

**BEFORE THE PUBLIC SERVICE
COMMISSION OF THE STATE OF MISSOURI**

In the Matter of the Application of Union Electric)
Company d/b/a Ameren Missouri for Permission and)
Approval and a Certificate of Public Convenience and) File No. EA-2019-0181
Necessity Authorizing it to Construct a Wind Generation)
Facility.)

SUBMISSION OF QUARTERLY REPORT

COME NOW Union Electric Company d/b/a Ameren Missouri (“Ameren Missouri” or “Company”), and pursuant to ¶ 6 of the Third Stipulation and Agreement filed in this case and approved by the Commission by its *Order Approving Third Stipulation and Agreement*, hereby submits its Quarterly Progress Report for progress through the third quarter of 2019.

Respectfully submitted:

/s/ James B. Lowery

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CERTIFICATE OF SERVICE

The undersigned hereby certifies that a true and correct copy of the foregoing document was served on all parties of record via electronic mail (e-mail) on this 1st day of October, 2019.

/s/James B. Lowery
James B. Lowery

**Reference: PUBLIC SERVICE COMMISSION OF THE STATE OF MISSOURI
File No. EA-2019-0181**

Subject: Quarterly Reporting requirements set forth in the THIRD STIPULATION AND AGREEMENT before the Public Service Commission of the State of Missouri regarding the CCN pursuant to Section 393.170.1 to construct and own a wind generation facility to be constructed in Atchison Counties in Missouri, under the Build Transfer Agreement (“BTA”) with Enel Kansas, LLC

Quarterly Progress Report:

Build Transfer Agreement Amendments

First through Fifth Amendment to the Build Transfer Agreement (BTA)

Below collectively describes the actions of the amendments as they affected the Balance of Plant contract execution; further detail on subsequent changes are listed further below.

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] ***_1

Fourth Amendment to the Build Transfer Agreement (BTA)

The Fourth Amendment to the Build Transfer Agreement, dated August 9, 2019, does the following:

[illegible]

¹ *** Denotes Highly Confidential material.

Plans and Specifications

Updated plans and specifications per the attached list will be provided to the Staff in the next few days (plans were provided for the near term construction but may not be available for all future activities at the start of construction of the first activity - for instance, electrical plans may not be final at the time civil construction commences). A submission of plans Issued for Construction (IFC) is expected by the fourth quarter of 2019. Timely completion of the Final Design remains on schedule.

Permits

	Permit	Agency	Status (Issued/Applied for/ Not yet applied for)
	Atchison County Crossing Assents	Atchison County	Issued
	Atchison County Road Use Agreement	Atchison County	Issued
	Floodplain Permits	Emergency Management Office	Not yet applied for – will only be applied for if facilities are located in floodplain
	Determination of No Hazard to Air Navigation for each wind turbine and meteorological tower	Federal Aviation Administration	Issued
	General Stormwater Permit for Construction Activity (NPDES)	Missouri Department of Natural Resources	Issued
	Crossing Permits for Utility Crossing of State Highways	Missouri Department of Transportation	Applied for
	Air Permit for Construction of Minor Source	Missouri Department of Natural Resources	Not yet applied for
	Eagle Take Permit ("ETP")	USFWS	Not yet applied for
	Missouri Department of Transportation Driveway Permits	MDOT	Issued
	ACOE Section 404 (Nationwide Permit)	Army Corps of Engineers	Issued

Project Milestones

Task/Activity	BTA Date	BTA Milestone	Projected Completion	
Execute GIA	11/01/2019	X	10/16/2019	
Civil IFC (Issue for Construction)	08/19/2019	X	09/30/2019	
Foundations IFC (Issue for Construction) V-120 & V-110	07/31/2019	X	07/18/2020	A
Foundations IFC (Issue for Construction) V-150	07/31/2019	X	07/18/2020	A
Collection System Civil IFC (Issue for Construction)	10/07/2019	X	10/31/2019	
Substation IFC (Issue for Construction)	10/07/2019	X	12/26/2019	
Gen-Tie Line IFC (Issue for Construction)	09/16/2019	X	09/09/2019	A
Switching Facilities IFC (Issue for Construction)	07/05/2019	X	09/25/2019	
O&M Building IFC (Issue for Construction)	07/29/2019	X	09/26/2019	
Construction Financing Close	09/30/2019	X	10/31/2019	
Turbine Mechanical Completion	10/19/2020	X	10/29/2020	
Turbine Commissioning Completion	10/26/2020	X	10/30/2020	
Substantial Completion (per BOP agreement)	11/11/2020	X	11/11/2020	
Project Completion (BTA Completion Deadline)	12/21/2020	X	11/17/2020	

