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## Siemens improves the performance of the Vietnamese transmission grid

As part of an extensive program to ensure a reliable national power supply in Vietnam, Siemens received an order from the state-run energy company, Electricity of Vietnam National Load Dispatch Centre (EVN NLDC), to improve the performance of the nationwide transmission grid. Siemens will supply and install products and systems for detecting and evaluating failure situations in the grid, for ensuring grid quality and for detecting and monitoring dynamic grid states.

The equipment will be installed in substations distributed throughout the country and in the grid control centers, where it will help increase the grid's failure tolerance, improve its transmission capacity and optimize the expansion of new primary plants. The goal is to make better use of the existing grid infrastructure and to be able to connect additional loads as well as prevent outages that could result from overloading. The substations and control centers are expected to be equipped with the new technology and go into operation by mid-2018.

Fault recorders from the Siprotec 5 7KE85 series, combined with the Sicam PQS evaluation software, will be used in 73 Vietnamese substations, and the Siguard PDP wide-area monitoring system will be employed in three regional and one national grid control center. These fault recorders work with an integrated function for measuring synchrophasors to monitor grid dynamics and measure grid quality.

The devices enable the event-based evaluation, analysis and documentation of processes in the grid, including critical load situations, short-circuits, power fluctuations and power swings. The integrated Sicam PQS evaluation software evaluates the fault recorders to provide a quick overview of the grid quality.

The Siguard PDP (Phasor Data Processor) wide-area monitoring system in the one national and three regional control centers will also help ensure that the transmission grid in Vietnam operates reliably. It uses synchrophasors in real time, making it easier to quickly assess the current condition of the grid. For example, power swings and fluctuations are immediately displayed to help the control center personnel determine the cause of the problem and immediately take corrective action.

“In addition to power supply shortage, Vietnam is encountering high transmission and distribution losses for a number of reasons. The Vietnamese government has put a great deal of efforts so as to reduce these losses. With this order, Siemens is very proud to be able to support our customer, Electricity of Vietnam National Load Dispatch Centre (EVN NLDC), in fulfilling successfully their challenging tasks while realizing our commitment to assist Vietnam to improve their grid performance,” said Siemens Vietnam President and CEO Thai-Lai Pham.

### Contact for journalists

Siemens Ltd., Vietnam  
Communications & Government Affairs  
Duong Huong Ly  
Tel: +84 4 3577 6688 ext. 310  
Fax: +84 4 3577 6699  
Email: [duong-huong.ly@siemens.com](mailto:duong-huong.ly@siemens.com)

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