Offshore Renewable Energy Extraction and Transport

BORN READY REQUIREMENTS FOR THE USCG

The Past & Current Missions

Oil & Gas Platform Fire Control and Rescue

AUGUST TO NOVEMBER- 2009.

OIL SLICK FROM THE RIG, ABOUT 150 MILES OFF AUSTRALIA'S COAST, NOW STRETCHES ACROSS THOUSANDS OF MILES OF OCEAN.

North Sea Oil Platform Fire Nov. 2007

Eight aircraft from the coastguard, RAF and Norwegian emergency services were involved in the operation to rescue the 159 crew trapped on the Thistle Alpha platform, 277 miles north-west of Aberdeen.

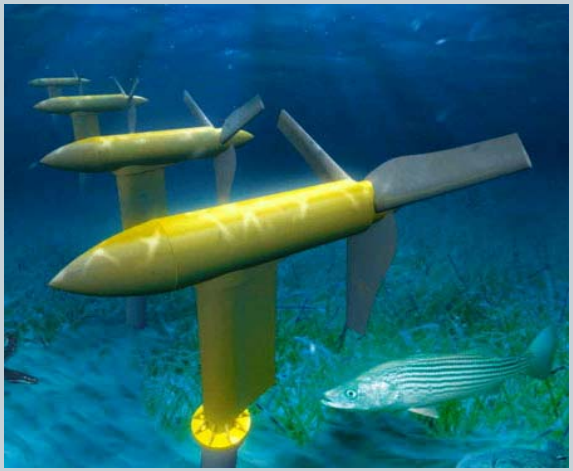
Other Recent Offshore Platform Fires

Current Energy Transport

Energy Transport Problems

More Energy Transport Problems

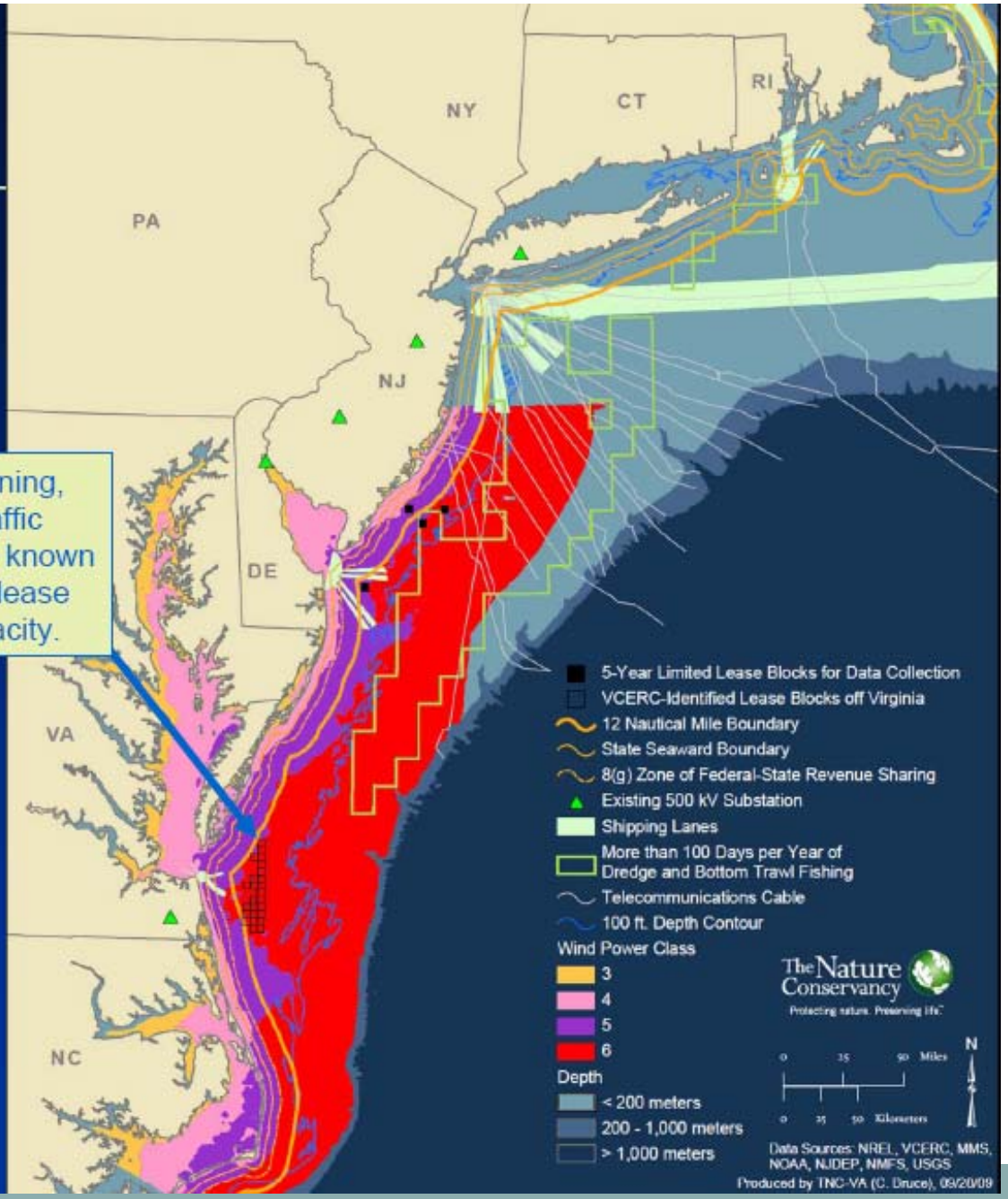
Born Ready – What's Next



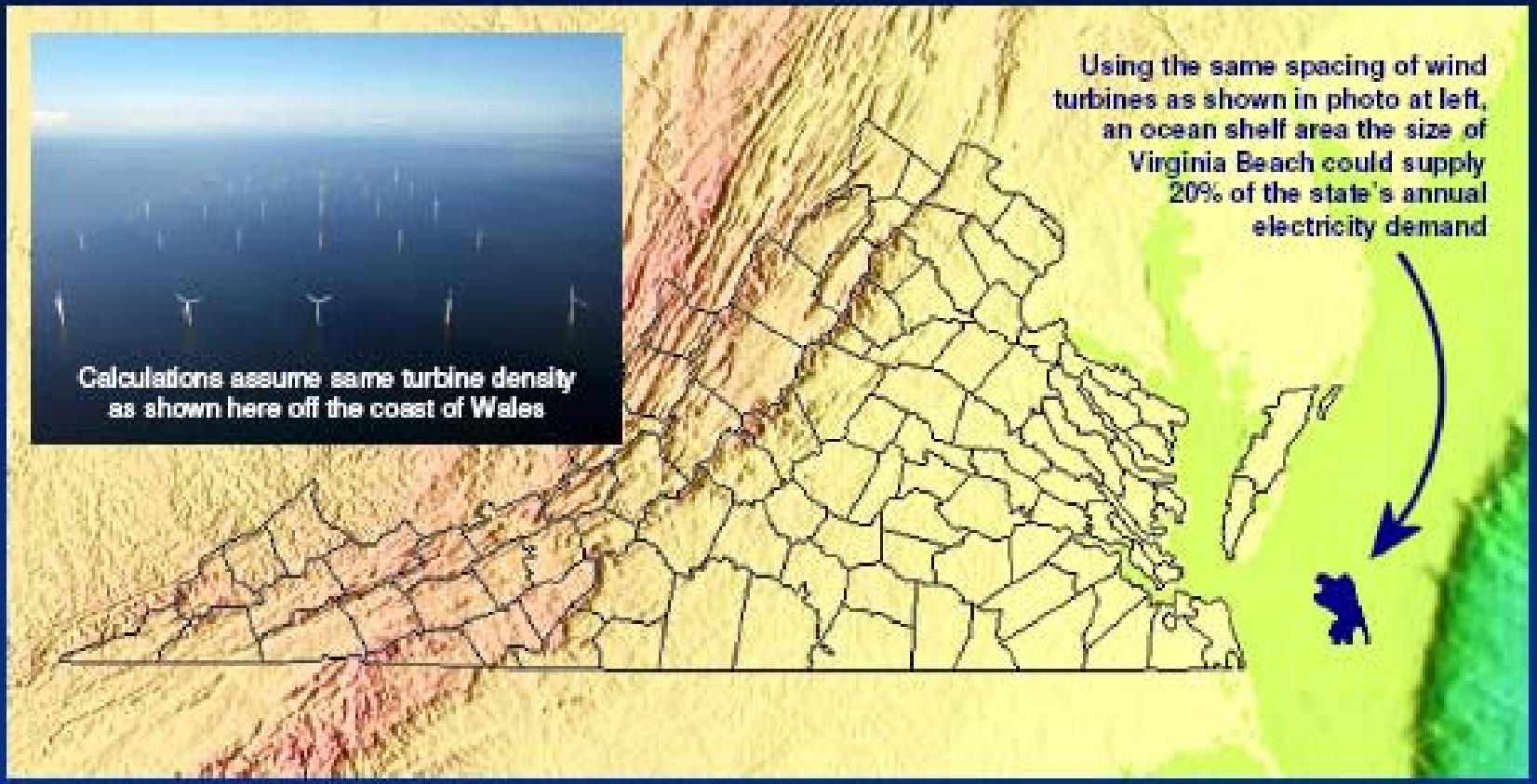
6 Megawatt (and larger) Mega Turbines

Atlantic Context for Virginia Resource

Avoiding all excluded uses (military training, dredge spoil disposal, USCG vessel traffic separation scheme, and accounting for known shipping traffic density, these 25 MMS lease blocks could support 3,000 MW of capacity.