Project Cost

Cost Account	Baseline Estimate	Estimate at Completion	Variance to Baseline	Per kW ²
BTA Purchase Price	\$500.5	\$500.5	-	\$1,676.0
Transmission Upgrades ³	-	-	-	-
Ameren Development and Management	\$6.0	\$9.0	\$3.0	\$30.1
Contingency	\$12.7	\$9.7	(\$3.0)	
Total	\$519.2	\$519.2	-	\$1,738.8⁴

² Calculations assume 298.6 MW.

³ Transmission upgrade costs are included in the BTA Purchase Price up to the final study phase estimated amount of \$16.3 million for interconnection to SPP.

⁴ Calculation includes contingency, which may not be needed. Value without contingency is \$1,706.3 / kW.

List of Submitted Documents for Outlaw Wind (to be submitted to the Staff)

1. Design Drawings

a. Design Drawings

- i. 60% Substation P&C
 1. Drawings
 2. Control and Relay Panel Specs
 3. Control and Relay Panel Specs Attachment A
 4. P&C Drawing List
- ii. 60% Substation Physical
 1. Substation General Arrangement and Sections
 2. Substation Basis of Design
 3. Substation Basis of Design Attach A
 4. Substation Grading Plan
- iii. 90% Civil Design
 1. Civil Drawing Set
 2. Civil Layout Shapefiles
 3. Civil Design Shapefiles
- iv. 90% Collection
 1. High-Prairie-Wind-Drawing-List
 2. 90% Collection System Drawings
 3. Collection Shape Files
 4. Collection KMZ file
- v. 90% O&M Building Designs
 1. Drawings
 2. Engineering Design Criteria
 3. Site Plan
- vi. IFC Gen Tie Line
 1. Structure list
 2. Outlaw Structure and Assembly Drawings
 3. Plan-Profile Pre-IFC Final Review
 4. Line Model KMZ
 5. Materials Data
 6. Reports
- vii. IFC Turbine Foundations
 1. V110, V120, and V150 Designs
 2. Design Calcs
- viii. MET Tower Designs and Calculations
 1. Controller Schematic
 2. Drawings
 3. LED Obstruction Light Data Sheet
- ix. 60% Studies
 1. Reactive Power Flow Study

2. Specifications

- a. Civil Specs
 - i. Civil Specs Basis of Design
 - ii. Civil Specs Basis of Design Attachment A
 - iii. Sub and TLine Civil Specs
- b. Collection Specs
 - i. Collection Basis of Design
 - ii. Collection Basis of Design Attachment A
- c. Gen Tie Line Specs
 - i. General Specs
 - ii. Tie Line Structure Steel Pole Specs
- d. SCADA Specs
 - i. Specs
 - ii. Communication Block Diagram
- e. SOW Specs
 - i. Scope Of Work
 - ii. Site Plan
 - iii. Laydown Yard Grading Plan
 - iv. MET Tower Scope
 - v. O&M Building Specs
- f. Substation Specs
 - i. Equipment Data Sheets
 - ii. Substation Basis of Design
 - iii. GSU Specs
 - iv. Substation Ground Attachments
 - v. Protection and Control Circuit Design
 - vi. LV Cable Spec
 - vii. Substation Battery Sizing and Selection
 - viii. Fiber Optic Installation and Testing
 - ix. Supv and Annunciator Spec
 - x. Grounding and Shielding of Control Circuits
 - xi. Steel Pole Specs