

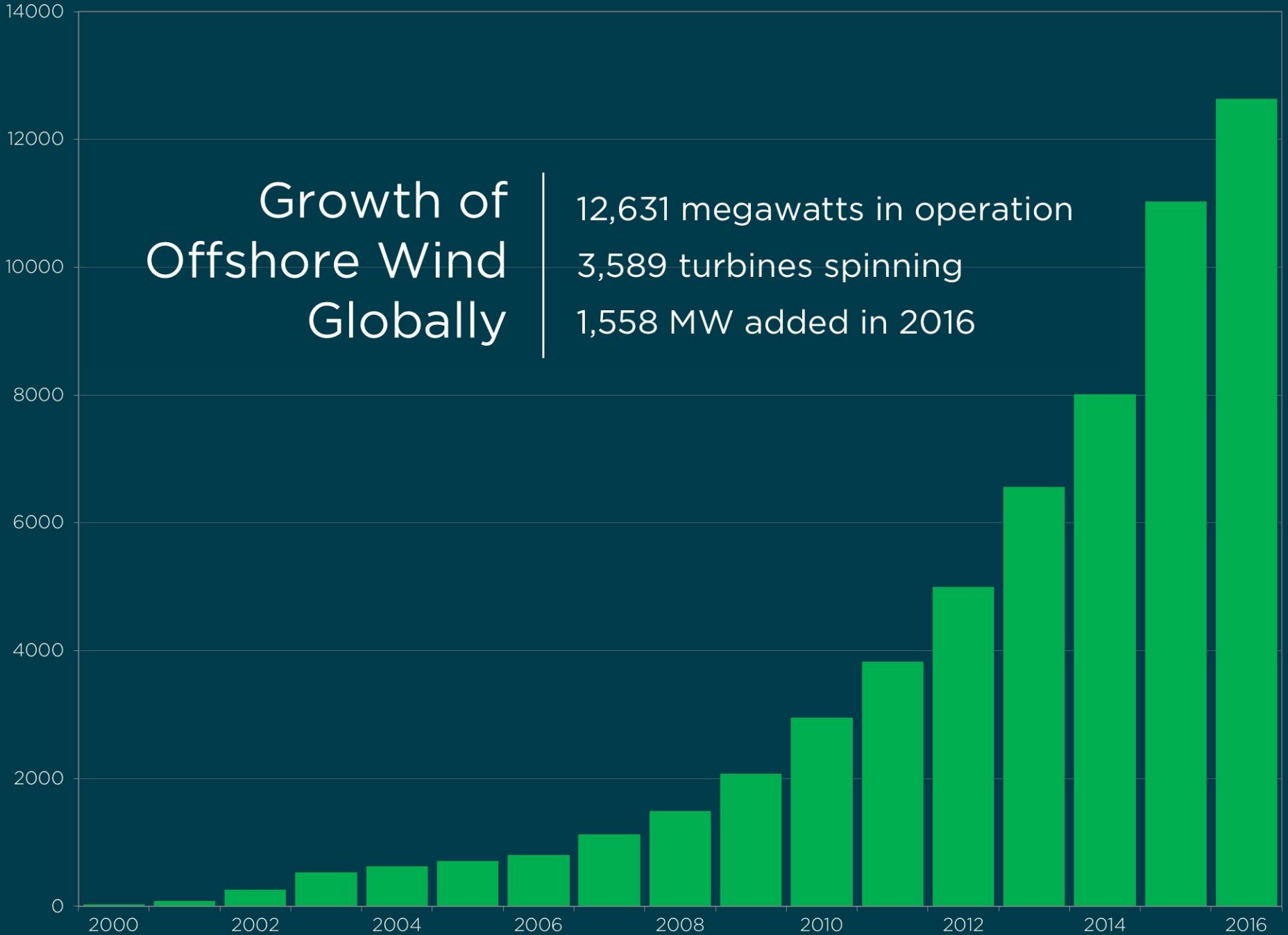


# DEEPWATERWIND

Clean energy is just over the horizon.

# Growth of Offshore Wind Globally

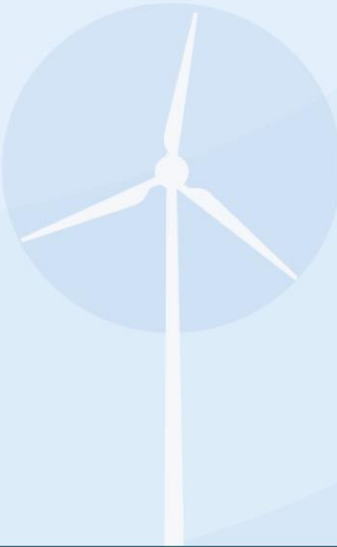
12,631 megawatts in operation  
3,589 turbines spinning  
1,558 MW added in 2016



Cumulative Offshore Wind Installations (MW)

