

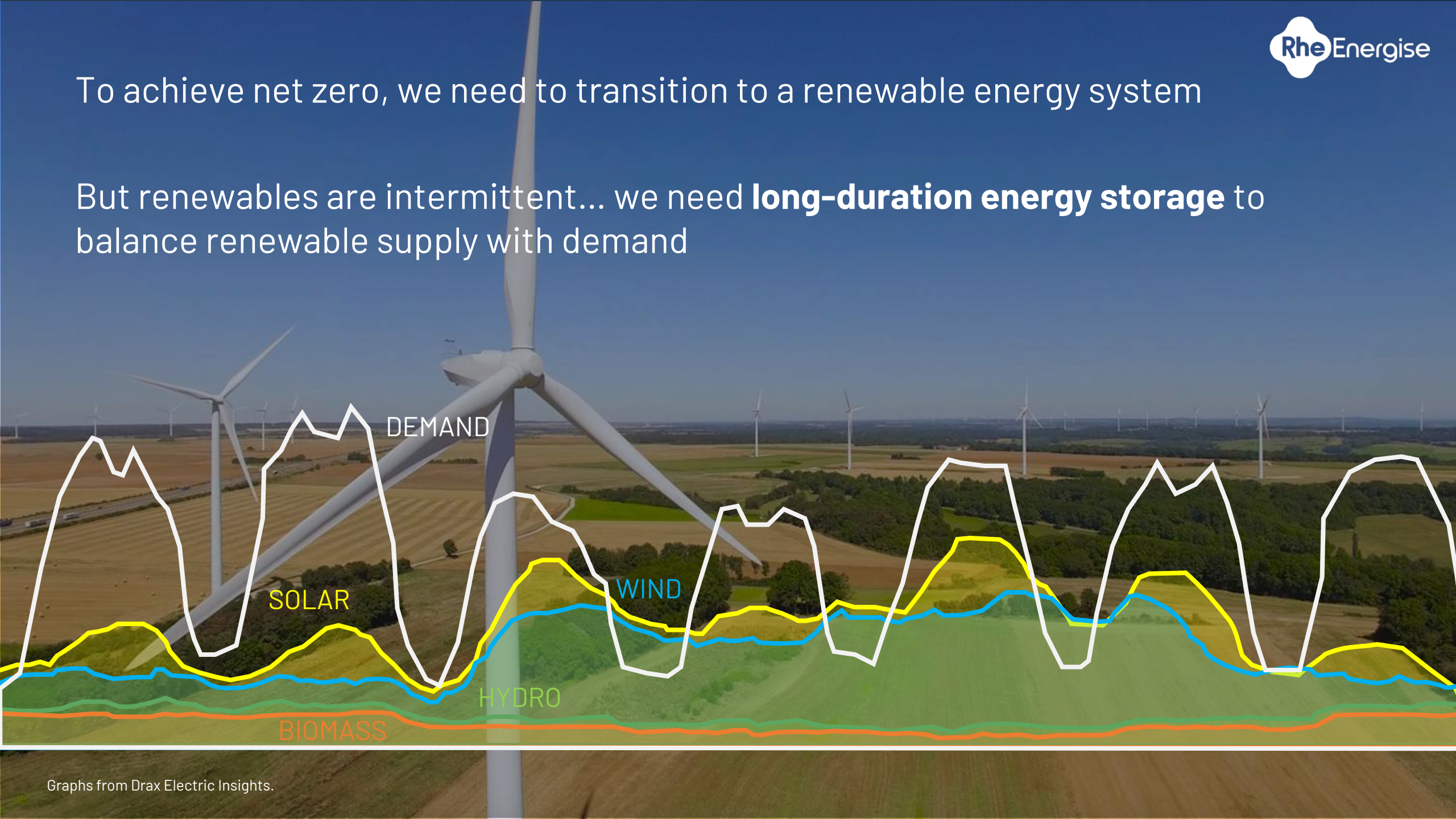


High-Density Hydro®
Lizzi Gold, January 2024

Enabling the energy transition with low-cost, scalable energy storage

To achieve net zero, we need to