



# The Green Button Initiative

white house inspired.  
industry led.

In response to the Obama Administration's call to action, 150+utilities and service providers commit to provide 60+ million homes and businesses with their own energy usage information in the consensus industry standard Green Button format

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



Photo credit: Silver Spring Networks CustomerIQ™ Energy Portal

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# Federal Government Interest in Data Access



- Open Data Initiatives
  - Making government information resources more publicly accessible in “computer-readable” form and encouraging its use by entrepreneurs as fuel for the creation of new products, services, and jobs
  - Project Open Data: <http://project-open-data.github.io>
  - Examples: Federal Register 2.0, Data.gov, Health Data Initiative, ...
- My Data Initiatives
  - Empowering consumers with secure access to their own personal health, energy, and education data
  - Blue Button (health info), Green Button (energy), Education, ...



# US Federal Government Commitment



## Climate Action Plan

“The Administration will **leverage the ‘Green Button’ standard** – which aggregates energy data in a secure, easy to use format – within federal facilities to increase their ability to manage energy consumption, reduce greenhouse gas emissions, and meet sustainability goals.” The President’s Climate Action Plan, June 25, 2013

## Presidential Memorandum (to all Federal agencies)

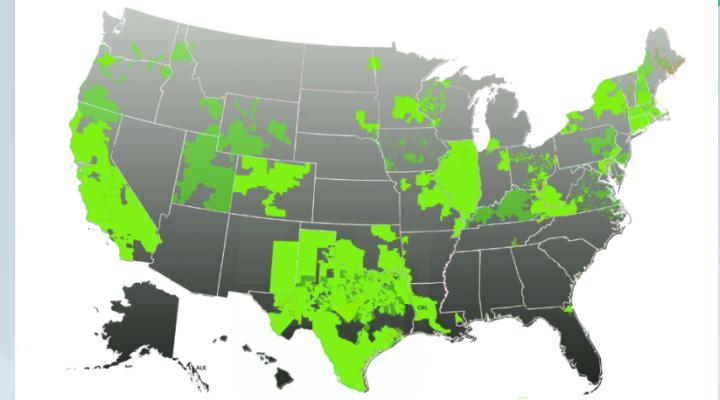
“Sec. 3. Building Performance and Energy Management .. each agency shall: ... **incorporate Green Button into reporting**, data analytics and automation, and processes, in consultation with local utilities ...” [.. GSA, EPA pilots ...] Presidential Memorandum on Federal Leadership in Energy Management, December 5, 2013



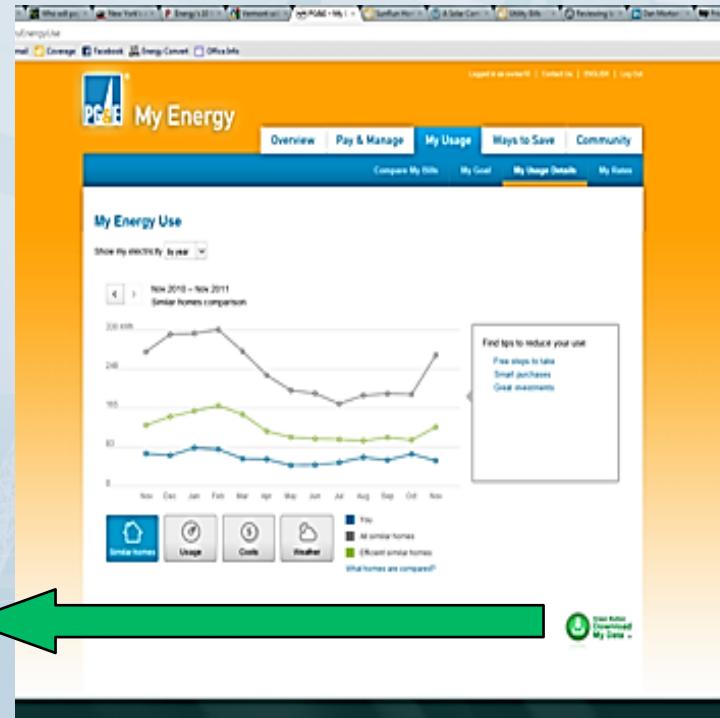
# Green Button Across the Nation



- Enables electronic consumer access to energy data and supports development of ecosystem (apps)
- Available to 60+ million customers in the US and additional CANADA: 2.6 million+
- Result of collaboration among White House, NIST, DOE, state regulators, utilities, vendors, SGIP, and North American Energy Standards Board
- Green Button Download My Data and Green Button Connect My Data



Map of US Green Button Commitments



Green Button  
Connect  
My Data



Green Button  
Download  
My Data





# Green Button Download My Data & Connect My Data Now Rolling Out



## Green Button Download My Data

A customer visits their utility web portal, they can simply login and download their Green Button Data as an XML-formatted file.



