

# Utility Power Mining and Savings Analysis by Infinity Turbine LLC

3,000 kW (3 MW) Battery System - Infinity Salt Battery Technology

11/15/2022



This system uses one 24,000 tank container for anode electrolyte and another 24,000 tank container for cathode. 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	\$15,084	=	\$5.00	x	3,017	kW	<b>Manufacturer License Payback</b>
Electrodes / Cost /kW	\$30,168	=	\$10.00	x	3,017	kW	
Containers / Labor / System	\$60,000						2.82 Units Sold
Pumps / Controls / System	\$40,000						
Fully Assembled Cost	\$145,252				Mfg System Price	\$500,000	
Fully Assembled Cost / kW	\$48				Mfg Net Profit	\$354,748	
Tax Credits	\$105,588	unit =	\$35	/kW	x	3,017	kW

## End User Grid Utility Power Mining and Savings: System Sale Price \$500,000 \$166/kW

Kilowatt Price Difference \$(kW)	Revenue or Savings				User Payback System (year)	Cogen Battery Thermal Savings (year)
	Cycle	Day	Month	Year		
\$0.10	1	\$275	\$8,236	\$100,203	4.99	\$200,406
\$0.15	1	\$412	\$12,354	\$150,305	3.33	\$300,609
\$0.20	1	\$549	\$16,472	\$200,406	2.49	\$400,812
\$0.25	1	\$686	\$20,590	\$250,508	2.00	\$501,015
\$0.30	1	\$824	\$24,708	\$300,609	1.66	\$601,218
\$0.35	1	\$961	\$28,826	\$350,711	1.43	\$701,421
\$0.40	1	\$1,098	\$32,943	\$400,812	1.25	\$801,624
\$0.50	1	\$1,373	\$41,179	\$501,015	1.00	\$1,002,030