transition to a renewable energy system

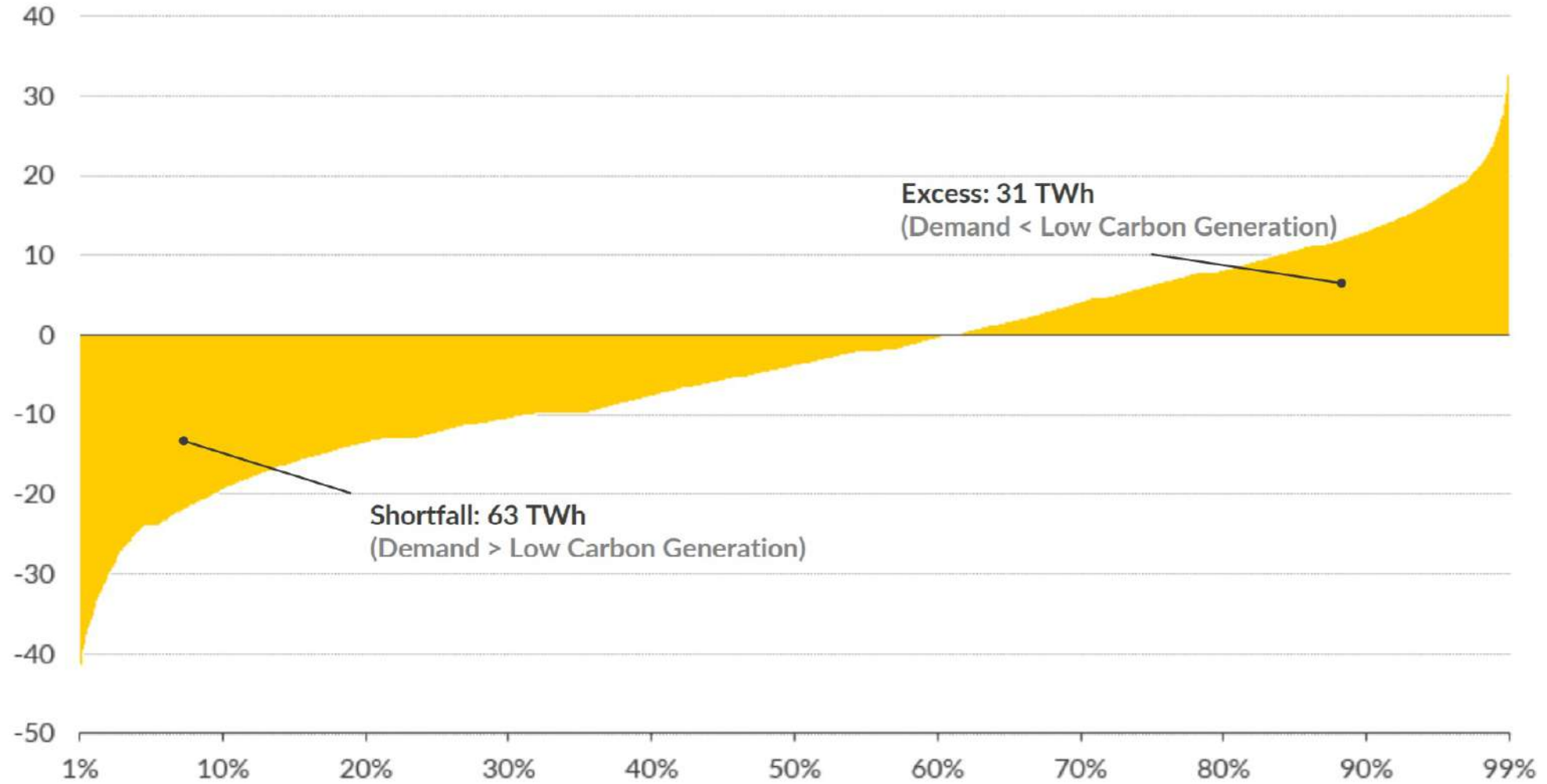
But renewables are intermittent... we need **long-duration energy storage** to balance renewable supply with demand



