



PSERC WEBINAR

Realistic but not real: Comprehensive electrical distribution datasets of the future

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The SMART-DS models provide the next generation of datasets for modelling of electrical distribution systems. In addition to providing thousands of clean distribution feeders in OpenDSS, CYME and json formats, this rich dataset provides information such as timeseries load profiles for various tilts and azimuths, substation internals and many other features. These entirely synthetic networks are embedded in several urban and rural areas of the continental United States and have been validated by real utility data.

In the first part of this presentation, we will discuss how these datasets were created under the arpa-e GRID DATA program. The second half of the presentation will cover how to use access and use the datasets with the AWS interface provided by the Open Energy Data Initiative. Questions are welcome.

FEBRUARY 15, 2022

[LINK TO WEBINAR](#)

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2:00-3:00 P.M. EST

(11:00-12:00 P.M. PST)

Tarek Elgindy joined the National Renewable Energy Lab in 2015 after receiving a master's in algorithms, combinatorics, and optimization from Carnegie Mellon University. Prior to his time in the US, Tarek worked at CSIRO on applied mathematical optimization with application to the Australian Future Grid Forum. Tarek has worked extensively on managing large electrical distribution datasets and understanding the impact of network structures and designs on power quality – primarily for quasi-static timeseries analysis. His research interests include developing market structures for distribution networks, developing tools for managing and cleaning electrical infrastructure data, and understanding the interactions between distribution and transmission systems with high penetrations of DERs.

