

Consumption rises with automated bill payment

April 29 2015



Credit: George Hodan/public domain

The adage "out of sight, out of mind" applies to electricity use, according to new research from Duke University's Sanford School of Public Policy. A study of 16 years of billing records from one South Carolina utility found that residential customers using automatic bill payments consumed 4 to 6 percent more power than those who did not. Commercial electricity customers used 8 percent more. And low-income

residents who enrolled in budget billing to spread the cost of seasonal peak demand across the year used 7 percent more electricity.

"It's a perverse consequence of a well-intentioned program that low-income people enrolled in budget billing programs actually spent more than they would have otherwise," said study author Steven Sexton, assistant professor of [public policy](#) and economics.

Sexton estimates that if these increases are true nationwide, increased power consumption tied to auto-paying would be 15.8 billion kilowatt hours, equivalent to the annual [electricity](#) use of 1.5 million typical American homes. That much additional electricity would have created an estimated 8.6 million metric tons of carbon dioxide emissions in 2010 and could be wiping out savings from energy demand-reduction programs, he said.

"Autopay programs are likely to have a similar effect on water consumption," Sexton adds. "Perhaps an increase in price awareness could contribute to solving California's water shortage. Many economists have noted that the prices California charges for water are too low, but higher prices won't induce conservation if consumers are ignoring them."

Sexton's findings appear in the May issue of the journal *Review of Economics and Statistics*.

Automated payments allow consumers to pay utility bills without viewing them. But the convenience and lower visibility lead to something economists call "reduced salience" of electricity costs. Being less aware of the costs causes an increase in demand, said Sexton, who is a faculty fellow with the Duke University Energy Initiative.

"By boosting the salience of [electricity prices](#), utilities could reduce demand to a large extent, and more cheaply than many of the demand-

reduction programs being pursued," he said.

Automatic bill payment (ABP) programs began around 2005 and are growing in popularity. Customers sign up for recurring automatic debits from their accounts to pay for services such as power, water or telephone. These programs eliminate the need for consumers to view recurring bills.

Approximately two-thirds of U.S. consumers with recurring bills use automatic payment options, to the tune of \$23 trillion per year.

Automatic bill payment benefits the company with lower billing transaction costs and more on-time payments. And consumers experience greater convenience and avoid late payments. But their consumption apparently increases.

Sexton said some utilities are taking steps to make prices more transparent for ABP customers.

"Utilities are investing tens of billions of dollars so consumers can see real-time prices and monitor their consumption in real time, but for many consumers it may just not be worth their time to pay attention to electricity prices, whether they have a fancy in-home display or get a bill in the mail," Sexton said.

Sexton examined electricity consumption for residential and commercial customers of Santee Cooper, a publicly owned South Carolina utility, from 1994 to 2010. The data contain more than 14 million monthly residential records and 3 million commercial records. Of these, 13 percent and 3.4 percent, respectively, were enrolled in ABP over the 16-year period. Approximately 2 percent of residential customers were enrolled in budget billing.

Using a double difference experimental design, Sexton randomly sampled two groups - those using ABP and those who were not - and compared electricity usage before and after beginning ABP. The increased usage attributed to ABP cost residential customers an estimated \$1.6 million in 2010.

"The burgeoning field of behavioral economics recognizes that attention itself is a scarce resource," Sexton said, "and increasing awareness of product attributes, including price, can affect purchase decisions."

Sexton said one solution might be to implement one-click bill payment, to require the consumer to open an email, click to a website or read a text message at least monthly in order for a transaction to be processed.

"It still doesn't require very much attention or time from the consumer but could increase price salience," Sexton said.

More information: "Automatic Bill Payment and Salience Effects: Evidence from Electricity Consumption." Stephen Sexton. *Review of Economics and Statistics* 97(2): 229-241. May 2015. [DOI: 10.1162/REST_a_00465](https://doi.org/10.1162/REST_a_00465)

Provided by Duke University

Citation: Consumption rises with automated bill payment (2015, April 29) retrieved 27 April 2024 from <https://phys.org/news/2015-04-consumption-automated-bill-payment.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.