

Think big early, and you're a lot more efficient in the long-run. That's the lesson from Pacific Gas & Electric Company's (PG&E's) pilot program for consumer electronics—an initiative to work directly with manufacturers and retailers to get energy-efficient electronics to users and, ultimately, energy savings to customers in California.

Today the average U.S. household owns 25 electronic devices—TVs, computers, game consoles, printers, cell phones, etc. Such devices account for 11 percent of consumer and almost 6 percent of nonresidential U.S. electricity use. Electronics load is also the fastest growing use of electricity, more than three times the rate of overall load growth.

"Our goal is to increase the market share of energy-efficient consumer electronics," says Tim Michel, PG&E's program manager. "We expect energy savings of up to two million kilowatt-hours [KWH] by 2011." Nationwide, according to EPRI, realistically achievable energy savings for consumer electronics could be nearly 45 billion KWH in 2030.

The Challenges

The dynamic nature of electronics technologies—rapid advances leading to rapidly changing features and prices and to high customer expectations—make traditional approaches to end-use energy efficiency, like rebates, difficult.

Also, thousands of different electronics products exist for a wide range of end uses. This limits the effectiveness of incentives for specific technologies at the point of sale. A complicating factor is that consumers can choose from several sales channels: retail stores; direct purchase from manufacturers, wholesalers, or value-added resellers; and online.

In the end, energy savings are unlikely to motivate users: Each unit has relatively low energy consumption, and savings per unit are less than \$10 per year. Small energy savings justify only small rebates, limiting the purchase incentive.

In fact, high sales volume, rather than incentives, drives energy savings for electronics—and it is why PG&E works "upstream" with manufacturers and retailers.

The Takeaways

For its program, PG&E pulled in diverse staff expertise: technical experts to identify measures to pursue; account developers to work with manufacturing and retail partners; legal advisors to structure participation agreements; and evaluators to ensure that evaluation and measurement considerations are in the program design.

WITH ELECTRONICS, START AT THE TOP

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develop programs), PG&E contributed to CEE's new two-tier specification for energy-efficient televisions. The first tier mirrors the minimum Energy Star specification; the second is 15 percent more efficient. CEE also allows efficiency programs that adopt tier 2 to label qualifying models with "Save More with Energy Star." PG&E successfully piloted the concept in 2007 and believes that the tier-1 "Save" and tier-2 "Save More" appliance logos will help customers identify the most efficient products.

The utility's outreach to large national retailers and manufacturers began in May 2008. Under the program, retailers and manufacturers receive incentive payments,

which can be used for anything from increased marketing to price reduction. PG&E also helps

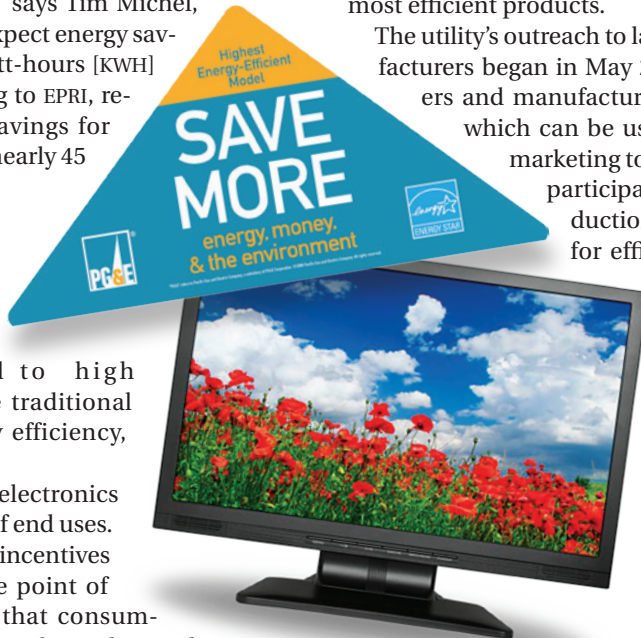
participating manufacturers expand production by promoting greater demand for efficient products from participating

retailers. Retailers have resources to increase sales rates through their partnership with Energy Star. Moreover, co-branded labels link the utility's goals and the Energy Star brand.

Already, three computer manufacturers have asked to participate; and one supplier of television components has presented program goals and specifications to their manufacturing

plants in Asia. On the retail front, several major retailers (Best Buy, Circuit City, Walmart, and Costco among them) want to participate in the program. One changed TV suppliers to ensure that qualifying products quickly got to the sales floor; another brought in the first qualifying desktop computers.

