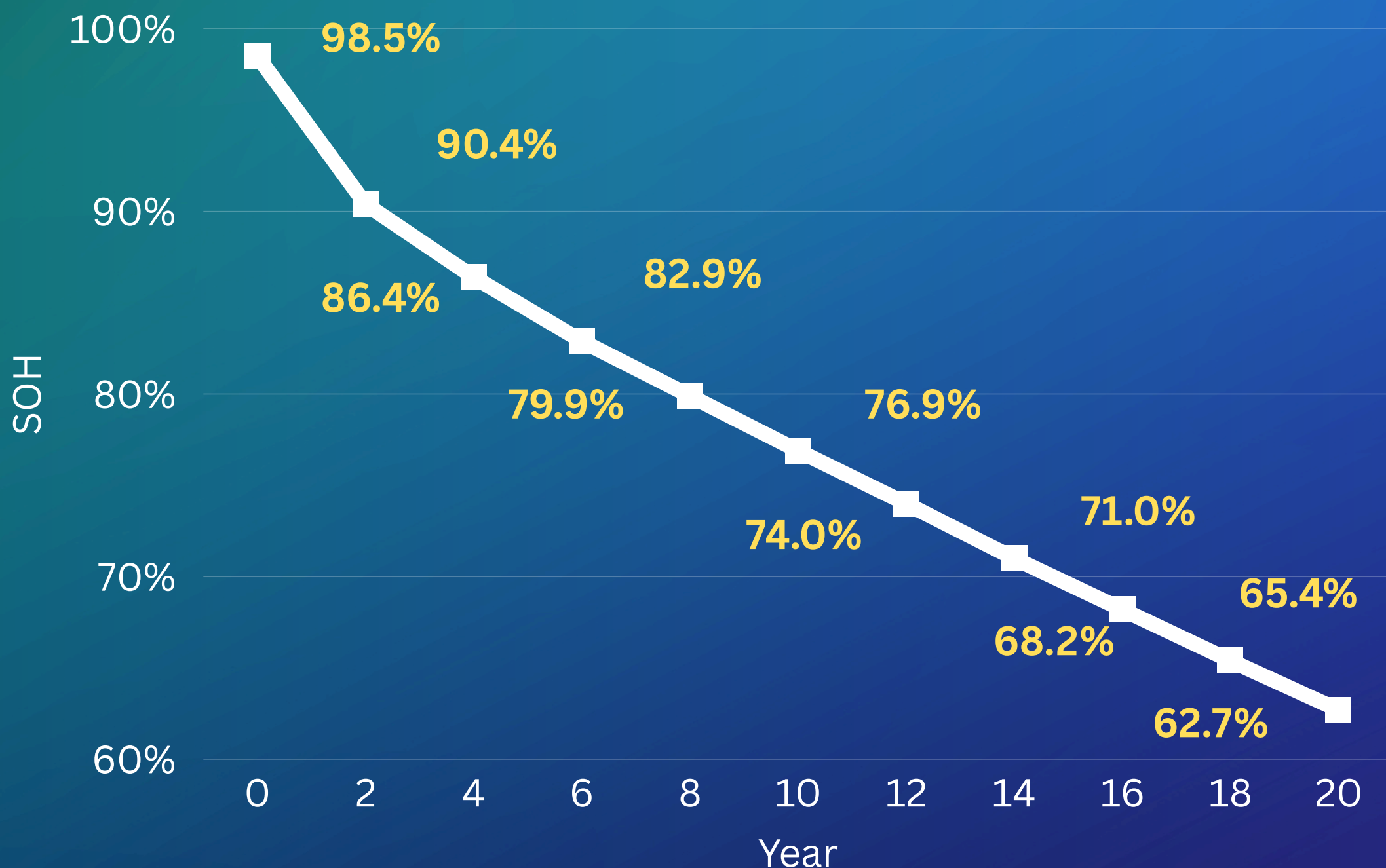
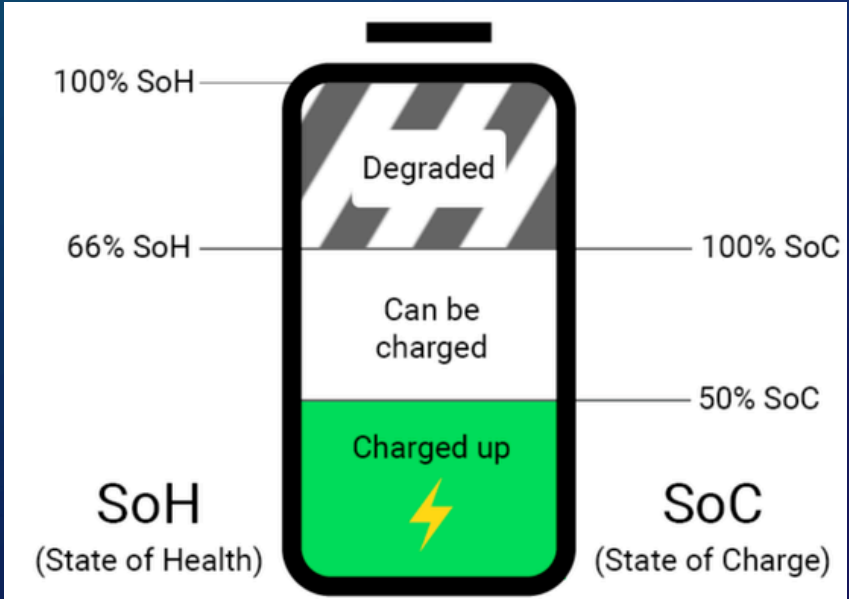


