

# Review of: "Optimizing Energy Efficiency for Connected and Autonomous Electric Vehicles in the Context of Vehicle-Traffic Interaction"

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Potential competing interests: No potential competing interests to declare.

In summary, this study addresses the critical challenge of enhancing the energy efficiency of CAEVs by navigating the complex terrain of vehicle dynamics and traffic conditions. Through a novel ECO approach, we not only harmonize these factors but also provide a tangible path toward optimal efficiency. Real-world experimentation serves as the litmus test, affirming the effectiveness of our approach and positioning it as a valuable contribution to the evolving landscape of electric vehicle technology.. Here are some comments and suggestions for improvement:

1. The abstract is well-structured and concise, which is a good practice for abstracts. However, some sentences are quite long and could be broken down for easier readability.
2. Explicitly state the research gap or problem your study addresses.
3. improve the qualiti of figures
4. End the introduction with a sentence that summarizes the unique contribution of your study in the field of CAEVs and energy efficiency optimization. For example , "This research promises to advance the field of CAEV energy efficiency optimization by..."
5. Be consistent in using symbols, such as ensuring uniform usage of prime notation (e.g.,  $v_t'$  and  $v$ ).paragraph2
6. Reorder the description of the autonomous driving system layers to follow a logical sequence: perception, decision-making, and control. Paragh3
7. Clarify that onboard sensors and the Internet of Vehicles (IoV) technology are responsible for acquiring traffic environment information, without delving into the specifics.. Paragh3
8. Explicitly state that the dynamic constraints imposed by the traffic environment primarily affect the vehicle's speed and acceleration. Paragh3
9. Provide an explicit formula for calculating motor torque, detailing its components, such as rolling resistance coefficient, vehicle speed, and acceleration. Paragh3
10. Explain that the dynamic traffic constraints can be translated into motor operation constraints, establishing a clear mapping correlation. Paragh3
11. Give more figures to highlight the perfoemance of the obtained results
12. Provide specific metrics or data to compare the performance of the ECO strategy to existing state-of-the-art methods.
13. End the conclusion with a final thought or forward-looking statement about the broader implications or future directions

of this research.