Kitty Hawk Offshore Wind
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, “utility of the future”
Offshore pipeline overview Iberdrola Group

Vineyard
≈ 1st Phase
800MW
50% partner with CIP
Pre-consent

WoDS
≈ 389MW
Consent 2011
COD 2014
Operation

EA1
≈ 714MW
Consent 2014
COD 2020
Construction

EA3
≈ 1200MW
Consent 2017
COD 2023-25
Consent

EA2/EA1N
≈ 800MW each
Consent 2021-22
COD post 2025
Pre-consent

Kitty Hawk
≈ 2500MW
Pre-consent

SCOTTISHPOWER RENEWABLES

St. Brieuc
≈ 496MW
Consent 2017
COD 2023
Pre-FID

WAK/BE/WS
≈ 750MW
Consent 2019
COD 2022-24
Pre-consent

Wikinger
≈ 350MW
Consent 2015
COD 2017
Operation

Consent = Commissioning Date

COD = Commissioning Date

www.avangridren.com
Anatomy of an Offshore project

Complex power plants located far from shore

- Marine environment: sea waves, seabed mobility, corrosion, weather downtime
- Specific Health and Safety risks and requirements
- Huge scale of operations

Key technological decisions are taken 3 to 5 years before actually implemented
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.)
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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