Low Cost Locally Manufactured Marine Pumped Hydro Energy Storage Systems



OSES 2023, Malta Jason Cotrell, Founder and CEO July 12, 2023

Jason.cotrell@rcamtechnologies.com



3D PRINTING

RENEWABLE ENERGY

COMMERCIALIZATION



JASON COTRELL

MS Mechanical Engineering, MBA





XPRIZE CARBON nrg^{*} | cosia

GABE FALZONE

CARBONBUILT



TAYLOR MARCHMENT



MASON BELL



EDUARDO RANGEL

HIRING

ENGINEERING TEAM



COO



RCAM TECHNOLOGIES

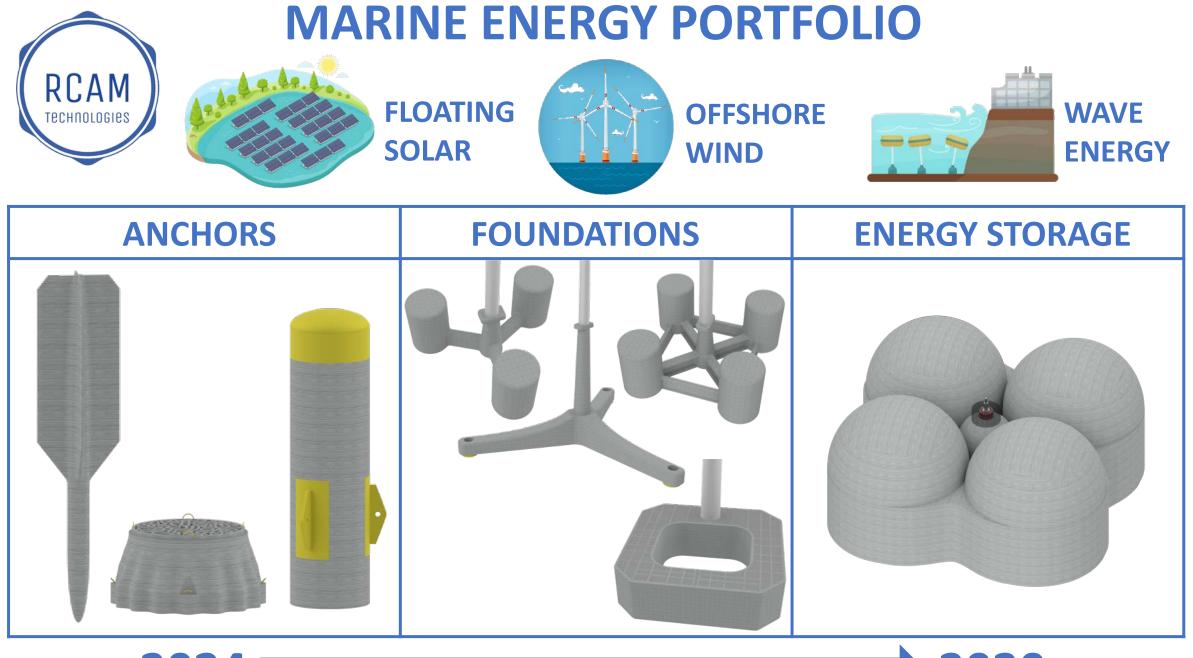
Reduce the cost of renewable energy and create domestic jobs using digital design and automated concrete manufacturing.

Benefits of 3DCP

- Minimize materials (no formwork)
- Structural design optimization
- Automated
- Low-cost materials
- Local and sustainably sourced materials
- Small footprint
- High throughput











Our Vision

Concrete Support Structures and Energy Storage

- Lowest cost
- Any size
- 50 year life
- Made locally

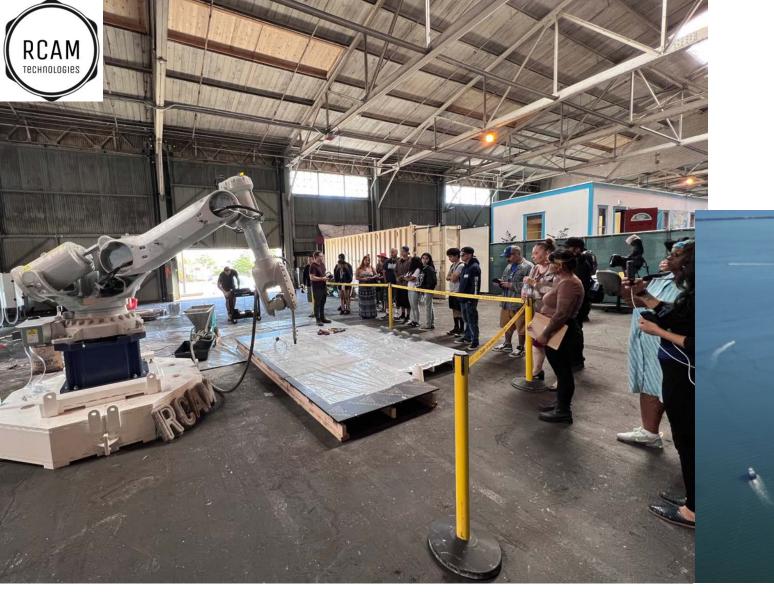






3D Concrete Printing State of the Art







RCAN

New Milestone! 1000+ RCAM visitors in 10 months!



