

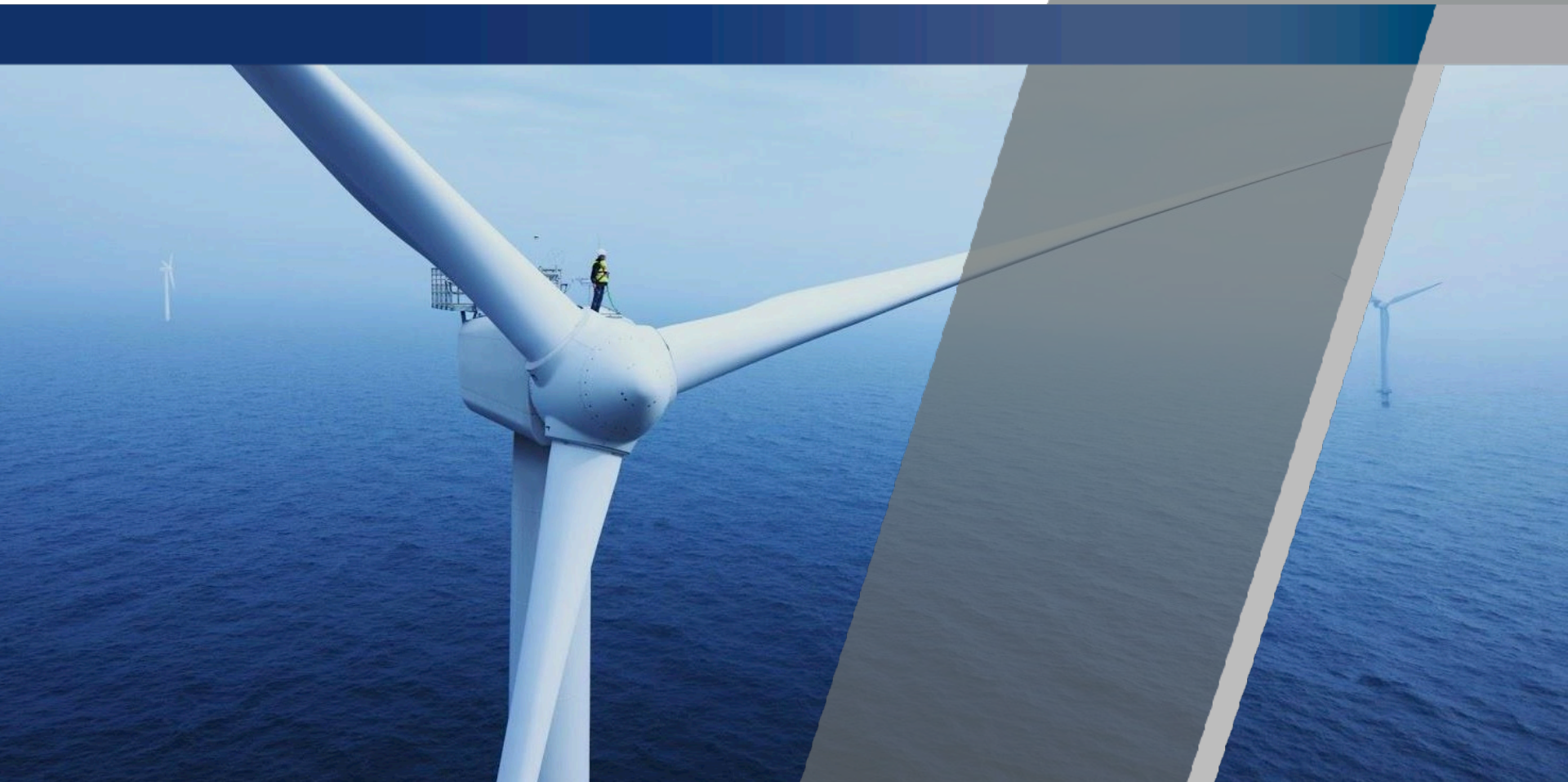


Block Island Wind Farm CVA

Status of Verification of Substructure
Installation (July 19 to October 27)

Presented by
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Director Power Sector

