Final

Summary of Facility Study for Aquila Interconnection Queue Customer

Generation Addition: 150 MW Wind Farm near Spearville, Kansas

November 2005

Final

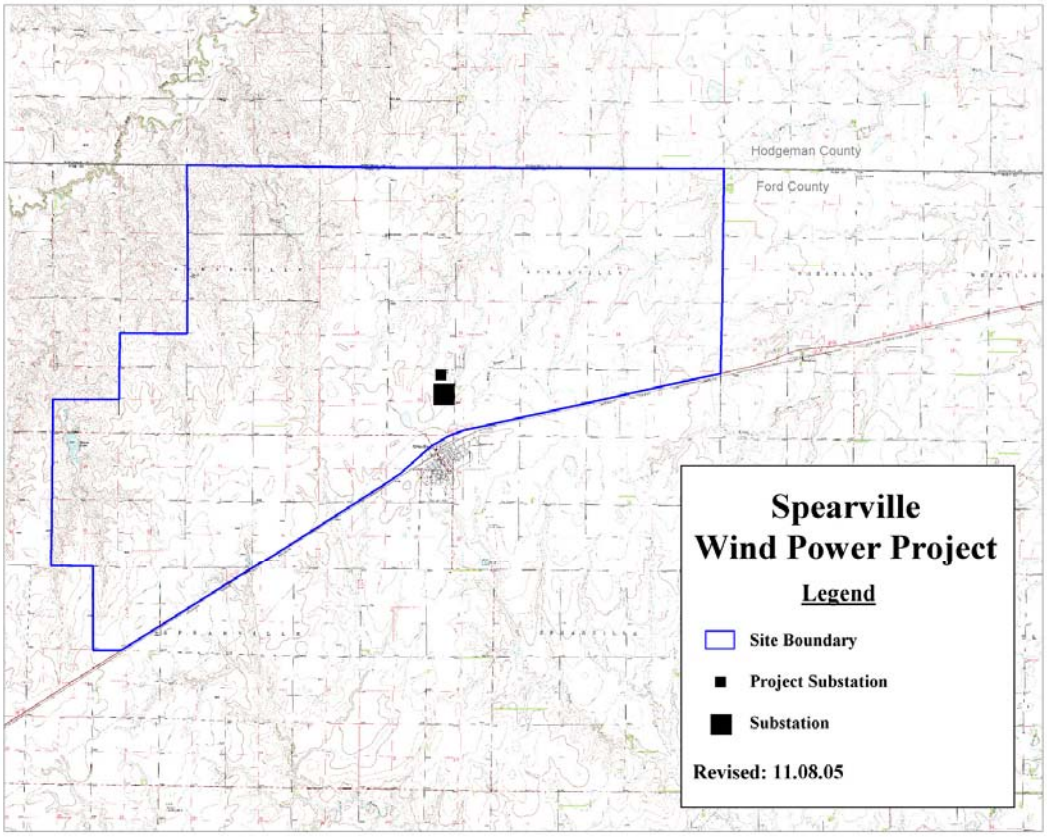
Introduction

This report summarizes the results of a Generation Interconnection Facilities Study performed by Aquila, Inc to evaluate a generation interconnection request by a customer in the Aquila, Inc. generation interconnection queue for 150 MW of wind-powered generation on the Aquila, Inc transmission system near Spearville, Kansas. Prior to this Facilities Study, a Feasibility Study and a Generation Interconnection Study were completed. The proposed project will interconnect with the Aquila Spearville 230/115/34.5 kV Substation at the 230 kV level.

Project Description

The proposed project consists of 100, 1.5 MW GE wind turbines (as per previously performed Generation Interconnection Study). The output of the project will flow into the Aquila system at the Spearville 230 kV bus. The customer will own, operate, and maintain a 230 kV transmission line from the project substation to the Spearville Substation. The customer will also be responsible for any required step down transformation, and the project substation. Figure 1 shows the geographical location of the proposed project.

