

**DOCKETED**

<b>Docket Number:</b>	18-IRP-01
<b>Project Title:</b>	Integrated Resource Plan
<b>TN #:</b>	246000
<b>Document Title:</b>	Andrew Zalay PE Comments - Presentation - Innovative Concrete Solutions and Civil Construction (2 of 3)
<b>Description:</b>	N/A
<b>Filer:</b>	System
<b>Organization:</b>	Andrew Zalay PE
<b>Submitter Role:</b>	Public
<b>Submission Date:</b>	9/12/2022 3:52:01 PM
<b>Docketed Date:</b>	9/8/2022

*Comment Received From: Andrew Zalay PE*  
*Submitted On: 9/12/2022*  
*Docket Number: 18-IRP-01*

**Presentation - Innovative Concrete Solutions and Civil Construction (2 of 3)**

Innovative Concrete Solutions and Civil Construction: MIT Deep Water Offshore Wind Floater for Gulf of Maine

*Additional submitted attachment is included below.*

Applied Energy Symposium

MIT A+B

Co-organized with Harvard

MIT Applied Energy Symposium  
MIT A+B  
Co-organized with HARVARD

icae  
International Conference on Applied Energy

July 5-8, 2022  
MIT, CAMBRIDGE, USA

[applied-energy.org/mitab2022](http://applied-energy.org/mitab2022)



# Innovative Concrete Solutions and Civil Construction: MIT Deep Water Offshore Wind Floater for Gulf of Maine

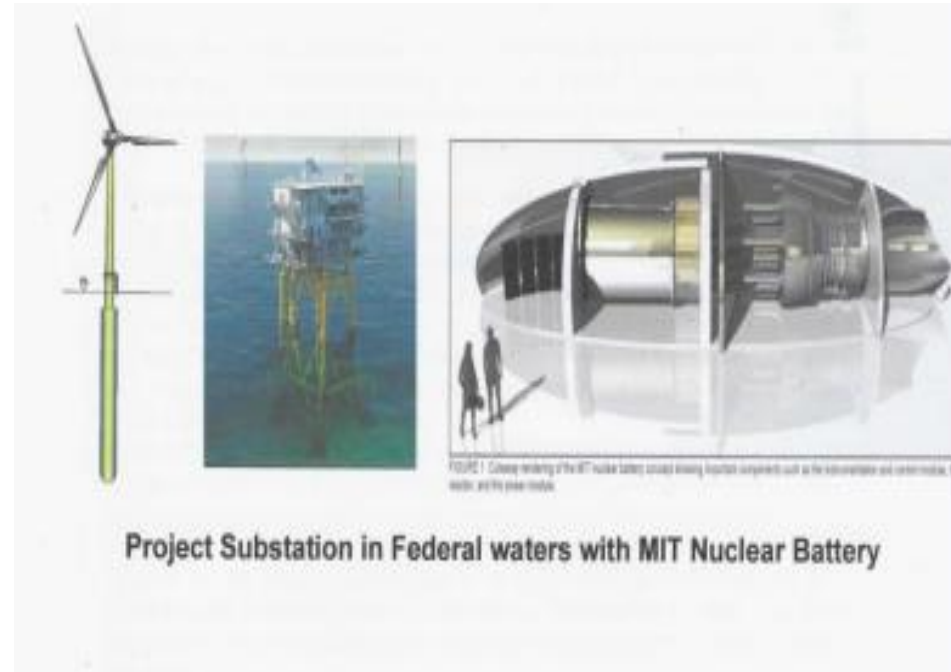
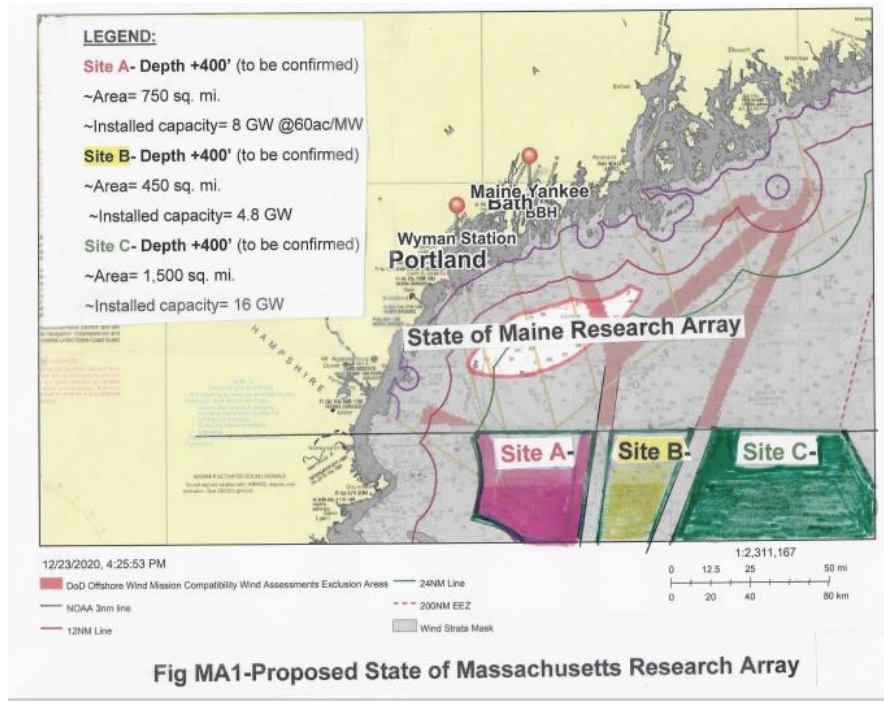
Andy Zalay, P.E., MIT Alumni, Class of '69, Course XVI

