

OCS-A  
0501



MASS  
USA

# VINEYARD WIND

NOIA - OMSA  
Alan Hannah



## 50/50 PARTNERSHIP WITH LOCAL & GLOBAL EXPERTISE



- **Leading provider** of renewable power in the United States with more than **6,500 MW** of owned and operated facilities in 22 states.
- Part of Iberdrola, the **world leader** in the renewable energy industry (30+ GW in operation), and 10 GW of offshore wind under development, construction, or operations.

 CIP

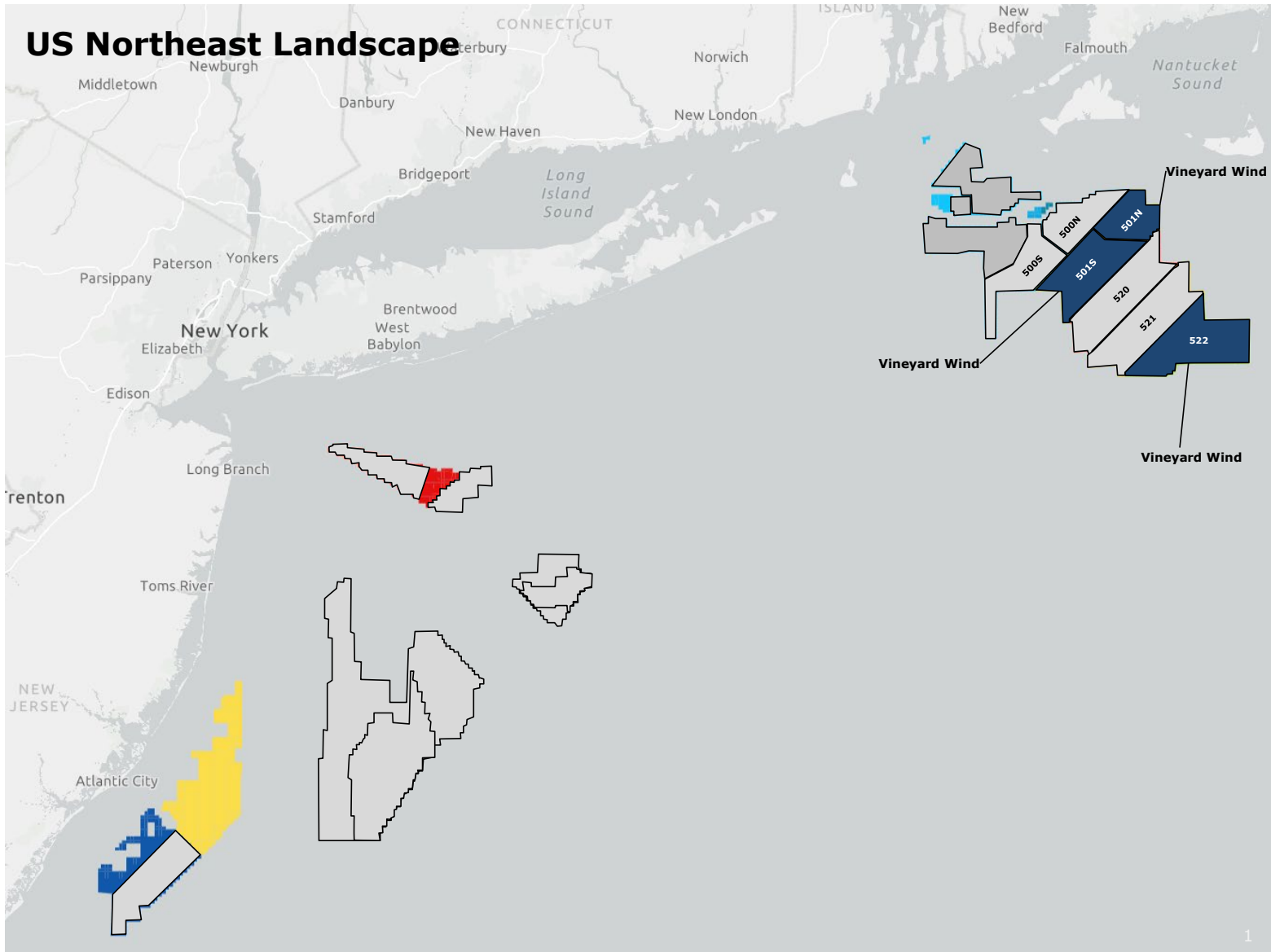
COPENHAGEN INFRASTRUCTURE PARTNERS

- **One of the world's leading Renewable Infrastructure Fund Management** companies with over \$8 billion under management
- **Long-term, clean energy infrastructure focus** with 6,000+ MW offshore development portfolio in North America, Europe, Asia and Australia

