Review of: "Low-Carbon Hydrogen Economy Perspective and Net Zero-Energy Transition through Proton Exchange Membrane Electrolysis Cells (PEMECs), Anion Exchange Membranes (AEMs) and Wind for Green Hydrogen Generation"

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Potential competing interests: No potential competing interests to declare.

The presented manuscript is focused on the production of low-carbon hydrogen using an integrated system of PEM electrolyser, AEMs, and wind turbine. As such, the topic would interest the broad readership interested in the subject area, but in its current form, this manuscript could not be recommended for publication. Due to poor orientation, grammatical errors, and non-availability of facts, I am bound to reject this manuscript. My concerns are listed below:

1. Abstract, Line-6: ‘The energy generated from wind and solar energy…’ needs to be rephrased.
2. Abstract, Line-10: ‘nonplatinum’ and ‘nonnafion’ need to be corrected.
3. Abstract, Line-13: The full form of PEMECs is missing.
4. Abstract, last sentence: It is a way too long sentence covering 6 lines. This needs to be broken into 2-3 separate sentences.

1. 1.1 Green Hydrogen, 3rd last line: The full form of ‘CCS’ is missing.
2. 3. Electrolysers used in the production of low-carbon clean hydrogen: The first sentence does not make any sense in its current form.
3. 3. Electrolysers used in the production of low-carbon clean hydrogen: Why are PEM fuel cells talked about in this section? This section and the entire manuscript are focused on hydrogen production, and fuel cells do not produce any hydrogen; instead, fuel cells consume hydrogen to give out power.
4. 5.1 ‘Towers for hydrogen storage’ needs to be replaced with ‘Wind Turbine Towers for Hydrogen Storage.’
5. After Figure-12, why are the advantages of PEM fuel cells discussed?
6. The flow and orientation of the entire manuscript is poor and needs to be relooked.