*EWind*



## Innovative Concrete Solutions and Civil Construction

**Exciting New Opportunity-** concrete/ceramic composite offshore wind towers and foundations to maximize local jobs and economic benefits using Jones Act compliant vessels







Applied Energy Symposium  
MIT A+B  
Co-organized with Harvard



# Applied Energy Symposium

## MIT A+B

Co-organized with Harvard

MIT Applied Energy Symposium  
**MIT A+B**  
Co-organized with HARVARD

**icae**  
International Conference on Applied Energy

July 5-8, 2022  
MIT, CAMBRIDGE, USA

[applied-energy.org/mitab2022](http://applied-energy.org/mitab2022)

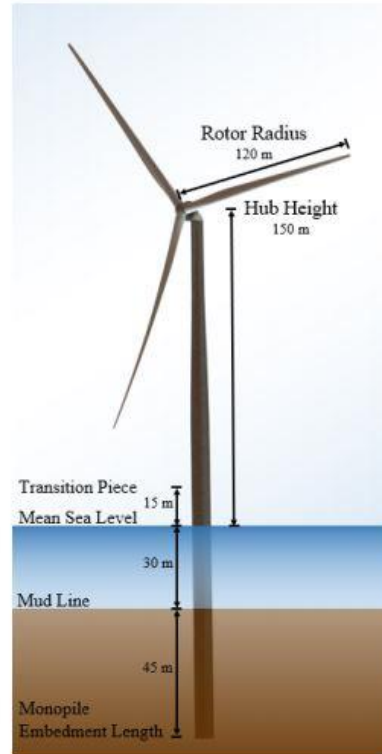
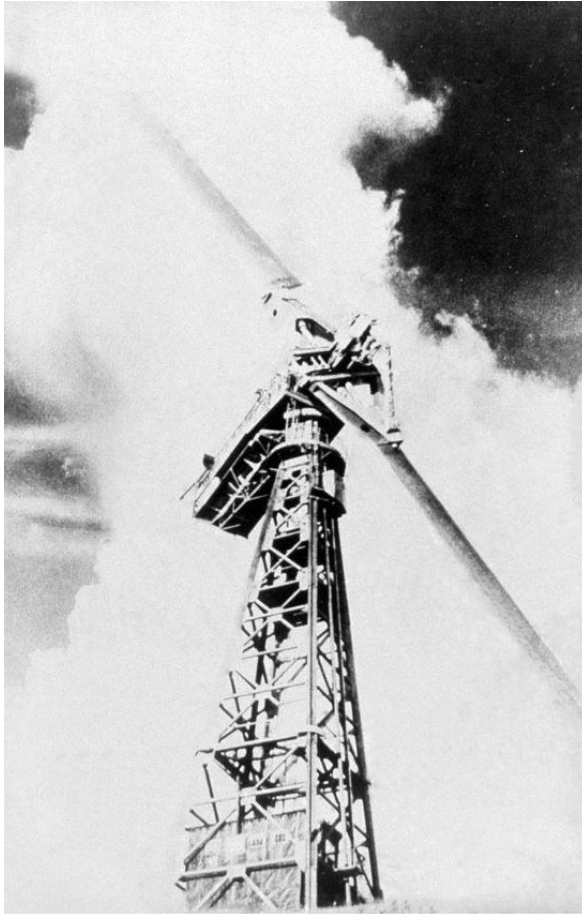
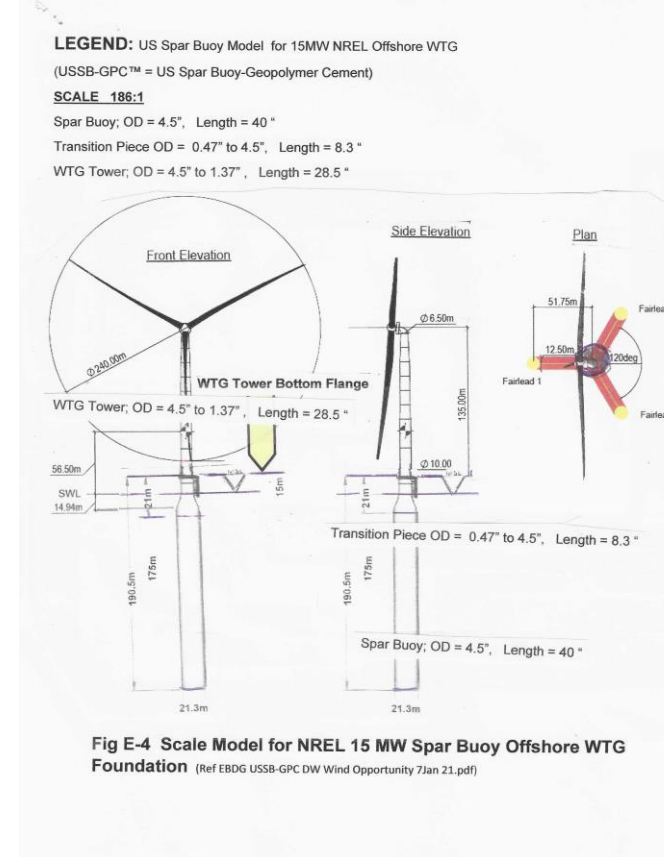