# Rapid Advances in Offshore Turbine Technology

360'



Typical Onshore Turbine

305'



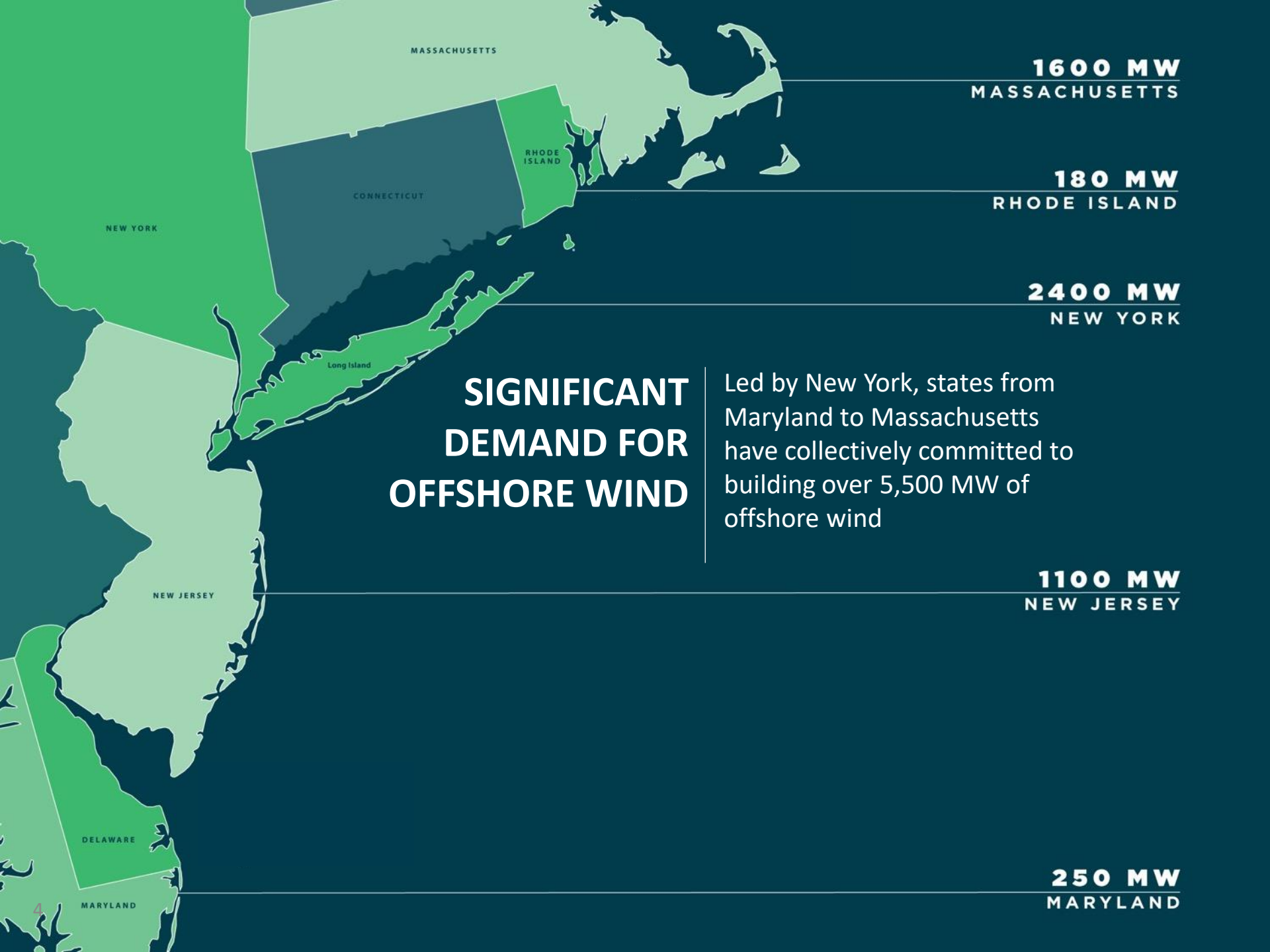
600'



Block Island Wind Farm Turbine



Boeing 747: 250'  
BIWF Blades: 240'



**1600 MW**  
MASSACHUSETTS

**180 MW**  
RHODE ISLAND

**2400 MW**  
NEW YORK

## SIGNIFICANT DEMAND FOR OFFSHORE WIND

Led by New York, states from Maryland to Massachusetts have collectively committed to building over 5,500 MW of offshore wind