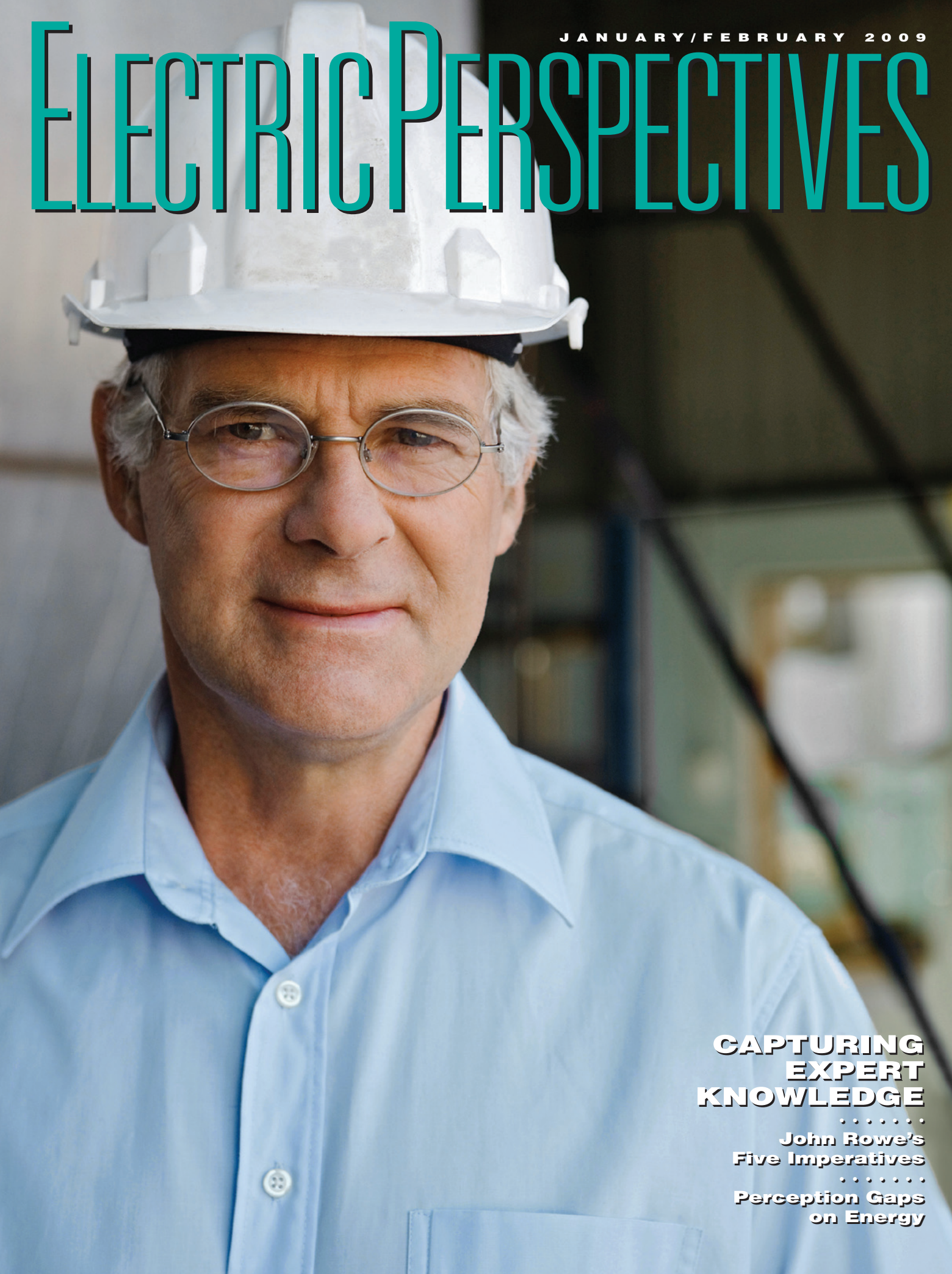
Already partnering with Sacramento Municipal Utility District, PG&E hopes to expand the program in 2009 with participation from Southern California Edison and San Diego Gas & Electric. The utility also has received requests from utilities across North America about joining the effort. ♦



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