

# Rapid Advances in Offshore Turbine Technology



600'

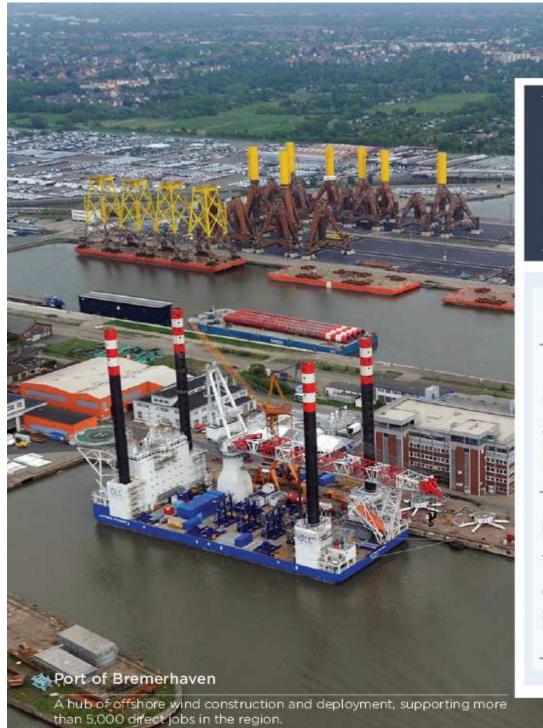
Typical Onshore Turbine

Block Island Wind Farm Turbine





Boeing 747: 250' BIWF Blades: 240'



### Offshore Wind is a Huge Industry in Europe



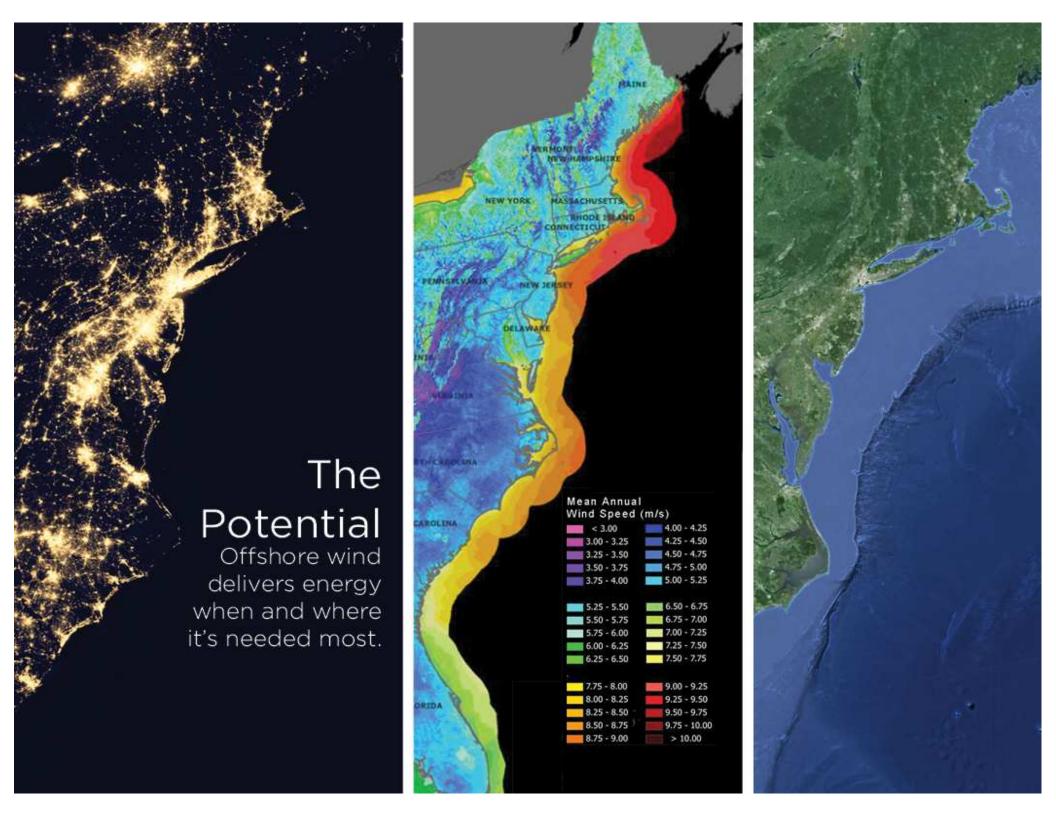


3,072 turbines spinning in Europe today.

