

Low Cost Locally Manufactured Marine Pumped Hydro Energy Storage Systems

## FOUNDER \& CEO



TAYLOR MARCHMENT

MS Mechanical
Engineering, MBA

ENGINEERING TEAM

## : SNREL NATIONAL RENEWABLE ENERGY LABORATORY

3D PRINTING

RENEWABLE ENERGY

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COMMERCIALIZATION


PhD
Materials Science


EDUARDO RANGEL


## RCAM's Mission

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


MARINE ENERGY PORTFOLIO


2024

## Our Vision

Concrete Support Structures and Energy Storage

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




## 3D Concrete Printing State of the Art





40X MORE Offshore Solar Potential


MPH working principle has been proven in 100 m lake


3D CONCRETE PRINTED SPHERE


PUMP MODE
PUMP AS TURBINE AND HOUSING

(DISCHARGING)


FLOATING BASE

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


## But we must start now



