

December 4, 2018

# **Kitty Hawk Offshore Wind**

# **Avangrid Renewables**

# 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 & **Riomass** 

106 MW Solar 55 MW Biomass

And clean gas generation

...focused on operational excellence and selective growth

April 2017





## **Iberdrola Group**

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

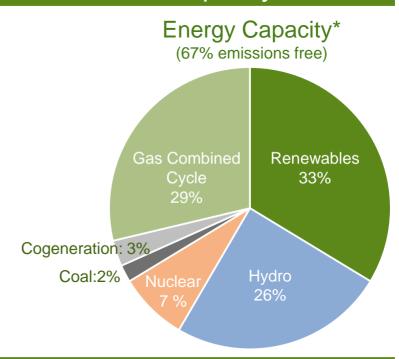
150-year history with roots in hydroelectric energy

Leading renewables producer worldwide with around16 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



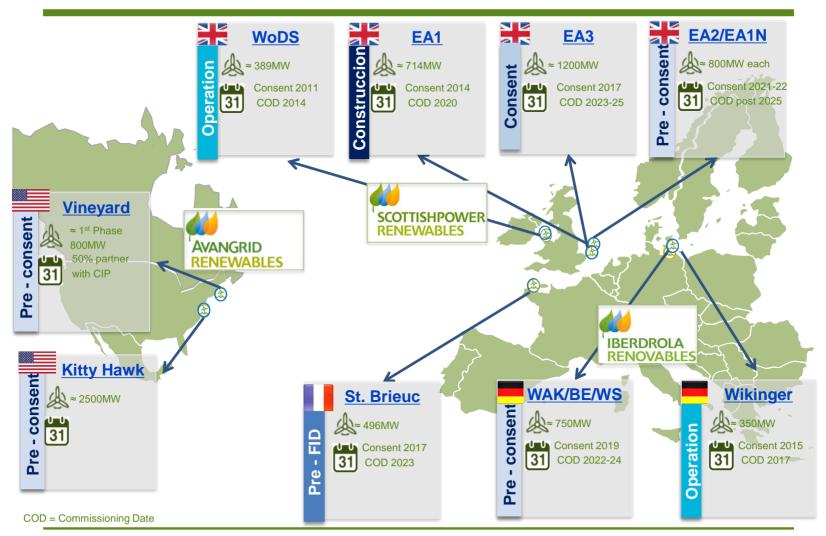
### ...that is flexible and economical

March 2017





#### Offshore pipeline overview Iberdrola Group





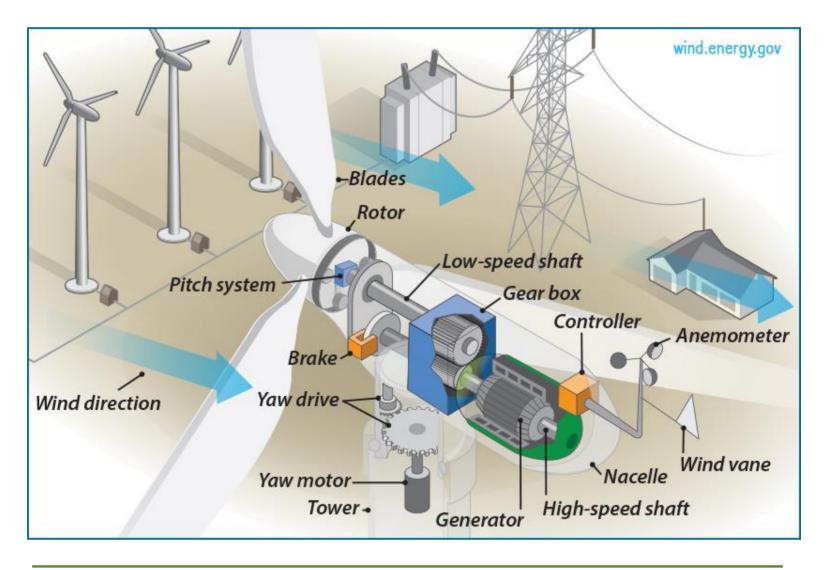


