



With SurvalentONE SCADA and FLISR, Da Nang Power Company has Created a Smart Grid that will Improve the Quality and Reliability of its Power Supply and Increase Customer Satisfaction.

## Case Study



**Survalent.**

## SurvalentONE SCADA and FLISR implementation helps create the first smart grid in Vietnam

Da Nang Power Company (DNPC) is an electrical utility serving 300,000 residential, commercial, and industrial customers in the city of Da Nang, Vietnam. DNPC and 12 other electric utilities operate under the management of Electricity of Vietnam Central Power Corporation (EVNCPC.) In 2012, the Government of Vietnam directed EVNCPC to improve the quality and reliability of the country's electricity supply through the development of a smart grid.

As the sole supplier of electricity to Da Nang, Vietnam's fourth largest city and a popular tourist destination, DNPC plays a critical role in the well-being of the city's residents and economy. The utility recognized that automating its distribution grid would help it gain operational efficiencies and improve the reliability of the power supply. At the time, Da Nang's power grid operated in open-circuit closed-circuit mode. In the event of a grid malfunction, operators were required to manually isolate a fault's location, change the grid connection, and transfer the power, resulting in widespread and lengthy power interruptions.

In 2015, DNPC launched a 5-year plan to establish a smart grid, beginning with the installation of advanced metering infrastructure to automate information collection and better manage load demands through the day. DNPC also began researching new technologies in distribution network automation.

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### Modernizing the Grid with SurvalentONE SCADA and FLISR

In 2017, after much consideration, DNPC selected SurvalentONE SCADA to automate and centralize its network operations. "As the first utility in Vietnam to implement software in accordance with the smart grid strategy, it was important that we selected a vendor we could trust and software that was proven to meet our needs," said Vo Hoa, Deputy Director of DNPC. "Survalent offered modern, reliable software; low total cost of ownership; and the ability to work with our new infrastructure and equipment."

My Phuong Trading Co. Ltd. (MPCO), Survalent's local partner and integrator, worked with DNPC's engineers to commission SurvalentONE SCADA with SmartVU in just 45 days.

"We were extremely pleased with the professionalism and responsiveness of Survalent and My Phuong Trading Co. in implementing SurvalentONE SCADA for our control room. MPCO trained our utility administrators and engineers, who then performed all of the system configuration in-house with ease. The application is intuitive, easy to program and use, and we've seen noticeable improvements in our control room operations. This gave us great confidence in selecting SurvalentONE FLISR for the next step in our modernization plan," said Hoa.

DNPC is following a two-phase plan for its FLISR implementation. Prior to starting, DNPC sectionalized its feeders, replaced old equipment, upgraded its communication line from 3G to optical fiber, and completed the network modelling requirements.

## In Phase 1, DNPC implemented FLISR on two medium voltage transmission lines supplying power to hospitals and government buildings.

“Working under the guidance of MPCO and Survalent, our engineers configured the database and software at the control center, built test scripts, and successfully implemented the pilot project with 02 outlets and 05 cutters,” said Hoa. “Work began at the end of 2017, took approximately three weeks, and was successfully completed in January 2018. We have also deployed Survalent’s substation automation software, StationCentral, which includes HMI and Gateway to automate four of nine 110 kV transformer stations.”

“The success of Phase 1 has demonstrated the ability of our leaders and technical staff to understand the technology and develop on the actual grid,” said Mr. Nguyen Thanh, Deputy General Director of EVNCPC.

**“I expect continued success in implementing FLISR on our remaining seven feeders and updating the DMS equipment on our network during Phase 2.”**

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### Increased Quality, Reliability and Customer Satisfaction

“This project has significantly increased electricity safety, quality, and the reliability of power supply to the regional grid,” said Le Minh Chau, a member of DNPC’s Troubleshooting Team. “The system automatically locates and isolates fault sections, then accurately restores service for non-fault areas. As a result, we are able to minimize the impact of power loss for many customers and quickly restore power supply to affected customers.”

**Based on initial results, DNPC expects to see a 43% decrease in SAIFI and a 16% reduction in SAIDI once SurvalentONE FLISR is fully deployed.**

DNPC will complete deployment of FLISR to its remaining feeders in 2018 and plans to add more equipment in the future to advance its progress toward a smart grid.

“Utilities in Vietnam consider Da Nang PC a model utility. They are looking to us as an example of how they can successfully modernize their network. We are more than happy to share our knowledge and expertise so that they can join us in implementing advanced DMS applications into their grid.”

## Control your critical network operations with confidence

With Survalent, you can control your critical network operations with confidence. We're the most trusted provider of advanced distribution management systems (ADMS) for electric, water/wastewater, gas, and transit utilities across the globe.

Over 600 utilities in 30 countries rely on the SurvalentONE platform to effectively operate, monitor, analyze, restore, and optimize operations. By supporting critical utility operations with a fully integrated solution, our customers have significantly improved operational efficiencies, customer satisfaction and network reliability.

Our unwavering commitment to excellence and to our customers has been the key to our success for over 50 years.

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- Da Nang Power Company

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