A Net-Zero Energy System in 2035

Residual demand¹ (2035 in Net Zero)

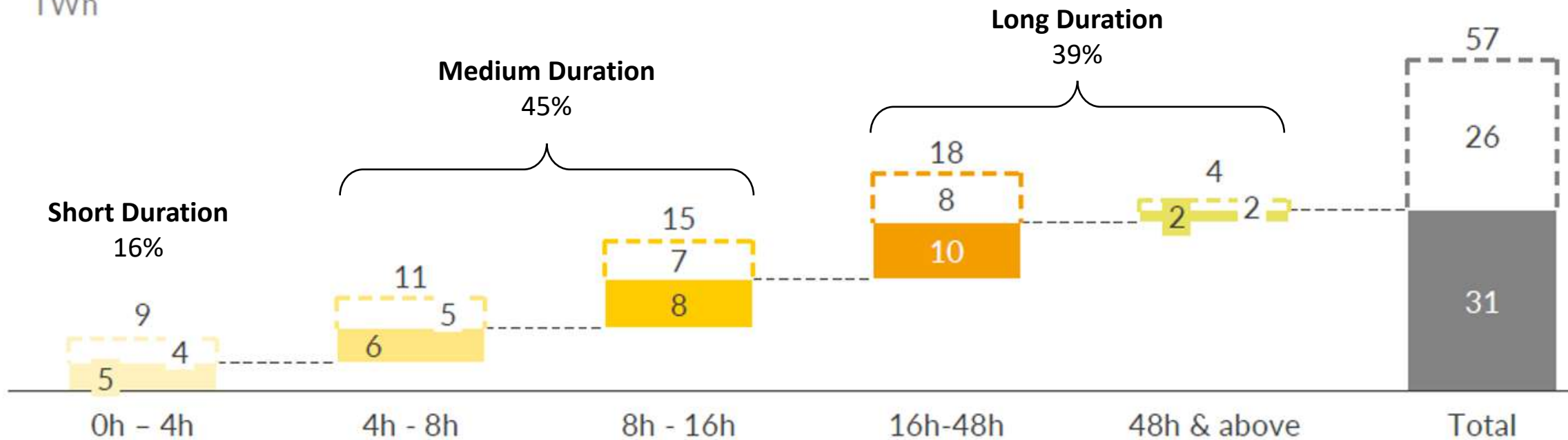
GW



Medium vs Long Duration Storage?

Energy available to be shifted by storage duration, 2035

TWh



 Locational balancing
 Energy balancing



Pumped hydro

- >95% world's energy storage
- Mature, proven tech
- Best-in-class economics
- So why aren't we building more?