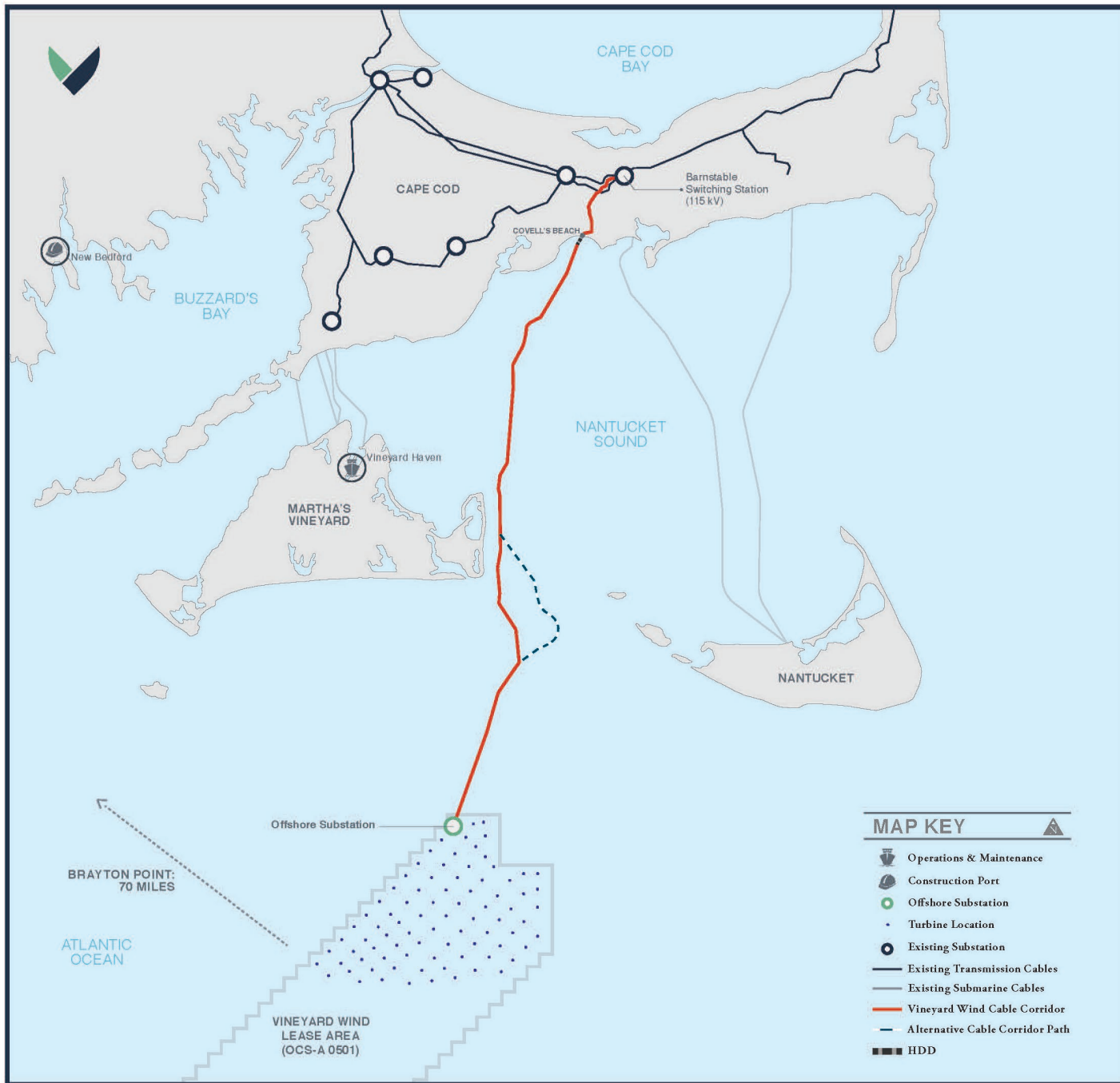


## VINEYARD WIND

- Offices in **New Bedford** and **Boston**
- **Technical team** with experience from some of the earliest and largest offshore wind farms in the world
- **Local staff** with first-hand knowledge of the waters, shores, and communities where the project is located
- **Community partnership** with Vineyard Power



- Focused on 3 x lease areas in MA:
  - 501N
  - 501S
  - 522
- Up to 4GW of potential.
- 501N currently in permitting and procurement process with commercial operation targeted for 2022.



