



Consortium for Electric Reliability Technology Solutions
Berkeley 2005 Symposium on Microgrids
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UC Berkeley Faculty Club, Berkeley CA



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>I am quite comfortable with this definition.</i></p>					
<p>Briefly describe your research activities on microgrids.</p> <p><i>I am primarily interested in optimizing energy systems in urban area. This includes optimization of energy systems for individual buildings and residential buildings for enhancing efficiency of energy use. For this purpose I am also interested in how the energy demand occurs in relation to the activities of people and I have put my effort in monitoring project in residential houses. I now have detailed energy consumption data for more than 120 houses.</i></p>					
<p>Please note which of the following technical issues your research addresses (if any):</p> <table border="0"><tr><td>Intentional islanding and resynchronization</td><td><i>No</i></td></tr><tr><td>Protection within the microgrid</td><td><i>No</i></td></tr></table>		Intentional islanding and resynchronization	<i>No</i>	Protection within the microgrid	<i>No</i>
Intentional islanding and resynchronization	<i>No</i>				
Protection within the microgrid	<i>No</i>				

Voltage control within the microgrid	<i>No</i>
Frequency control within the microgrid during islanded operation	<i>No</i>
Fast load sharing among microsources (for load changes faster than the ramping rates of the prime movers)	<i>No</i>
Heat load matching and load prioritization	<i>Yes</i>
Economic dispatch of assets	<i>Yes</i>
Meeting environmental constraints	<i>Yes</i>
Other	<i>Please be specific</i>