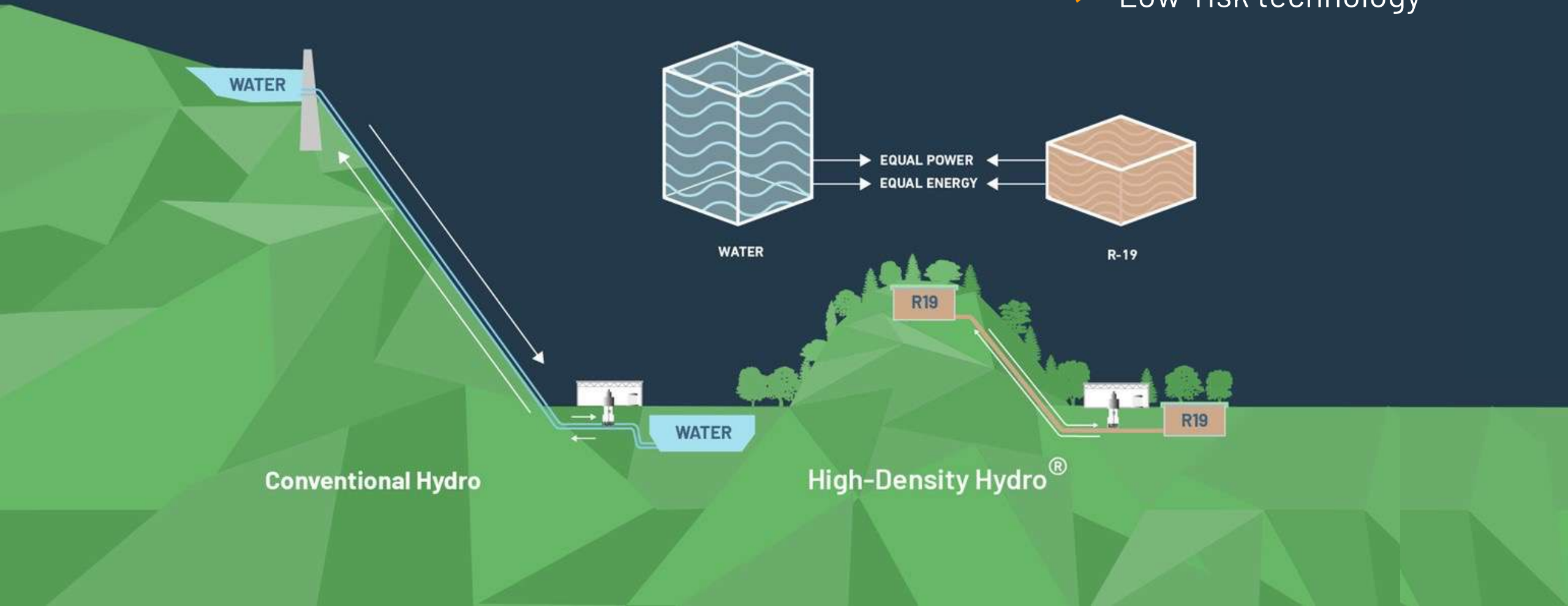
What if we could build pumped hydro at sites like these?



