

battery backup vs. generator

Battery backup power offers many of the same backup power functions as conventional generators but without the need for refueling. Refer to the chart below for a comparison of battery backup versus a conventional generator, including a review of factors like cost, fuel supply, size, features, and maintenance.

Tesla Powerwall 2



size: 13.5 kW
 fuel source: solar / electric
 fuel consumption: variable
 voltage: 120/240 single-phase
 surge watts: 7,000 peak
 rated Amps: 30 Amps
 decibel rating: 0
 transfer switch: automatic
 warranty: 10 years
 product depth: 5.5"
 product width: 29"
 product height: 44"
 load management capability: integrated
 monitoring app: yes
 operating temp: down to -4°F
 maintenance: none
 tax credit: YES
 state rebate: YES
 10-yr operating costs: \$0
 10-yr energy savings: -\$6,670

Total adjusted est. 10-year cost of ownership: * \$1,729

(not all of the above devices can be powered at once).

Gas Generator



size: 13kW
 fuel source: LP, natural gas, diesel
 fuel consumption: 1.6 gal / hr
 voltage: 120/240 single-phase
 surge watts: 13,000 peak
 rated Amps: 54.2 Amps
 decibel rating: 65
 transfer switch: automatic
 warranty: 5 year, 2,000 hour limited
 product depth: 34.1"
 product width: 36"
 product height: 27.3"
 load management capability: not included
 monitoring app: no
 operating temp: down to 0°F
 maintenance: yearly
 tax credit: NO
 state rebate: NO
 10-yr operating costs: \$1,000
 10-yr energy savings: \$0

Total adjusted est. 10-year cost of ownership: \$11,409

(not all of the above devices can be powered at once).

* Total adjusted est. lifetime cost based on a \$200/mo energy bill, adding solar for 100% energy offset, and a single Powerwall. Does NOT take into consideration inflation, or any increase/decrease in grid energy rates, which would likely decrease operating costs even further.