



Customer Data Presentment Using Google's PowerMeter

CPUC Smart Grid OIR Workshop

October 26, 2010

Background – Customer Energy Network (CEN)

- SDG&E is committed to providing customers information about their energy usage data to help them make informed energy choices and to providing them with choice, control and convenience in accessing their data
- SDG&E's CEN is an online network, located on the “My Account” page at www.sdge.com that provides customers the ability to access their interval energy use data through third party providers

Google PowerMeter

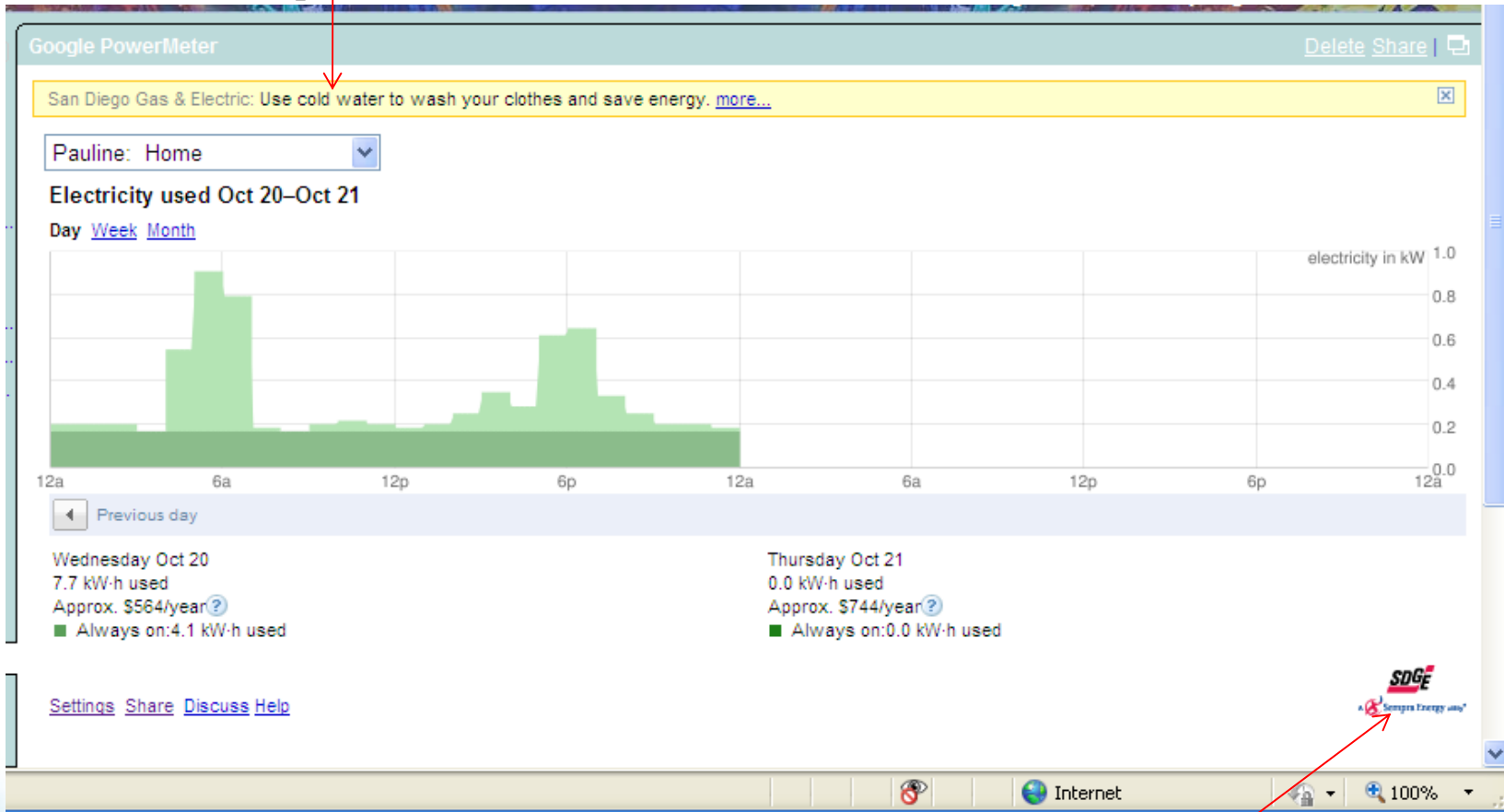
- Currently Google is the first and only third party energy usage data provider to collaborate with SDG&E
- Eligible residential customers may access their electric usage data through Google's PowerMeter (GPM) gadget via their personalized iGoogle page
- The Google PowerMeter also provides conservation tips as well as a link to SDG&E's website and additional energy efficiency information
- Collaboration began in June, 2009 with a small pilot of 35 customers
- As of Oct 20, 2010, 6,439 residential customers have enrolled in Google's PowerMeter after promoting with SDG&E My Account customers starting July 29, 2010 (100,000)

Customer Eligibility / Data Presentment

- To be eligible for Google's PowerMeter, residential customers must have:
 - an active residential bill account
 - an electric Smart Meter that is providing validated data
 - their account registered within SDG&E's My Account
 - an iGoogle account
- Customers receive their data the day following their enrollment
- Data is presented daily showing usage for the prior day
- Customers may choose to view their hourly data on the "day" view or their by "week" or "month" views

Google PowerMeter – “Day” View

Conservation Tip



Link to SDG&E website

Marketing Efforts

SDG&E began marketing in July, 2010

- Total of three campaigns targeting 100,000 customers who are enrolled in My Account and eligible to sign up for Google's PowerMeter
- Response rates have been averaging 4%, well above the industry average
- For customers not enrolled in My Account, we will send a postcard inviting them to enroll in My Account as well as Google PowerMeter

Enrollment Procedures - Starting at My Account

When starting enrollment from My Account, eligible customers must sign in using their existing user id and password; new users must successfully complete the My Account registration and then log in.