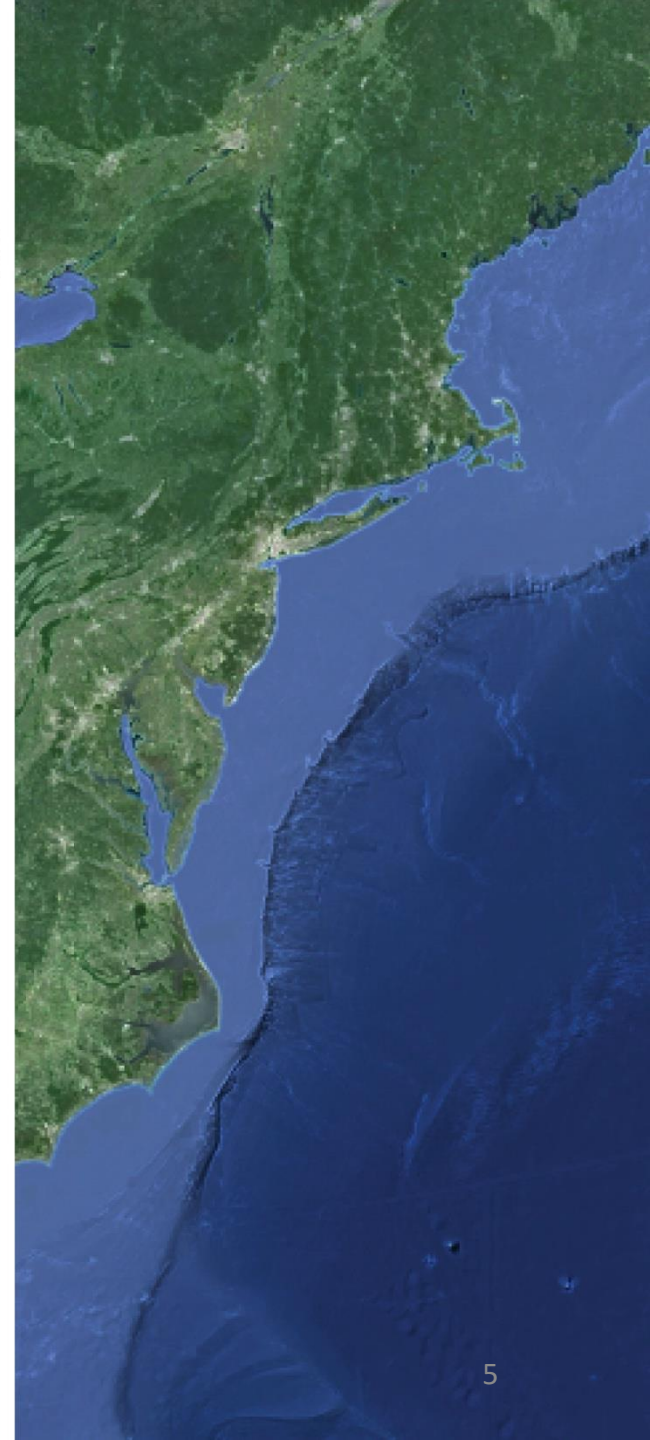
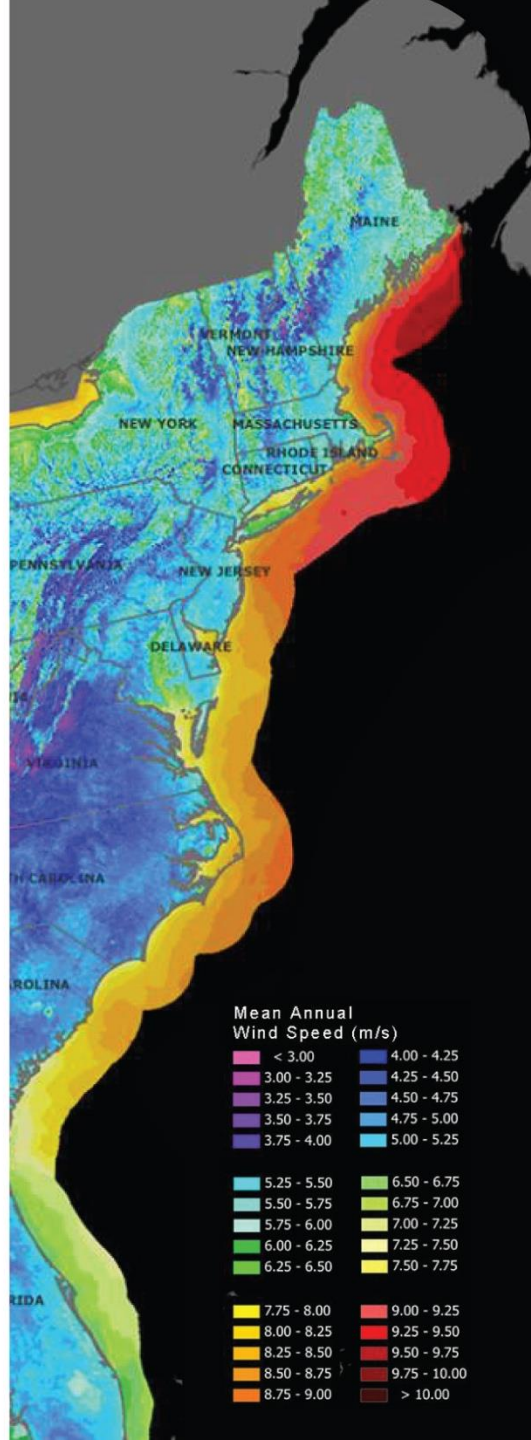
**1100 MW**  
NEW JERSEY