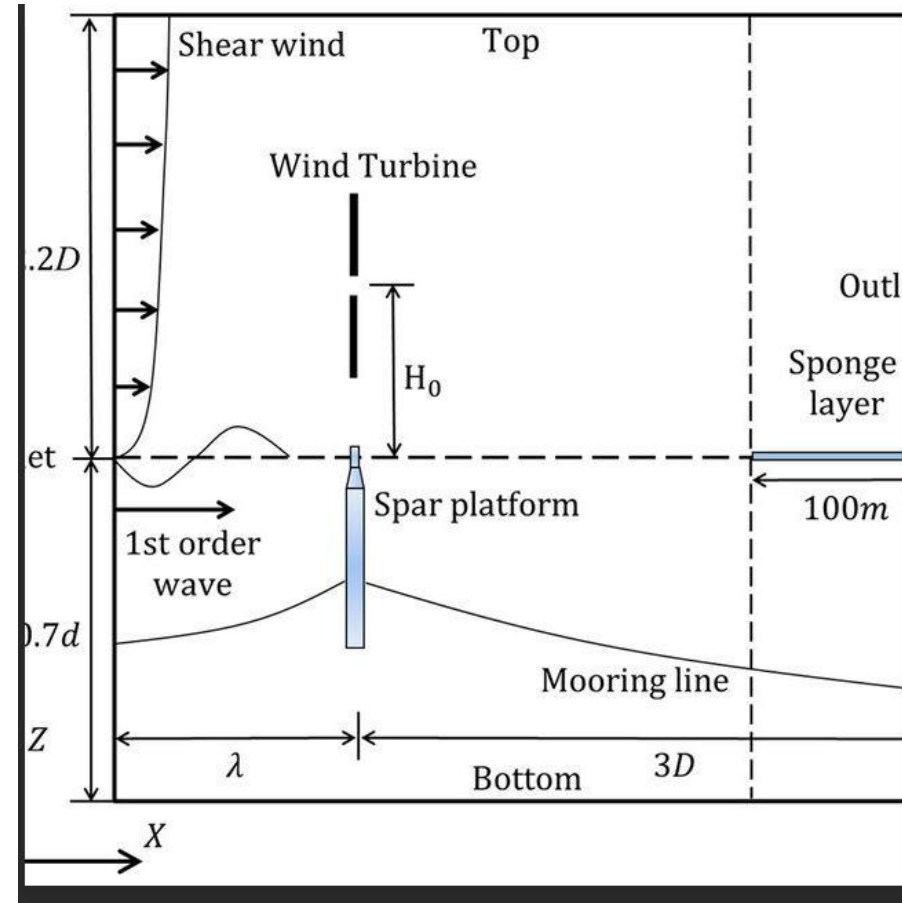
Figure ES-1. The IEA Wind 15-MW reference wind turbine



## Maine's \$100M Floating Offshore Wind Finds Major Backers: RWE and Mitsubishi

Two heavyweight global offshore wind investors will acquire UMaine's demonstration project, which is expected to be built by 2023.

