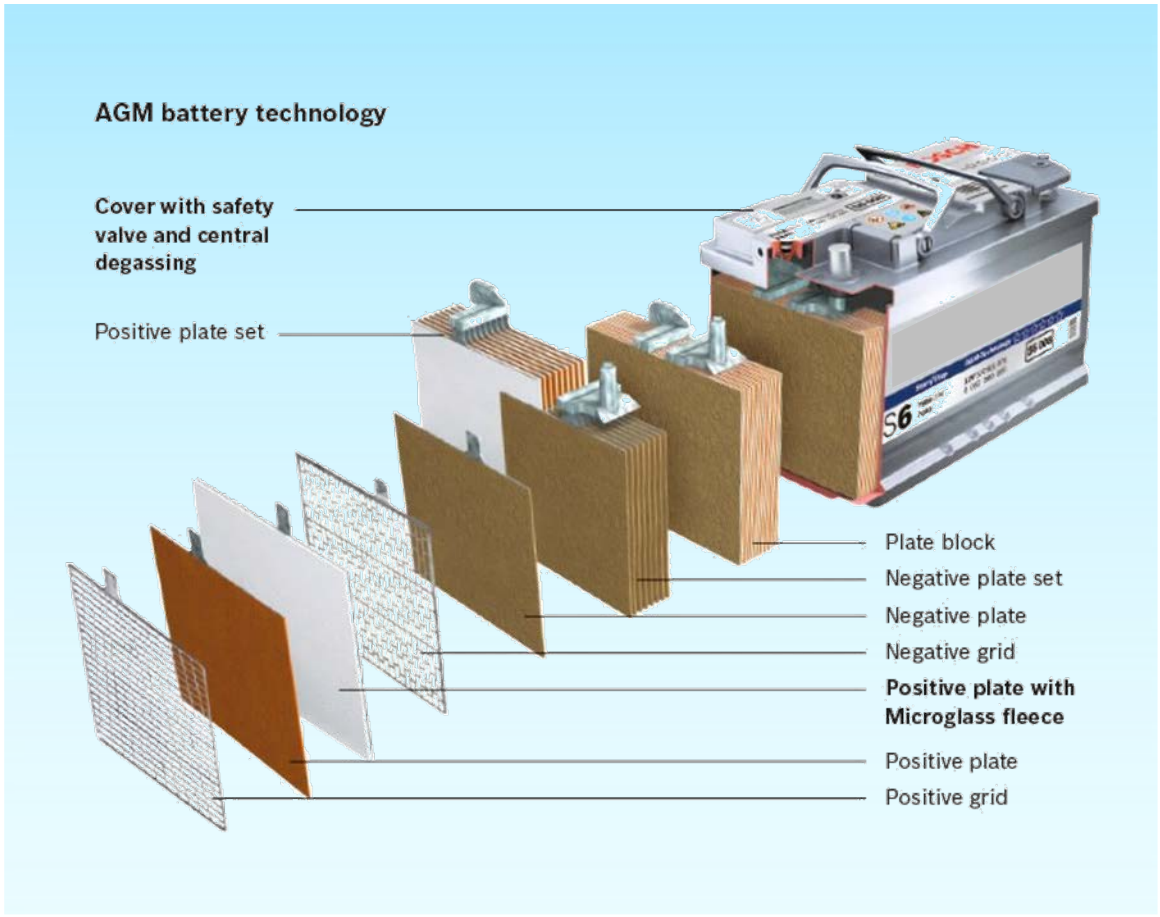
ADVANCED ARCHITECTURE WITH EXISTING BATTERY CHEMISTRY

TRADITIONAL LEAD-ACID AGM BATTERY



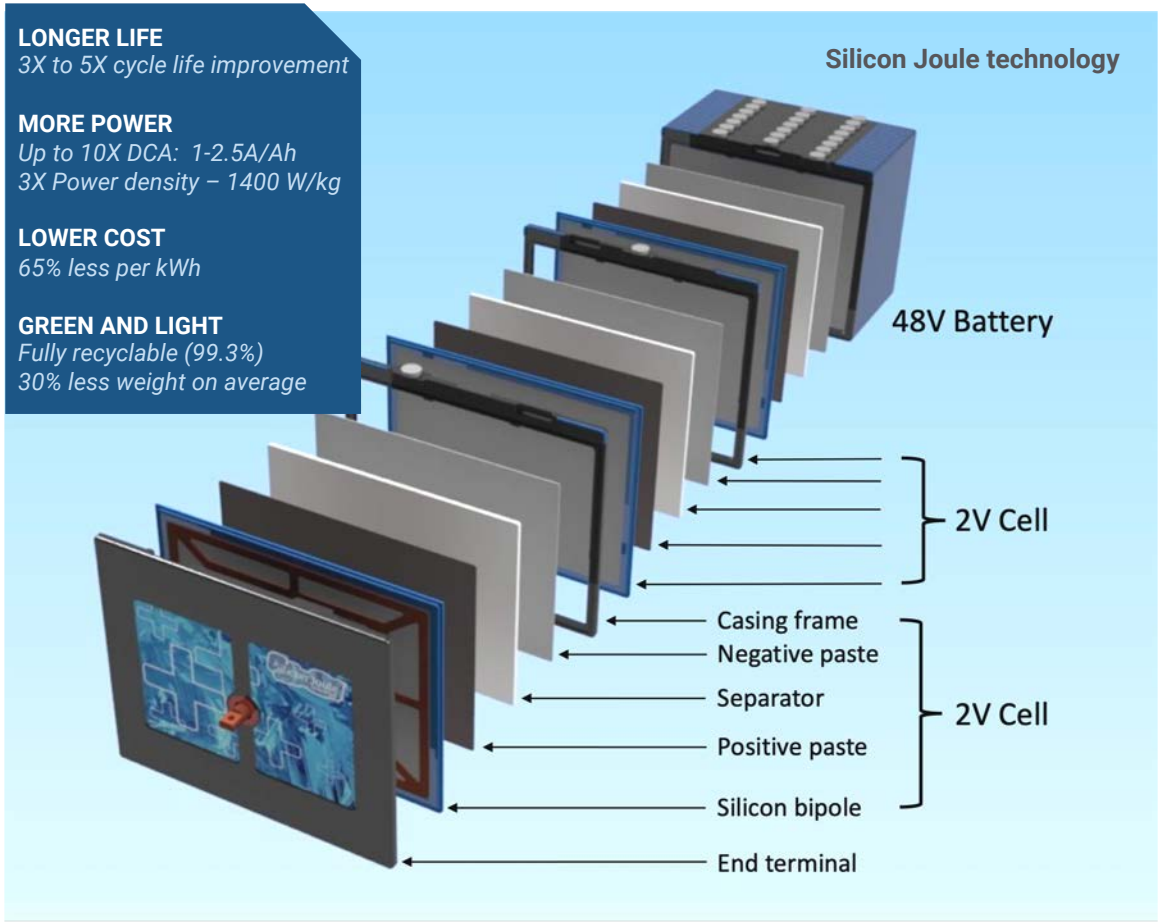
SILICON JOULE ADVANCED BIPOLAR

LONGER LIFE
3X to 5X cycle life improvement

MORE POWER
Up to 10X DCA: 1-2.5A/Ah
3X Power density – 1400 W/kg

LOWER COST
65% less per kWh

GREEN AND LIGHT
Fully recyclable (99.3%)
30% less weight on average



Simplified battery construction is compatible with existing manufacturing infrastructure