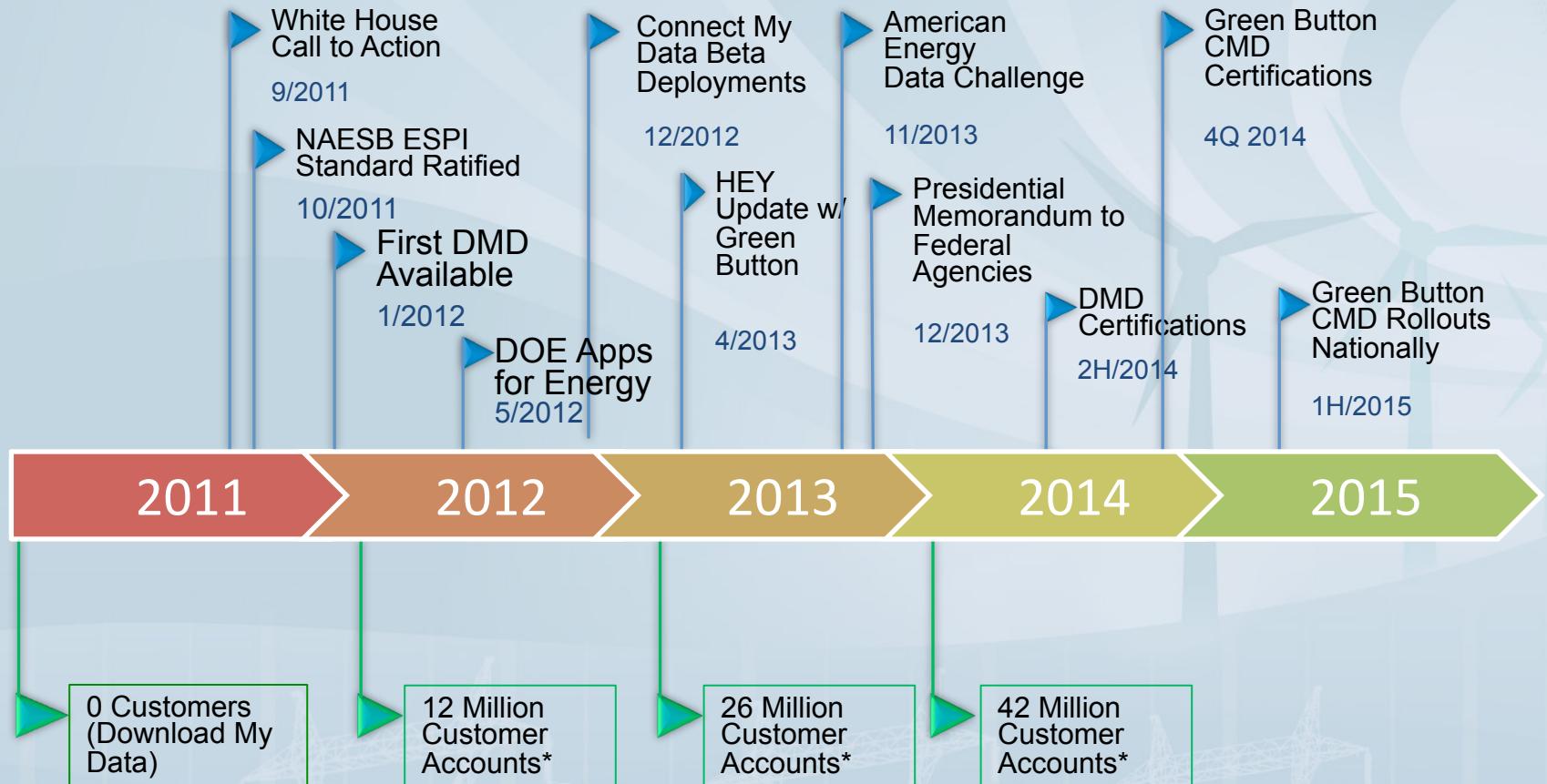
## Green Button Connect My Data

This powerful model allows a consumer to authorize a third-party service provider to receive direct access to their Green Button Data - no need to repeatedly login to their utility and download files. These authorizations are valid for an agreed upon time and can be revoked at anytime by the consumer.





