

Q: Does E Source have any information on utilities providing in-home energy use feedback to residential customers? What impact did the feedback have on their customers' energy use? What technologies are being used for such purposes?

A: We know of only one utility, Hydro One, that ran a pilot program that began in the summer of 2004 to determine the impact of real-time energy use feedback from in-home displays. The utility gave more than 400 participating homes a Blueline Innovations PowerCost Monitor and tracked the homes' energy use for a period of 2.5 years. Overall, Hydro One found participants reduced their energy use by about 6.5 percent. Energy-use reductions varied from about 1 percent for homes with electric heat to about 8 percent for homes without electric heat. The pilot was conducted under fixed electricity rates.

Participants were given no information on what they could do to reduce their energy use, and, aside from bill reductions, homeowners received no incentive to change their behavior. Therefore, Hydro One considers the energy reduction figures to be minimum savings from merely having the feedback. In response to the successful pilot program, Hydro One is now in the process of giving 30,000 in-home displays to customers. More information on the Hydro One in-home display program can be found on [Hydro One's web site](#).

Most in-home feedback technologies available today either read the meter directly or use a current transducer to measure energy use at the breaker panel. Before joining E Source as director of the Efficiency & Demand-Response Programs Service, Lynn Stein wrote a report describing available in-home feedback technologies. That report can be found on the [California Institute for Energy and Environment's web site](#). It was part of the California Information Display Pilot (IDP) Project conducted from August to October 2004 to study the benefits of letting customers know when peak rates were in effect. The full results of the IDP can be found on the [California Energy Commission's web site](#).

According to Stein, direct energy feedback could be a very useful tool for helping customers manage their energy use and costs, especially if the feedback is given in conjunction with time-variable rates. Also, Stein says that if feedback were integrated with time-variable rates, it makes sense to combine the feedback device