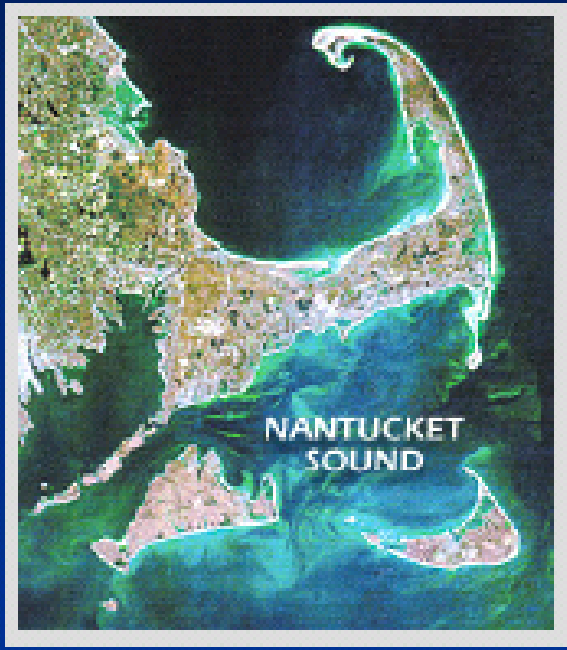
Offshore Wind Can Meet a Large Portion of Virginia's Energy Demand



With wind turbines installed at a density of 10 MW per sq.km, an ocean area of 640 sq.km could produce 21,000 GWh/yr, compared with state consumption of 104,200 GWh/yr in 2005

The proposed offshore wind energy project in Cape Cod, Massachusetts

This proposed project is the America's first and the world's largest offshore wind farm in Nantucket Sound, MASS

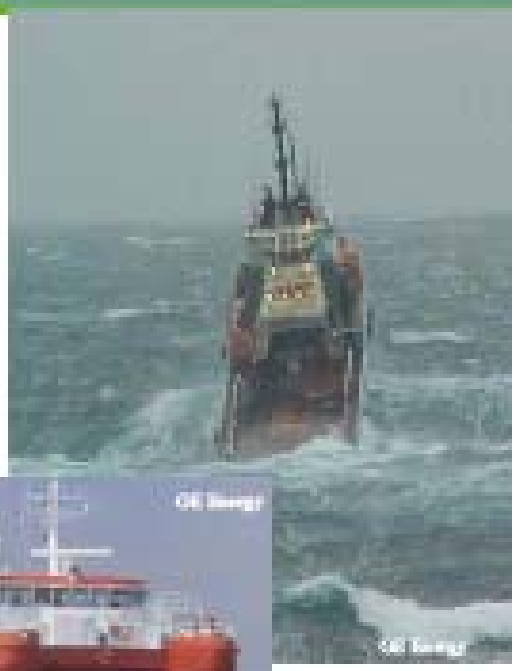


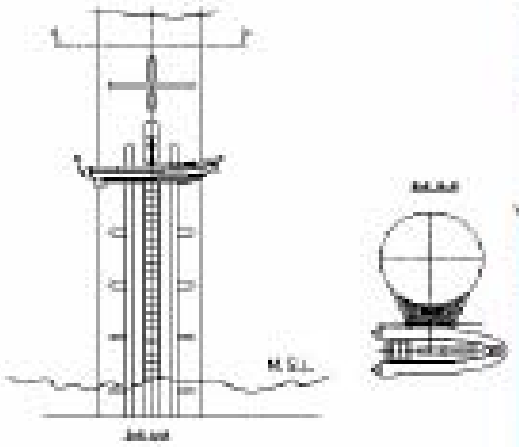
Highlights:

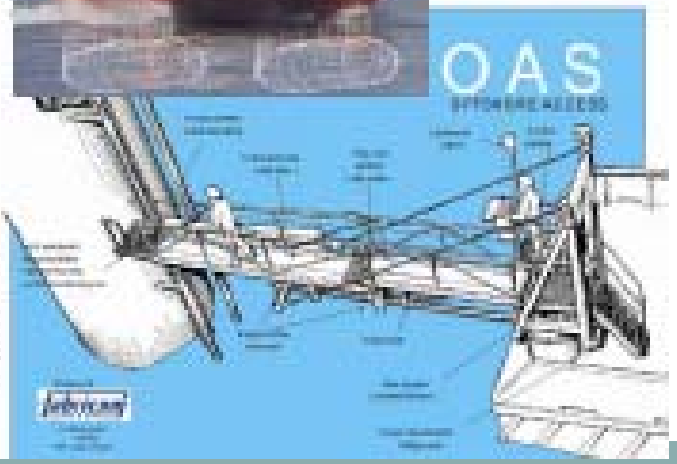
- 130 wind turbines
- 417 feet tall
- Spread over 24 sq miles
- Up to 420 MW (3/4 of the cape and Islands electricity needs)

