

Google, GE Make Smart Move Onto 'Intelligent Grid' Bandwagon

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The Google/GE “intelligent grid” initiative, aimed at addressing energy sustainability concerns, could be a game-changer, especially if Google moves beyond policy advocacy.

NEWS ANALYSIS

Event

On 17 September 2008, Google and GE unveiled an alliance designed to develop and promote smart grid technologies by providing energy users with real-time information on their consumption as well as the ability to manage energy bills automatically.

Analysis

This alliance joins a number of “intelligent grid initiatives” with combined aims of policy advocacy and technology partnership (see "Hype Cycle for Intelligent Grid Technologies, 2008"). Both companies are known for their environmental activism, and their technology solutions are complementary. Much of the announcement focuses on lobbying the federal government, but if this partnership moves beyond policy advocacy, it can address two critical technical aspects of intelligent grid technologies:

- Transforming the delivery infrastructure
- Supporting active consumer participatory models

From Google's perspective, the home management and electrical power markets, like the healthcare market, closely fit the profile for the company's highest potential market targets. In April 2008, Gartner described Google's ideal consumer markets as including the following characteristics:

- A fragmented industry with generally inadequate automation
- No established player with resources sufficient to address automation issues
- Proven consumer demand

This alliance will also help GE regain its position as a leading provider of engineering solutions and operational technology to the energy industry. While other large IT vendors have dominated the marketing and utility alliances behind intelligent grids, traditionally conservative utilities want proven operational experience. That is what GE can bring to the intelligent grid table.

However, intelligent grids require much more than next-generation distribution management systems, system protection and distribution automation technologies. They must also present end users with smart appliance and energy technology options and opportunities to integrate them into energy markets. That's where Google's understanding and directions in consumer markets can help energy technology consumerization and enable information exchanges needed to power the intelligent grid.

RECOMMENDATIONS

- **Utilities planning Intelligent Grid or advance metering infrastructure (AMI) initiatives:** With Google's entry into end-user energy efficiency management, reconsider your technology strategy and investment in consumer technology such as home area network and in home energy display.
- **Plug-in hybrid electric vehicle (PHEV) manufacturers and utilities considering PHEV pilots deployment:** Consider Google technology during evaluation of technical feasibility of vehicle-to-grid application.

Additional research contribution and review: Richard Hunter

RECOMMENDED READING

- "Energy Technology Consumerization: The Quest for Lean and Green" — The drive for sustainable and cleaner energy sources shifts energy efficiency and distribution generation into the hands of consumers. **By Zarko Sumic**
- "Energy Technology Consumerization: Impact on Utility OT and IT" — The consumerization of energy technology transforms core utility business models and will force the modification of utility IT and operational technology. **By Zarko Sumic**

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