



24-Hour PureWave® SMS-250 Storage Management System Island Test at Ameren microgrid.

Start of test 8/3/17 8:00AM CST, Completion of test 8/4/17 8:00AM CST

- ① Start of 24-hour SMS Island Test. State of Charge 97%, Solar & Wind off. SMS powers microgrid load.
- ② SMS State of Charge < 90%, system dispatches Solar & Wind. Solar & Wind power microgrid load and excess power charges SMS.
- ③ SMS fully charged to 97%, curtails Solar & Wind to zero output. SMS powers microgrid load.
- ④ Daytime cycle similar to interval #2. Higher wind output.
- ⑤ Daytime cycle similar to interval #3.
- ⑥ SMS SoC < 90%. Approaching Sunset, thus low solar output. Low wind output. Still enough Solar & Wind to power load and slowly charge SMS.
- ⑦ Dusk. Solar Inverter shuts off. System relies on wind power to deliver microgrid load and SMS to provide voltage reference.
- ⑧ System successful through night-time with strong winds and SMS. Microgrid load powered the entire time.
- ⑨ 24-hour SMS Island Test complete. SMS never dropped below 88% SoC. Sunrise brings solar power back up.

Battery █
 Solar █
 Wind █



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