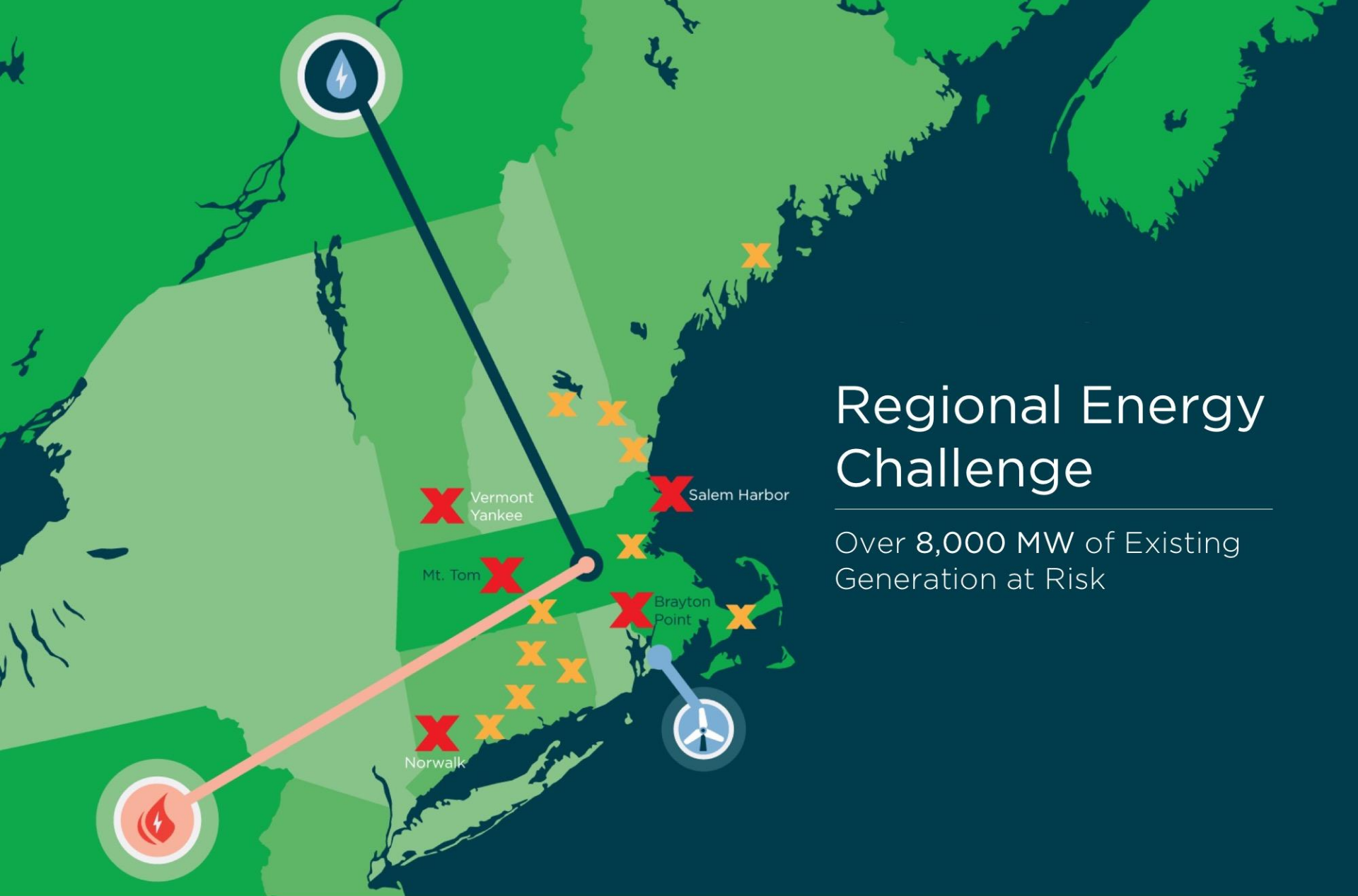
**250 MW**  
MARYLAND



## The Potential

Offshore wind delivers energy when and where it's needed most.

