



November 8, 2018

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# **Kitty Hawk Offshore Wind**

## A collection of exceptional assets...

One of the largest wind project owners in the U.S. with more than 6 GWs owned and contracted

More than \$10 billion of U.S. assets at nearly 60 installed plants

750+ employees at the end of 2016, compared with 12 in 1999

636 MW of CCGT & peaking capacity on the strategic CA-OR border

Represents 39% of Iberdrola S.A.'s global wind capacity

## US Renewables



### Wind

6,000+ MW



### Power

536 MW CCGT  
100 MW peaking



### Solar & Biomass

106 MW Solar  
55 MW Biomass

## And clean gas generation

## ...focused on operational excellence and selective growth

April 2017

More than 48,000 MWs of installed capacity...

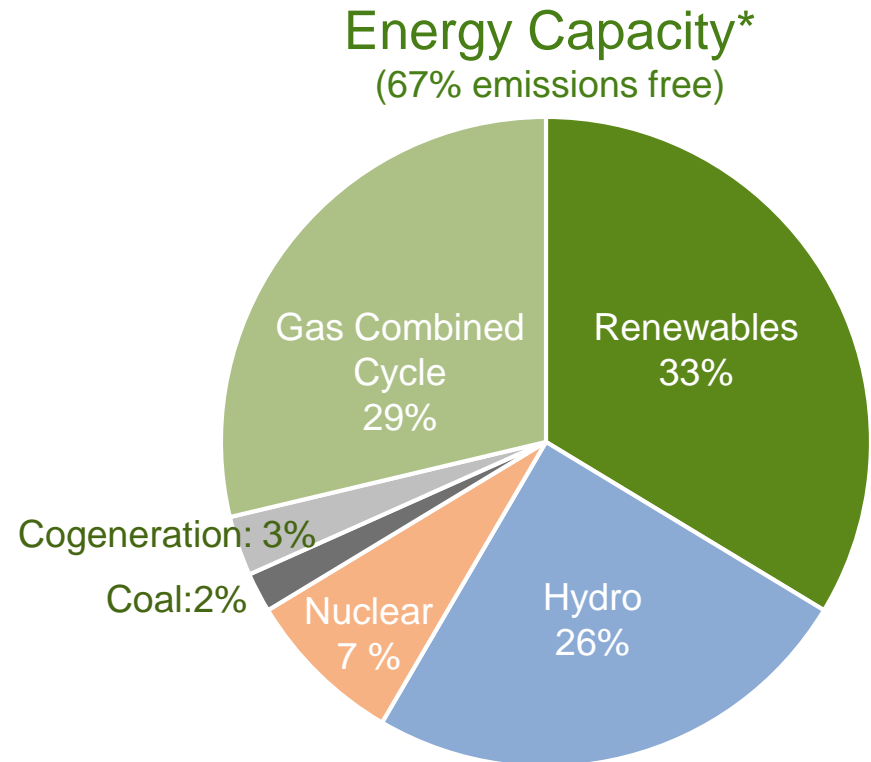
150-year history with roots in hydroelectric energy