KARL-ERIK STROMSTA | AUGUST 05, 2020

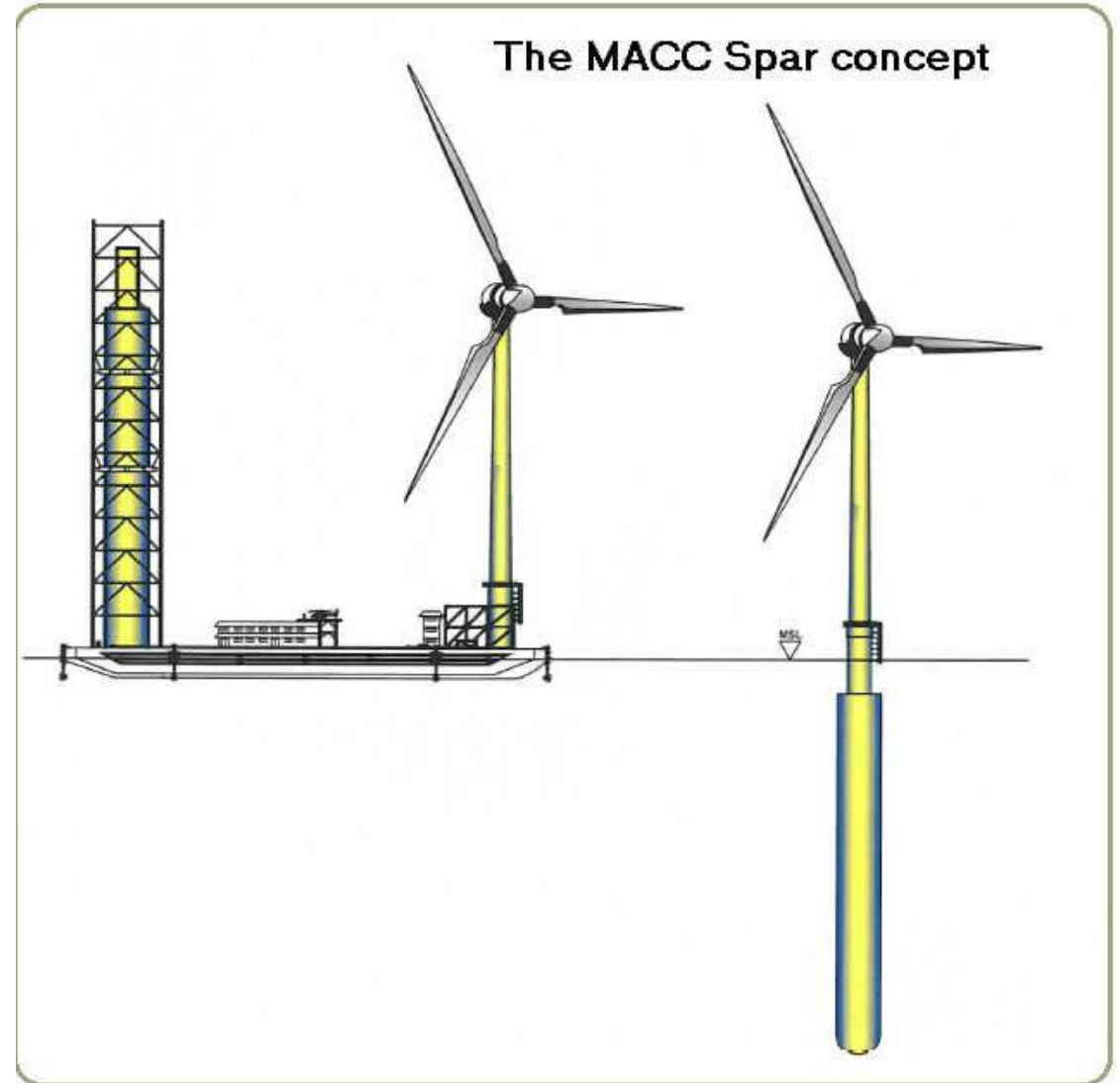