October 27, 2015



Status of BIWF - Overview

ABS Status Update of 10/27/2015

- EHS Installation
- 2015 Installation Status
 - Jacket/TP #1
 - Jacket/TP #2
 - Jacket/TP #3
 - Jacket/TP #4
 - Jacket/TP #5
 - Repairs
- 2016 FDR
 - Alstom
 - Cable/Electrical
- 2016 FIR
 - Alstom
 - Cable/Electrical
- 2016 Fabrication
 - Alstom
 - Cable/Electrical

Status of Safety Recommendations

ABS Recommendations August 25th	Current Status on October 27th
1. Full time safety representation during the installation process to allow for identification and timely resolution of issues	WMJV has full time safety reps on W533 and W526 Montco has a safety rep on the LB Robert Increased safety sweeps and hazard hunts observed
2. Safety stand-down to review current practices, safety concerns, personnel concerns, process failures and re-training as required	Performed by DWBI and WMJV on August 28th
3. Review of crane capabilities based upon current experience gained from first five weeks and engineering review of rigging for operations and pile driving to minimize safety hazard to personnel	Performed by DWBI and WMJV resulting in WMJV deciding to add the Lift Boat Robert to the vessel spread for the project
4. Establishing a safety committee to meet regularly and report on progress of safety system and resolution of issues	One meeting confirmed on each barge
5. Establish formal process to identify root cause of near misses/issues to prevent recurrence	Complete according to DWBI
6. Verification of W/M Safety Management System for compliance with their written processes and procedures	Ongoing

Status of Weld and NDE Recommendations

ABS Recommendations October 9th Weld Process	Current Status on October 27th
1. Implement proper rod storage and re-drying procedures according to AWS D1.1 and manufacturers recommendations.	Confirmed being done on an ongoing basis.
2. Perform Pre-heat and inter-pass heat according to weld procedure, verify and document heat input	Confirmed being done on an ongoing basis.
3. Supply and use operable calibrated Volt-meters	Confirmed being done on an ongoing basis.
4. Check accuracy welding machines volt and amp readings per operation (i.e. each shift)	Confirmed being done on an ongoing basis.
5. Perform grinding of welds instead of wire brushing of welds.	Confirmed being done on an ongoing basis.