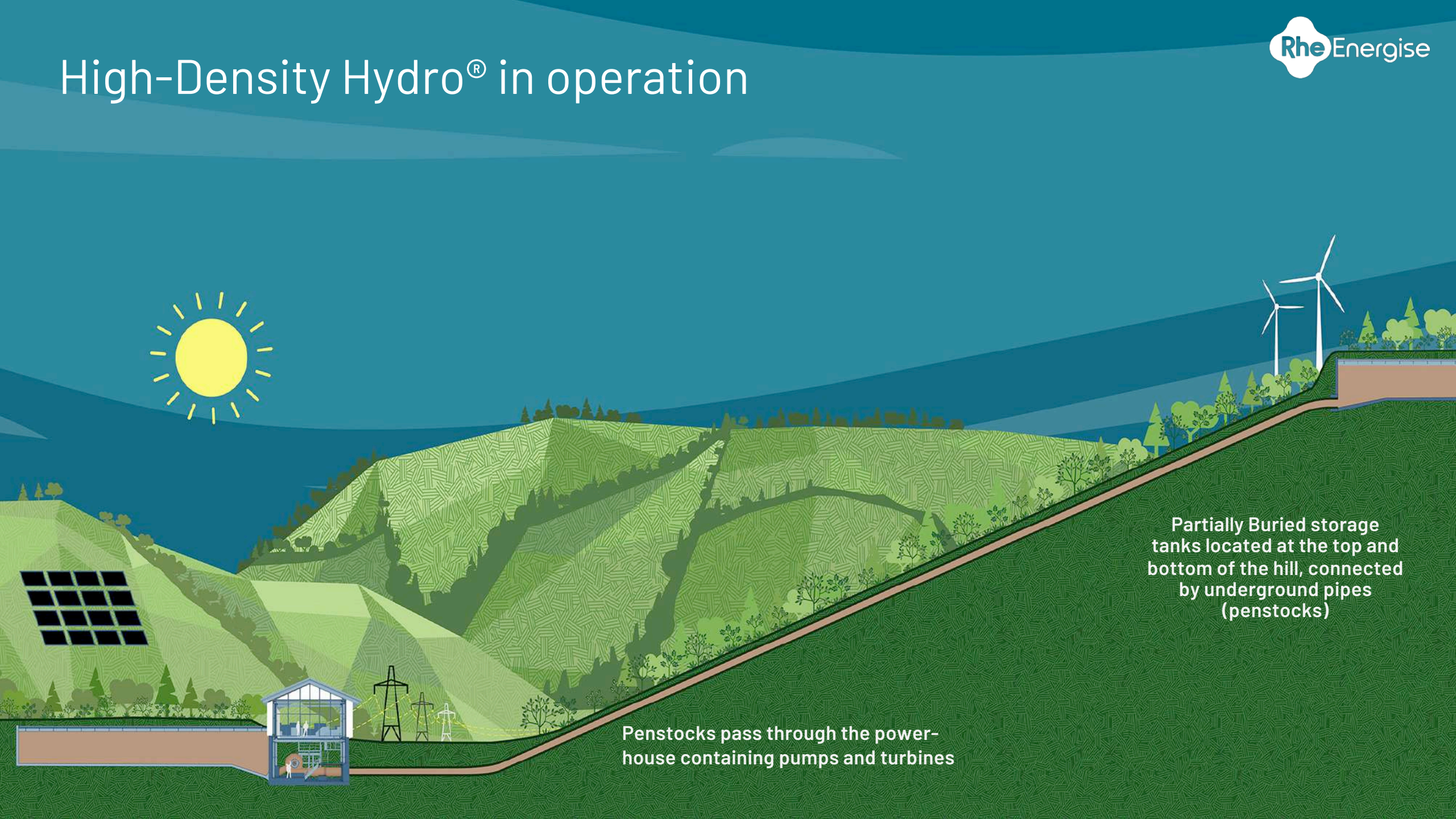
The RheEnergise Solution

High-Density Hydro[®]: hills not mountains

- ✓ Low-cost
- ✓ Scalable
- ✓ Quick to deploy
- ✓ Globally applicable
- ✓ Low environmental impact
- ✓ Low-risk technology