Battery State of Health (SOH) over Years

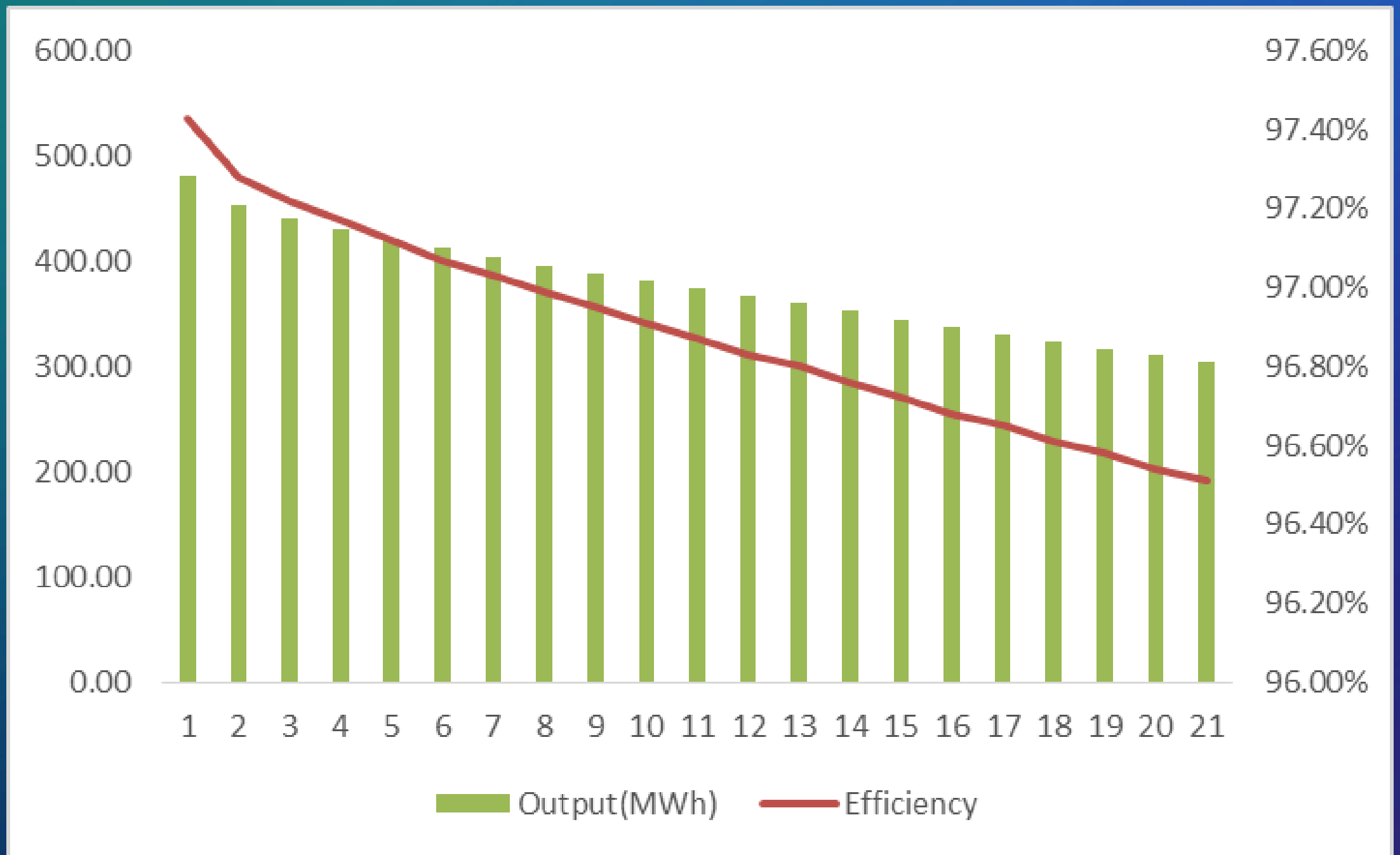


Source: Risen Energy



A higher SOH indicates more reliable performance and longer runtime. Monitoring SOH enables predictive maintenance, which helps to prevent unexpected failures. A battery's SOH gradually decrease due to aging and usages cycles and when it reaches 60%,it is generally considered to have reach the end of its useful life

Energy Generation and Efficiency of 1376 KWh battery over the year



A battery typically degrades by about 1.5% in its first year, with further degradation occurring over time due to usage cycles, depth of discharge (DOD), and ambient temperature. As the battery degrades, its energy storage capacity gradually decreases, reducing the amount of energy it can hold over the years