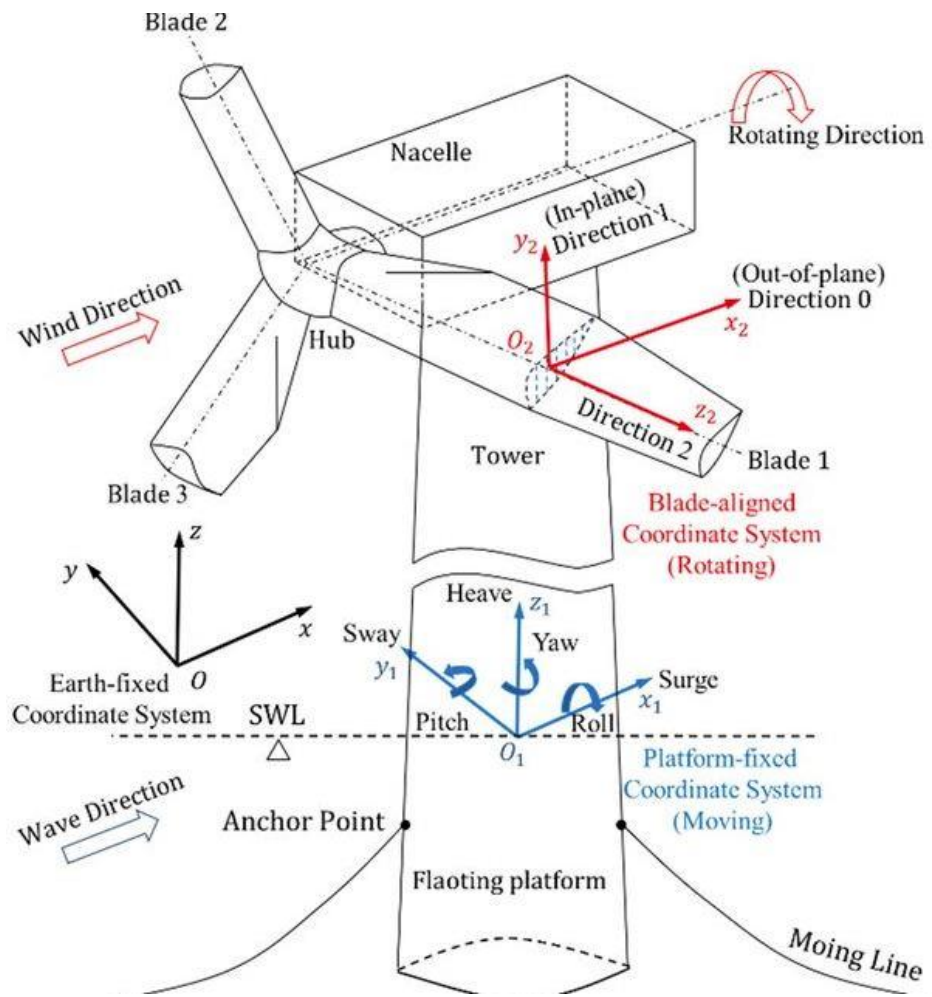