High-Density Hydro[®] in operation



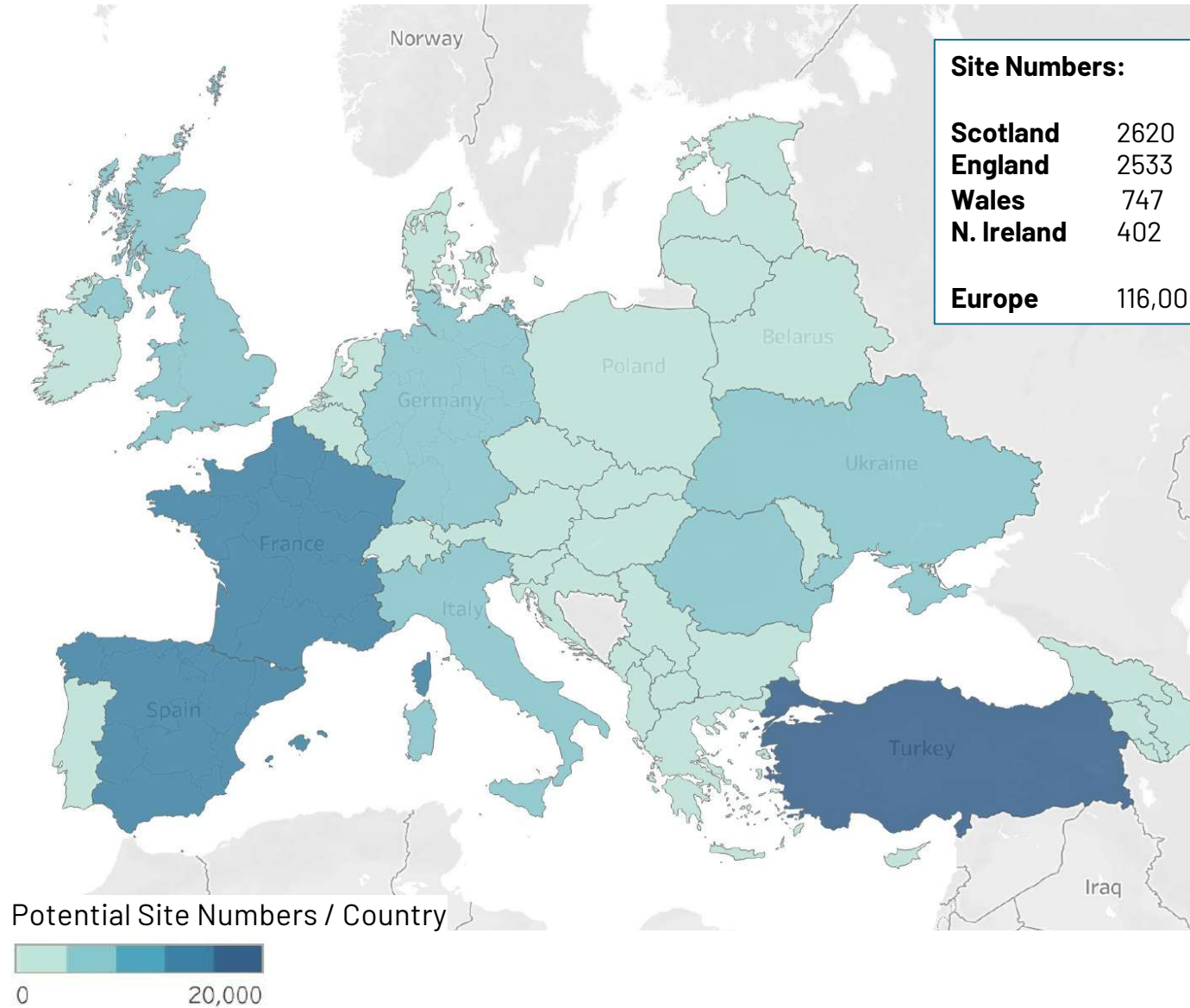
Partially Buried storage tanks located at the top and bottom of the hill, connected by underground pipes (penstocks)