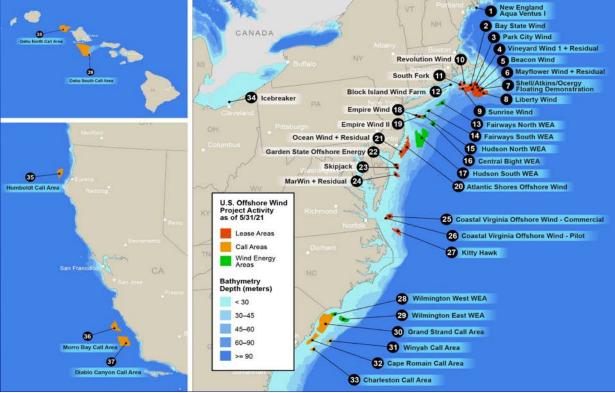




50 GW offshore wind pipeline is causing grid Integration challenges

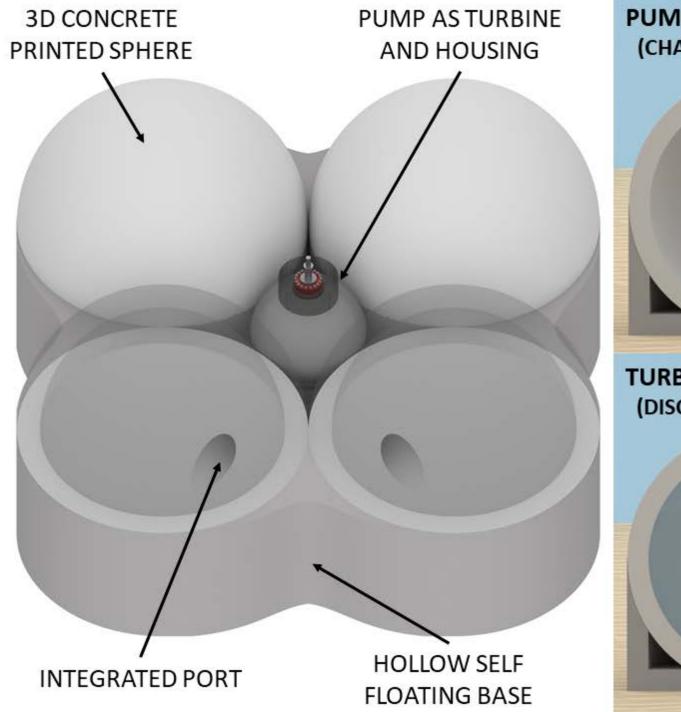
- Electrical interconnection
- Grid stability
- Wind doldrums
- Curtailments

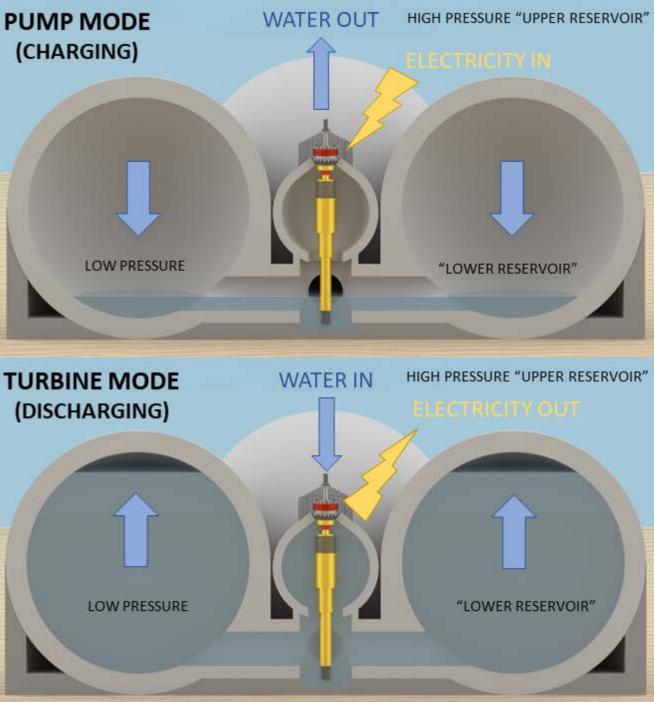
US Offshore Wind Targets 30 GW fixed-bottom by 2030 15 GW floating by 2035 (new earthshot)



MPH working principle has been proven in 100m lake









The required technologies are available at full-scale but need adaptation, integration, and demonstration

Offshore renewables and energy storage can provide 100% clean power to America's most populus regions with many benefits

- Triple PSH resource potential
- Low cost and low risk
- No onshore footprint
- Out-of-sight

RCAM

- Ultra-long life
- Locally manufactured
- Abundant materials
- Immune to weather and supply chain disruptions



