



Future Distribution Network Solutions

Guest Editor:

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Message from the Guest Editor

Dear Colleagues,

In the future, utilization of distribution network (MV and LV) connected controllable and flexible distributed energy resources (DER), i.e., flexibilities is needed to improve local and systemwide grid resiliency, maximize integration of renewable energy resources (RES) and electric vehicles (EVs), and minimize the whole-system costs and customer electricity prices. However, this requires new management and protection solutions for future resilient distribution networks enabled by digitalization and advanced ICT technologies. In addition, there is a need for new distribution network operation and planning principles based on active utilization of flexibilities. Further, new, compatible, distribution network market schemes, business models and regulation structures need to permit active utilization of flexibilities to provide different services and also take strongly into account the role of customers with different needs.

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Guest Editor