Penstocks pass through the power-house containing pumps and turbines

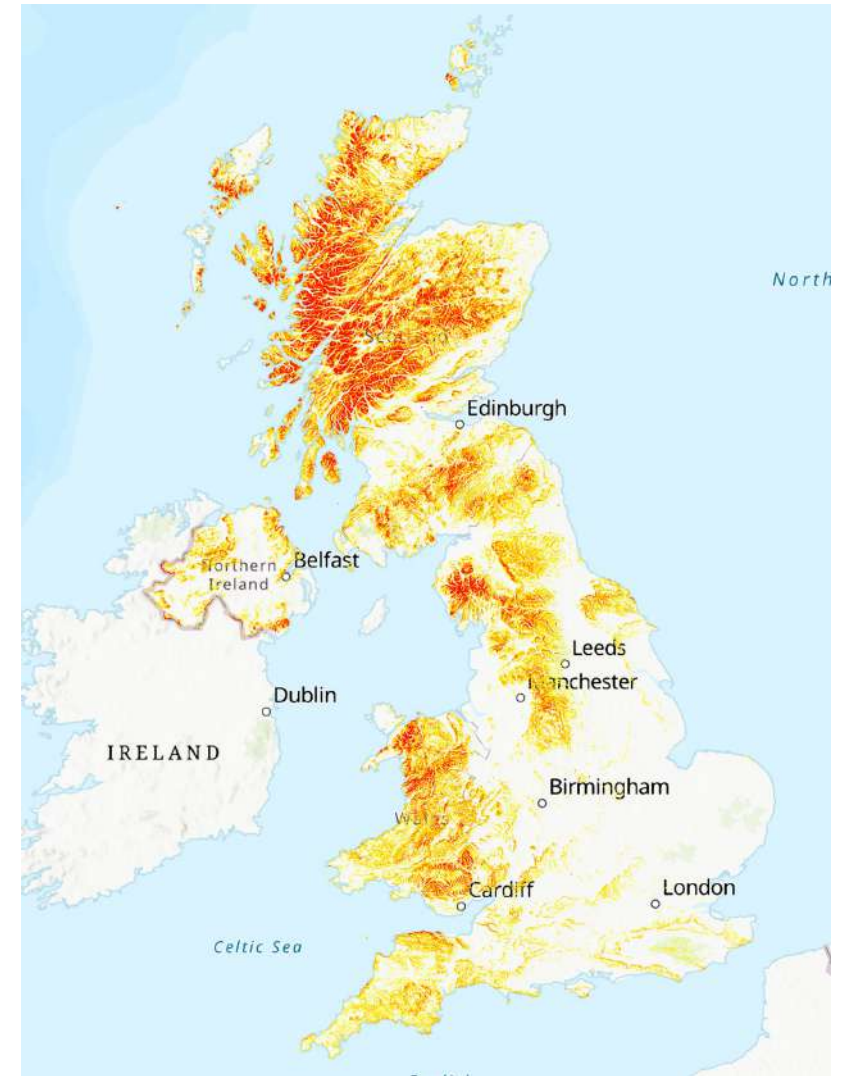
R-19: High-Density Fluid



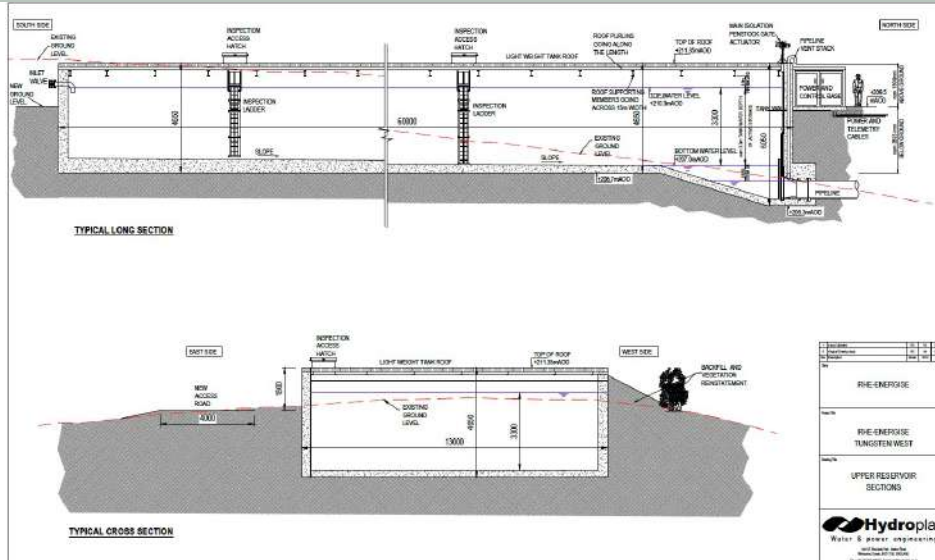
There is no shortage of sites across the world

