# **Energy Storage Vessel**™





## Now with:

- 100% increase in energy density
- 150% greater capacity
- 150% more power



### 3/30/30,000

Energy Storage Vessels can cycle up to 3 times per day without rest and boast an expected lifetime of 30 years / 30,000 cycles – enabling unique applications and business models for developers, integrators, and owners.



#### **NO FIRE RISK**

Unlike Li-ion chemistries, EnerVenue batteries exhibit no risk of thermal runaway or fire propagation.



#### **LONG-TERM SECURITY**

With the battery market's longest and simplest extended warranty available – Capacity Assurance™ – system owners are guaranteed at least 88% capacity after 20 years/20,000 cycles. The warranty safeguards a project's most critical years and helps ensure expected returns are achieved.

Based on proven technology used by NASA for more than 30 years, EnerVenue Energy Storage Vessels feature an exceptionally long lifespan, eliminating the need for augmentation or oversizing. Energy Storage Vessels can be easily mounted in racks, containers or stacked in custom warehousing. Its unique chemistry eliminates the need for preventative fire suppression. It can also reliably operate in a wide ambient temperature range without supplementary **HVAC.** Energy Storage Vessels dramatically reduce OPEX and feature a much lower cost-percycle compared to lithium-ion chemistries.

## **Product: Energy Storage Vessel ESV-4** PRELIMINARY

TYPE	DESCRIPTION	SPECIFICATION
Mechanical	Dimensions (Diameter x Length)	183mm x 2078mm
	Format	Tubular
	Туре	Large Format Battery
	Weight	62 Kg / 136 lbs
	Operating Temperature	-10C to 45C
	Storage Temperature	-15 to 60 C
	Cooling Type (Pending)	Convection, Forced Air
Electrical	Nominal Amp-hour Charge/Discharge	137 Ah
	Nominal Energy Capacity	3.0 kWh @ 25 °C
	Voltage Range	23-30 Vdc across full range of SOC (0-100%) @ 25 °C
	Nominal Power	1500 W
	C-Rates	C/2 - C/12
	Peak RTE	>90% @ 25 ℃
	Expected Capacity Retention	86% after 30,000 cycles
	Chemistry	Ni-H2
	Modes	Constant Current, Constant Power
	BMS	EnerVenue BMS 1000 V / 1500 V
Performance	Warranty	3-years standard, extendable to 20 years
Regulatory	Certifications Pending	UL1973* and applicable CE standards
	Tests Pending	UL 9540A
	Model	ESV-4.2

\*UL 1973, Annex E

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