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Energy-Use Software to Rival Google's?

Efficiency 2.0 keeps a low profile as it develops elaborate algorithms—its "secret sauce"—to curb energy use and rival the big guys

By [Katie Fehrenbacher](#)

Energy management tools—software and gadgets to help curb energy consumption—are the unofficial must-launch product for greentech firms this summer. And they've been coming from everywhere: smaller startups like smart-meter software maker [eMeter](#), an international conglomerate like [GE](#), and mammoth IT firms like [Microsoft](#) and [Google](#). (Read about 10 energy management tools [here](#). But one New York-based startup called [Efficiency 2.0](#), which has spent the past four years developing sophisticated energy management algorithms, says it's the first to be able to offer truly targeted energy-efficiency recommendations to customers, which it believes will put it at the front of the pack.

Think about how Netflix and Amazon.com use your demographic and purchase information to recommend books and movies that you'll actually like and possibly buy. That's what Efficiency 2.0 is shooting for, company CEO and founder Tom Scaramellino explained in an interview this week. Efficiency 2.0's software collects a whole bunch of information about the energy consumer—like location, age and

demographic data, as well as some answers the consumer provides in response to prompted questions about lifestyle and residence—and churns out recommendations on ways to curb energy consumption that rings true for each individual. For example, if the user is 23, Scaramellino said, then the engine would likely recommend more cost-effective energy-saving techniques that don't require a lot of up-front expense.

Efficiency 2.0 is also focusing on software that uses group social behavior to convince users to commit to, and follow through with, actions that reduce energy consumption. A section of the software focuses on "the neighborhood" and enables a user to befriend (via Facebook-style friend requests) neighbors participating in the program and compares the energy consumption of those in the group. If you're using a lot more energy than your neighbors, you're given an image of a face with a frown; if you're using less energy, you get various degrees of a happy face. "Yeah, it's basically guilt-tripping them into energy efficiency," admits Scaramellino, adding that the "weight-loss industry has been doing this for years. We're trying to be the Jenny Craig for energy."

UTILITY PARTNERS

The elaborate algorithms are Efficiency 2.0's secret sauce— "this is what we have that other energy management tools don't," Scaramellino said during an interview in San Francisco, tapping his knuckles on a fat stack of papers filled with code and mathematical equations. The company has spent four years, and funds from a group of hedge funds in Connecticut, working on the algorithms.

So far, utilities with which Efficiency 2.0 will partner in order to offer the tool seem to be responding. Scaramellino said even though the

company has been quiet about its utility deals, it has about the same number of partners as Google has announced for its PowerMeter tool. (Google has so far named [nine utility partners](#) . The startup's deals include an energy tool for the [Northeast Utilities System](#), a group that serves around 2 million customers in Connecticut, western Massachusetts, and New Hampshire.

Utilities also like the tool because, according to Scaramellino, it can help some of them make money. The software can generate verified energy savings, and for utilities in supportive regulatory environments, that means more state and local subsidies.

To be sure, every other company that's building energy management tools says it is working on and plans to add smarter algorithms and social-networking features. Microsoft's Hohm provides a list of recommendations, but they aren't particularly targeted or [dynamically presented](#). Given this is a relatively young space, four years can be a significant head start. Even so, Scaramellino says the company is still trying to keep its head down, avoiding sending out screenshots of its product and announcing customers. As Scaramellino puts it, he doesn't want to give the competition too many ideas.

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