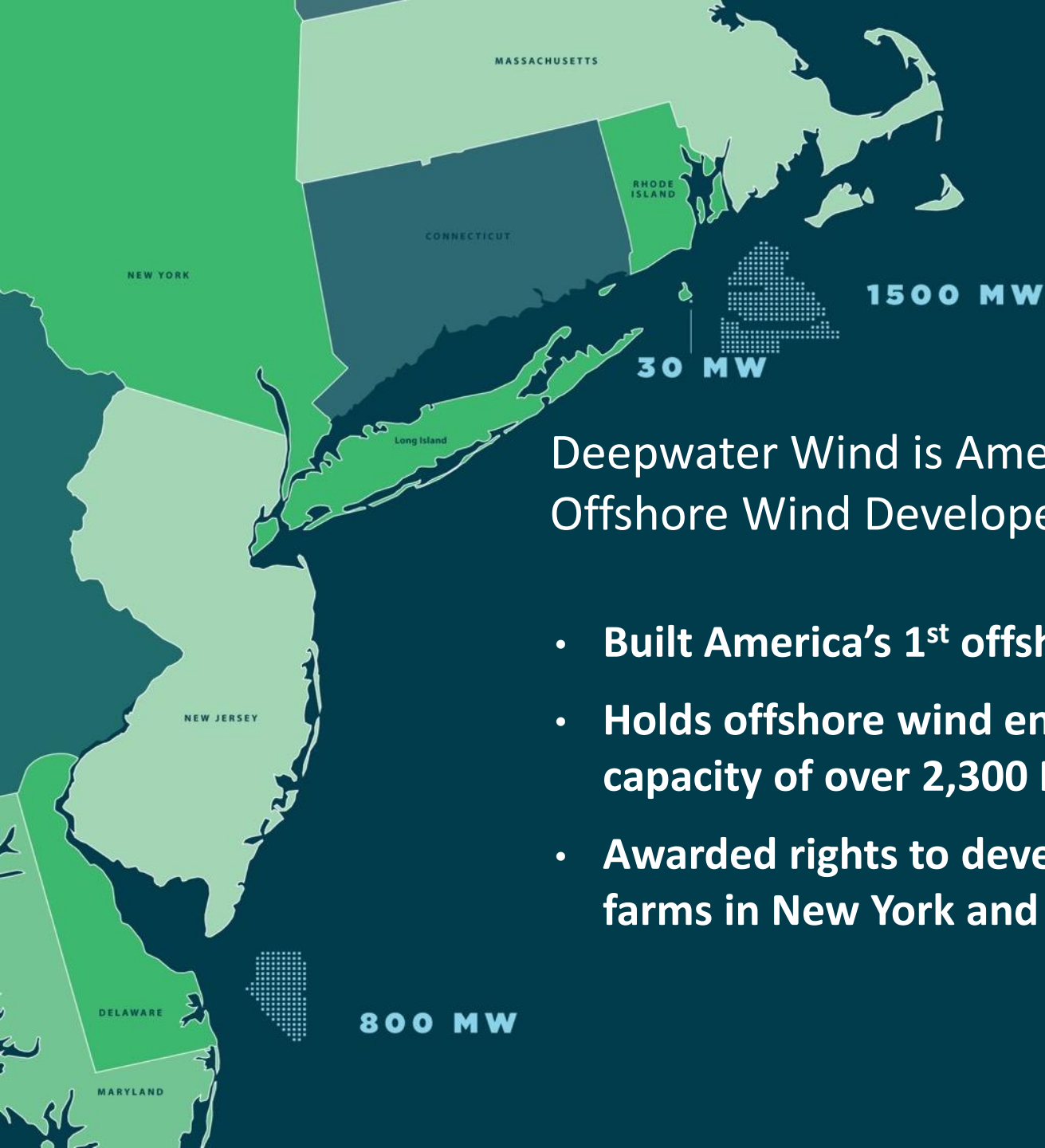




# Regional Energy Challenge

Over 8,000 MW of Existing Generation at Risk

-  Offshore Wind
-  Hydro
-  Natural Gas
-  Closed or Retiring
-  At Risk



## Deepwater Wind is America's Leading Offshore Wind Developer

- Built America's 1<sup>st</sup> offshore wind farm
- Holds offshore wind energy area leases with capacity of over 2,300 MW
- Awarded rights to develop 1<sup>st</sup> offshore wind farms in New York and Maryland



# BLOCK ISLAND WIND FARM

America's First Offshore Wind Farm

Final day of installation  
August 18, 2016







RHODE  
ISLAND

# America's 1<sup>st</sup> Offshore Wind Farm is Operating

- **30 MW offshore wind farm**
- **5 X 6 MW GE turbines**
- **300 local construction jobs**
- **First ever electric connection between Block Island and the Rhode Island mainland**

BLOCK  
ISLAND

**BLOCK ISLAND** WIND FARM  
America's First Offshore Wind Farm



## Post-Revenue Development Required Over Five Years

- 2011** Final PPA approval received
- 2012** Permit applications submitted
- 2014** Final permits approved
- 2015** Offshore installation begins
- 2016** Commercial operations



# Permitting

The Block Island Wind Farm required at least 27 separate state and local approvals



