



Independent Research Finds Evidence that Aclara Spurs Behavior Change and Conservation Among Consumers.

Final results are in. Independent research performed by Opinion Dynamics Corporation, a leading national consulting firm specializing in market research and energy program evaluation, has shown that the Aclara Software® online energy analysis application motivates consumers to take action to cut energy use. Average annual savings were in a range to 4.3%, using a confidence interval of 95 percent - up to a 748 kWh reduction in a single year per customer.

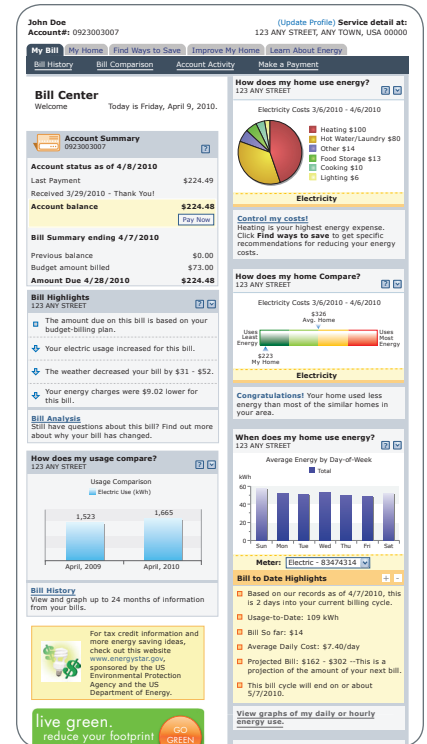
The research was completed in July of 2010 at PPL Electric Utilities, a Pennsylvania-based power provider that has offered Aclara applications since 2007. The goal of this effort was to determine if there were energy impacts from Aclara's online energy analysis application. More specifically, Opinion Dynamics tested the hypothesis that consumers (participants) who used the Aclara Software energy-analysis application modified their behavior and reduced their energy consumption. Opinion Dynamics conducted a pre- and post-billing analysis with a participant group from 2008 and a comparison group from 2009, both of which completed a detailed analysis in the application.

PPL EU customers access Aclara's powerful, user-specific analytics via the utility's "myPPL" portal. PPL EU customers can:

Visit the website every month — More than 10 percent of PPL's 1.4 million customers log onto Aclara's Bill Analysis tool regularly.

Delve deeper for ways to save — Among site users, 20 percent dig deeper into site content by completing the interactive, personalized Home Energy Analysis module and discovering ways to save energy in their own homes.

Take action based on what they learn about energy savings — Customers decide how deeply they would like to dive into the online application. For the sample group of PPL website users, energy consumption dropped an average of 2.9 percent for customers who answered the greatest number of questions, while customers answering fewer questions saved an average of 1.1 percent annually.



“We estimate the average daily savings for the most involved users to be 1.40 kWh per participant per day. This translates into annual savings of 511 kWh per household (1.40 x 365). Using a 95% confidence interval, the high and low estimates are 748 kWh and 277 kWh, respectively.”

—Caroline Wilson, Senior Analyst, Opinion Dynamics.

Impact Evaluation Findings

Study participants who chose to answer the most detailed questions:

- Reduced energy use by an average of 2.9% percent
- Experience average annual savings in a range to 4.3 percent
- Had an average annual savings of 511 kWh per household
- Reduced CO2 emissions by 644 pounds — the equivalent of planting 15 trees or not driving 697 miles

Study participants that chose to answer only the basic questions:

- Reduced energy use by an average of 1.1% percent
- Experience average annual savings in a range to 1.7 percent
- Had an average annual savings of 184 kWh per household
- Reduced CO2 emissions by 232 pounds — the equivalent of planting 6 trees or not driving 251 miles

The research reported here is part of an ongoing research project and represents 817 customers who completed the most comprehensive level of the Aclara application, which provides the most refined results, as well as 15,581 customers who completed a lower level of the application by answering fewer questions.

Real Results, Real Savings

Designed to help customers better understand and manage their bills, Aclara's interactive, customer—care experience engages the user and provides detailed, practical and customized recommendations for managing energy use more wisely. With Aclara Software applications, you can:

Lighten Your Load and Your Carbon Footprint — When PPL customers completed the most detailed questions online, slashing annual energy use by an average of 2.9 percent, each household shaved an average of 511 kWh off the utility's load per year. That means each of those households reduced CO2 emission by 644 pounds, the equivalent of planting 15 trees for a year or not driving 697 miles in the average car.

Lighten Your Call-Center Load — One of the benefits of a seamless integration of bills into myPPL is it enables customers concerned about their bills to find better ways to manage them. Aclara's Bill Analysis module answers common customer questions in simple, user-friendly language. Research at several utilities has shown that customers who review their bills online are less likely to call the call center.

Raise Customer Awareness — Usage patterns prove that the more information customers receive, the more they want. In 2009, PPL's website usage increased 42 percent compared to 2008 traffic.

Aclara Software Applications Designed for Efficiency and Customer Satisfaction

Aclara goes beyond the energy audit to enable smarter action for customers and utility workers alike.

Aclara Bill Analysis — Answer customer questions before they generate call-center questions or complaints. Aclara Bill Analysis provides:

- Highlights of the bill stated in clear, customer-focused terms for better customer understanding
- Information on how weather conditions that may have affected the bill
- Explanation about how and what that may mean for the total due, and more

Aclara Energy Analysis — More than an online energy audit tool, Aclara Energy Analysis gives customers a quick overview of key energy-management information, as well as an interactive way to probe for practical, personalized energy-saving tips. Customers discover:

- What part of the bill went to common activities, such as heating, cooling, or food storage
- How energy usage compares with similar households or businesses, which is a strong motivator of consumer conservation efforts
- What specific savings might be gained from various home or business improvements

Aclara Software applications — Proven Driver of Energy Conservation and Customer Satisfaction