
Title: Smart Grid Presents Business Opportunities for the Electric Utility Industry



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Seminar Synopsis

Smart Grid for the electric utility industry is driven by four main factors: power system reliability, renewable resource integration, investment efficiency and operational efficiency. It is made possible basically through the integration of Information Technology (IT) into the power system infrastructure, allowing business management and operations staff to utilize the maximally valued business intelligence at appropriate timed intervals to maximize return to the utility business. Thus, it has led to emerging industries that are based on the following technology platforms – big data/analytics, cloud computing, SaaS, renewable resource, automation and demand-side management resources. These result in new products in asset management, customer relations management, work order management, power electronics for renewable integrations, integrated switches with P2P communications for self-healing grid, and various DSM resources. As Smart Grid matures into Smart Grid 3.0, building energy management is taking on significance with the incorporation of Distributed Energy Resources, microgrids and other customer-side resources. “Prosumers”, under the Transactive Energy paradigm, has also become a reality, and IT technology such as Blockchain is receiving acceptance.

Biography

As Sr. VP of ML Consulting Group, Dr. Chan is responsible for providing consultancy to electric utilities and vendor companies in North America, China, Asia Australia, Europe and Africa to develop and implement Smart Grid strategies. He guides electric utility companies and regulatory agencies in the following areas:

- Develop business case studies and prepare Smart Grid strategies and resulting roadmaps, including system architecture to assure interoperability
- Implement Smart Grid roadmaps, including process change to support the changes due to new technology integration
- Develop and implement system reliability, system resource, safety and asset management plans for distribution systems, utilizing DMS, distribution automation, distributed renewable and generation, demand response, microgrids and electric vehicles resources
- Design and acquire DMS, AMI, Substation Automation and Feeder Automation systems by defining system functional and performance requirements, evaluating bids from vendors, negotiating contracts with selected vendors, and ensuring satisfactory system delivery through successful system acceptance testing before commissioning.
- By knowing the market needs and what the vendor community offers, Dr. Chan also assists vendors in improving their business ventures in the following areas:
 - Develop and implement marketing strategies in securing entries into major global markets
 - Develop and implement product development and collaboration strategies to enhance competitiveness in the global market
 - Develop partnership, M&A and other collaboration relations to help enter into markets

He is the Chair of IEEE Power System Planning and Implementation Committee, Chair of Task Force 2 of IEEE P2030.1 Working Group, a member of P2030.5 Working Group, and an original founding member of Executive Advisory Committee for DistribuTECH Conferences and ELP Executive Conference. He is also on the Editorial Board of *IEEE Transactions on Power Systems*. Dr. Chan has received SB, SM and Electrical Engineer’s degrees from MIT, Cambridge, Massachusetts, and PhD from Cornell University, Ithaca, New York.