



# The Green Button Initiative

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# What is Green Button?

Common-sense idea that electricity customers should be able to download their own energy usage information in a consumer- and computer-friendly format.



Green Button  
Download  
My Data<sup>®</sup>



# How did this all get started?

- Aetna
- Centers for Medicare and Medicaid Services
- CNSI
- Department of Defense
- Department of Veterans Affairs
- Gorge Health Connect, Inc.
- Humana Inc. and certain of its operating subsidiaries
- Iatric Systems
- KRM Associates, Inc.
- LifeMed ID, Inc.
- McKesson
- MedRed LLC
- NaviNet, Inc.
- PatientsLikeMe
- RelayHealth
- United Healthcare
- Vermont Blueprint for Health, Department of Vermont Health Access
- Walgreens



The screenshot shows the top portion of the Blue Button website. At the top, it reads "UNITED STATES DEPARTMENT OF VETERANS AFFAIRS" with the VA seal. Below this is a navigation bar with links: Home, Veteran Services, Business, About VA, Media Room, Locations, and Contact Us. The main content area is titled "BLUE BUTTON" and features a sidebar with links: Blue Button Home, Getting Started, License the Blue Button®, Blue Button Partners, Resources, VA Homepage, and Site Search. The main content area has a large graphic with a download icon and the text "Blue Button Download My Data" over a photo of a diverse group of people. Below the graphic is the heading "What is the Blue Button Initiative?" followed by a paragraph explaining the initiative. At the bottom of the main content area, there are two links: "New to Blue Button? See how you can use the Blue Button by [GETTING STARTED](#) ▶" and "What does the Blue Button look like? Take a look at all our [RESOURCES](#) ▶ Or you can check out sample files with [All Data](#), [By Date Range](#), or [By Data Class](#)."

- As of Feb 21, almost 1 million downloads
- US government and industry adoption
- Goal of 60 million with access in 2012



# Administration call to action—but delivered by industry, using consensus industry standards

Sept 2011 – Challenge to Industry

January 2012 –California launch

March, May, June and October 2012:  
New commitments

An overnight success – years in the making. Based on published NAESB standards created by utilities and industry, and accelerated by the Smart Grid Interoperability Panel, an initiative of the National Institute of Standards and Technology (NIST)

Adoption by utilities has been swift because the standards supporting Green Button data are flexible and easily available, and the customer can quickly recognize the value of the offering.

**CURRENTS BRIEF**

A weekly recap  
from the editor of  
PGECurrents.com



CURRENTS WEEK IN REVIEW: OCTOBER 3-7, 2011

## WHITE HOUSE CTO VISITS, PROMOTES "GREEN BUTTON" FOR ENERGY INFO

By the end of 2011, California's three largest utilities will develop standard personalized energy usage reports that customers can download with the click of a green button. If successful, the collaboration would lead to innovative uses for customers' energy information. The agreement was made this week during a PG&E-hosted meeting with White House Chief Technology Officer Aneesh Chopra (above right with PG&E CIO Karen Austin and Chris Irwin of the Department of Energy), who suggested the idea based on a U.S. Department of Veterans Affairs project involving health care information. David Kligman covered this story for [Currents](#).



Utilities and electricity suppliers in **32 states and DC** across various regulatory regimes have committed to provide **36 million** US homes and businesses with Green Button data, over **16 million** of which already have access...

## Green Button commitments

- American Electric Power **(live in Texas!)**
- Austin Energy
- Baltimore Gas & Electric **(live!)**
- Bangor Hydro Electric
- CenterPoint Energy **(live!)**
- Central Maine Power
- Chattanooga EPB
- Commonwealth Edison
- Consolidated Edison NY
- Glendale Water and Power
- JEA
- Kootenai Electric Cooperative
- National Grid
- Northeast Utilities:
  - Connecticut Light and Power
  - Western Mass. Electric Co.
  - New Hampshire Public Service Co.
- NSTAR **(live!)**
- Oncor **(live!)**
- Pacific Power
- Pacific Gas and Electric **(live!)**
- PECO
- PEPCO Holdings **(live!)**
- Portland General Electric
- PPL Electric Utilities
- Reliant **(live!)**
- Rocky Mountain Power
- Sawnee Electric Membership Corp.
- SDG&E **(live!)**
- Southern California Edison **(live!)**
- Texas New Mexico Power **(live!)**
- TXU Energy **(live!)**
- The United Illuminating Company
- Virginia Dominion Power
- Efficiency Vermont\*