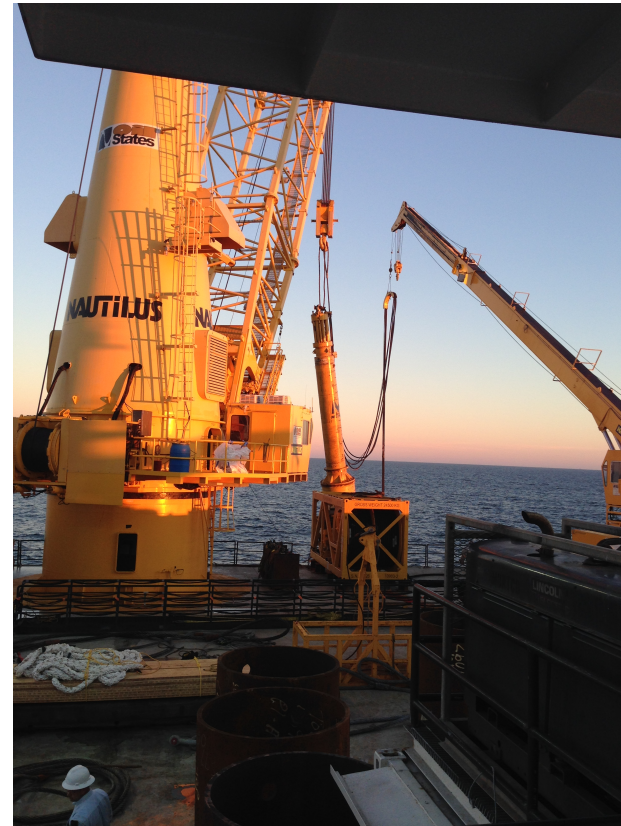
Status of Weld and NDE Recommendations

ABS Recommendations October 9th NDE and Quality Control	Current Status on October 27th
1. Records of processes above should be available daily to ABS inspectors on site.	Completed
2. Provide electronic copy of UT scan (from device SIM card) of welds completed to date to ABS for independent interpretation	Awaiting information from DWBI
3. UT operator to clarify which acceptance/ rejection criteria are being used for joint being examined (A-Qualified procedure includes criteria for multiple joint types and sizes, please have operator confirm which one is being used for P1-P2 splice)	Awaiting information from DWBI
4. Perform X-ray examinations of a sample of remaining offshore welds in addition to UT to check for porosity or cracking caused by moisture content (UT not appropriate for this type of defect).	Not used due to radiological concerns and time constraints
5. Include visual inspection results, description of weld (size, length) and base material (thickness, diameter) in subsequent inspection reports	Awaiting information from DWBI
6. Provide Outstanding quality records as noted in document review section	Completed

Status of Installation– Week 15



Jacket 1 Driving P3 Oct 21



Driving from the Robert

Status of Installation– Week 15



Jacket 1 level Survey Oct 24

Completed

- All Jackets on Sea-bed, location and orientation confirmed
- All Piles driven to depth
- Started Leveling of Jackets 1 & 4

Status of Installation– Week 15



Jacket 4 leveling Oct 26

Completed

- All Jackets on Sea-bed, location and orientation confirmed
- All Piles driven to depth
- Started Leveling of Jackets 1 & 4

Remaining– 52 days per schedule

- Leveling jackets and cutting pile tops
- Setting and leveling decks
- Grouting
- Painting and finishing work

Repair of P1 Piles at Site 1



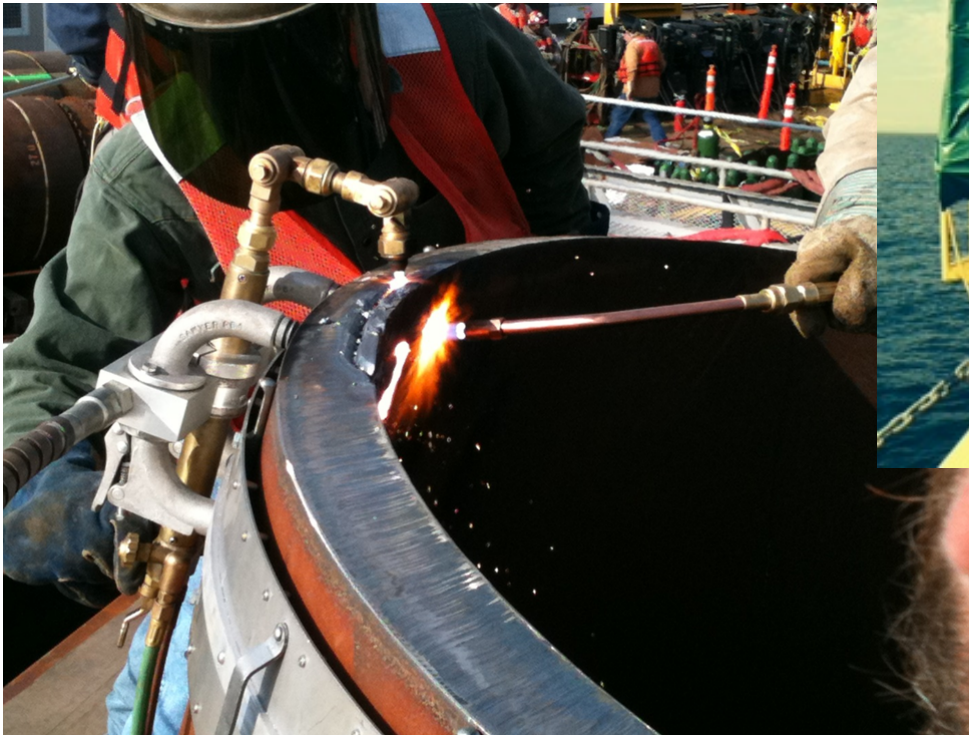
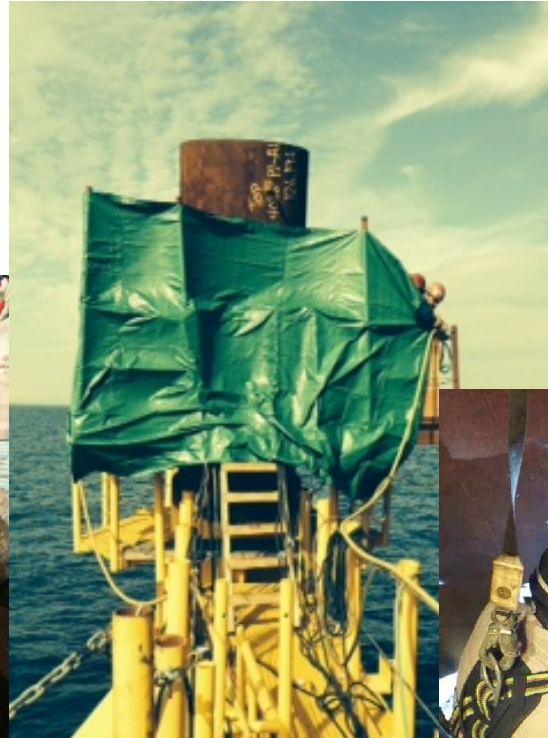
Jacket 1 P1 cutoff Oct 8



