

# North Fork Ridge Wind Project

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*Barton and Jasper Counties, Missouri*



*Project Progress Report No. 7*

*February 2020*

**\*\*Indicates Confidential\*\***

**\*HC\*Indicates Highly Confidential\*HC\***

*Empire District  
602 S. Joplin Ave.  
Joplin, MO 64802*

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*February 2020*

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## 1.0 Summary

Mortenson's major efforts during February were focused on civil works and installation of turbine foundations to prepare for the commencement of turbine deliveries in late March. The first foundation pour occurred on February 15<sup>th</sup>. Vestas notified the project of a Force Majeure event due to COVID-19, but has not requested any change to the schedule to date. There was one near miss event during February involving a RT crane operated by Mortenson personnel.

## 2.0 Safety

There was one near miss during the February. On February 10<sup>th</sup>, an RT crane operated by EPC contractor personnel was backing down a county road when it slipped into the ditch, becoming stuck. There have been no OSHA recordable incidents on the project as of February 29<sup>th</sup>.

## 3.0 Project Schedule

With the Section 404 Clean Water Act permit received, the project company and the EPC contractor agreed to a change order that includes a schedule change. According to the revised schedule, the final turbine will be placed in service on October 16, 2020. On February 5<sup>th</sup>, Vestas issued a Force Majeure notice to the project company regarding COVID-19. The impact to project schedule is not yet known, but Vestas has indicated that a schedule change order will be requested, if appropriate. Blades for the Vestas V120 for this project are sourced from China, but the project company was able to ascertain that all 57 sets for the project have already been manufactured. There may be impacts on other major components that have supply chains originating in China. The project company and Empire will continue to discuss the manufacturing and shipping schedule with Vestas on a regular basis to allow for risk mitigation and development of contingency plans, if needed.

## 4.0 Development Activities

The project company worked in February on obtaining crossing agreements with other utilities in the project area. The Barton County Water District confirmed that it does not object to installation of any of the project infrastructure. In an attempt to obtain a crossing agreement with Magellan Pipeline, the project company redesigned or eliminated a number of roads crossing the pipeline and designed an air bridge for crossing the pipeline with the main erection crane without exerting any force on the pipeline. Upon submittal of the new designs, Magellan informed the project company that the two pipelines in their easement are farther apart than originally indicated, so the air bridge would have to be redesigned to have a longer span, increasing the cost of the air bridge. In order to prevent delay in obtaining the crossing agreement, which could potentially impact construction schedule, the project company has

decided to eliminate all crane and road crossings of the pipeline's easement and move forward with an agreement for the borings of the collection system under the pipeline.

## 5.0 Construction Activities

The following construction activities were completed in February:

- Access road construction:
  - Pioneered: 30,327 LF (79% complete)
  - Stabilized: 36,374 LF (58% complete)
  - Rocked: 25,703 LF (39% complete)
- Turbine foundations:
  - 30 foundations excavated (52% complete)
  - First foundation pre-pour rebar inspection on February 13<sup>th</sup>
  - First foundation pour on February 15<sup>th</sup>
  - 8 foundations poured (12% complete)
  - 2 foundations backfilled (3% complete)
- Electrical activities:
  - Directional boring for collection: 4,164 LF (26% complete)
  - Collection cable plowing: 37,765 LF (18% complete)
- Equipment supply:
  - Main power transformer departed factory via rail on February 14<sup>th</sup>

The following major construction activities are planned to be completed in March:

- Complete access road construction
- Complete public road improvements
- Complete stripping of all remaining turbine sites
- Complete 8 foundations (23% complete)
- Receive first turbine equipment deliveries

- Electrical activities:
  - Generation tie line:
    - Complete tree clearing and access prep
  - Substation:
    - Install transformer foundation
    - Receive and install main power transformer
  - Collection:
    - Continue receiving cable deliveries
    - Start receiving hardware and boring materials deliveries

Construction issues identified:

- Weather and saturated surface conditions
- Encroachment permits:
  - Magellan Pipeline

## 6.0 Project Cost Report

Expenditures during January totaled \*\* \_\_\_\_\_ \*\*. Project expenditures to date are \*\* \_\_\_\_\_ \*\* of the total budgeted expenditure of \*\* \_\_\_\_\_ \*\*. A significant portion of this month's expenses were for additional intensive archaeological surveys required by the U.S. Army Corps of Engineers before the Section 404 Clean Water Act permit would be issued. There have been no increases to the anticipated total capital expense at completion. See the next page for a report detailing expenses by budget category.





## 7.0 Progress Photos



Picture 1. Using a telebelt to place mud mat.



Picture 2. Bottom rebar mat and anchor bolt cage.





Picture 3. Complete foundation reinforcing with both rebar mats and anchor bolt cage.



Picture 4. Mobile equipment at substation site (met tower in background left).

## Appendices

## Progress Report – CW 06 (Feb 07, 2020)

<b>Project Name:</b>	North Fork Ridge
<b>Customer:</b>	Liberty Utilities
<b>Purchase Order:</b>	462555
<b>Type:</b>	Power Transformer
<b>Capacity, Ratings:</b>	161-34.5 kV, 99/132/165 MVA
<b>STM number:</b>	1525.01

<b>Current Stage:</b>	Preparation for shipment will finised
<b>Next Stage:</b>	Transport will start on Feb 15th, 2020

Stages:	Advance
• Winding Insulation	100%
• Winding	100%
• Core Building	100%
• Winding Assembly	100%
• Core & Coil Assembly	100%
• Vapor Phase	100%
• Tanking	100%
• Final Assembly	100%
• FAT	100%
• Preparation for Shipment	100%
• Transportation to jobsite	0%

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**Current Stage: Preparation for Shipment (100% advance)**





## Progress Report – CW 08 (Feb 22, 2020)

<b>Project Name:</b>	North Fork Ridge
<b>Customer:</b>	Liberty Utilities
<b>Purchase Order:</b>	462555
<b>Type:</b>	Power Transformer
<b>Capacity, Ratings:</b>	161-34.5 kV, 99/132/165 MVA
<b>STM number:</b>	1525.01

<b>Current Stage:</b>	Transport started on Feb 14th, 2020
<b>Next Stage:</b>	Arrival to site will be on March 17th, 2020

Stages:	Advance
• Winding Insulation	100%
• Winding	100%
• Core Building	100%
• Winding Assembly	100%
• Core & Coil Assembly	100%
• Vapor Phase	100%
• Tanking	100%
• Final Assembly	100%
• FAT	100%
• Preparation for Shipment	100%
• Transportation to jobsite	25%

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**Current Stage:** Transportation to job site (25% advance)