**60,000** jobs in the European offshore wind industry.

**Zero** turbines spinning in the United States.

**32,000** jobs by 2020, according to US Dept. of Energy.





- 30 MW
- 5x 6 MW turbines from GE
- 48% net capacity factor
- First ever electric connection between Block Island and the Rhode Island mainland built and owned by National Grid

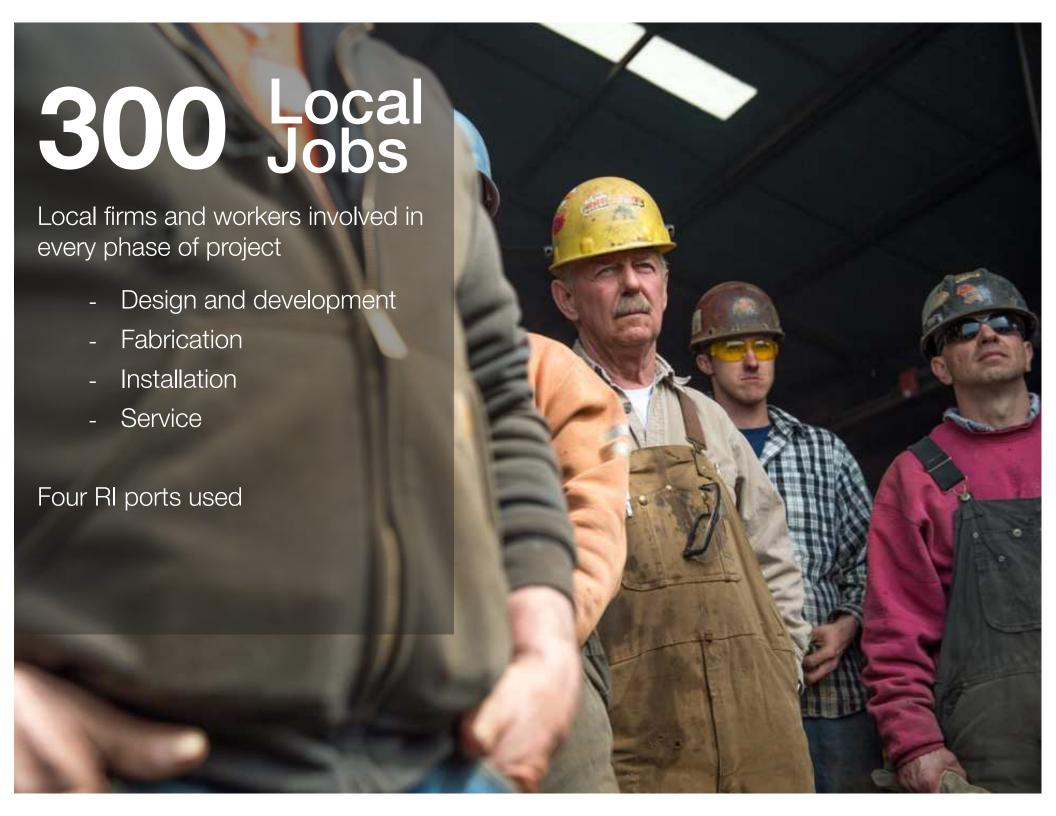
