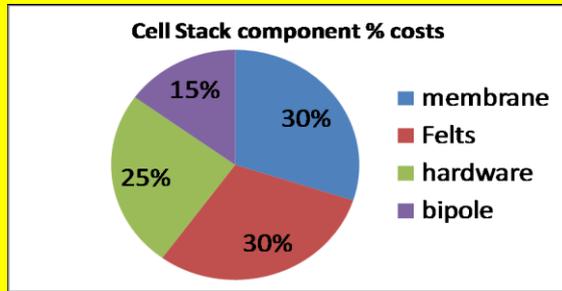


Advanced Membranes for Flow Batteries

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Membranes account for 30% of stack cost



Data from



In this project, we are engineering membrane separators that cost less, perform better and last longer than the current state of the art. *Further reduction in costs by:*
More durable = Less stack maintenance
More efficient = smaller stack size (less material)

If successful, this project will reduce the overall cost of flow battery stacks and operation

Sandia has developed and patented [7,301,002 and 7,888,397] novel ionomeric poly(phenylene)s that display superior chemical, thermal and mechanical stability. These films have shown good performance as a separator in both proton and anion exchange membrane fuel cells and also show promise for use in flow batteries.