Repurpose Battery according to its SOH



SOH- 100-80%

Used in EV, not suitable beyond it due to reduce in performance, efficiency and driving range



SOH- 80-60%

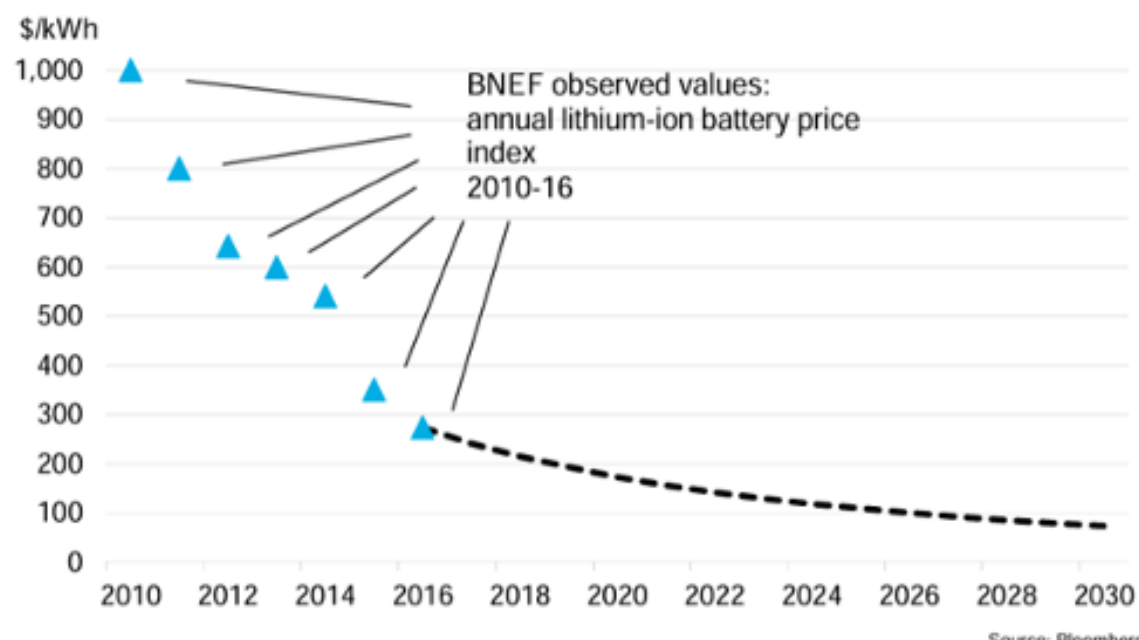
Repurposed for grid-connected BESS with renewable energy for grid stability, voltage regulation, reliability



SOH- 60-40%

Used in backup power system, UPS for homes and business, e-bikes

Cost of battery



BloombergNEF forecasted the price of lithium batteries to be \$113/kWh in 2025 and \$80/kWh in 2030. Based on this trend, the battery price in 2036 was projected to be \$56.61/kWh. However, the actual cost is \$135.17/kWh, which is 19.62% higher than anticipated

Source: BloombergNEF