Leading renewables producer worldwide with around 16 GW installed

> 34,000+ employees in nearly 40 countries

One of the cleanest portfolios in the energy sector

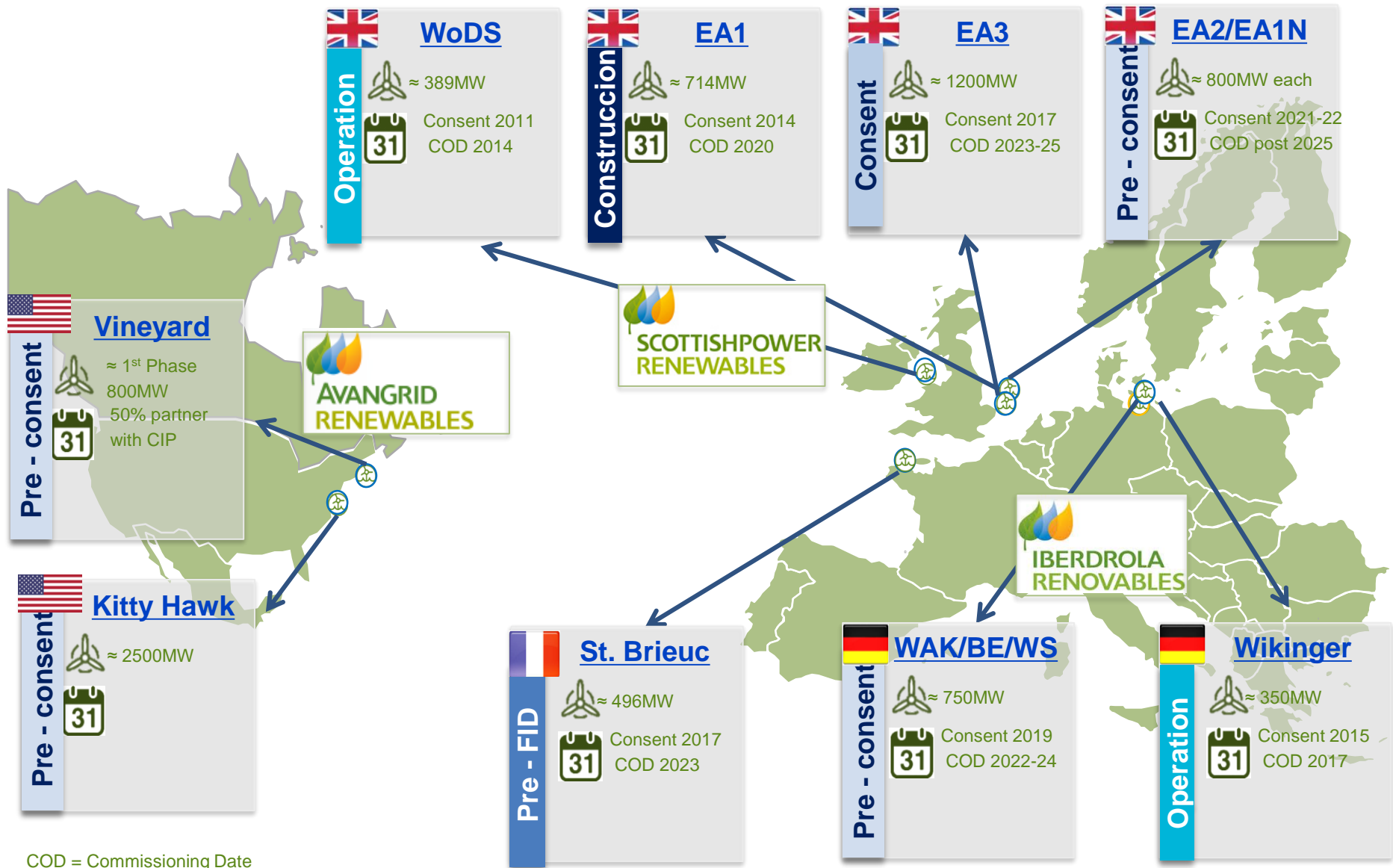
Strategic focus on US, UK, Latin America and Spain



