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Technical Report 20170323

Railroad Applications: 'USING THE 360 GROUND FINDER AT LOCATIONS WITH WIND TURBINES'.

1. This document is to be used in conjunction with S&C Procedure Report Dated 23 March 2017 and is only valid for a Superwind 350 or Superwind 353 wind turbine (as no other brands participated in the study, nor are commercially rated with the same attributes of the Superwind turbine). Therefore, do NOT use the following procedure with any other brand of wind turbine!

2. As properly identified in the 2017.03.23 document 'USING THE 360 GROUND FINDER AT LOCATIONS WITH WIND TURBINES', there are indeed many types of micro-wind turbines in the market, ranging widely in quality, some with "wild AC" output, some with DC output but requiring a ground (third wire run), and some with only a two wire DC output (as is the case with the SW350). The procedures for testing these various types of wind turbines must of course be different. The SW350, being classified as a two wire ('+' & '-') 'DC output' (the final electrical power delivered from the ever-loaded™, offset stator based wind turbine to the charging system, coming from a RF Gain Dampened 6 Pulse Bridge Rectifier) should be tested as generally mentioned in the S&C document in the first variant mentioned: ***Some wind turbine manufacturers recommend shorting the turbine leads once they have been separated from the bungalow.*** To be more specific, Superwind recommends that the positive and negative leads coming from the turbine (if just testing the turbine only), or, the positive and negative leads from the wire run terminating (after coming from the turbine, through the mast, etc, to test the turbine plus the wire run) before the safety switch (turbine "RUN/STOP" control), BE SHORTED ('+' & '-' connected together), thus stopping the turbine and thus allowing the test to be made. Caution must be used as if the wind turbine is spinning during the creation of the shorted leads - there may be current possible until the turbine stator stops producing power. This occurs within a second. Also recommended: It would be safest to initially turn off the wind turbine by way the "Stop/Run" switch - and then short the leads to perform the test.

Please do not hesitate to call our technical support group at +1 716 276 8465 regarding this procedure.

Additional Information of Superwind Turbines can be found at

www.missioncriticalenergy.com