Green Button Initiative

What is it?

Green Button is the common-sense idea that electricity customers should be able to securely download their own easy-to-understand energy usage information from their utility or electricity supplier.   It is an industry-led effort that responds to a White House call-to-action:

[http://www.whitehouse.gov/blog/2011/09/15/modeling-green-energy-challenge-after-blue-button]

to provide electricity customers with easy access to their energy usage data in a consumer-friendly and computer-friendly format via a "Green Button" on electric utilities' website.

Armed with this energy usage information, consumers can use a growing array of new web and smartphone tools to make more informed energy decisions, optimize the size and cost-effectiveness of solar panels for their home, or verify that energy-efficiency retrofit investments are performing as promised.

Who is involved?

The Green Button initiative is designed to work with industry to support utilities and energy service providers where they are today, and also to lead the path forward towards more consumer engagement. Initially launched in January 2012, [http://www.whitehouse.gov/administration/eop/ostp/pressroom/01182012] utilities committed to provide Green Button capability to nearly 12 million households in 2012.

In March 2012 [http://www.whitehouse.gov/administration/eop/ostp/pressroom/03222012] and May 2012, [http://www.whitehouse.gov/sites/default/files/microsites/ostp/green_button_release_2012_05_02.pdf]   fifteen more major utilities and electricity suppliers signed on to the initiative. In total, these commitments ensure that more than 30 million households will be able to access their own energy information. And this number is continuing to grow as utilities nation-wide voluntarily make energy data more available in this common, machine-readable format.

How is NIST helping?

NIST provides leadership and support that has accelerated—and will continue to accelerate—the development and ongoing evolution of the technical standards that serve as the foundation for Green Button.   Green Button is based on a common technical standard developed in collaboration with the Smart Grid Interoperability Panel (SGIP) and its PAP10, as described more fully in this article, "SGIP Plays Key Role in White House's Green Button Initiative."[http://collaborate.nist.gov/twiki-sggrid/pub/SmartGrid/SGIPMemberNews/SGIPnews_032212.pdf]

The standards development work is continuing, with SGIP's newly established PAP20: "Green Button ESPI Evolution" [http://collaborate.nist.gov/twiki-sggrid/bin/view/SmartGrid/GreenButtonESPIEvolution] now taking over the leadership and coordination role.

Through PAP20, NIST and SGIP are working together with standards development organizations (NAESB) and industry groups (including UCAIug OpenADE) to make revisions to the underlying ESPI and PAP10 standards, and to establish testing and certification to firm up the Green Button standardized xml file format structure. In addition, these organizations will be working together to promote commonality of consumer experience for Green Button.

"Green Button Download My Data" is the current version of Green Button that is being implemented by utilities. In this version, the customer clicks the Green Button Download My Data icon on the secure utility website and downloads the xml file to their computer. Green Button can be used to provide whatever energy usage data a utility has available. For example, data could be hourly interval data (typically available a day afterward) or monthly data (available for a monthly billing period).

What's next?

With respect to the path forward for greater customer engagement, the Green Button effort is being extended to allow automated data exchange from utilities to third parties as authorized by consumers. These enhancements will provide additional value to the ecosystem.

The NAESB ESPI standard that underlies Green Button enables additional functionality for automated data exchange for utilities that are ready and that have regulatory policies in place. Initial steps are under way to extend the Green Button Initiative to include "Green Button Connect My Data" functionality, which will enable more persistent and automated data exchange from utilities to third parties as authorized by consumers.

Where can I learn more?

More details about the Green Button Initiative are available online at GreenButtonData.org.

 [http://www.greenbuttondata.org/]