\*Service Provider



Green Button  
Connect  
My Data

*launched October 1<sup>st</sup>*





# Green Button to spur innovation in new areas

**Insight:** entrepreneur-created web portals analyze energy usage and provide actionable tips;

**Heating and Cooling:** customized heating and cooling activities for savings and comfort;

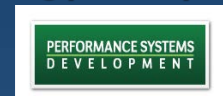
**Education:** community and student energy efficiency competitions;

**Retrofits:** improved decision-support tools to facilitate energy efficiency retrofits;

**Verification:** measurement of energy efficiency investments;

**Real Estate:** provide energy costs for tenants and/or new home purchasers; and

**Solar:** optimize the size and cost-effectiveness of rooftop solar panels.



# Helping to spur new innovation through the application of the Green Button data

*Through the Energy Data Initiative, an Administration-wide effort to spur entrepreneurship on open government and smart disclosure data, there are several industry-led teams developing prototypes of new Green Button-oriented platforms, products, services and applications.*



*The Apps for Energy contest spurred over 50 new apps built around the Green Button data standard:*

*<http://appsforenergy.challenge.gov/>*

Also working with US Federal agencies to identify tools & applications that could be enabled with Green Button



# Some current and planned uses...

**FirstFuel** will combine Green Button data from commercial buildings with weather and GIS data to create “zero-touch” virtual energy audits

**EnerNOC** is using Green Button to streamline customer qualification and on-boarding in its Energy Management Application Platform

**Belkin**, a manufacturer of hardware connectivity devices and accessories – including its Conserve line of energy-oriented products like surge protectors and energy monitors – is looking into using Green Button data in future products

**Sunrun** intends to use Green Button data to optimize the size of residential solar installations, dramatically shortening the time it takes to install solar panels and reducing consumers’ solar “hassle factor”

**Leaffully** and **Wotz**, winners from DOE’s *Apps for Energy* contest, make energy data more accessible and engaging to consumers by converting their consumption into more tangible metrics (like trees) and offering creative visualizations of their energy load





# Just the facts...

## What is it:

- Energy usage information in a common XML format (NAESB ESPI standard)
- PG&E example: how much electricity (kWh) did one metered customer consume every hour for the last year

## Markets: Residential, commercial and industrial

**Type:** initially electricity, but the data standard is extensible to gas and water data

**Timeliness:** Not real time data, but 24 hour-old back office data.

## Time interval:

- Again the data standard is extensible and could include any interval of data.
- Most will provide 15 minute interval or hourly data.
- However, some will provide monthly data, too.

## Metering system:

- You don't need to have AMI to participate. AMR works, too.

## Transfer of data:

- Green Button Download My Data – goes directly from the utility to the customer; most will implement this version.
- Green Button Connect My Data – automated data transfer from the utility to a third party with customer authorization is the 2<sup>nd</sup> part of the data standard and may be implemented as early as this year in 1-2 states.
- NIST's SGIP Priority Action Plan 20 is coordinating revisions to standards and development of testing and certification to support Green Button implementation.
  - For more information, contact: David Wollman, NIST, [david.wollman@nist.gov](mailto:david.wollman@nist.gov)



# What people are saying...

*It may finally give consumers a reason to care about the smart grid.*

– *SF Chronicle*

*Solar companies are also eager for consumer data because understanding a homeowner's electricity use is key to the sales process.*

– *San Jose Mercury News*

*The project is important because it is a broad-based plan to take energy data and standardize the format of it, open it up (while also providing security) and make it readily available to consumers.*

– *Gigaom*

*I'm a big fan of simplicity and open standards to unleash a lot of innovation....I'm going to reach out to ConEd, the utility in NYC, and find out when they are going to add Green Button support to their consumers data. I hope it is soon.*

– *Fred Wilson (Venture Capitalist)*

*Among those in attendance was software developer Joss Scholten of Austin, Texas, who created an app in 12 hours using PG&E's green button. The app, which he displayed on his iPad, shows hourly, monthly and daily electric usage in a customer-friendly display.*

– *PG&E Currents*





Questions?

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

[www.energy.gov/green-button](http://www.energy.gov/green-button)