## VY1 PROJECT INFORMATION

**2018**

Project award

**2019**

Sign major supply contracts

Secure final permits

Financial close

Begin onshore construction

**2020**

**Offshore construction:** monopiles, ESP jacket foundation, export cable

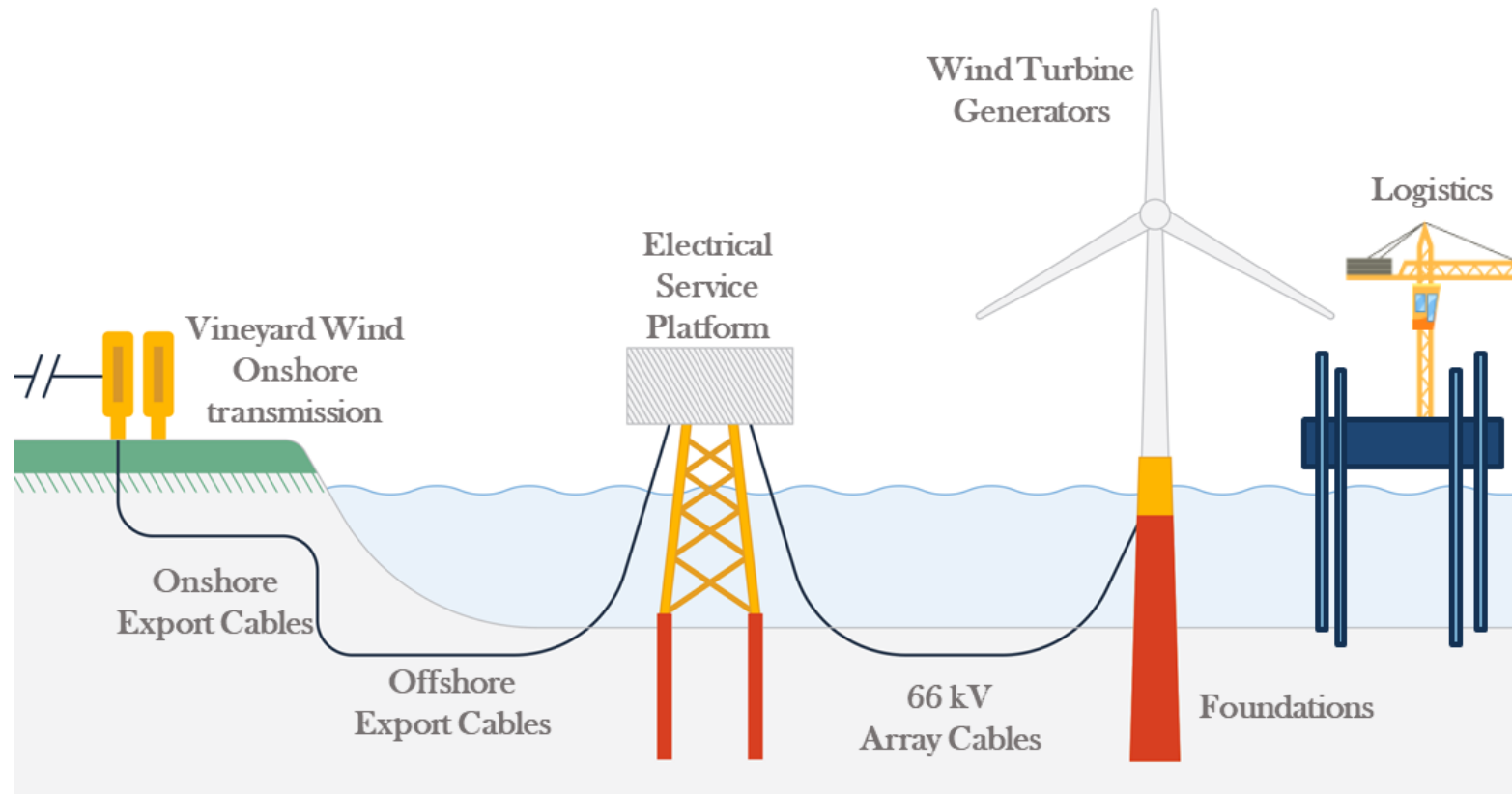
**2021**

**Offshore construction:** transition pieces, turbines, array cables, ESP topside

**2022**

**COD**

## SUPPLY CHAIN APPROACH BY VINEYARD WIND



- Create the right supply packages
- Select the right supply chain partners

## CASCADING EFFECT IN SUPPLY CHAIN



### Main packages:

- Foundation supplier
- WTG supplier
- ESP supplier
- Cable suppliers
- Installation contractors

### Examples:












- Tower manufacturing
- Electrical components