...that is flexible and economical

March 2017

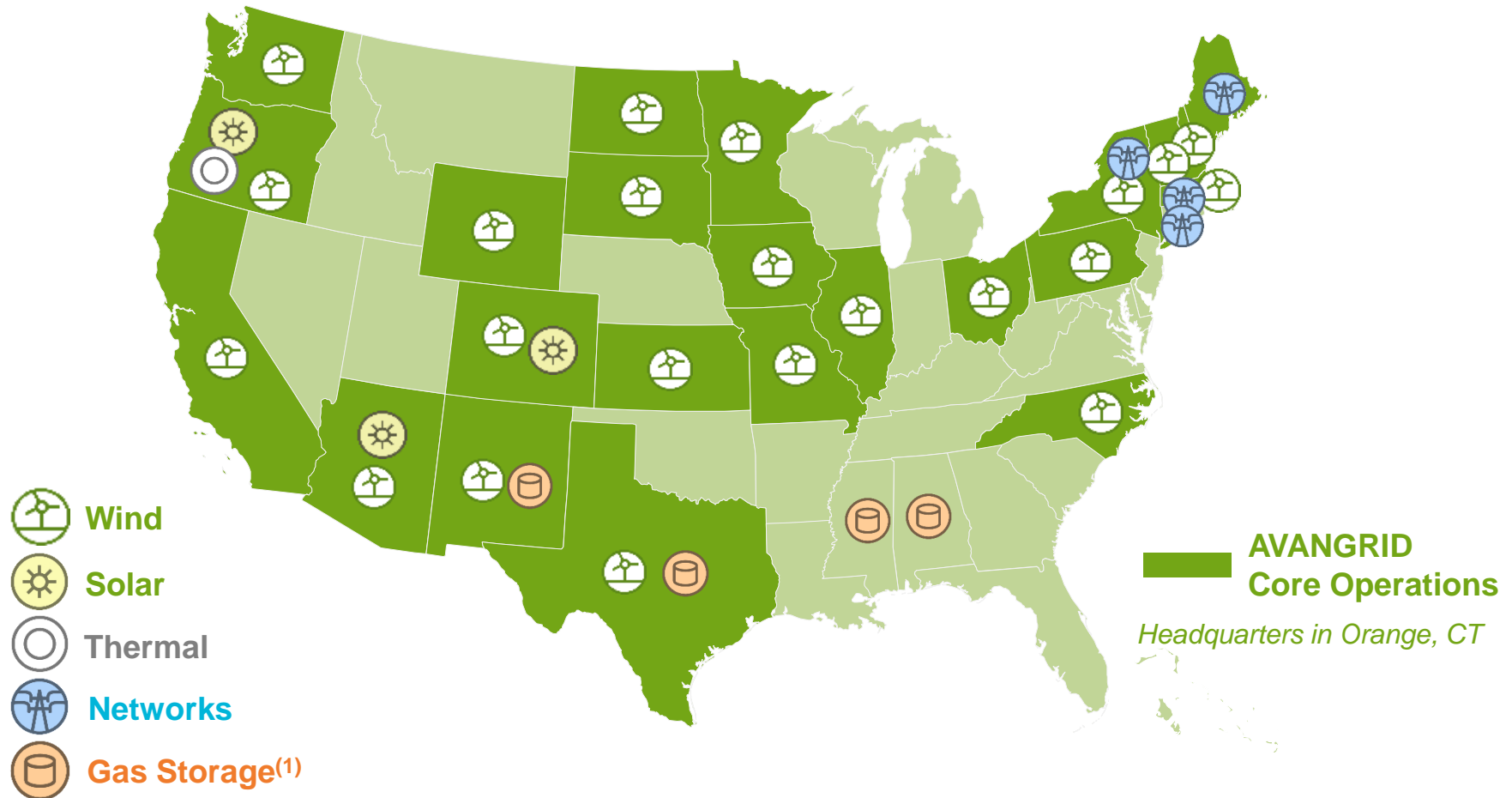
# Offshore pipeline overview Iberdrola Group