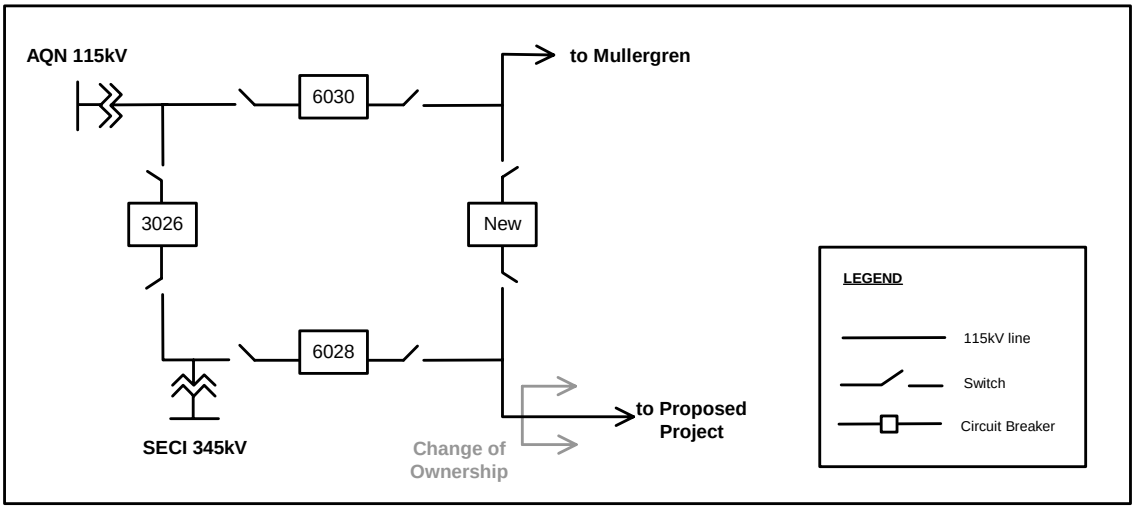
Figure 1: Geographical Location of Proposed Project



Interconnection Facilities

Interconnection to the Aquila transmission system will be by way of a new position at the Spearville Substation 230 kV ring-bus between existing breakers 6028 and 6030. Construction of this new substation terminal does not require the purchase of any additional land adjacent to the Aquila substation. Figure 2 illustrates where the new position will be located electrically within the existing Spearville Substation. Appendix A contains a detailed plot plan and a detailed electrical single line diagram of the Spearville Substation with the interconnection facilities incorporated. Note that the existing facilities in the Spearville Substation have an open position with the ring bus that has not been utilized for incorporating interconnection facilities. This is due to an internal Aquila network project that is not related to the interconnection of generation.

Figure 2: Arrangement of Spearville 230 kV Bus with Proposed Project Interconnection Facilities Included



The estimated construction cost for the additional terminal in the Spearville Substation is $2,004,000. This estimated cost includes the addition of a breaker with all associated measurement and switching equipment and the addition of the substation dead-end structure. No line work required for terminating the customer's transmission line has been included. The estimate includes Kansas sales tax but no allowance for income tax consequences. It is understood at this time that there will be no income tax consequences. Should this change, the customer will be responsible for reimbursement of income tax consequences.

Estimated work schedule

The interconnection facilities will require approximately 10 months to complete from ability to proceed with procurement of equipment. This time line is based on Aquila's engineering time, average procurement time, good weather during construction, and favorable time of year for completing construction. If construction is commenced during times of the year when facility outages are more difficult to approve, some additional time may be required. Aquila reserves the right to utilize consultants to perform this work which may impact the estimated schedule.

Additional Considerations

The Generation Interconnection Study was premised on facility additions ahead of the proposed project in the Aquila generation interconnection queue as summarized in Table 1. These assumptions still remain valid for the proposed project.

Table 1 – Higher Queue Priority Projects and System Upgrades Assumed as Part of Generation Interconnection Study

Project Description	Size	System Improvements	Comments
Wind Farm in Kiowa County – assumed in service by December 2005	105 MW	1. Relay upgrade on Judson Large to Medicine Lodge line on Judson Large terminal. 2. Replacement of wave traps on Judson Large to Medicine Lodge line. 3. Replacement of Medicine Lodge 138/115 kV transformer with 70 MVA unit. Also may raise rating on Medicine Lodge to Harper line to 95 MVA. 4. Upgrade of Kiowa tap to Greensburg line to allow 100C operation. 5. Change breaker failure relay time delay at N Judson Large.	Project presently in Facilities Study stage

Additional potential transmission service issues were also identified in the Generation Interconnection Study. The cost of mitigation of these issues is beyond the scope of this facilities study and would need to be determined from a transmission service study.