U.S. Department of Energy
Energy Efficiency and Renewable Energy

Offshore Turbine Access







Vindeby Wind Farm, Denmark

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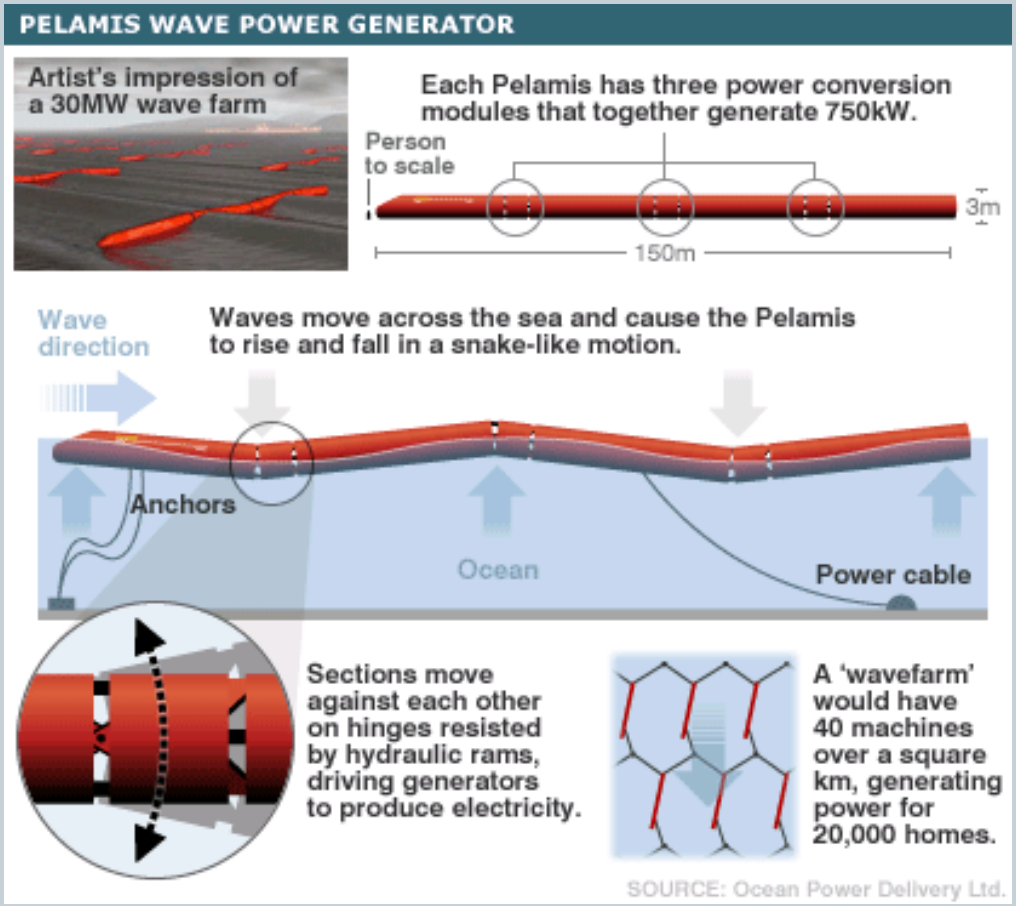
Offshore Wave Energy- Surface