**US Army Corps  
of Engineers®**



# Early and Meaningful Stakeholder Engagement



North Atlantic Right Whale – agreement with NGOs for additional protection



Local commercial fishermen performing fishing surveys for Block Island Wind Farm



Native American tribal leaders participating in archaeological surveys for Block Island Wind Farm



# The Result | A Commercial Model that Works



DE Shaw & Co

Long-term  
Committed Owners



Project Finance International  
Renewables Deal  
of the Year



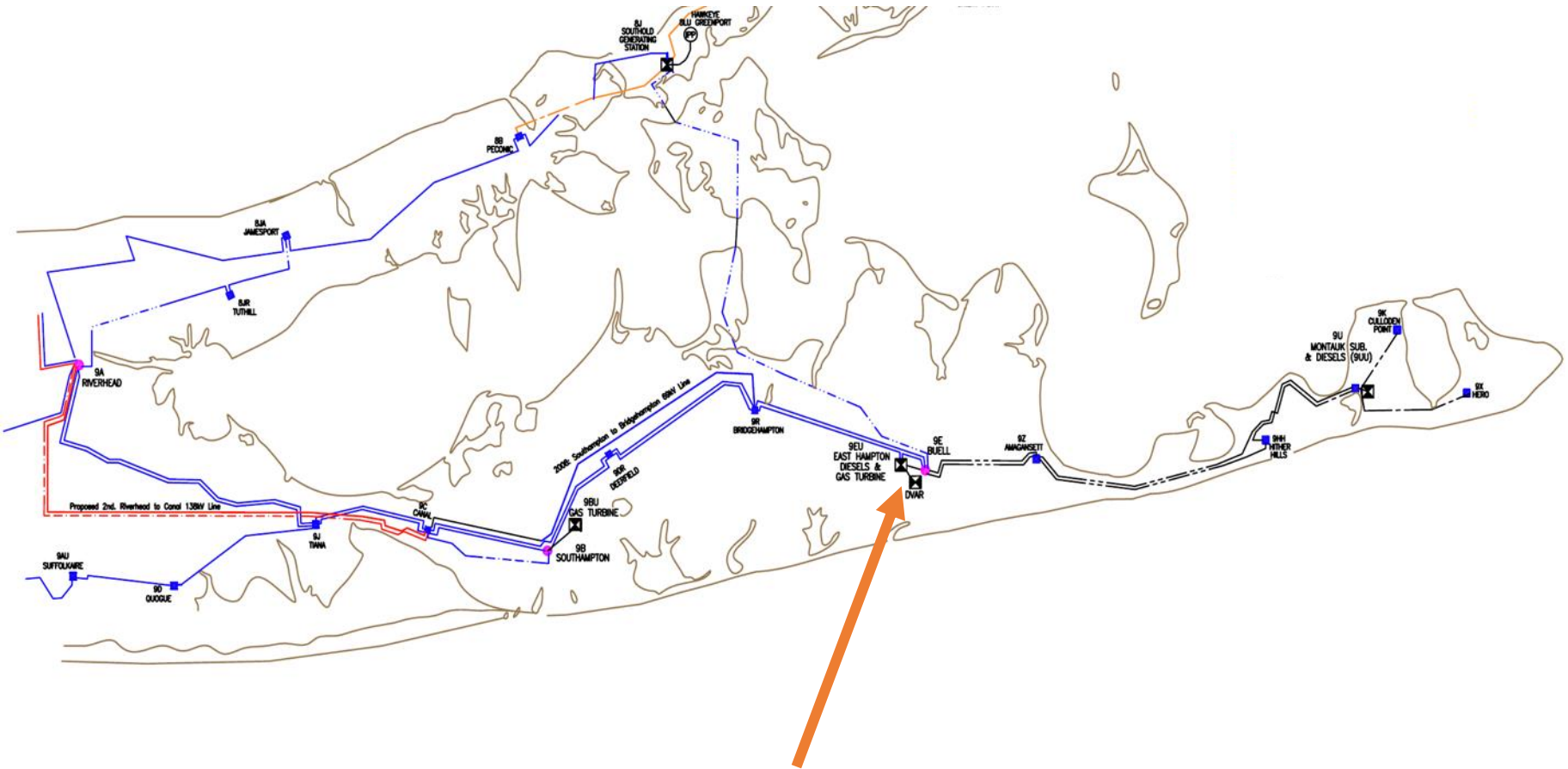
SMBC



- New York's 1<sup>st</sup> offshore wind farm
- 90 MW wind farm located 30 miles east of Long Island's South Fork
- Won a competitive solicitation for new local sources of energy, open to all technologies
- Power Purchase Agreement fully-approved, on-schedule for 2022 in-service date



