



Consortium for Electric Reliability Technology Solutions
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Participant Contact Information and Research Activities

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<p>What is your working definition of a microgrid? How is it different from the following working definition?</p> <p>A microgrid is an integrated power delivery system consisting of interconnected loads and DER which, as an integrated system, can operate in parallel with the grid or in an intentional island mode. The integrated DER are capable of providing sufficient and continuous energy to a significant portion of the internal demand, and the microgrid possesses independent controls and can island and reconnect with minimal service disruption.</p> <p><i>A microgrid is an autonomous power delivery system consisting of interconnected loads and generation units (including DERs) which, as an autonomous system, can operate in parallel with the grid or in an intentional island mode. The DER and generated units are capable of providing sufficient and continuous energy to a significant portion of the internal demand, and the microgrid possesses independent controls and can island and reconnect with minimal service disruption.</i></p>	
<p>Briefly describe your research activities on microgrids.</p> <p><i>The Research and Development Division of EDF is conducting a Program called the Smart Network Challenge. The goal of this program is to invent the Smart Grid, that integrates Distributed Energy Resources, with dispersed intelligence and advanced automation. It covers the domain of islanding-reconnect (Microgrids) but not only.</i></p>	

Please note which of the following technical issues your research addresses (if any):

Intentional islanding and resynchronization	Yes
Protection within the microgrid	Yes
Voltage control within the microgrid	Yes
Frequency control within the microgrid during islanded operation	Yes
Fast load sharing among microsources (for load changes faster than the ramping rates of the prime movers)	Yes or No
Heat load matching and load prioritization	Yes or No?
Economic dispatch of assets	Yes
Meeting environmental constraints	Yes
Other	<i>Technico-economic studies of new services</i>