# Green Button Evolution



\* Represents Customer Accounts with Access to Green Button Data – Primarily DMD; Actual Customer download numbers are not available



*“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*



## Example use case: solar PV proposal

Courtesy of Matt Theall, Green Button Presidential Innovation Fellow (DOE)

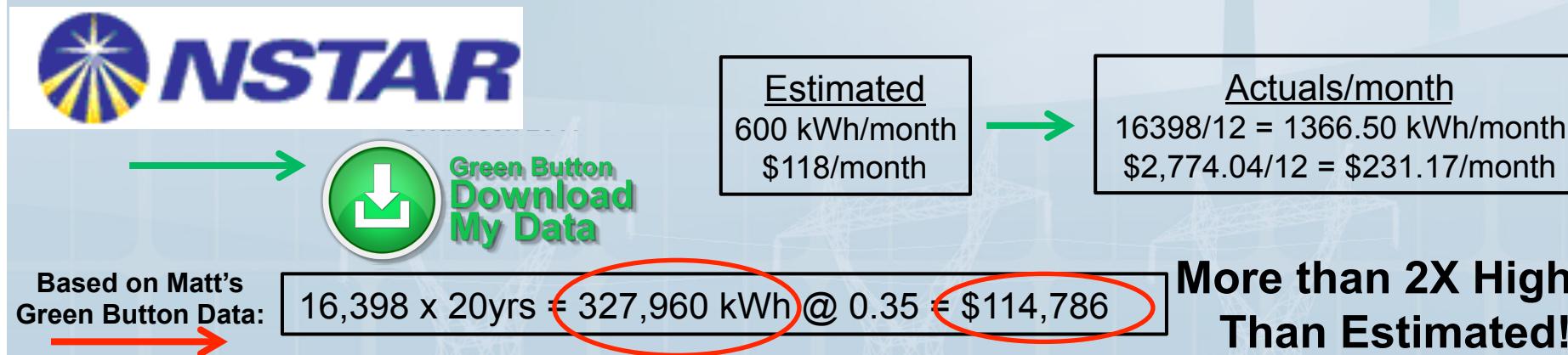
RE: PV Proposal

Dear Matt,

### PV quote based on state average annual electricity consumption **(Green Button data not available yet)**

In lieu of an electric bill, we have used the state average annual residential electrical consumption- 7,200 kWh. As a monthly average, this would equate to 600 kWh at a cost of \$118/ month. Estimated 20 year total would be 144,000 kWh at a cost of \$50,323\* (\$0.35 per kWh). Installing solar has the potential to cut this cost by 66%.