Also, the short circuit analysis performed in the Generation Interconnection Study remains valid. Note that no cost impacts were identified due to short circuit limitations.

Appendix A

Proposed Plot Plan and Electrical Single-Line Diagrams for Spearville Substation

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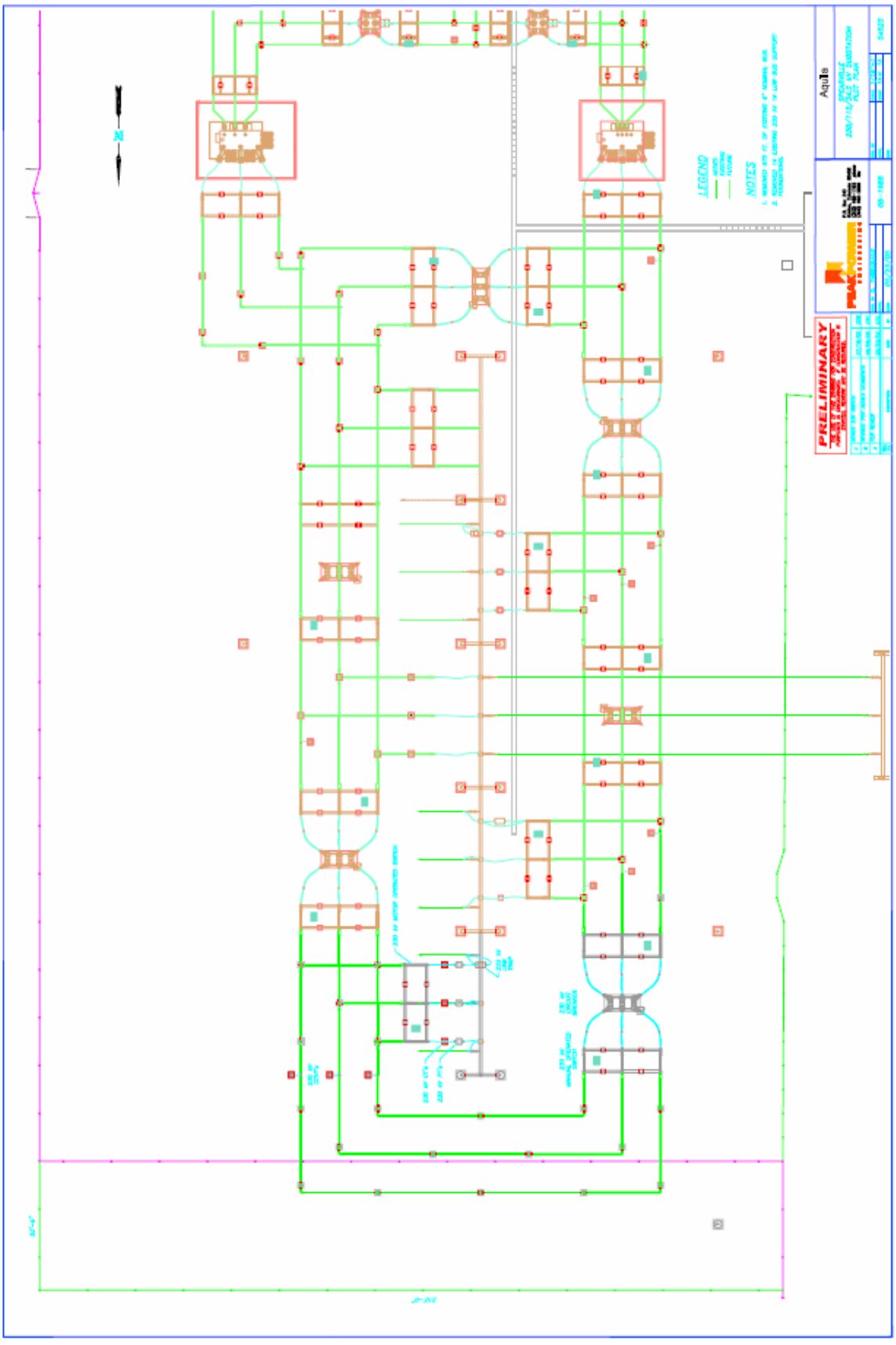

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