Ocean Surface- Horizontal Systems

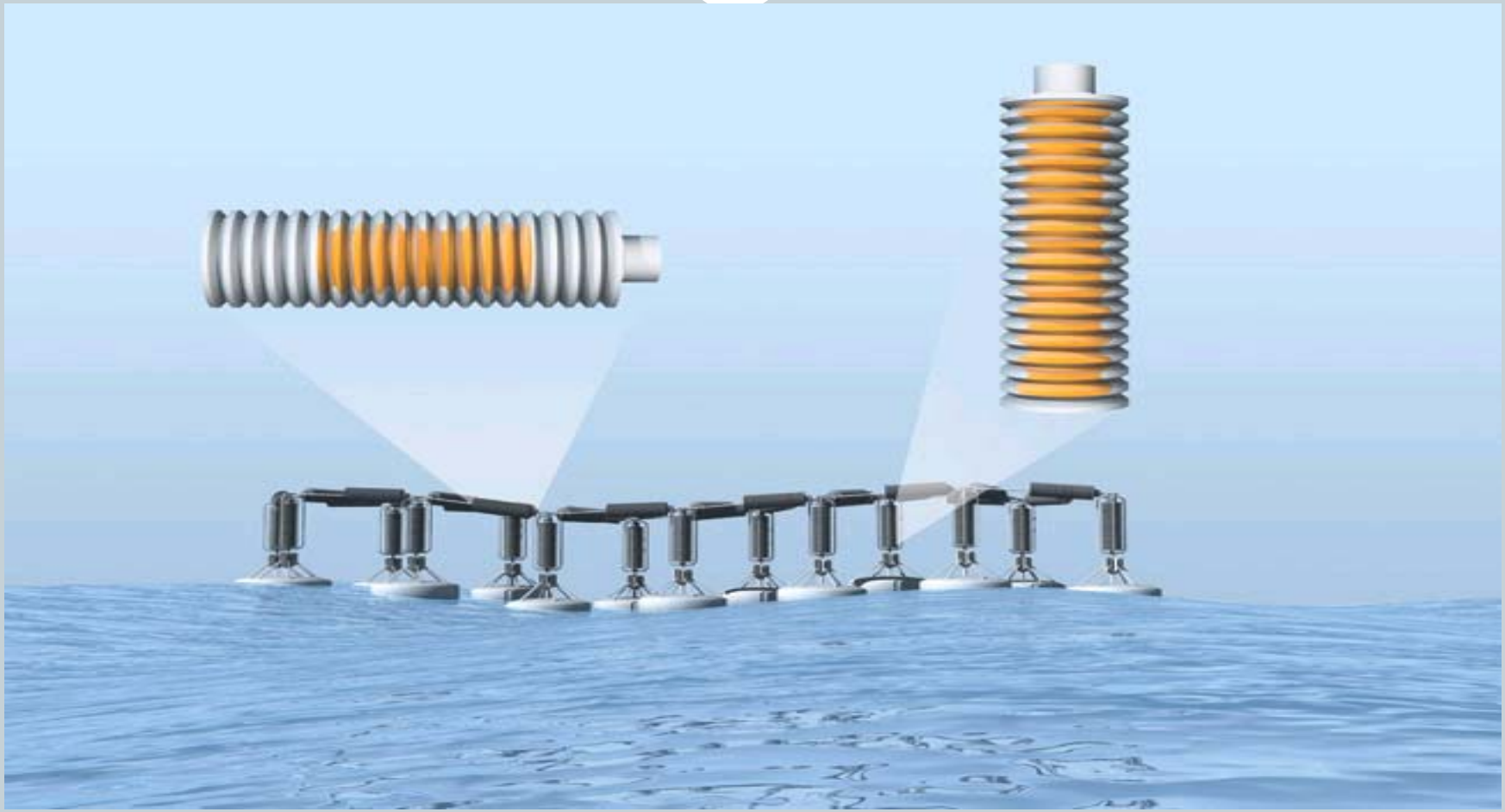
Surface Units- 475 feet long



Arrayed into Wave Power Farms