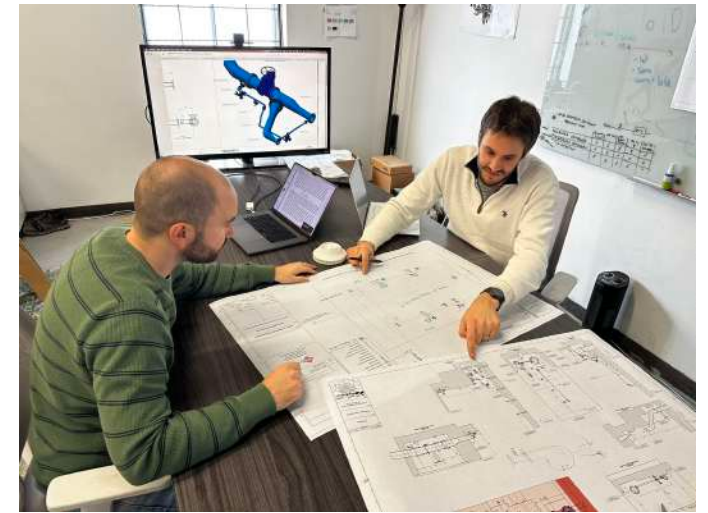
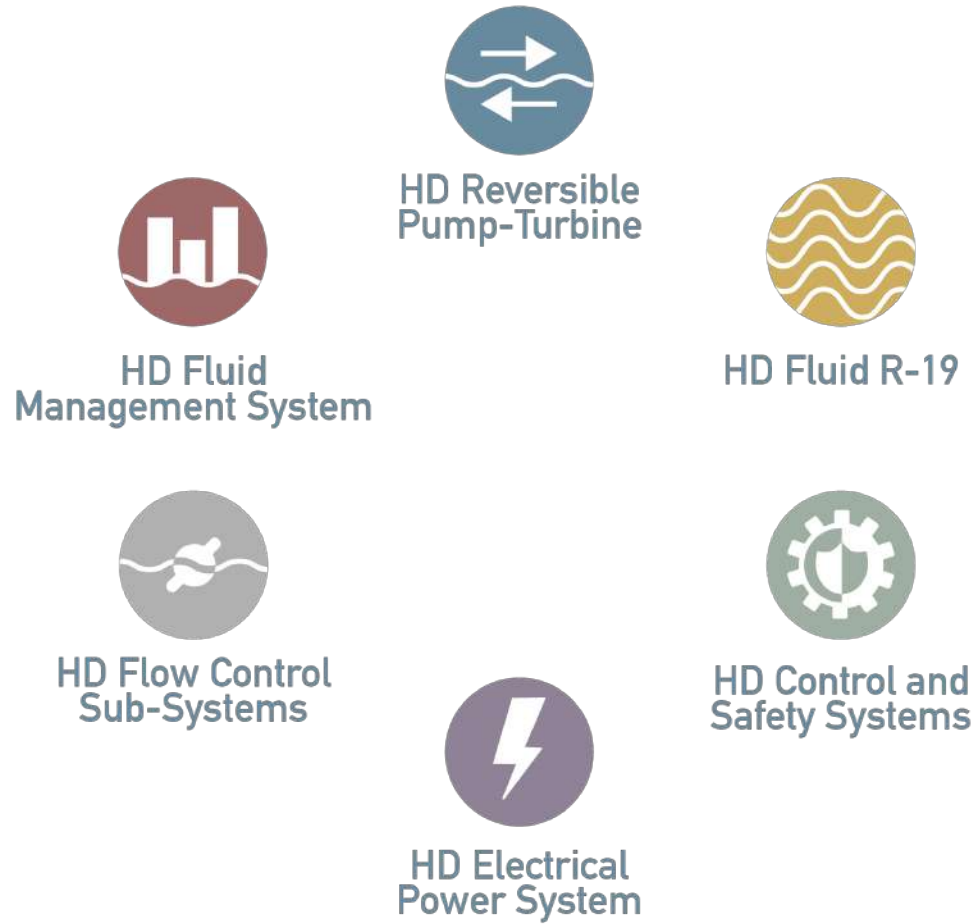


Site Numbers:	
Scotland	2620
England	2533
Wales	747
N. Ireland	402
Europe	116,000



500kW Demonstrator- due to start build Jan 2024





Design and build of proprietary HD turbine

Our growing team!





Thank you

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