



PSERC WEBINAR

A Cross-Domain Approach to Analyzing the Short-Run Impact of COVID-19 on the U.S. Electricity Sector

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The novel coronavirus disease (COVID-19) has rapidly spread around the globe in 2020, with the U.S. becoming the epicenter of COVID-19 cases since late March. As the U.S. begins to gradually resume economic activity, it is imperative for policymakers and power system operators to take a scientific approach to understanding and predicting the impact on the electricity sector. Here, we release a first-of-its-kind cross-domain open-access data hub, integrating data from across all existing U.S. wholesale electricity markets with COVID-19 case, weather, mobile device location, and satellite imaging data. Leveraging cross-domain insights from public health and mobility data, we rigorously uncover a significant reduction in electricity consumption that is strongly correlated with the number of COVID-19 cases, degree of social distancing, and level of commercial activity.

SEPTEMBER 1, 2020

[LINK TO WEBINAR](#)

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

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

Dr. Le Xie is a Professor and Chancellor EDGES Fellow in the Department of Electrical and Computer Engineering at Texas A&M University, and the Assistant Director-Energy Digitization at Texas A&M Energy Institute. He received B.E. in Electrical Engineering from Tsinghua University in 2004, S.M. in Engineering Sciences from Harvard in 2005, and Ph.D. in Electrical and Computer Engineering from Carnegie Mellon in 2009. His industry experience includes ISO-New England and Edison Mission Energy Marketing and Trading. His research interest includes modeling and control in data-rich large-scale systems, grid integration of clean energy resources, and electricity markets.

Dr. Xie received the U.S. National Science Foundation *CAREER Award*, and DOE Oak Ridge Ralph E. Powe Junior Faculty Enhancement Award. He was awarded the 2017 IEEE PES Outstanding Young Engineer Award. He was recipient of Texas A&M Dean of Engineering Excellence Award, ECE Outstanding Professor Award, and TEES Select Young Fellow. He serves or have served on the Editorial Board of IEEE Transactions on Smart Grid, IET Transaction on Smart Grid, and Foundations and Trends in Electric Energy Systems. He is the founding chair of IEEE PES Subcommittee on Big Data & Analytics for Grid Operations. His team received the Best Paper awards at North American Power Symposium 2012, IEEE SmartGridComm 2013, HICSS 2019, IEEE Sustainable Power & Energy Conference 2019, and IEEE PES General Meeting 2020.