#### BLOCK ISLAND WIND FARM

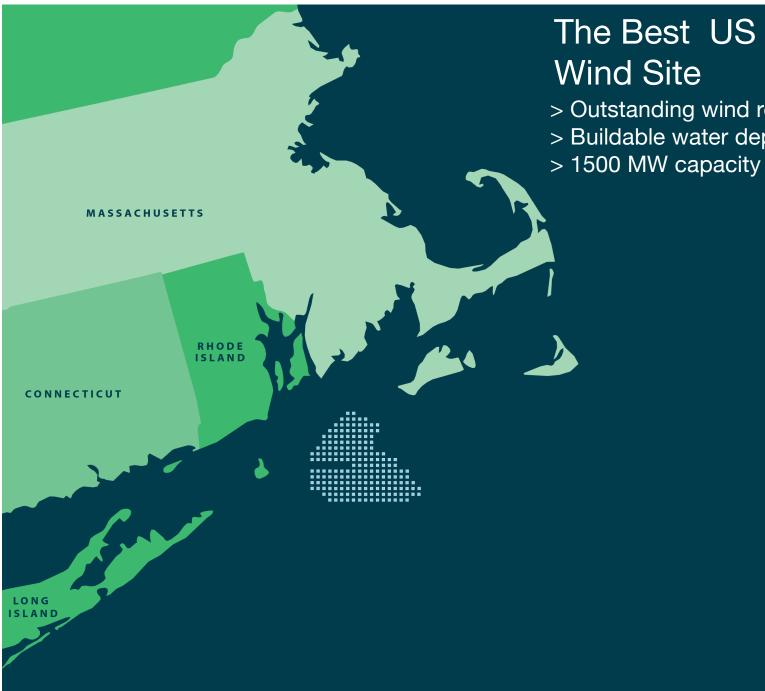
America's First Offshore Wind Farm







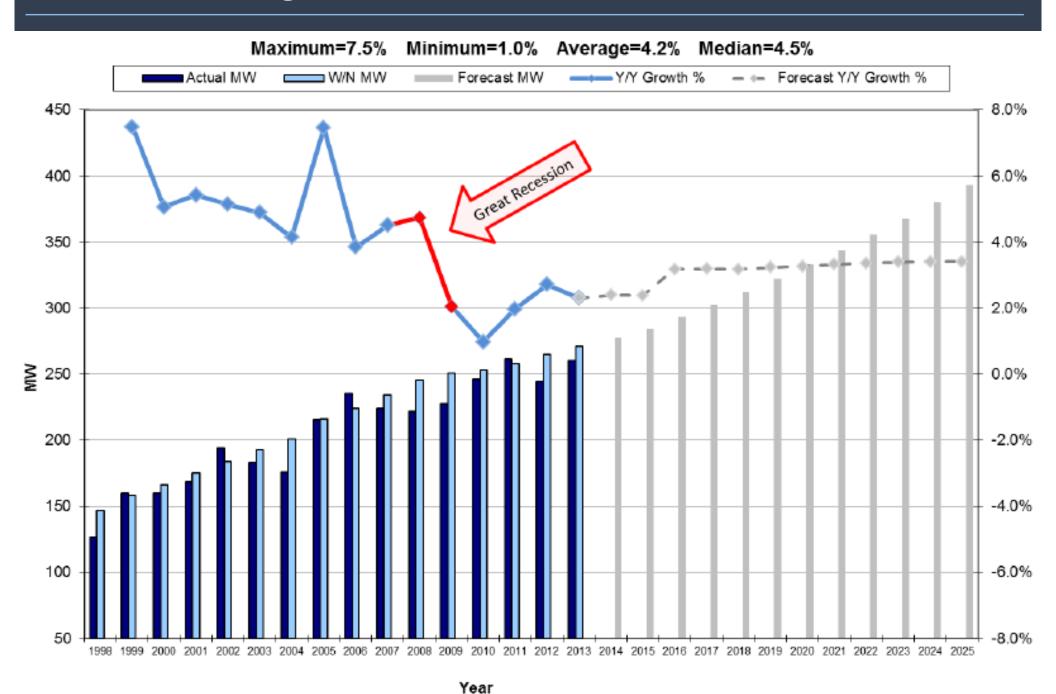




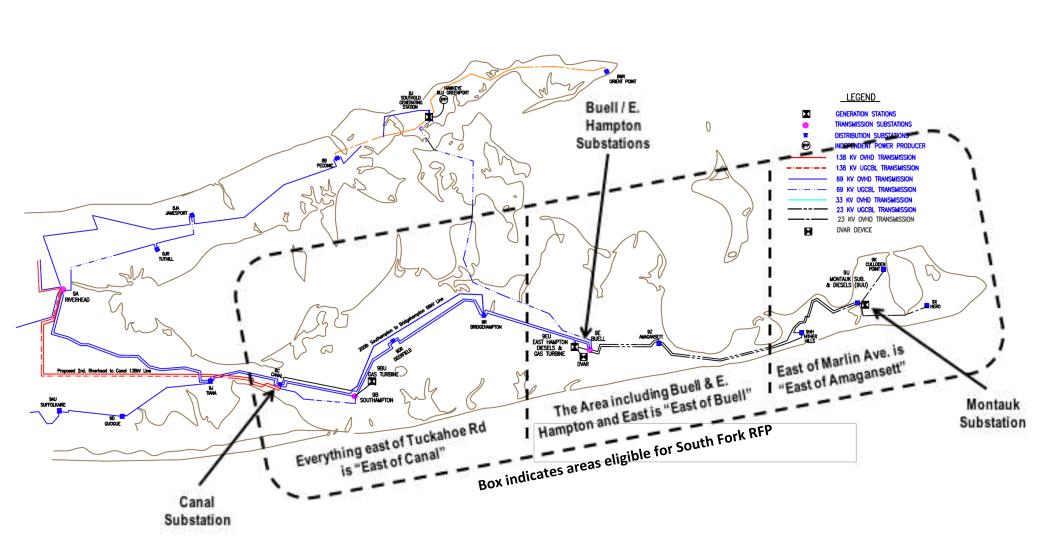
# The Best US Offshore

- > Outstanding wind resource (9.5 m/s)
- > Buildable water depths (100 150 ft)

#### Growing Need for Power on South Fork

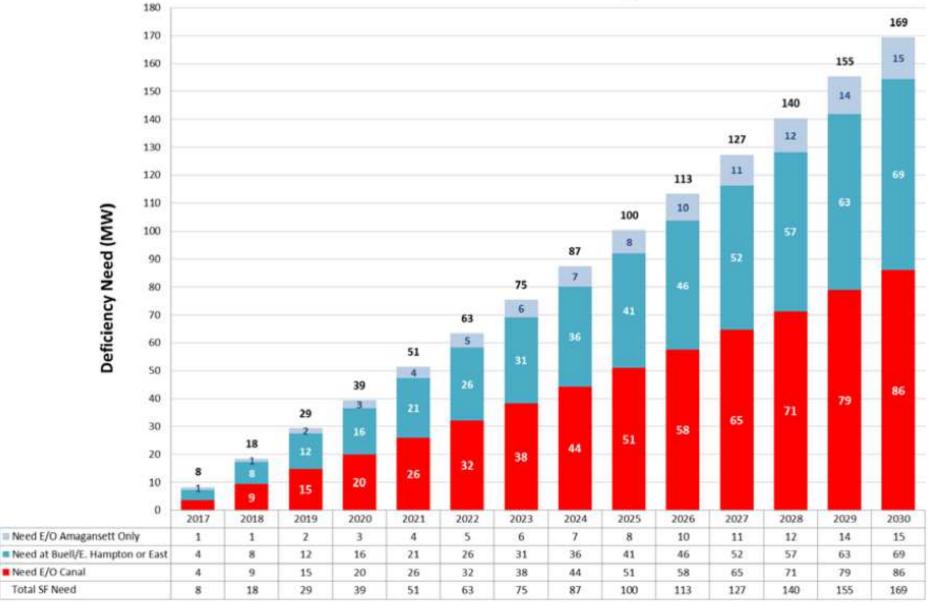


## Building on the South Fork is Complicated



### PSEG: "South Fork needs 169 MW by 2030"





#### Deepwater ONE / South Fork

- 90 MW wind farm in 30 miles east of Long Island's South Fork
- Selected by the Long Island Power Authority as the least cost resource over multiple other technologies including conventional fossil-fueled power plants
- First phase of development in the Deepwater ONE site

