



This Week at NETL

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Oncor Electric Delivery Company Completes Smart Grid Demonstration Project

Oncor Electric Delivery Company—in conjunction with Nexans (formerly The Valley Group), Southwest Research Institute, Siemens Energy Inc., Chapman Construction Company, and ERCOT—has completed an [NETL-sponsored project](#) to evaluate tools and technologies to monitor the thermal state of transmission lines and provide the real-time data required for dynamic line rating (DLR). DLR systems are needed on the electricity grid to increase power capacity ratings through existing transmission lines with minimal investment, enhance the ability to dispatch wind power, and mitigate congestion on heavily loaded circuits. The project team refers to their technology as integrated DLR (iDLR), as it designates real-time ratings that account for the full impact of ambient temperature, solar radiation, and wind variations, along with integration of the data into the transmission system's status telemetry for operations. The project demonstrated the potential to raise the line capacity an average of 25 percent above the static rating with appropriate ambient conditions. It was so successful that, outside of the NETL-supported project, Oncor deployed the iDLR system on five additional transmission lines near Odessa, Texas, in June 2013. Managed by NETL's Office of Energy Project Management, the project was one of 16 regional demonstrations to receive an award funded by the American Recovery and Reinvestment Act of 2009 through the [Smart Grid Demonstration Program](#). The final report for the project is available through the Energy Department's [Office of Scientific and Technical Information](#) and on the [Smart Grid website](#).

NETL Researcher Receives AIChE Award for Leadership Technical Service

NETL researcher Dr. Isaac Gamwo was honored by the Separations Division of the [American Institute of Chemical Engineers \(AIChE\)](#) for his a 4-year technical service term in the National Programming Committee for Area 2F—Fluid-Particle Separations. In this capacity, Dr. Gamwo reviewed proposals for presentations, selected technical session chairs and co-chairs worldwide, and selected final recipients for various awards in the fluid-solids separation area. Dr. Gamwo served as Program Vice-Chair for 2 years and as Program Chair for 2 years. During his service, he created and organized several non-conventional sessions that addressed critical fluid-solid separation issues of interest to petroleum industries and academia, including “Solid-Fluid Separations in Oil Gas Production and Refining Processes,” “Theories and Applications of Cross Flow Filtration,” and “Fluid Solids Separation in Energy and Environmental Systems.” AIChE director Dr. Costa commended Dr. Gamwo's work: “This area had little activity for several years. . . . Isaac revitalized the area at a time when AIChE strived to put behind the effects of potential insolvency.” The Separations Division's annual awards dinner was held on November 13, 2013, in conjunction with the [2013 AIChE Annual Meeting](#) held in San Francisco, Calif. Dr. Gamwo was also officially inducted as an AIChE fellow at a separate event.

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