And They Are Already Here

Ocean Surface- Vertical Systems



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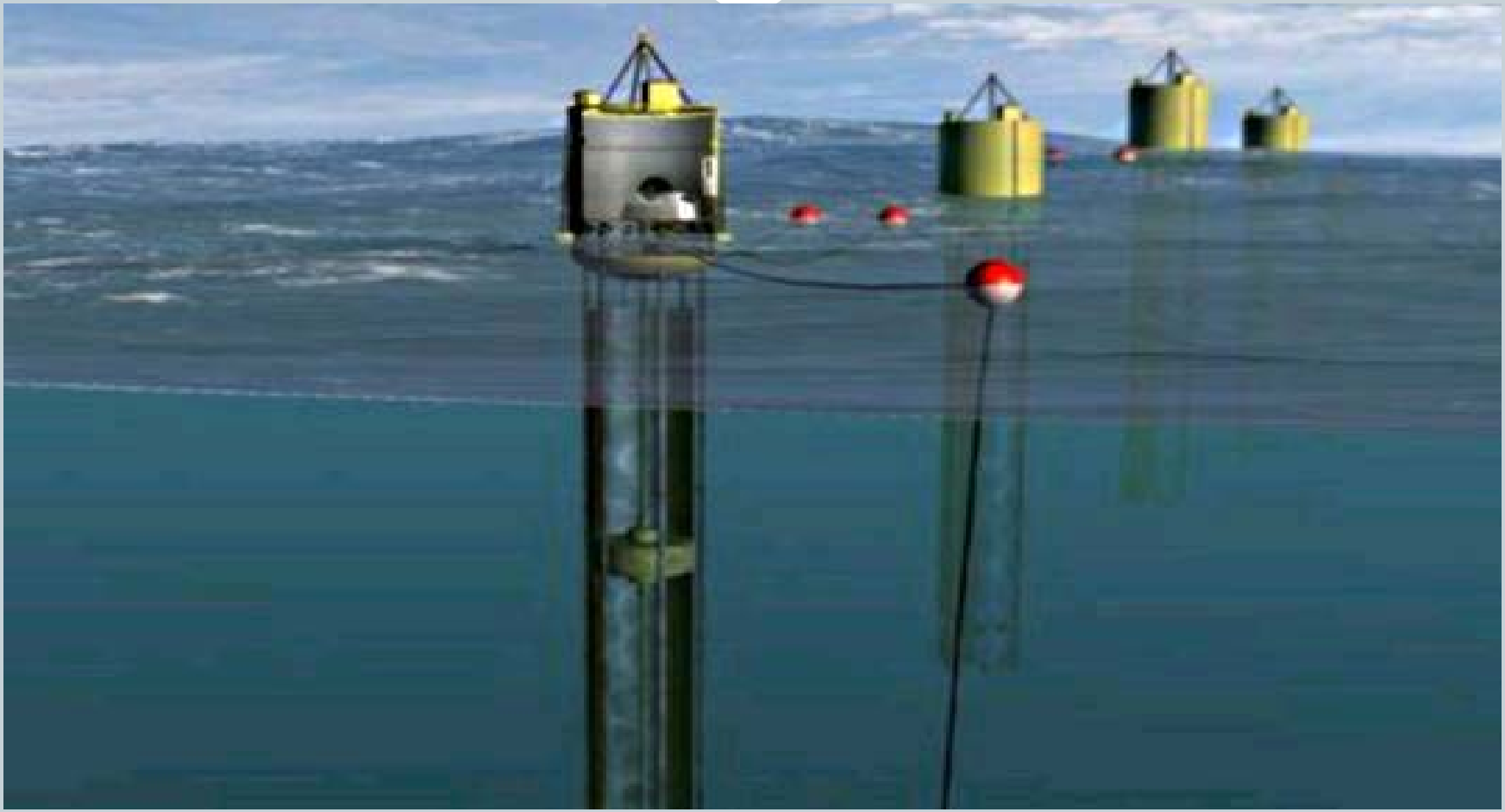

