

## Manufacturer: Analysis for Salgenx Salt Water Battery

3,000 kWh (3 MWh) Battery System - Salgenx Salt Battery Technology

11/12/2024



S3000: This system uses multiple tanks for electrolytes. One dry container for electrodes, command, and control.

Battery Efficiency	.91					
Energy Efficiency	10	mA/cm2	100	A/m2	9.29	A/ft2



Power Density (Wh/L)	125.7	x	24000	=	3,017	kW
kW loss per round trip	.91	x	3,017	=	272	kW

### Manufacturer System Build Data: Note does not include Heat Pump thermal storage option

Materials Cost /kW	\$30,168	=	\$10.00	x	3,017	kW
Electrodes / Cost /kW	\$120,672	=	\$40.00	x	3,017	kW
Containers / Labor / System	\$60,000					
Pumps / Controls / System	\$40,000					
Charge Controller / Inverter	\$30,000					
Fully Assembled Cost	\$280,840					
Fully Assembled Cost / kW	\$93					
Tax Credits	\$105,588	unit	=	\$35	/kW	x 3,017 kW

  

Electrolyzer Stack Capacity	600 kW
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Retail Price	\$600,000
Mfg Net Profit	\$319,160

### Notes:

**Retail Price : \$600,000**

**\$199 /kW**

1. May use one larger inverter or micro inverters for each megacell. Does not include a transformer from 380 VAC (60/50 hz selectable). Transformer cost around \$50,000.
2. Running one (1) cycle per day: Charge at night during off peak night, and then using stored battery power during on peak hours during the day.
3. Cogen Battery Thermal Savings: If a optional heat pump input with COP 3 is used during the evening, the heated water (salt water) can be used during the day, without effecting charge. This can result in large savings since a heat pump can produce significant savings while used off-peak, and storing heated liquid for later use.
4. Tesla MegaPack Comparison: 3.9 MWh. Price as of 12 November 2024 is \$963,540 for 4 hour duration. Delivery Q3 2025 (one year). Annual maintenance is \$8,830 with price escalations. No thermal storage/access available. Reference: <https://www.tesla.com/megapack/design>