Applied Energy Symposium  
MIT A+B  
Co-organized with Harvard





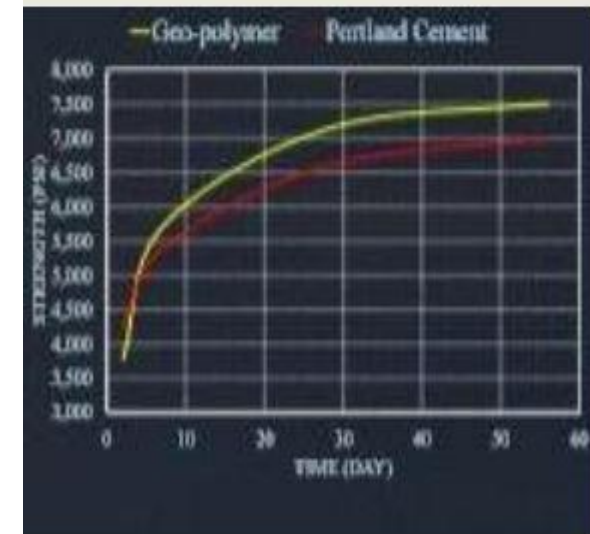
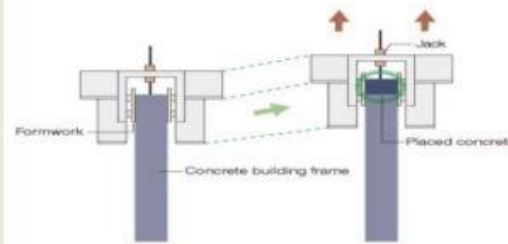
## NEW MATERIALS TECHNOLOGY