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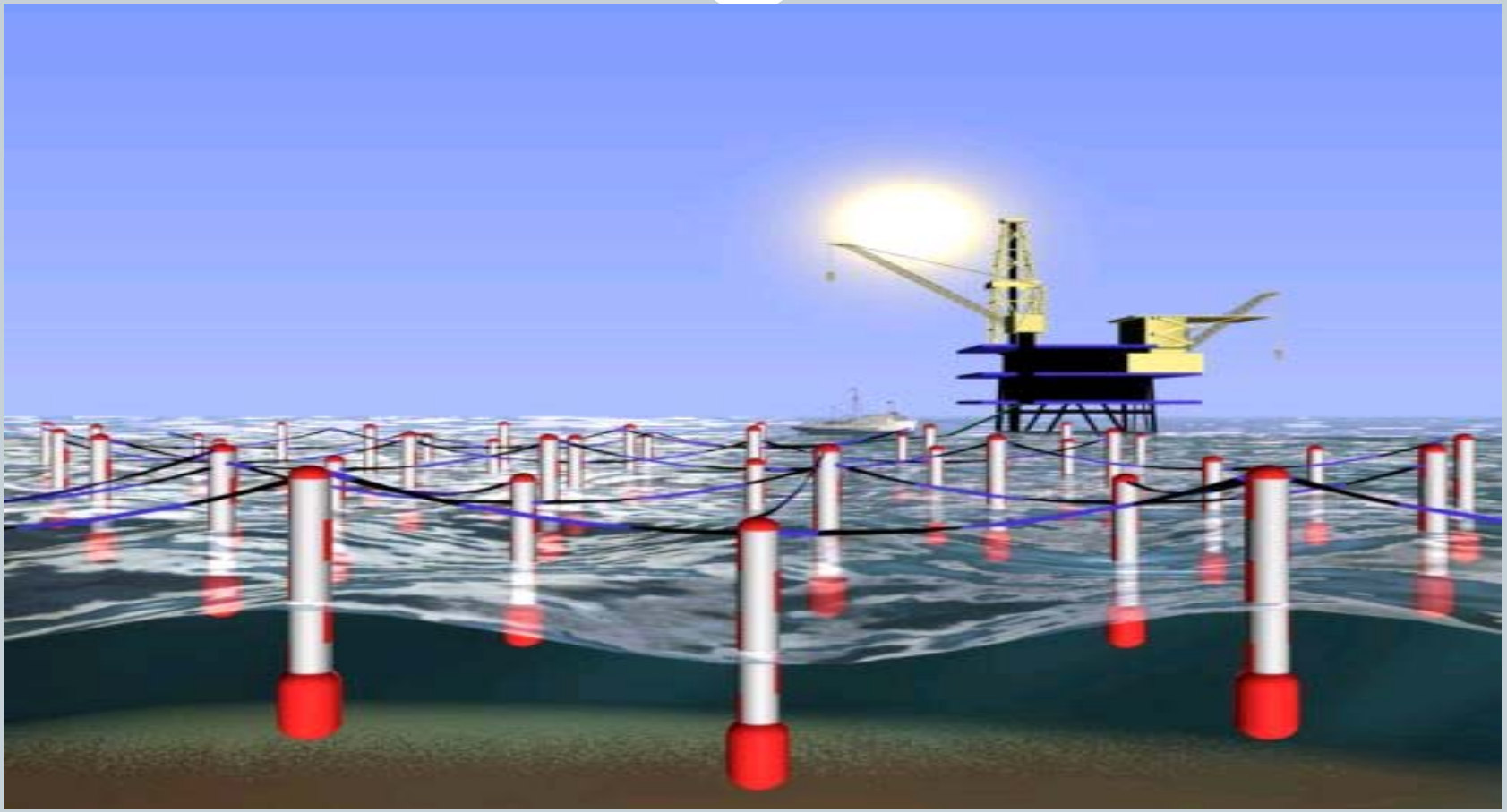
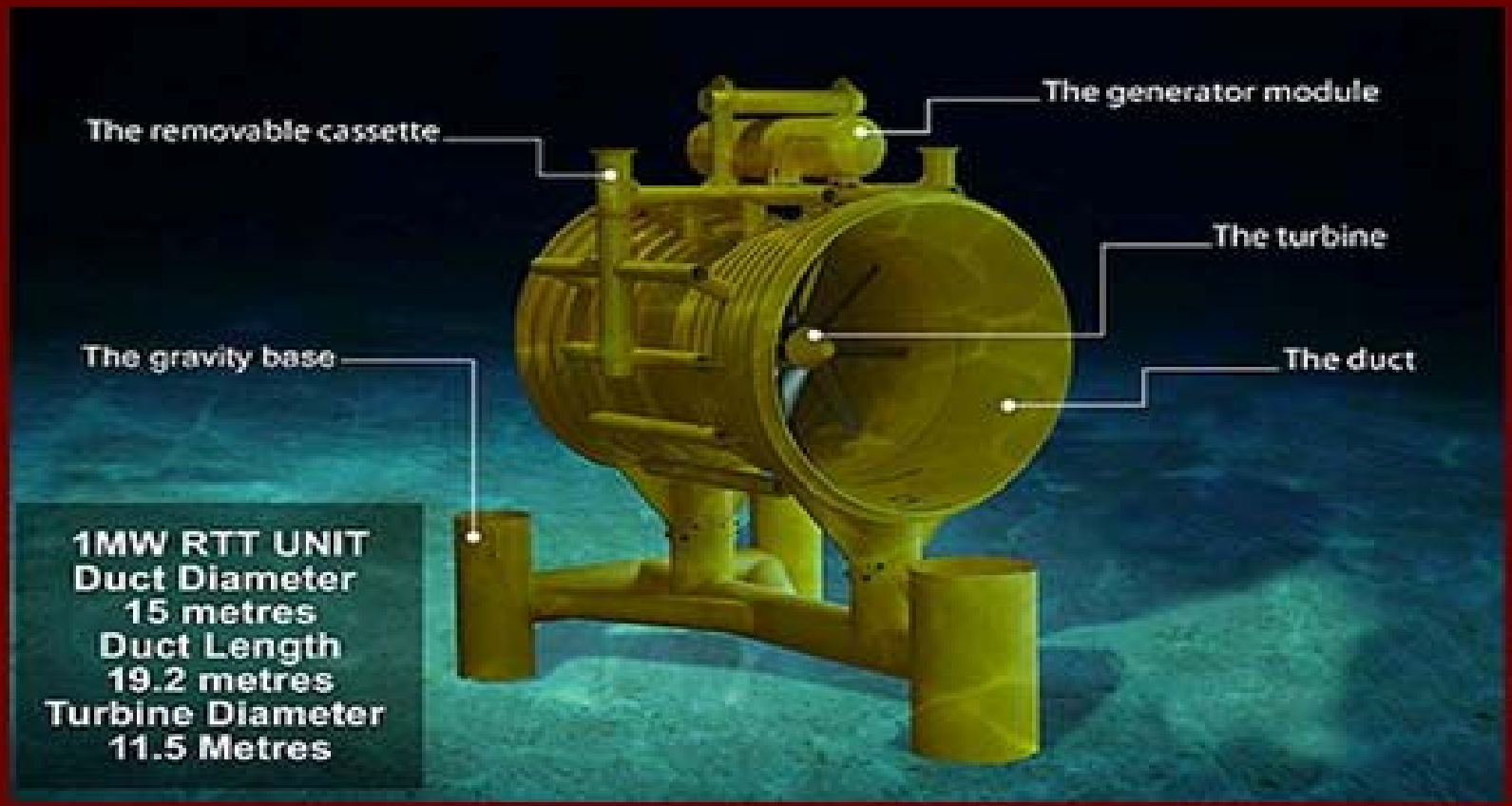


