



A High Efficiency, Reversible Flow Battery System for Energy Storage

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Summary: A solid oxide fuel battery for high efficiency energy storage

Description: The invention relates to a reversible solid oxide electrochemical cell that may operate in two modes: power generation (discharge mode) and electrolytic fuel production (charge mode). A thermal system that utilizes a solid oxide fuel battery and is inclusive of selection of operating conditions that may enable roundtrip efficiencies exceeding ~80% to be realized is disclosed. By leveraging existing solid oxide fuel cell technology, the system concept is applicable to energy storage applications on the kW to MW scale, and is limited by the size of the fuel storage tank which may be tailored to specific applications.

Main Advantages of this Invention

- Ready for commercialization
- High efficiencies

Potential Areas of Application

- Electrical Utility Companies
- Synthetic Fuel Production

ID number: 10012

Intellectual Property Status: US 8,637,197

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Opportunity: We are seeking an exclusive or non-exclusive licensee for marketing, manufacturing, and sale of this technology.

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