
Associate editor

Renewable and Sustainable Energy Editorial Office

reviewer 1 result: Acceptance comments: The work deals with important aspects of the use of alternative fuels, including hydrogen. The work presents significant substantive achievements. The work does not have any substantive flaws of significant importance. Its value is significant and involves a significant process of forecasting the future use of certain solutions. The structure of the work is correct. The quoted literature is adequate to the content. The core objective of this paper is to analyse the potential role of battery electric vehicles and hydrogen driven fuel cell vehicles in the decarbonisation of passenger car mobility for the average of EU-15 countries. A special focus is put on the analysis of their environmental and economic performance in a dynamic scenario up to 2050 in comparison to conventional fossil fuels used in internal combustion engine (ICE) vehicles. Chapter 2 continues the introduction. Contains good content analysis. The citations cited in Chapters 1 to 3 are appropriate. The work is largely review. The method adopted in chapter 4 is correct. The figures provided are appropriate. The patterns do not raise any objections. In my opinion, the summary should be more concise, present figures and be in points. But because of the vastness and quantity of data and cited publications. You can accept them.

reviewer 1 result: Minor revision comments: This paper analysis the role of electricity and hydrogen in the decarbonization of passenger car mobility. The analysis considers the average conditions in the EU-15 using recent data. I think this paper has a good research question, and it meets the scope of the journal. After I carefully read the whole article, I have some comments and suggestions which are listed as follows:

1. There are too many keywords, it is better to delete one or two keywords.
2. Why does not include the residual value of vehicles and the government subsidies in the calculation of economic cost in Table A-1 and Table A-2.
3. If hydrogen production by electrolysis with electricity from European energy mixes, what is the impact of FCV on the environment?

4. The reference cited in the sentence “Since currently about 80% of all electric car charging takes place at home [109].” is not seen.
Overall, the review result for this paper is minor revision upon above- mentioned suggestions and comments.

{%editor_comment%}
{%eic_comment%}
{%deadline%}