# LIPA needed new sources of energy on the South Fork



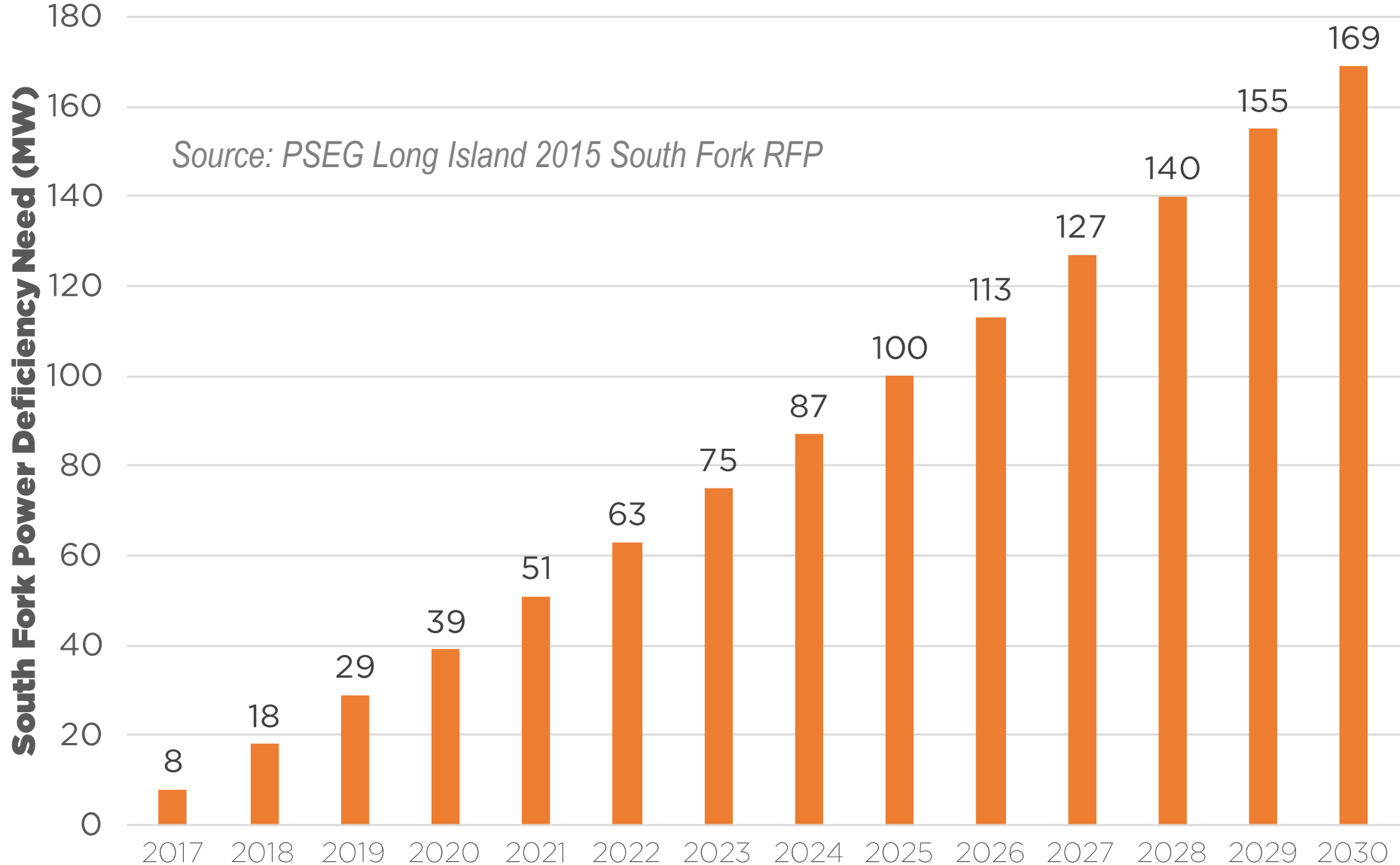
LIPA's East Hampton substation is located in the Village of East Hampton



# The South Fork needs new power sources

*In 2015, PSEG ran a technology-neutral competitive solicitation seeking new energy sources for the South Fork*

