



**Wisconsin Energy Institute**  
UNIVERSITY OF WISCONSIN-MADISON

August 1, 2014

Dr. Karen Wayland  
U.S. Department of Energy  
1000 Independence Ave., SW  
Washington, DC 20585

Dear Dr. Wayland,

Created in 2006, the Wisconsin Energy Institute (WEI) at the University of Wisconsin-Madison is a world-class leader in clean energy research, education and outreach. We are guided by a commitment to American energy independence, with a mission to focus, integrate and transfer knowledge to better understand challenges and identify needs in energy sources, technology, use and impacts. We believe the Quadrennial Energy Review (QER) is a critical initiative for enriching our quality of life and improving U.S. economic productivity to ensure our Nation's security. The existing utility business model will not go away soon or easily; therefore it is necessary to assist in promoting all adaptive changes.

The attached white paper captures the key concepts we recommend for further research in the QER, linking technology, marketplace development and policy in a unique way. The proposed architecture can integrate microgrids and advanced grid automation in a much more effective way at the distribution level. We sketched out an architectural drawing of what a dynamic distribution system might look like and the benefits and challenges in moving toward that system. It includes concepts for a new distribution marketplace where utilities, new third party businesses marketing distributed energy and customers could find a new energy value proposition.

A robust national conversation needs to occur, and we believe that could start with a vision of what this new dynamic distribution system marketplace should look like. The development of a dynamic distribution system has the potential to create a superior ecosystem for utilities, third parties, and users without turning off the lights. Thank you for your consideration.

Best regards,

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