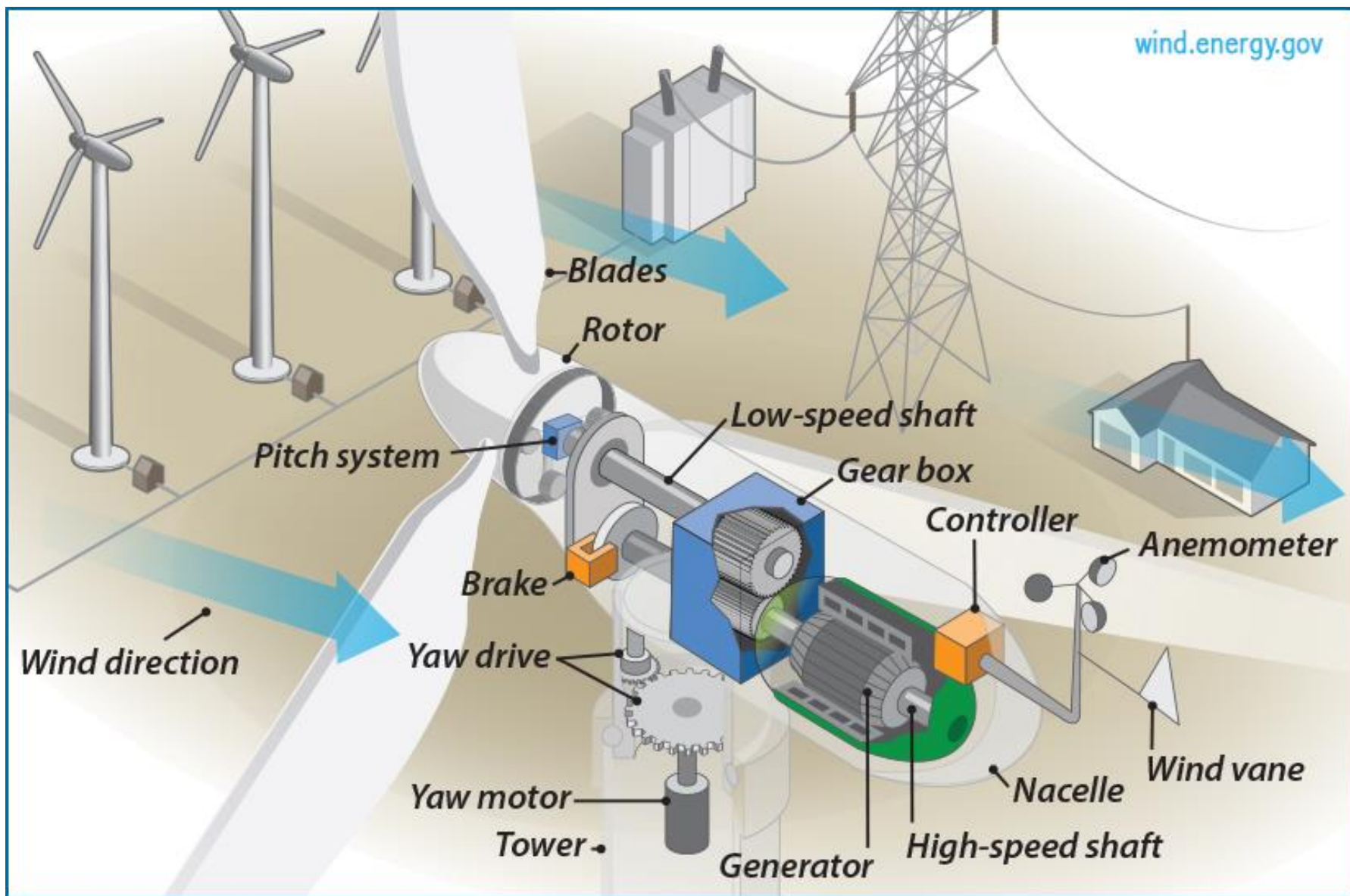
COD = Commissioning Date

# AVANGRID's Geographic Presence

~ \$32 billion in assets with a presence in 27 states  
3rd largest wind operator in the U.S.  
> 6 GW wind & solar in operation



