



**MERRICOURT SUBSTATION**  
**EPCS/ECI MONTHLY PROJECT STATUS REPORT**

**DATE April 9, 2020**

**1. SAFETY**

- a. Safety orientation are given to all persons working on site.
- b. Daily safety tailboard meetings are being held daily at show up (Substation).
  - i. Keep eye contact with the operator if approaching equipment.
  - ii. Keep non-construction personal off the site unless accompanied with a qualified person.
  - iii. Barricade any open excavations.
  - iv. Covid-19 Documents are being reviewed and signed.
- c. There have been no recordable incidents this month.

<b>Project Name: Merricourt Substation Project</b>	
<b>Location: McIntosh County, ND</b>	
<b>Major "EPC" Contractors: Renew</b>	
<b>Turbine Supplier: NA</b>	
<b>EPCS Monthly Man Hours</b>	
<b>April Hours</b>	<b>TOTALS:</b>
<b>Number of Monthly MAN HOURS (break-down needed):</b>	1,059.5
<b>EPCS</b>	196.0
<b>Renew</b>	713.5
<b>Dakota Fence</b>	0.0
<b>FirstMark</b>	110.0
<b>EPCS Testing</b>	40.0
<b>Terracon Testing</b>	0.0
	0.0
	0.0
	0.0
<b>° EDF Site Rep. TEAM (if applicable)</b>	
<b>EPCS Project RIR to date:</b>	0
<b>EPCS Project DART to date:</b>	0
<b>EPCS Project SR to date:</b>	0
<b>EPCS Project FR to date:</b>	0
<b>Fatalities:</b>	0
<b>EPCS First Aid Only:</b>	0
<b>EPCS Near Miss/Good Catch:</b>	0
<b>EPCS Property Damage:</b>	0
<b>Recordable w/NO LOST DAYS:</b>	0
<b>Recordable w/LOST DAYS:</b>	0
<b>Number of DAYS LOST:</b>	0
<b>Number of hours worked (MONTH):</b>	1059.5
<b>Number of hours worked (Previous Months):</b>	6250.5
<b>Total Hours Worked on the Project:</b>	7310.0

## **2. MERRICOURT SUBSTATION ENGINEERING**

### a. Substation Design Drawings:

#### i. Physical design

1. All physical drawings have been issued for construction.

#### ii. Electrical design

1. All electrical drawings have been issued for construction

## **3. MERRICOURT SUBSTATION SCADA:**

### a. Merricourt Substation RTU (D20) Master Tag List V3b has been submitted.

### b. SCADA Comm block diagram has been updated based on OTP and AMSC discussions.

## **4. MERRICOURT SUBSTATION STUDIES:**

### a. Insulation Coordination

- i. Report was stamped and issued for record on February 28, 2020.

### b. Reactive Power Study

- i. Report was stamped and issued for record on December 2, 2019.

### c. Short Circuit Analysis

- i. Report was stamped and issued for record on March 24, 2020.

### d. Substation Ground Grid Analysis

- i. Study was stamped and issued for record on November 26, 2019.

### e. Harmonic

- i. Study was stamped and issued for record on May 5, 2020.

### f. Lightning & Switching Overvoltage

- i. Not applicable for this project due to short line length.

### g. Transient Overvoltage

- i. Expect to have initial study issued for review early June.

### h. Transient Analysis

- i. Expect to have initial study issued for review early June.

### i. Relay Settings

- i. Coordination between ECI & OTP has been progressing very well. Expect to have settings ready to issue for download within the next week.

### j. Arc Flash

- i. Initial arc flash was issued for EDF & OTP review on March 31, 2020. Have had some coordination with OTP but still waiting for comments.

## **5. MERRICOURT SUBSTATION MATERIALS**

### a. Material Status:

- i. All major equipment has been received with the exception of the Reactor have been delivered.

- ii. Misc. materials are on order and scheduled to arrive as needed for the project.

**6. MERRICOURT SUBSTATION CONSTRUCTION**

- a. Contractor Staffing:
  - i. EPC Services Company: 1
  - ii. Site work : 0
  - iii. Foundations: 0
  - iv. Electrical: 5-7
  - v. Total: 8
- b. Construction Activities:
  - i. Work in the Control Enclosure is ongoing when weather does not permit outside work (cable installation and wiring).
  - ii. Work out in the yard is ongoing when the weather is cooperative. The equipment is set, all the steel is set, below grade work is ongoing, Bus and bus and jumpers are being measured for the welder.
- c. Progress to Date:

i. Site Work	95%
ii. Foundations	100%
iii. Fence	90%
iv. Below Grade work	75%
v. Steel Structures	95%
vi. Electrical Equipment	95%
vii. Control Enclosure	95%
viii. Control Panels	90%
ix. Bus Work	0%
x. Control Cable and Terms	20%
xi. Finish Rock	0%
xii. Testing	5%

**7. LANDOWNER & LOCAL COMMUNITY ISSUES & LOCAL SPEND:**

- a. Contractors
  - i. Approximately \$26,610
- b. Materials
  - i. Approximately \$78,800
- c. Living Expense
  - i. Motels - Approximately \$27,410
  - ii. Meals - Approximately \$8,394
  - iii. Gas - Approximately \$15,385
- d. **Total Spending \$156,599**

**8. MERRICOURT SUBSTATION RECENT PROJECT PHOTOS:**