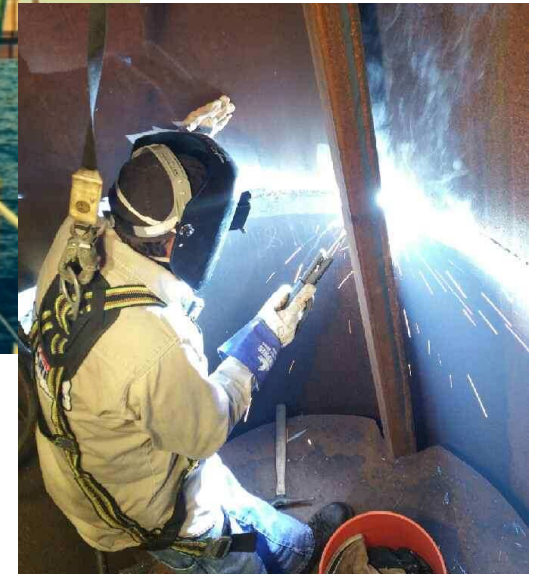
Jacket 1 P1 2 ½ in to 1 ¾ in
transition visible on cut off section

Repair of P1 Piles at Site 1

Wind shielding for welding repair
of P1 tops Oct 13



Cutting for repair of P1 tops Oct 10



Welding repair on ID of P1
tops Oct 15

Status of BIWF – Installation Equipment



The Lift Boat Robert (source Deepwater Wind)

Robert – leveling jackets, cutting pile tops, setting decks

W526 – Assisting Robert with Lifts

533 – No longer on site

Wotan – No longer on site

Status – WTG Fabrication

Complete

- Blades
- All Castings
- Converter
- Switch Gear
- Transformer
- Yaw and Pitch Bearings
- Main Bearings
- Controller

Ongoing

- Tower (flanges) - Inspections scheduled
- Generator– Awaiting information for scheduling
- Yaw System
- Onboard Cranes
- Tooling
- Pitch System

Overview – Status of Phases

	FDR/FIR STATUS			
	2015		2016	
	Substructure	Turbine (Loads and Type Cert)	Turbine (Project specific changes)	Cable and BOP
FDR	Complete*	Complete	Draft received - Reviewing	No Info Received
FIR	Complete	No Info Received		No Info Received
Fabrication	Complete	Ongoing - Open Items		No Info Received
Installation	Ongoing - Open Items	Not started		Not started
Operation	Not started	Not started		Not started

* Changes made by Keystone Engineering following initial completion and submittal by DWBI. FDR requires revision submittal to CRMC

Next Steps

Installation

- Planning for cessation of activities for 2015 season and condition of structures for over wintering
- Grouting
- Deck Installation or Storage
- Nav Aids

Wind Turbine Fabrication

- Continue with Fabrication Verification
- Reviewing Draft 2016 FDR
- Awaiting 2016 FIR

Cable Fabrication

- Need 2016 FDR and FIR
- Fabrication verification not scheduled

Based upon current schedule, vessels available and diminishing weather conditions, when will installation be halted for 2015?

