

Comments to the response for:
R015-C
Innovative Lithium Battery Production for Renewable
Energy Storage Systems
Submitted by Clean Republic LLC
Principal Investigators: Yong Hou & Michael Shope

1. The objectives or goals of the proposed project with respect to clarity and consistency with North Dakota Industrial Commission/Renewable Energy Council goals are: 1 – very unclear; 2 – unclear; 3 – clear; 4 – very clear; or 5 – exceptionally clear.

It is unclear to me that the proposer has addressed the concerns of Reviewer 1B satisfactorily. First, reliability for hybrid and electric vehicle applications is an important issue. Second, whereas North Dakota has cheap electricity, the proposers did not explain the technology advantage and business competitive edge, including lack of battery supply chain.

2. With the approach suggested and time and budget available, the objectives are: 1 – not achievable; 2 – possibly achievable; 3 – likely achievable; 4 – most likely achievable; or 5 – certainly achievable.

3 of the 4 reviewers voiced the same concern: where is the competitive advantage. The response by the proposers did not ease my concern. The principle behind cell balancing is well established. The proposers did not explain what is new and improved in the proposed work, that can be put into a device for better reliability and at a lower cost, or at least a better cost/benefit ratio. Although having sold 1000 units for e-bike is a good background, it does not compare with the volume of experience with hybrid vehicles and laptop computers. The response focused on the firm's experience with developing the battery system for e-bike, but did not address the bigger issue of competitive technologies that are developed for larger scale applications.

3. The quality of the methodology displayed in the proposal is: 1 – well below average; 2 – below average; 3 – average; 4 – above average; or 5 – well above average.

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4. The scientific and/or technical contribution of the proposed work to specifically address North Dakota Industrial Commission/Renewable Energy Council goals will likely be: 1 – extremely small; 2 – small; 3 – significant; 4 – very significant; or 5 – extremely significant.

There is little in the response to improve the chance of success for medium-volume production. The proposed work could improve the current business of the proposer in the e-bike market. I could improve my rating to 2 from 1.

5. The principal investigator's awareness of current research activity and published literature as evidenced by literature referenced and its interpretation and by the reference to unpublished research related to the proposal is: 1 – very limited; 2 – limited; 3 – adequate; 4 – better than average; or 5 – exceptional.

The PIs are performing more diligent background research in response to the comments. That should be helpful. As yet they still need to identify how they can build up a competitive advantage.