

VRFBs ARE THE SOLUTION TO RENEWABLE ENERGY STORAGE CHALLENGES

Vanadium Redox Flow Battery (VRFB) technology utilises a non-flammable, aqueous electrolyte which contains vanadium that can be recovered and recycled at the end of the VRFB's cycle life

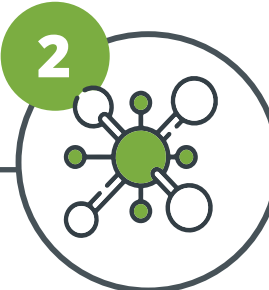


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FACTS ON THE VANADIUM ELECTROLYTE



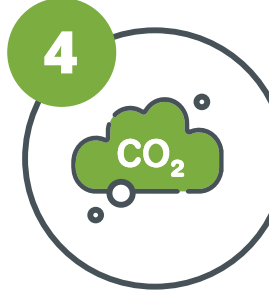
WATER-BASED ELECTROLYTE:
eliminates the risk of fire or release of harmful gases into the environment.



EXISTS IN 4 DIFFERENT OXIDATION STATES:
removes the potential for cross-contamination which is inherent in other flow batteries.



COST-EFFECTIVE:
recycling and reusing the vanadium electrolyte in a new VRFB potentially reduces the battery's energy costs.



REDUCES CARBON FOOTPRINT OF VRFBs:
recycling the vanadium electrolyte can reduce carbon emissions by up to **78%** per MWh¹.

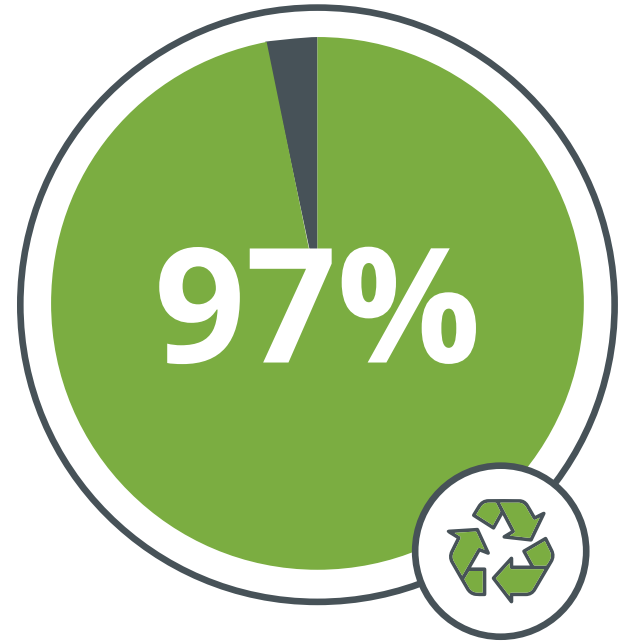


NO LOSS OF EFFICIENCY AT END OF LIFE:
vanadium in the electrolyte retains its efficiency regardless of number of charge/discharge cycles.



¹ Weber et al., Texas A&M

HOW VRFBs ARE POSITIVELY IMPACTING THE ENVIRONMENT



The recovery rate for the vanadium in VRFB electrolytes, thus proving the recyclability of VRFB electrolyte.²



Using recovered vanadium electrolyte as a feedstock for vanadium production uses less energy. Recovered VRFB electrolyte is also the most efficient vanadium feedstock.



² U.S Vanadium