- Cable Protection
- Crane suppliers

### Examples:

- Maritime and port services
- Tools, fuel, supplies
- Support vessels
- Training and engineering
- Support services

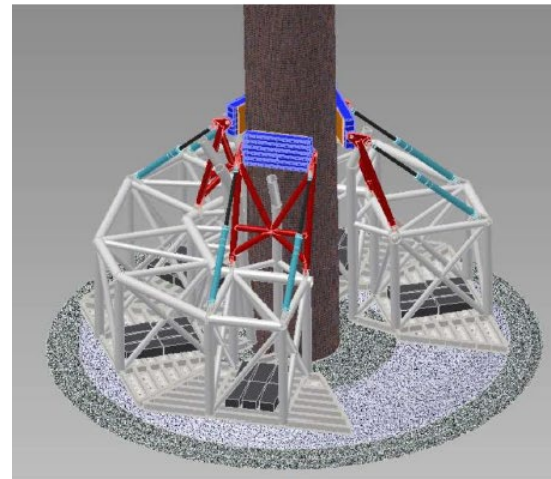
# VY1 Supply Chain & Procurement

## Procurement of Major Project Components

	Turbines	Foundations	ESP	Array Cables	Offshore export Cable	Onshore transmission
Design		 				Tendering ongoing
Supply		 				
Install.						
Vessels						
O&M					<b>Employer scope</b> Including harbour, buildings, recruitment, transfer vessels etc.	

# Foundation Installation

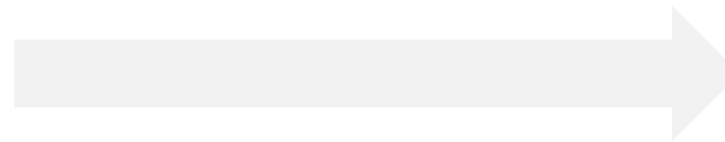
## MP Installation



Piling frame



Off-loading offshore at site from 500 ft barge or HTV (here Hua Yang Long which is secured)





