

Review of: "Evaluating Reliability and Economics of EV Charging Configurations and Deep Reinforcement Learning in Robotics and Autonomy"

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Potential competing interests: No potential competing interests to declare.

I have carefully read the paper you submitted to Qeios, titled "Evaluating Reliability and Economics of EV Charging Configurations and Deep Reinforcement Learning in Robotics and Autonomy." Here are my review comments:

1. The theme of the paper is a current research hotspot, but the statement of originality and contribution is not clear enough. The author needs to have a clearer definition of the differences between this study and existing work and to elaborate in detail on the specific contributions of this study.
2. The literature review is insufficient; some recently published literatures are missing. E.g., <https://ieeexplore.ieee.org/document/10149139>; <https://ieeexplore.ieee.org/document/9525816>;
3. The methodology proposed in the paper requires a more detailed technical description. Especially for the proposed design of a 36-port charging station, it is necessary to have a more in-depth discussion of its theoretical basis and expected working principles.
4. The reliability assessment framework of DRL should be detailed, including the specific implementation steps of the formal neural network analysis techniques and the two-level validation methods used.
5. The experimental section lacks sufficient details, including the experimental setup, reasons for parameter selection, and statistical significance of the experimental results.
6. The results section needs to include comparative analysis, demonstrating the advantages and limitations of the proposed method compared to existing technologies.
7. The conclusion needs to clearly summarize the main findings of the research and point out the limitations of the research and the direction of future work.
8. The experimental charts in the paper are crucial for understanding the research results, but they are not included in the document. It is recommended that the author provide these charts in the revised manuscript and ensure that they are clear, labeled correctly, and closely related to the text content.