1.5Kwh

- ~~What is unique about your solution or innovation? What are its advantages?~~
- ~~Please explain in a maximum of 200 words.(1200 characters including spaces)~~
- You can cover the following points in your answer:
- What is unique about your solution or innovation?
- What advantages will it provide?
- How does it compare to existing solutions?*

Battery thermal management system (BTMS) integrates with the heat pipe and Peltier cooling system with battery immersion cooling to maintaining the optimal temperature of the battery pack with efficient battery pack design.

Reusable battery pack skeleton if cells are degraded. Efficient heat transfer and passive cooling techniques are implemented. Minimal power consumption by BTMS. Maintaining uniform temperature in the batteries to increase the lifespan of the battery which improves the mileage

It is equipped to handle both heating and cooling functions, whereas other batteries tend to ignore the heating aspect. Among all other batteries, the optimal temperature of the battery pack is controlling, consuming less power from the battery.

Our Battery Thermal Management System (BTMS) employs heat pipe and Peltier cooling, along with battery immersion cooling, to ensure the battery pack remains at an optimal temperature with efficient battery pack design.

Our battery pack skeleton is designed to be reusable, even if the cells are degraded, thanks to the implementation of efficient heat transfer and passive cooling techniques. BTMS is optimized for minimal power consumption while maintaining a uniform temperature in the batteries, to increasing their lifespan and improving mileage.

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1. Develop a mini steam-powered fan using a small turbine and a heat source like a candle or oil lamp.

2. Develop an IoT-based steam turbine monitoring system that tracks performance parameters such as vibration, temperature, and pressure to detect operational issues and prevent catastrophic failures.

3. Creating a solar-powered steam generator to produce steam for electricity generation.

4. Implementing a waste-to-energy system that uses steam to generate electricity from waste products.

5. Developing an advanced lane-keeping algorithm for self-driving cars that can better detect and respond to lane markings and surroundings, enhancing safety and reliability.