# AVANGRID's Geographic Presence

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







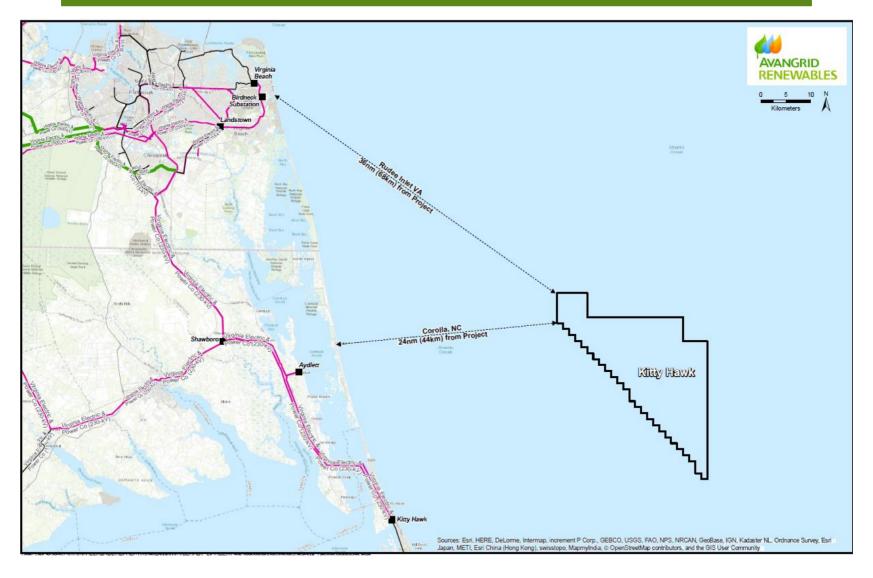


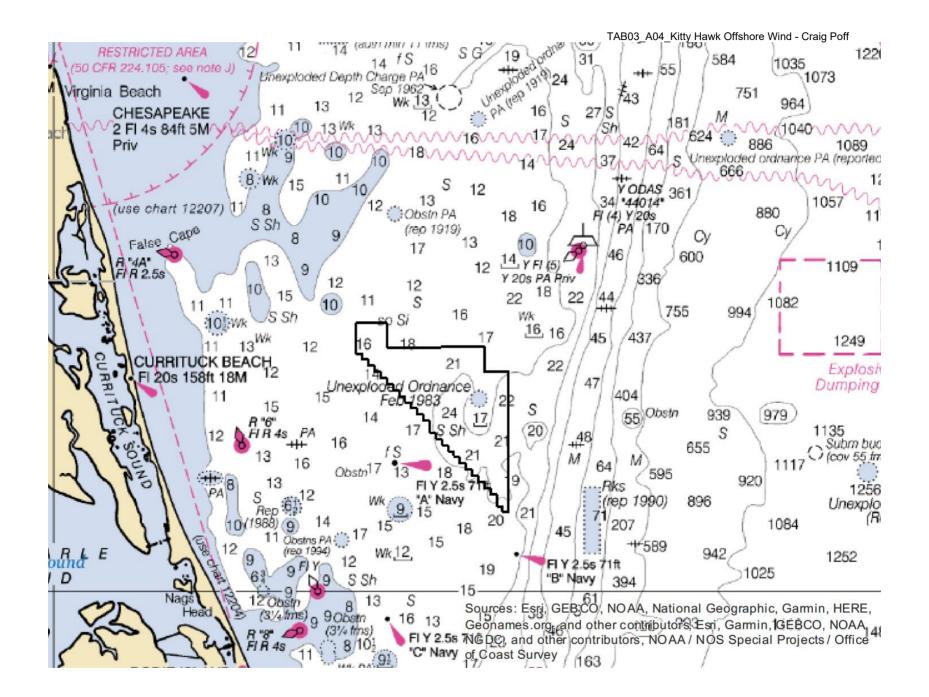
### **Avangrid Renewables' NCC**

- 24/7 Operations, Maintenance, Dispatch, Balancing and Outage Management for 61 Plants
  - 18 States
  - 7 Flectric 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**





TAB03 A04 Kitty Hawk Offshore Wind - Craig Poff Kitty Hawk Offshore Wind Project **Avangrid Renewables** CIA: Fishing TŁ DRAFT August 15, 2018 File/Job Number 194-6459 0 2 4 6 Nautical Miles 0 3 6 9 12 Kilometers REFERENCE MAP

#### Planned activities offshore NC & VA

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



### **Questions?**

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