Ocean Subsurface- Vertical Systems

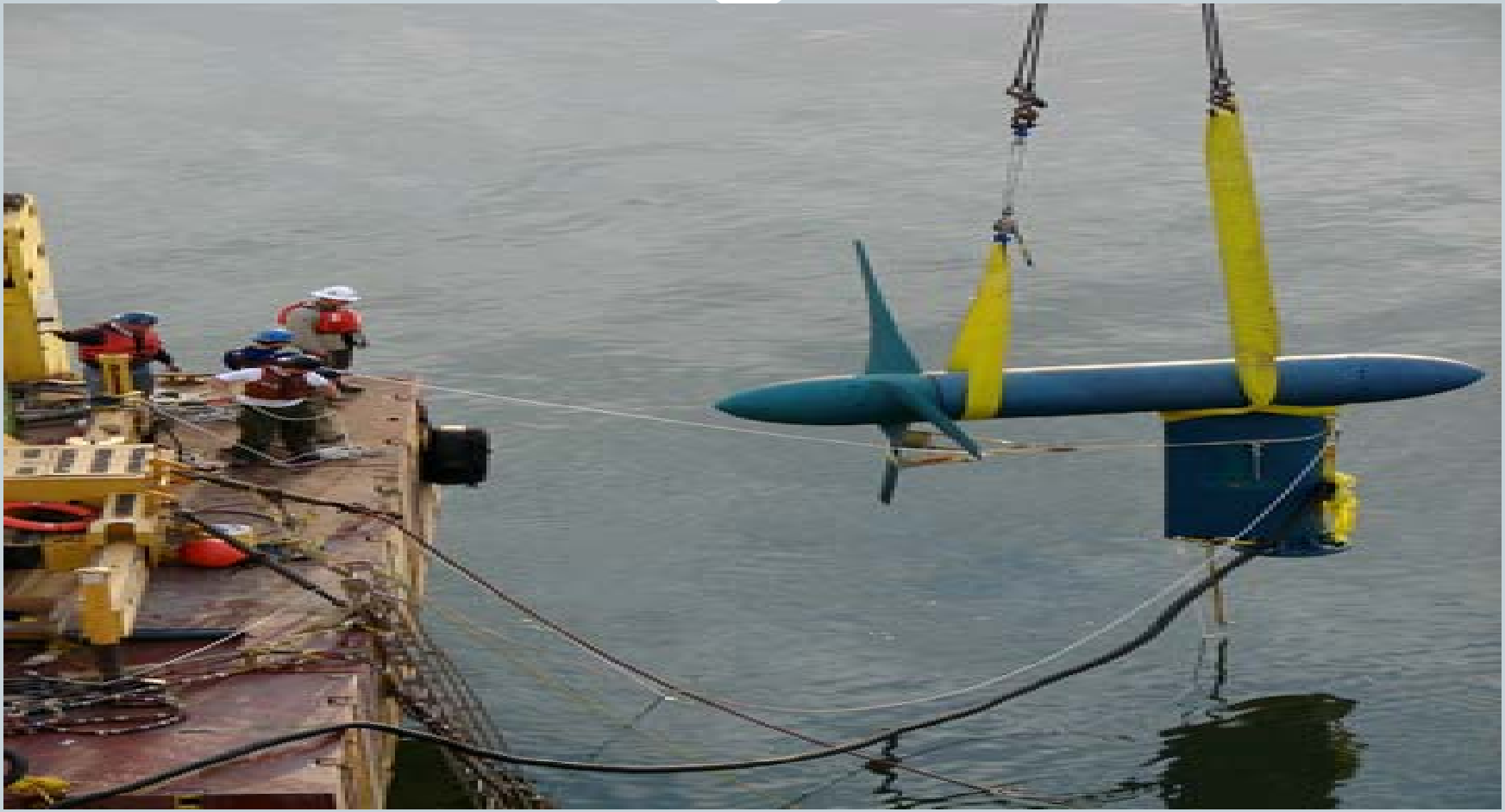
Offshore Tidal Power

Already Here

Subsurface- Tidal Power



Subsurface- Tidal Power



Ocean Algae Farming

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Algae Harvesting- Already Here