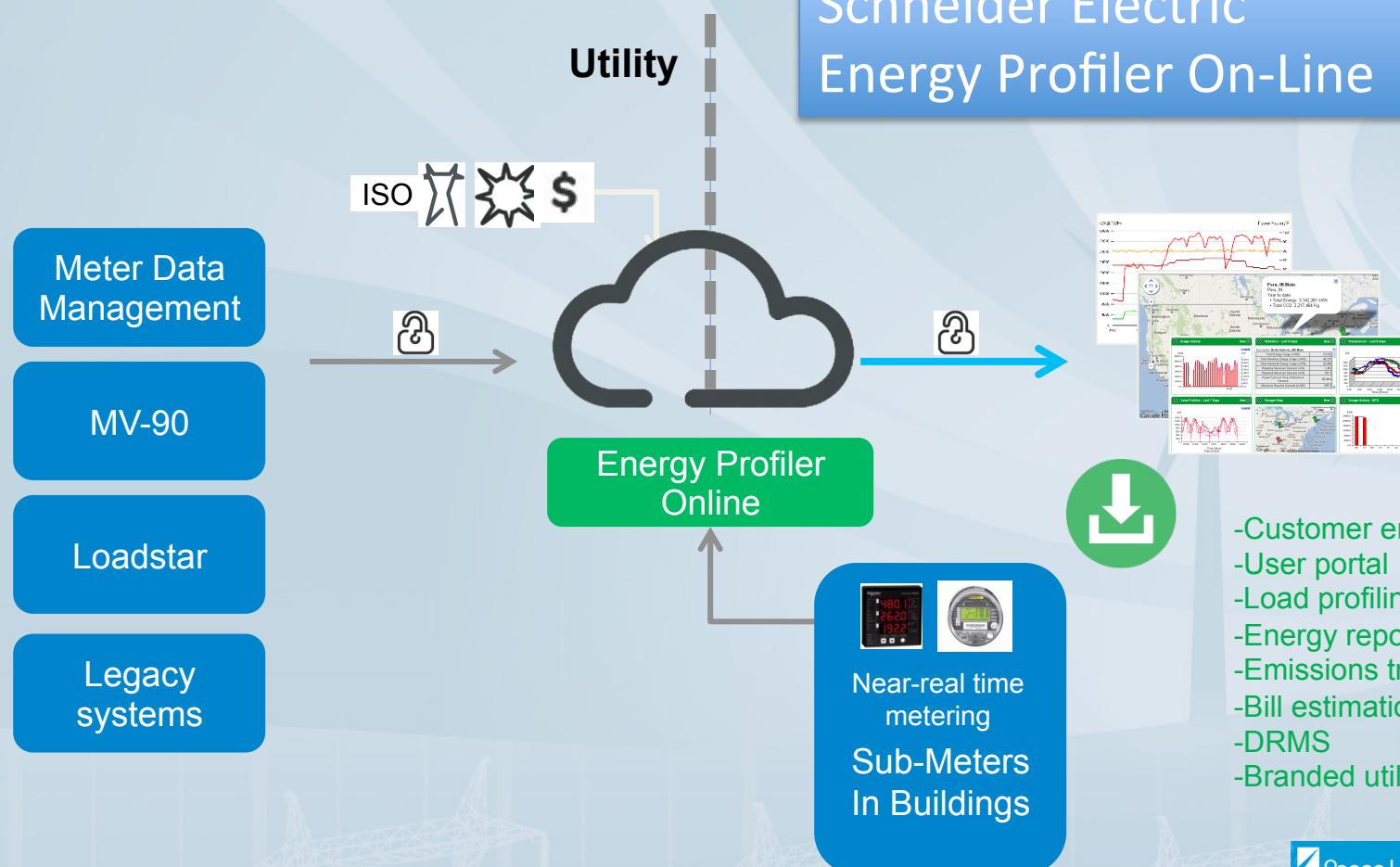
The 6.62 kW system we are proposing is comprised of (27) SunPower 245 Watt module with estimated production equal to 94% of your current annual electrical load. The system array gross dimensions are approximately 23' by 29'. See Google Earth photo rendering for the actual layout.



# Third Party Vendor Implementation



## Schneider Electric Energy Profiler On-Line



- Customer engagement
- User portal
- Load profiling
- Energy reporting
- Emissions tracking
- Bill estimation
- DRMS
- Branded utility offer

Pepco Holdings Inc

CEO  
Chief Energy Officer Online





# Green Button Connect My Data In Washington DC Governmental Services



Green Button  
Connect  
My Data

Providing 15 Minute Interval Data for 400+ Buildings in Washington

Local Utility (Pepco)  
Providing first in the Nation deployment with Green Button Connect My Data inside!

Available throughout Pepco Service Area



The District of Columbia is saving money, saving energy and creating one of the greenest cities in the world.

**Transparency**

Build Smart DC is a public, visual record of building energy use in the District. Established with a core of publicly-managed facilities, the platform is expanding to provide building performance and energy efficiency project data on the broadest possible swath of buildings in Washington, DC.

**Efficiency**

From building management system optimization to improved HVAC and lighting scheduling, Build Smart DC captures and highlights the significant savings achieved through no- and low-cost improvements to building energy management.

**Accountability**



# Green Button Supports Innovation in New Applications



**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.



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Information for YOU!  
Thank You