

CLEANTECH AWARDS

SMART GRID

Trilliant's data chatter saves energy

BY EMMA RITCH

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Trilliant is teaching the smart grid of tomorrow to “talk.”

The 26-year-old Redwood City-based company provides advanced communications systems and other technology to utility customers wanting to build smart grid networks. Through better data and communication, more power can be delivered without an accompanying increase in power plants.

“They’re under a tremendous amount of pressure to smooth out their daily peak loads and reduce fossil fuel consumption,” said CEO Andy White. “The smart grid allows utilities to achieve financial benefits while improving the position of the utility from a carbon footprint perspective because there’s less generation.”

The company’s security-encrypted technology is a mixture of software and hardware that enables communication between the utility’s various assets, which include meters, distribution lines, substations and other equipment.

“We have a real history of proven solutions, which is why we’re different,” said White, who joined the company in 2009 from General Electric. “We have the highest speed and highest bandwidth of all the competitors.”

Low-bandwidth systems suffice for today’s early smart grid that uses one-way communication. That includes automated meter reading, which can save utilities time and money. But as additional tools and applications are layered on the smart grid — such as demand response, asset monitoring, voltage monitoring, electric vehicle integration, distributed generation, distribution automation and remote disconnect — utilities are going to require more bandwidth

and higher speeds to support the two-way communication necessary.

“It’s very costly to deploy a telecommunications network, so you only want to do it once,” said Rick Stevens, vice president of asset management for Hydro One, which has 1.3 million customers in Ontario, Canada. “We chose Trilliant after spending a fair amount of time thinking about what our strategy was and what it ought to be.”

Since signing with Trilliant in 2005, Hydro One has deployed smart meters to nearly all its customers, and converted more than 1 million to time-of-use (TOU) billing, in which electricity rates increase when demand is higher. TOU billing and other conservation programs have helped Hydro One reduce demand by 6 percent to 8 percent.

“Most power is consumed during the day, so if you can shift power usage from day to night you have more effective use of your plants,” Stevens said.

Trilliant has also signed deals to deploy smart grid systems for Central Maine Power Co., a unit of Spain-based utility owner Iberdrola, and Centrica, one of the largest suppliers of electricity and gas in the United Kingdom.

The company has raised \$146 million from investors MissionPoint Capital Partners, Zouk Ventures, Investor Growth Capital, VantagePoint Venture Partners, ABB and General Electric.

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WINNER

TRILLIANT INC.

Location: Redwood City.

Revenue: More than \$10 million.

Top leader: CEO Andy White.

Year founded: 1985.

Employees: 250.

What it does: Provides high-bandwidth communications networks for smart grid systems.