

Updating Stochastic Hosting Capacity Algorithm for Voltage Optimization Programs and Interconnect Standards

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Abstract : The ADHCAT (Automated Distribution Hosting Capacity Assessment Tool) was designed to run Hosting Capacity Analysis on the ComEd system via a stochastic DER (Distributed Energy Resource) placement on multiple power flow simulations against a set of violation criteria. The violation criteria in the initial version of the tool captured a limited amount of issues that individual departments design against for DER interconnections. Enhancements were made to the tool to further align with individual department violation and operation criteria, as well as the addition of new modules for use for future load profile analysis. A reporting engine was created for future analytical use based on the simulations and observations in the tool.

Keywords : distributed energy resources, hosting capacity, interconnect, voltage optimization

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