

## **Smart Grids and Optimization: A Winning Combination**

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A smart grid is the combination of a traditional electrical power system with information and energy both flowing back and forth between suppliers and consumers. This new paradigm introduces major challenges such as the integration of intermittent generation and storage, and the need for electricity consumers to play an active role in the operations of the system. We will illustrate the importance of optimization in meeting these challenges, and the opportunities provided by smart grid to the optimization community.