## TP Installation



# WTG Installation

## Outline of base case concept

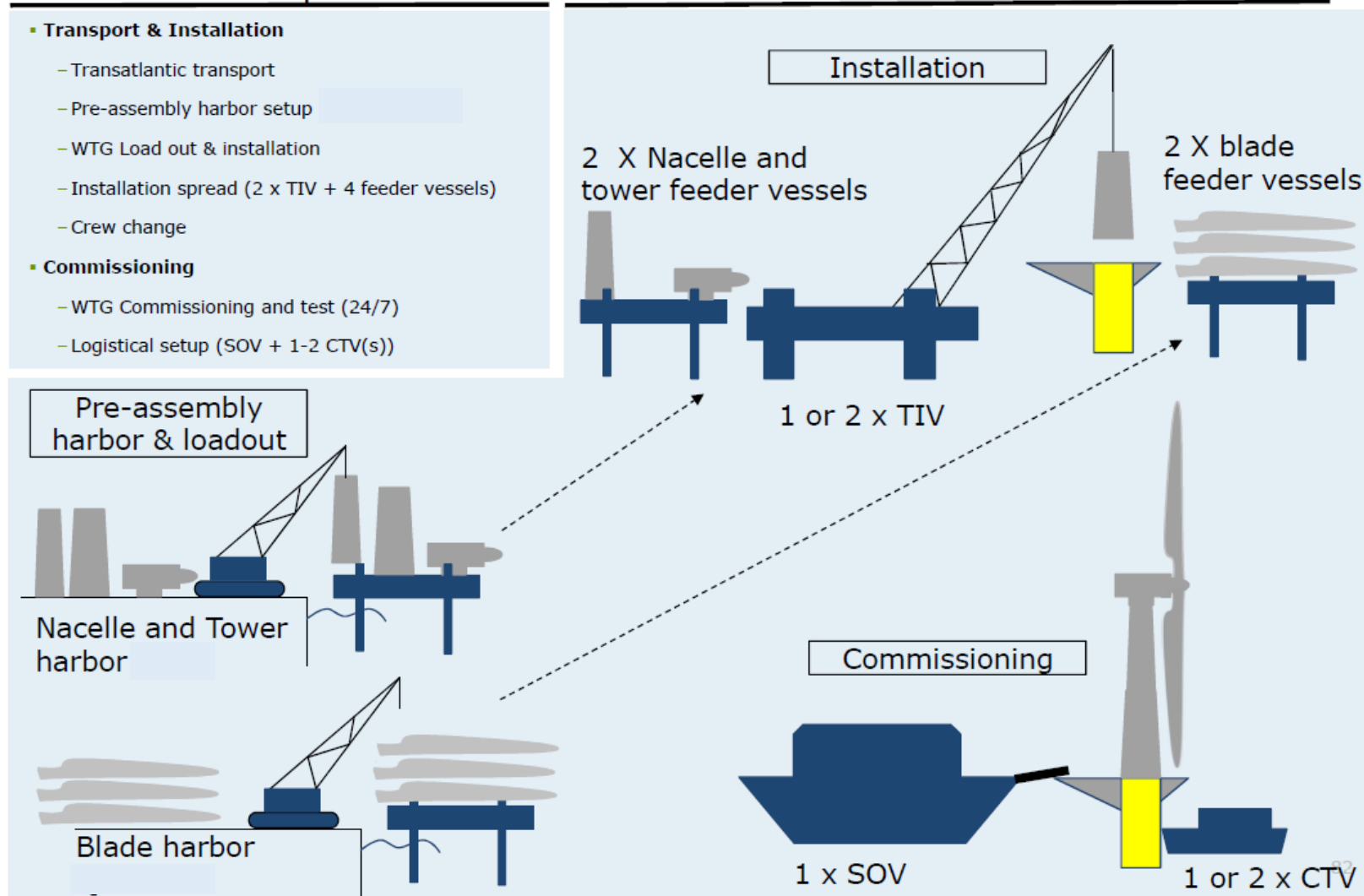
### Transport & Installation

- Transatlantic transport
- Pre-assembly harbor setup
- WTG Load out & installation
- Installation spread (2 x TIV + 4 feeder vessels)
- Crew change

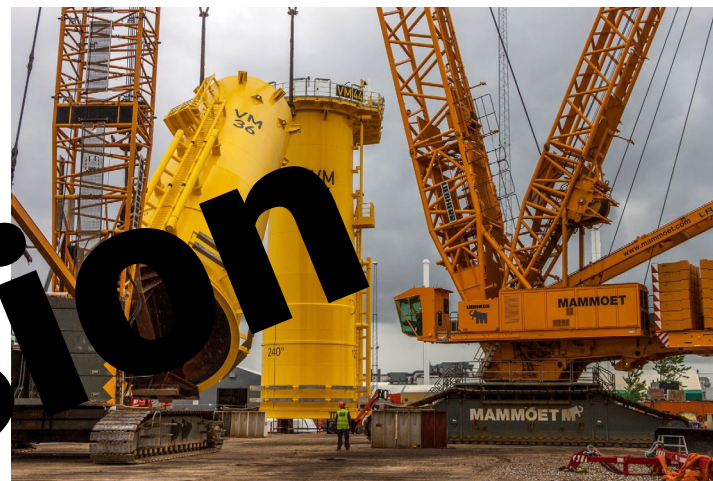
### Commissioning

- WTG Commissioning and test (24/7)
- Logistical setup (SOV + 1-2 CTV(s))

## Illustration



## Supply Chain Beyond VY1



Discussion



Vessel Spread – Total of approx. **40 vessels** (including site CTVs)