*Source: PSEG Long Island 2015 South Fork RFP*

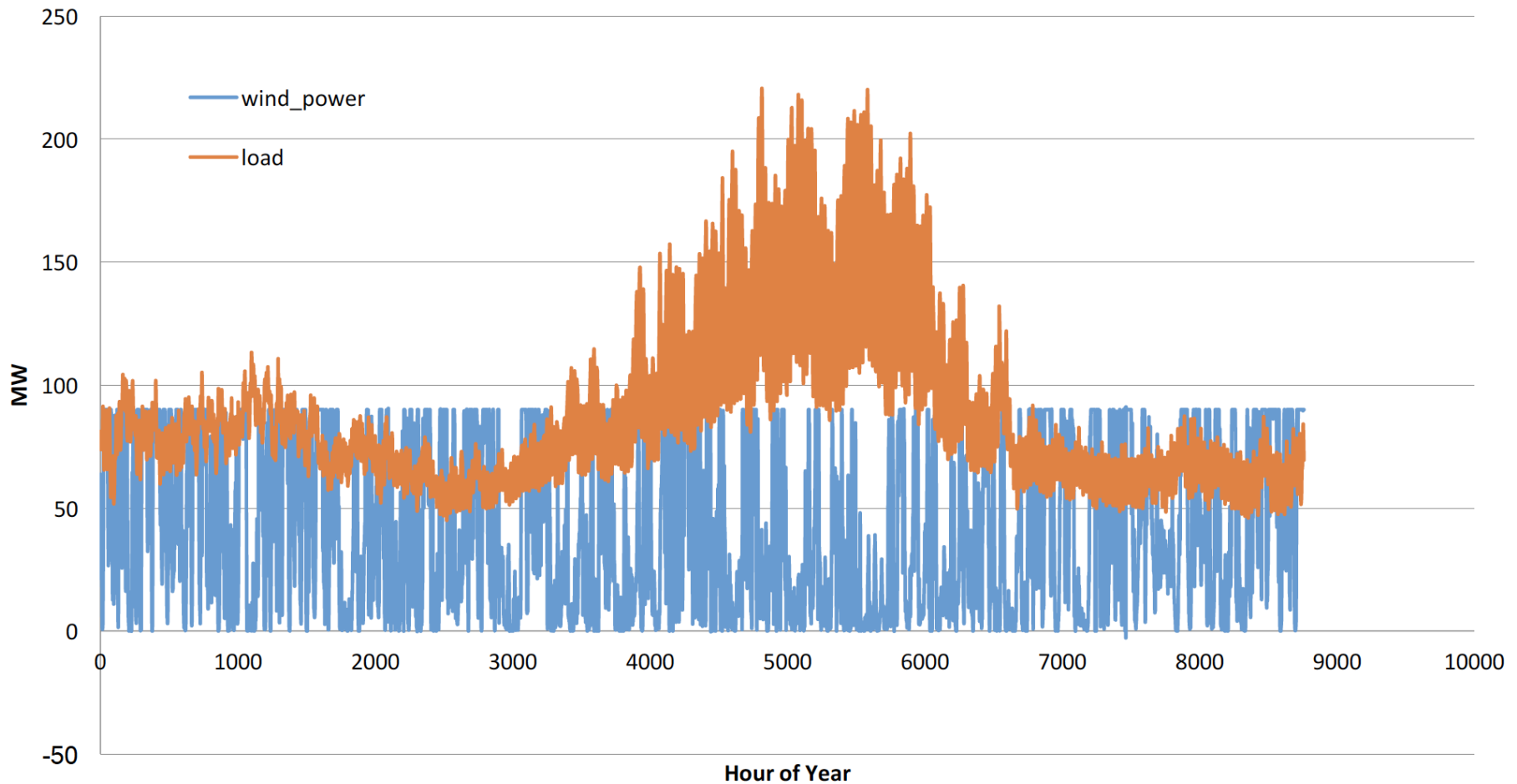






The Wind Farm will be a major source of local energy for the South Fork

### Hourly Electrical Load and 90 MW Wind Farm



Source: Independent study by Dr. James Manwell of the University of Massachusetts conducted on behalf of Newsday



**Strong Local Support** earned through years of active engagement with all levels of the East End community



*Southampton  
Town Supervisor*  
**Jay Schneiderman**



*Brookhaven  
Town Supervisor*  
**Ed Romaine**



*East Hampton  
Town Supervisor*  
**Larry Cantwell**



*New York State  
Senator*  
**Ken LaValle**



*New York State  
Assemblyman*  
**Fred Thiele**



*Suffolk County  
Executive*  
**Steve Bellone**



*Long Island Association  
President*  
**Kevin Law**



*Assn. for a Better LI  
President*  
**Kyle Strober**



*LI Fed. of Labor  
President*  
**John Durso**



*NRDC  
Clean Energy Council*  
**Kit Kennedy**



*Citizen's Campaign  
Executive Director*  
**Adrienne Esposito**



*RELI  
Executive Director*  
**Gordian Raacke**



# Project Development Timeline

|                      |                                   |
|----------------------|-----------------------------------|
| <b>SPRING 2017</b>   | PPA APPROVED BY STATE COMPTROLLER |
| <b>SPRING 2018</b>   | APPLY FOR PERMITS                 |
| <b>SUMMER 2020</b>   | PERMIT APPROVALS                  |
| <b>FALL 2020</b>     | FINANCIAL CLOSE                   |
| <b>2021 - 2022</b>   | CONSTRUCTION ONSHORE              |
| <b>DECEMBER 2022</b> | COMMERCIAL OPERATIONS             |



**Thank You**

Clint Plummer  
[cplummer@dwwind.com](mailto:cplummer@dwwind.com)