(1) Under strategic review



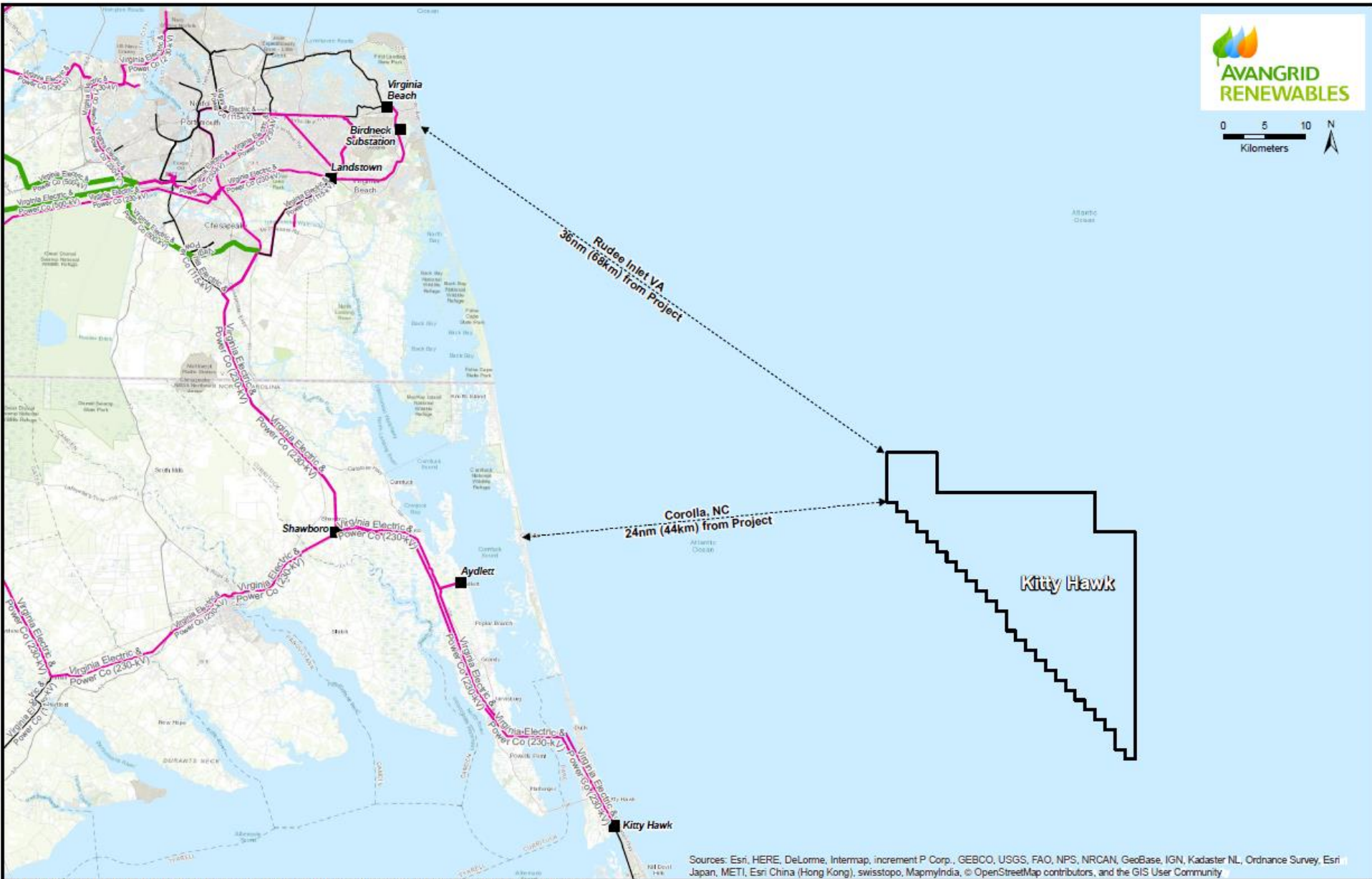


# Avangrid Renewables' NCC

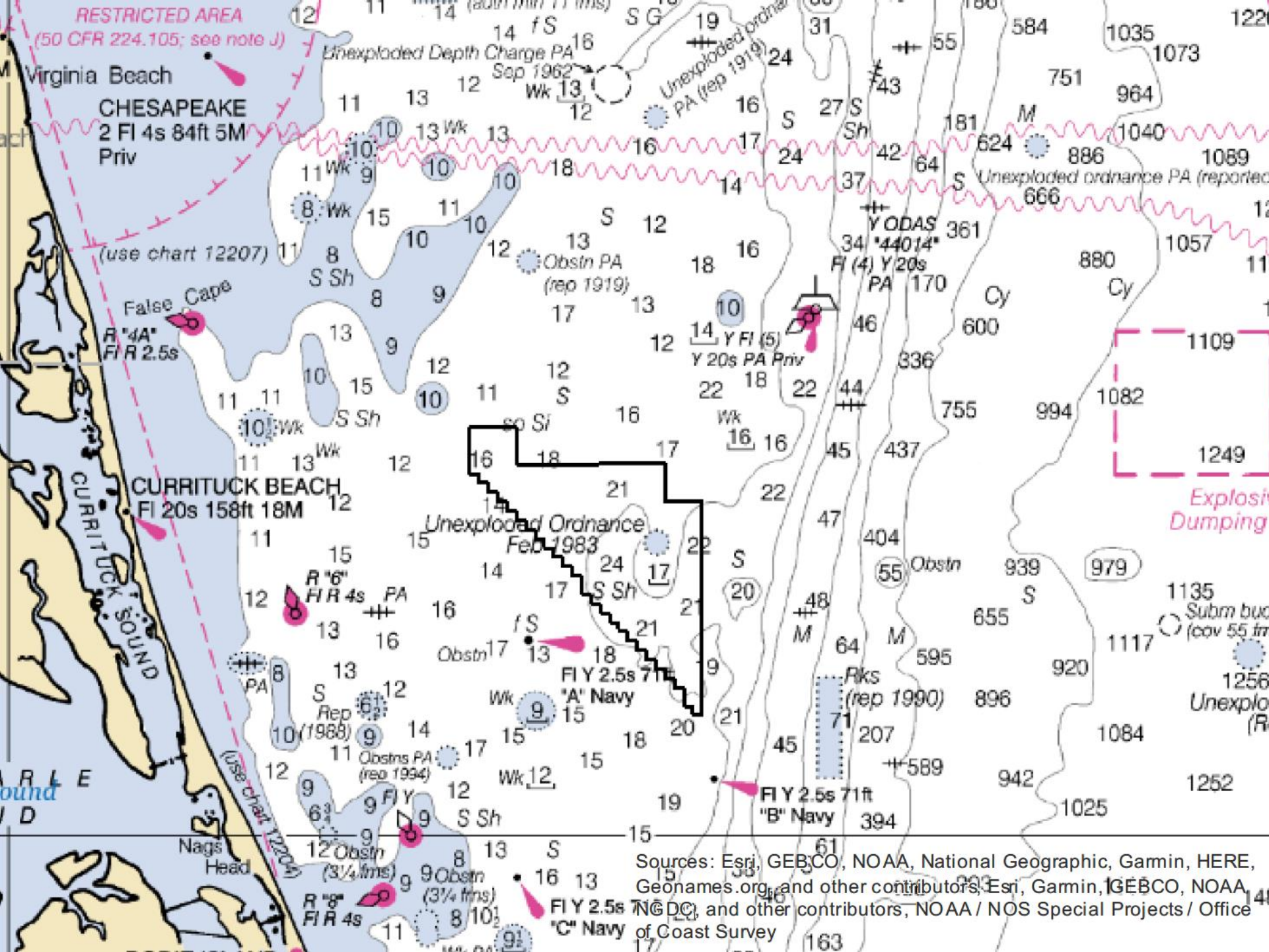
- 24/7 Operations, Maintenance, Dispatch, Balancing and Outage Management for 61 Plants
  - 18 States
  - 7 Electric Power Markets
- Total Generation - 6,981 MW
  - 5,645 MW Wind (3,105 WTGs, 7 different OEMs)
  - 536 MW Combined Cycle
  - 100 MW Simple Cycle
  - 50 MW Solar
  - 650 MW of Contracted resources (Hydro, Biomass, etc.)