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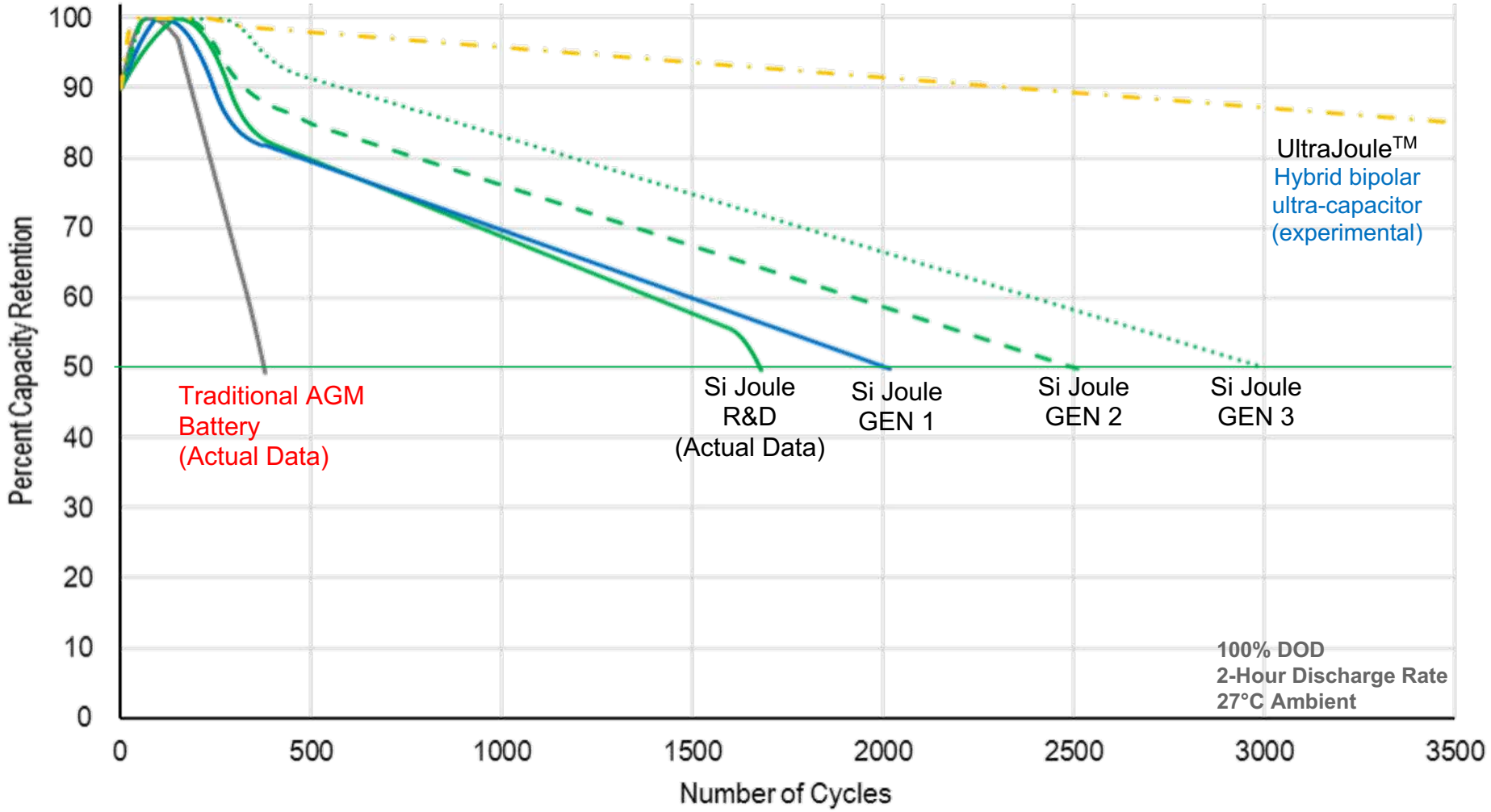
SILICON JOULE VS TRADITIONAL LEAD – SUPERIOR CYCLE LIFE



Our performance improvements are measured in **multiples**, not percent

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DISTRIBUTED STORAGE COMPARISON

Attributes	Conventional Deep-Cycle Lead Batteries	Lithium Ion	*Silicon Joule™*
Energy Density (Wh/kg)	Fair 35 - 45	Best 120 - 170	Good 65 - 70
Temperature Range (˚C)	Good -35 to 45˚C	Fair -18 - 50˚C	Best -35 to 55˚C
Cycle Life @ 80% DoD	Fair - Good 400 – 800	Best 1,500 – 5000+	Best 1,500 – 3000+
Charge Hours to 100% SOC (hours)	Fair 4 - 8	Best 0.5 - 3	Good 2 - 5
Recycled / Re-used (%)	Best 99%+	Poor 5-15%	Best 99%+
Fire / Safety Risk	Best	Poor	Best
Relative Ownership Costs ($/kWh)	Poor 250%	Good 100%	Best 80%

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EV CHARGING STATION COMPARISON

Attributes	Conventional Lead Battery	Lithium Ion	*Silicon Joule™*
Power Density (W/kg)	Poor 200-400	Best 1200-4500	Good 900-1400
Temperature Range (˚C)	Good -35 to 45˚C	Best -30 - 55˚C	Best -35 to 55˚C
Cycle Life @ 80% DoD	Fair - Good 400 – 800	Best 1,500 – 5000+	Best 1,500 – 3000+
Peak Discharge Rate	Excellent 120C	Good 25C	Excellent 125C
Recycled / Re-used (%)	Best 99%+	Poor 5-15%	Best 99%+
Fire / Safety Risk	Best	Poor	Best
Relative Lifetime Cost (life of battery)	Poor 230%	Good 100%	Best 80%

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