Distributed Wind & Rural Electric Cooperatives: A Colorado Case Study

Background
A 2013 Colorado law, SB252, required cooperatives and certain municipal utilities to source a percentage of their energy from distributed generation energy projects within their networks. In the interest of complying with the law, Y-W Electric Association allowed projects seeking net metering arrangements including those larger than the published 25 kW cap to be reviewed on a case-by-case basis. This flexibility allowed the Heritage Dairy in Yuma, CO to pursue a project with an economy of scale that enjoyed favorable financial performance. Without the opportunity to propose a project that was nearly 10 times larger than their standard net metering cap, the project would not have been possible.

The combination of a clear interconnection application process and the availability of a talented system engineer were also critical to the success of the project. The engineer was familiar with the cooperative’s approval process and was able to articulate the project size threshold that triggered requirements for further studies. By working with the wind turbine manufacturer, the project proponents were able to tune the maximum generation levels to stay within the cooperative export limits. With the engineer’s assistance, the project was able to proceed at a workable pace culminating with a successful, productive project.

Key Takeaways for a successful REA project:

1. Clear interconnection process
2. Clear program rules and some flexibility
3. Staff with network and program expertise
4. Equipment providers with flexible generation setpoints
5. Incentives

Project Details
- Two Northern Power Systems 100/24 100 kW turbines, regulated at 95 kW each
- 36m tubular tower
- Connected to the utility behind the meter