# Kitty Hawk Wind Energy Area





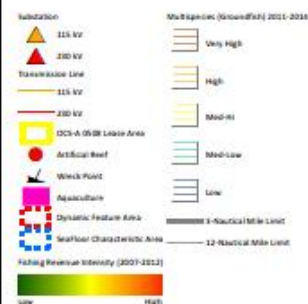




# Kitty Hawk Offshore Wind Project Avangrid Renewables CIA: Fishing



DRAFT



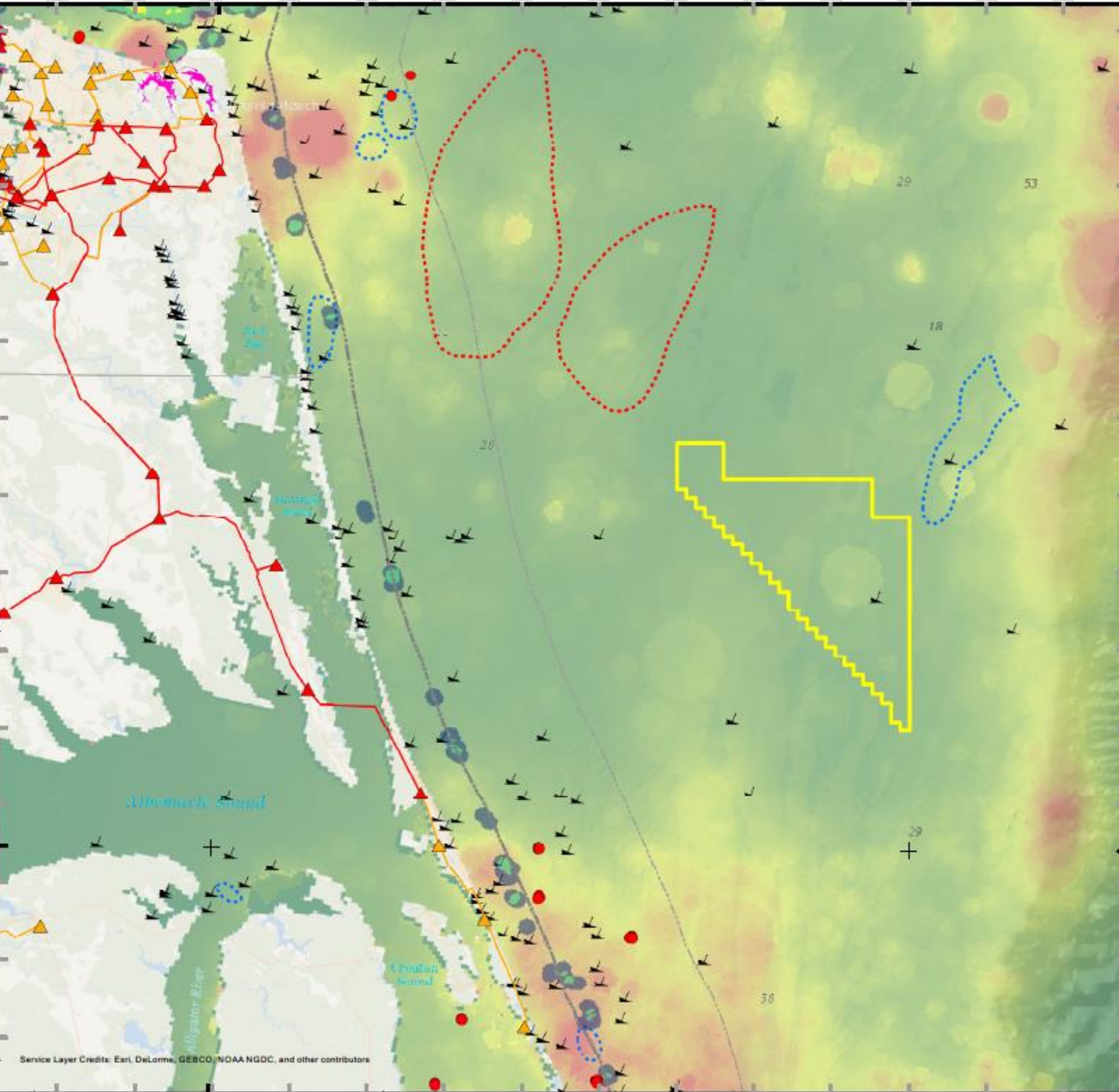
Date	August 15, 2018
File/Job Number	194-6459
Personnel	Figure Prepared by: William Scales Reviewed by: Scott Lundin

0 2 4 6 8 Miles

0 2 4 6 Nautical Miles

0 3 6 9 12 Kilometers

## REFERENCE MAP



Service Layer Credits: Esri, DeLorme, GEBCO, NOAA NGDC, and other contributors

RENEWABLES

# Planned activities offshore NC & VA

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2018

Planning, assessment & stakeholder outreach

2019

Planning, assessment & stakeholder outreach

Aerial Surveys of wind energy area – Avian, Marine Mammals, Sea Turtles, Fish

Marine geophysical, geotechnical & benthic reconnaissance surveys

Buoy deployment

2020

Planning, assessment & stakeholder outreach

Aerial Surveys of wind energy area – Avian, Marine Mammals, Sea Turtles, Fish

Marine geophysical, geotechnical & benthic surveys of potential project area(s) & cable routes

Potential

2021-2022

Planning, assessment & stakeholder outreach

Project permitting

2023 Onshore construction

2024-2025 Offshore construction

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Questions?

**Craig Poff**

**Director of Development, Kitty Hawk**

**[craig.poff@avangrid.com](mailto:craig.poff@avangrid.com)**

**610.230.0332**

**@craigpoff**