



Wind Logistics Group

Continuation of PhD Reference Group

Web speed boat meeting

Transport concept for big wind turbines

Venue: Online

Wind Logistics Group, speed boat meeting #2, September 22, 2020 at 12:30 CET

Continuation of Global Wind Energy Shipping and Logistics PhD project Reference Group

Agenda

1. Recap of speed boat efforts so far
2. Review goal of speed boat
3. Review progress made
4. Organize speed boat
5. Agree next steps, actions, and timelines

Transport concept for big wind turbines -today's participants

- Who are the member companies?

- BBC (formerly captain)
- DIS
- MHI Vestas
- LM Wind Power
- NorSea Group
- Head Energy
- Siemens Gamesa Renewable Energy
- Vestas
- R&D
- FORCE Technology

Joining today:

- Mads Poulsen (BBC) – no
- Michael Snerling (DIS) – no
- Jacob Simon Schmidt (DIS) - yes
- Lars Harrit (MHIVOW) – no
- Lars Sørensen (MHIVOW) - yes
- Anne Hakansson (LM) - yes
- Hans Jepsen (NorSea) – yes
- Martin Andreasen (NorSea) - no
- Knut Magne Johannessen (Elevon) – yes
- Ian La Pointe (Elevon) - no
- SGRE?
- Vestas?
- Søren Poulsen (Head Energy) - yes
- Peter Eriksen (Head Energy) - yes
- Søren Kellenberger (R&D) – yes
- Jacob Michelsen (FORCE Technology) – yes
- Christian Munk Jensen (Energy Cluster Denmark) - yes
- Per Fenger (Liftra) - yes

Around the room – brief intro

- Company by company
 - Names
 - Background of company
 - Background of persons




1. Recap of speed boat efforts so far

Recap of speed boat activity so far

- Group met on January 30, 2020 at LM Wind Power in Kolding
 - *BBC, DIS, MHI Vestas, LM Wind Power, NorSea Group, Head Energy, Siemens Gamesa, Vestas, R&D, FORCE Technology, Energy Cluster Denmark, TINV/Panticon*
- A subsequent survey was performed online and results shared on February 27, 2020
- Additional input sought

Speed boat opportunities:

- Captain has withdrawn candidacy, new captain sought
- More members needed – Liftra has now joined
- Scope to be finally agreed



Wind Logistics Group
Transport concept for big wind turbines
November 2019 – May 2020

Original project idea title: New shipping concept needed for large new offshore turbines like GE 12 MW

Summary of November 4, 2019 group discussions:

Funnel criteria	Reduce cost, international focus, increase efficiency, reduce risk
Desired outcome	Streamlined process, standard concept, and agreed guideline
Scope	Onshore and offshore wind
Supply chain	Factory to site included (rest not included)
Wind components	Blades/nacelle/hub/towers included Foundation/cables/substation excluded (not believed to change significantly)
Equipment	Lifting equipment and transport equipment included
Assets	Trailers, SPMTs, shortsea vessels, deep sea vessels included
Constraints identified	SPMT and trailer asset shortages Ports and equipment Limited vessel availability shortsea as well as long haul
Methodology	Initial understanding of what a wind turbine will look like 3-5 years later
Skills	The Wind Logistics Group cannot resolve this project idea alone and additional skills and competencies need to be infused (logistics companies, vessel operators, and others)
Things to watch out	Traditional “catch 22” of whether OEMs should issue “requirements specifications” versus providers should innovate: Idea is to get together...

Volunteers:

Speedboat captain	BBC Chartering (Mads Poulsen)
Speedboat crew members	Siemens Gamesa (TBD), NorSea Denmark (Hans Jepsen), LM Wind Power (Anne Håkansson), Head Energy (Anders Frederiksen), MHI Vestas (Lars Harrit), R&D (Soren Kellenberger), Energy Innovation Cluster (Christian Munk Jensen), DIS (TBD)

Notes prepared by Thomas Poulsen, November 14, 2019
Notes reviewed by Anne Håkansson, Mads Poulsen, and Anders Frederiksen, November 18-19, 2019

www.tinv.dk www.windlogisticsgroup.com www.windscm.com

2. Review original goal of speed boat

Recap how we set out

Determine if still valid going forward

November 4, 2019

- Transport concept for large wind turbines
 - Onshore and offshore
 - Components
 - Equipment
 - Assets
 - Constraints

3. Review progress made

Looking back

Looking ahead

Since February 27, 2020

- Online survey results shared
 - Vessels and ports came out on top
- Additional meeting was scheduled
 - Did not take place due to COVID-19

- Is this still the right direction?



4. Organize speed boat

Captain

Support

Crew

We need forward momentum

- Next Wind Logistics Group meeting is November 19, 2020
- Can we meet 2-3 times online before that? Do some homework?
- This requires that we organize ourselves:
 - We need a captain
 - We may also need some officers on deck
 - Speed boat crew member commitment required

5. Wrap-up

Actions

Next steps

Date in calendar

5. Wrap up, actions, and next steps

- Set a date for the next speed boat meeting?
- We know who will do what

Thank you for joining up today!

Next speed boat meetings:

Smaller groups

Week of October 5, 2020

Next face-to-face meeting:

November 19, 2020

12:00 – 16:00 WLG meeting

16:00 – 18:00 after work meeting

NorSea Group Denmark, Esbjerg

This November 19 meeting can be conducted fully online (COVID-19)

Thank you for today's meeting!

We meet again (online or face-to-face) on November 19, 2020

- details will be advised

And in our speed boats before that...