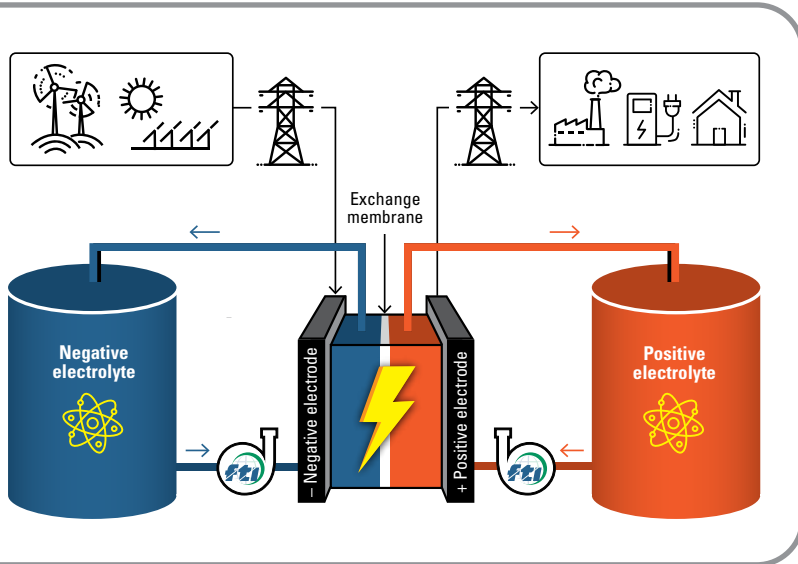


## Finish Thompson Advantages: Flow Batteries



### Typical Flow Battery Applications

Flow batteries provide an attractive option to reduce utility costs and to enhance renewable energy applications.

#### Peak shaving

- Proactively manage demand to cut costs
- Engage flow batteries during periods of high demand
- Charge during lowest cost periods

#### Renewable energy storage

- Efficiently store excess power
- Apply flow batteries for renewables with long discharge times
- Enjoy off-grid independence

### The Right Pump for the Job

Designing flow battery systems to use centrifugal pumps built with specific key features can significantly improve system efficiency, service life and safety. Several pump design elements are key:

#### Use of non-conductive materials

- Enhance safe operations in highly charged environments
- Maximize insulation to ground
- Maximize ability for storage of highly charged fluids

#### Flexible designs

- On-the-grid and stand-alone installation options
- Multiple configurations for diverse applications

#### High efficiency

- Low power consumption
- Broad hydraulic coverage for high-efficiency fit

#### Durability and reliability

- Long lifecycle – up to 20 years
- Non-wearing components
- Modified casing design for lower radial loads & high reliability
- Sealless leak-free pump technology

**The bottom line:** Finish Thompson pumps check all the boxes. Industry-leading pump designs optimize flow rates and deliver efficient and reliable operation. Flow battery systems can be enhanced by Finish Thompson's complete line of pumps that meet demands across a full range of flow performance



# Performance Advantages

Discover the advantages that flow battery systems with Finish Thompson pumps can bring to renewable energy applications.

## Alternative Pumps



### Safety

*Lower fire risk* – Flow batteries with non-conductive, zero-leakage Finish Thompson pumps improve safety by preventing exterior components from becoming electrified. There is no risk of lithium fires that can burn hot and are difficult to extinguish.



### Scalability

*Efficient business growth* – Prepare now for future system growth with scale-ready solutions. Flow battery systems can be readily scaled including incorporating higher capacity pump models.



### Durability

*Extended lifespan* – Finish Thompson centrifugal pump designs have the lowest radial load in the industry, offering the potential for decades of pump life in high-flow, low-speed/low-head applications.



### Capacity

*Increased capacity* – Finish Thompson pump designs maximize flow battery storage capacity because they have lower power requirements than competitive pumps.



### Compatibility

*Optimal design* – Finish Thompson pumps feature configurations and options for ideal flow-rate match with stacked flow battery cells. Use of non-metallic and non-corroding materials of construction such as EFTE, PTFE, FKM, and FFKM further optimize Finish Thompson pumps for flow battery applications.



### Efficiency

*Cost reduction* – Finish Thompson pump efficiency reduces the cost per KWh (kilowatt hour) for storage cells.



### Enhancement

*No degradation* – Lithium batteries begin to degrade on day one. Flow batteries featuring Finish Thompson pumps don't suffer this degradation. The result: a longer, reliable lifespan.



### ROI

*Worth the investment* – Reliability. Durability. Safety. Efficiency. These multiple cost-saving advantages offset initial investment costs and create an economic, long-term flow-battery system solution. Quality systems – and future success – are well worth the investment.

**LEARN MORE:** Contact your authorized Finish Thompson distributor or visit [www.finishthompson.com](http://www.finishthompson.com)



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