



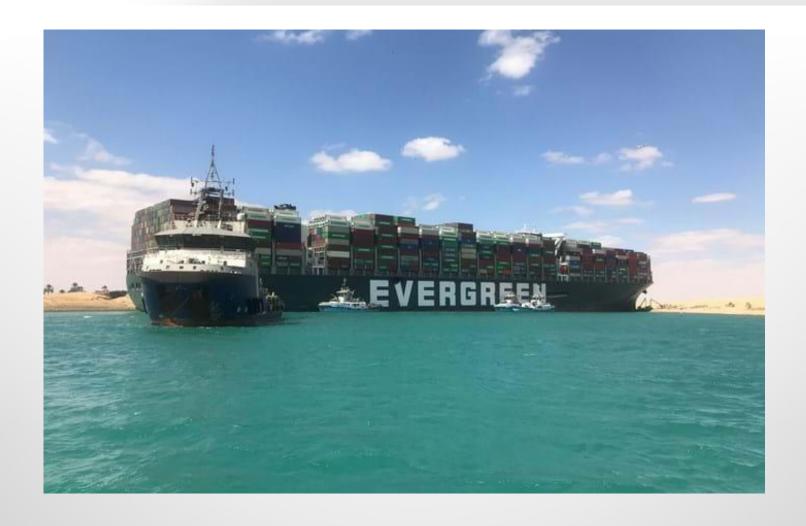


Boskalis who?

- leading international dredging and maritime contractor / service provider
- 10,250 employees in 90 countries across the world
- 700 vessels
- 2022 revenue 3.58 billion EUR
- Customers in Energy, Ports and Infrastructure, Salvage, Heavy Marine Transport
- HQ in Papendrecht, the Netherlands
- Main US office in Providence, RI
- Summer 2023: start of first of four offshore wind projects on East Coast



Boskalis who?





Dutch Offshore Wind tenders

- Tender for permit, not for lease
- No auction but one round bidding
- Only for offshore wind farm site
- ☐ grid operator TenneT installs and operates Offshore Substation and Export Cables
- Developer responsible for selling electricity to customers
- □ no solicitations for feed-in / purchase of electricity by State / State utility
- Development from
 - "award to lowest subsidy required" (Borssele rounds 2017) to
 - "award to highest score on financial and non-financial criteria" (HKW 2022 and IJmuiden Ver 2023)



US Offshore Wind tenders

- BOEM tender for lease (auction)
- State PPA tenders for offtake of electricity
- Post-tender EIA and permit process by BOEM (and State for State waters and onshore)
- Export Cables remain responsibility of Windfarm Owner



Differences US - NL

Legal systems:

•	NL: Permit	conditions	known	at time	of wind	farm te	nder 🗆 d	e-risking

- US: Permit conditions not known at time of lease tender
- years later after EIA involving all stakeholders
- □ overlap with State / local jurisdictions
- unclear whether proposed ecological / biodiversity measures will be permitted
- NL: tender process subject to general procurement principles (non-discrimination, equal treatment, transparency, proportionality); influence of EU Tender Law
- ☐ Risk of complaints / litigation against award decision
- ☐ Mitigated by using independent committee of experts and by pre-tender market consultation
- US: offshore lease tenders not under formal procurement law
- ☐ Litigation risk?



Differences US - NL

Ecological:

- NL: urgency to improve ecological health of North Sea ("underwater desert"); North Sea relatively shallow, sandy
- US: Atlantic Ocean; relatively healthy (?), deep waters with differing seabed conditions
 / habitats

- NL: fishing not allowed within Dutch offshore wind farms
- US: fishing allowed
- ☐ Effect on fisheries is important factor



PRO:

- Early focus on ecological benefits
- Every available avenue to enhance ecology/biodiversity should be used?
- All bidders will at least have to deliver a certain "market standard" minimum, that should move up in quality through time
- ☐ Bring all market players up to level of pro-active developers



PRO:

- Bidder's goal: winning the tender by getting (far) higher score than competitors
- ☐ Should stimulate new, innovative solutions that score high on award criteria
- ☐ Condition is that ecological/biodiversity criteria should weigh heavily in the overall criteria and are true differentiators (NL: 50% of total score)
- ☐ Question mark: delivering on promise
- ☐ What is binding, what not? Strict obligations or flexibility? Consequences?



CON:

- Too convoluted compared to other ways to improve ecology / biodiversity?
- ☐ Mandatory ecology/biodiversity budget in lease price? (see "bidding credits" in GoM leases)
- Impose in permits?
- Need for level playing field (new entrants vs existing wind farm owners)
- ☐ make all necessary information available
- Bidder offering (binding) actions versus uncertainty of realization due to permit process
- ☐ risk of opportunistic proposals that may not be realized



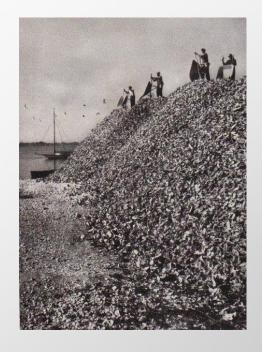
CON:

- Unproven solutions cannot be scored?
- ☐ Solutions limited to solutions with proven, measured track record?
- ☐ For bidder unpredictable how solution will be scored
- From one objective criterion (price) and indisputable outcome to several, often more subjective, criteria and potentially contentious outcome
- ☐ risk of litigation by losing bidder(s)
- ☐ Mitigate by intensive pre-tender market consultation; clarify mutual expectations



Boskalis projects / cooperations

- Markerwadden in IJsselmeer, Netherlands
 - create win-win situation by using dredged sludge to create new islands
 - improved water quality, plus
 - new island habitats and new feeding grounds for migrating birds
- BOOST (Better Oyster Outplacing & Seeding Techniques)
 - large-scale living oyster reefs from biodegradable materials
 - In near future to be deployed in existing offshore wind farm
- Artificial Reefs Program
 - Restoring / creating reef habitats
 - Africa, Panama, Netherlands



Rotterdam Reef Pilot Project 2022 -2024

Channel shore protection from the bow waves of large vessels



















Rhode Island pioneer in artificial reef creation

Jamestown bridge demolition 2006





Thank you



