

Quidnet Energy

Powering the Carbon-Free Electric Future

Modular Geomechanical Pumped Storage (GPS)

3rd TMCES -Storage Deployment Panel August 11, 2021

Richard Brody VP Business Development | Quidnet Energy low-cost, long-duration geomechanical pumped storage

Quidnet stores energy as high-pressure water underground



Charge. Water pumped down the well into high-pressure storage lens

Discharge. High-pressure water flows up the well to drive a turbine

Modular, long-duration storage

Smaller scale, terrain independent and minimal surface footprint compared to traditional pumped hydro

Structural cost position

Less than half the cost of battery storage & pumped hydro

Broad geological footprint

Large resource available in low-perm, non-hydrocarbon bearing rocks. 100+ TWh across multiple US basins

Mature execution supply chain

Uses equipment and drilling methods proven in other industries; supported by established manufacturing and labor resources



Development ramp up across major power grids, funded by leading investors and government agencies

New York State (NYISO)

~5 TWh estimated Gen-1 resource

NYSERDA-DOE funded development to characterize long storage resource upstate

Texas (ERCOT)

~5 TWh estimated Gen-1 resource

DOE funded development to provide firming capacity for retiring GW-scale coal & gas

Ohio (PJM)

10+ TWh estimated Gen-1 resource

DOE funded development for transitioning power supply mix across Appalachia

Alberta (AESO)

10+ TWh estimated Gen-1 resource

Emissions Reduction Alberta funded development co-located with renewables

California (CAISO)

~2 TWh estimated Gen-1 resource

Development planning for resource adequacy and firming for high solar penetration









U.S. DEPARTMENT OF











Quidnet secures low-cost position, with minimal operations and supply chain complexity

| | Extremely low cost | Multi-decade asset life | Infrastructure-scale supply chain | Site flexibility | Safety and environ- mental impact |
|--------------------------|--------------------|----------------------------|--------------------------------------|------------------|--------------------------------------|
| Lithium-ion | 0 | 0 | | | \bigcirc |
| Flow battery | 0 | | \bigcirc | | \bigcirc |
| Traditional pumped hydro | 0 | | | 0 | \bigcirc |
| Compressed air | 0 | | | 0 | |
| Thermal energy storage | 0 | | | 0 | |
| Quidnet Energy | | | | | |



Commercial design









Quidnet's breakthrough energy technology is enabling the zero-carbon power grid. Local approximation of the second system of the processing of the second system of the sec

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