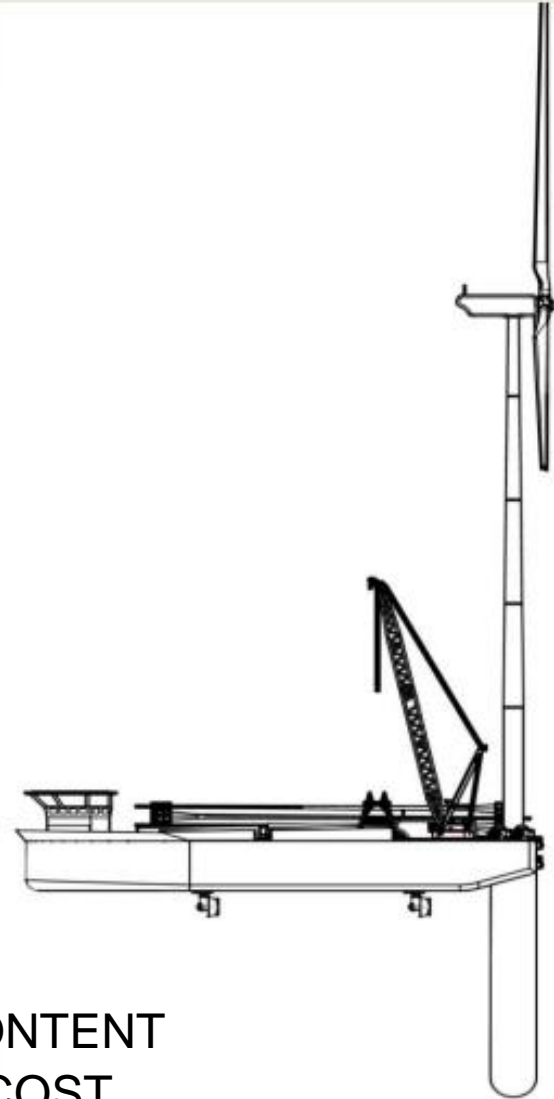
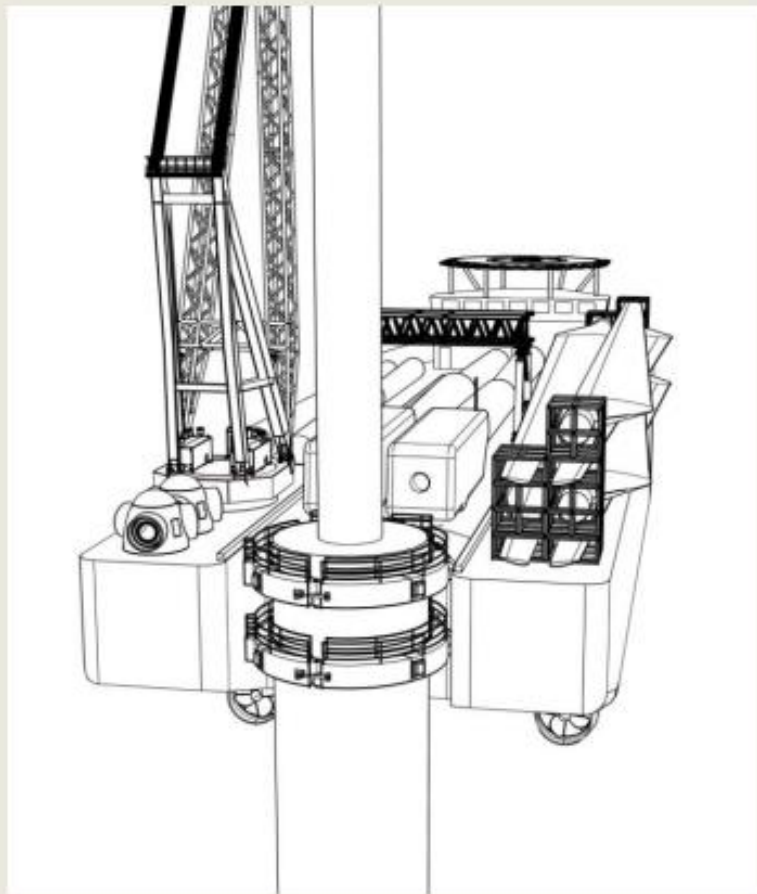
### CERAMIC COMPOSITE CEMENT SPAR BUOY

- \*Geopolymer cement with basalt fibers
- \*Basalt reinforcing bars
- \*Basalt /geopolymer form strong chemical bond control cracking
- \*100 yr. service life in ocean



VERTICAL SLIP FORM





- 1) LOCAL CONTENT
- 2) LOWEST COST
- 3) MINIMUM IMPACT ON EXISTING PORTS
- 4) US CENTER OF EXCELLENCE



Questions? Email/call [zalaype@gmail.com](mailto:zalaype@gmail.com) 949 378 0807



**GOVERNMENT-** Promote US center of excellence for critical floating wind infrastructure “**opportunity ready projects**”

**TECHNOLOGY-** Develop integrated WTG/foundation design suitable for existing US ports with highest local content

**COMMERCE-** Utilities to seek power purchase agreements for critical floating wind infrastructure on basis of lowest levelized cost (LCOE (\$/MWh) highest US jobs, local content and \$ economic benefits

**PUBLIC-** Support commercial development of best offshore wind resources protective of the environment as a critical tool to overcome/mitigate rolling blackouts/water rationing and global warming