1. After logging in, customers will see the [Account Summary](#) page.
2. Customers can select either the [Savings Tools](#) tab or the [Learn how the Google PowerMeter & other tools can help you save](#) link. (Once selected the “Savings Tools” tab will appear.)
3. On the “Savings Tools” tab, select the [Sign up/opt-out Google PowerMeter](#) link under the section titled “Savings Tools for Your Home”.
4. If the account is eligible, the message [Sign Up for Google PowerMeter](#) will display on the page. (Ineligible accounts will see a [Google PowerMeter Not Available](#) message.)
5. Customers must check the box to accept SDG&E’s Customer Energy Network Terms and Conditions, then select the [Enroll with Google](#) button

Enrollment Procedures - Starting at My Account (2)

6. Customers will then be redirected to the [Google Sign In](#) page.
7. Once signed in, [Google's PowerMeter Enrollment](#) page will automatically display.
8. Customers must select the [Yes, receive and store my electricity usage data from San Diego Gas and Electric](#) button, to accept Google's Terms and Conditions and continue enrollment.
9. Next, customers will be directed back to the [My Account](#) sign in page. (Customers MUST sign in a second time and activate their enrollment before data can be sent to Google.)
10. Once customers have signed back in to My Account, they will be directed automatically to the [Activate Google PowerMeter](#) page.
11. After selecting the [Activate Your Google PowerMeter](#) button and successfully enrolling, customers will be redirected back to their [iGoogle Personalized Homepage](#).

Enrollment Procedures - Starting at Google

Once a customer selects the button in Google to begin enrollment for the Google PowerMeter, they will be redirected to My Account in order to complete the registration process, or sign in using their existing user id and password.

1. After logging in, new customers will see the [Account Summary](#) page (continue to Step 2), but existing customers who sign in using their user id and password will be sent directly to the [Sign Up for Google PowerMeter](#) page. (Skip to Step 4.)
2. Customers can select either the [Savings Tools](#) tab or the [Learn how the Google PowerMeter & other tools can help you save](#) link. (Once selected the “Savings Tools” tab will appear.)
3. On the “Savings Tools” tab, select the [Sign up/opt-out Google PowerMeter](#) link under the section titled “Savings Tools for Your Home”.
4. If the account is eligible, the message [Sign Up for Google PowerMeter](#) will display on the page. (Ineligible accounts will see a [Google PowerMeter Not Available](#) message.)
5. Customers must check the box to accept SDG&E’s Customer Energy Network Terms and Conditions, then select the [Enroll with Google](#) button

Enrollment Procedures - Starting at Google (2)

6. Customers will then be redirected to the [Google Sign In](#) page.
7. Once signed in, [Google's PowerMeter Enrollment](#) page will automatically display.
8. Customers must select the [Yes, receive and store my electricity usage data from San Diego Gas and Electric](#) button, to accept Google's Terms and Conditions and continue enrollment.
9. Next, customers will be directed back to the [My Account](#) sign in page.
(Customers MUST sign in a second time and activate their enrollment before data can be sent to Google.)
10. Once customers have signed back in to My Account, they will be directed automatically to the [Activate Google PowerMeter](#) page.
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Customer Privacy - Protected

Pursuant to the Integration Agreement signed by both Google and SDG&E:

- Customers are required to become a registered user of “My Account” for security verification purposes and must opt-in to Google PowerMeter
- Customers must accept the “Yes, receive and store my electricity usage data from SDG&E” button to accept Google’s Terms and Conditions in order to enroll in PowerMeter
- No Personally Identifiable Information (PII) is shared between SDG&E and Google
- An authorization and subscription token unique to each customer is used to send the customer’s usage data to their iGoogle Power Meter account
- Authorized providers will not be allowed to share any customer data with other parties without explicit customer consent
- If a customer elects to opt-out and discontinue the relationship with any third-party provider, the provider will be obligated to destroy any stored meter data at the customer’s request

Customer Privacy - Protected

- Customer energy usage data is sent to Google using HTTPS / Secure Socket Layer (SSL) technology
- In addition to SSL, all communication with Google also requires to have a security token in the HTTP header. This token is generated by Google specifically for SDG&E and only the application has access to it (stored in the application database)
- SDG&E's CEN enrollment process involves several redirects between the SDG&E My Account portal and Google (as described earlier in the enrollment processes). SDG&E ensures that when a re-direct happens from My Account to Google, the customer's My Account session is inactivated so that a redirect back to my Account would require the user to logon again with their My Account username and password

Open ADE Standard Interface for Customer Usage

- Once available, all customer usage data provided to authorized customer 3rd parties will be Open ADE compliant
- Open ADE standards expected to be established by end of 2010 or Q1 2011
- SDG&E Open ADE interface will be available 4 months after Open ADE established to allow time for implementation and testing

SDG&E and Google PowerMeter Visibility

- Continuous customer visibility as iGoogle gadget
- Does not require log-in with iGoogle as homepage
- Provides utility to add and edit messages
- Direct link to sdge.com and EE web pages

iGoogle Homepage with Gadgets

The screenshot shows the iGoogle homepage in Microsoft Internet Explorer. The browser window title is "iGoogle - Microsoft Internet Explorer". The address bar shows "http://www.google.com/". The page is filled with various news and utility gadgets.

Google PowerMeter (San Diego Gas & Electric):

San Diego Gas & Electric: Use cold water to wash your clothes and save energy. [more...](#)

Electricity used Oct 23–Oct 24

Day Week Month

12a 6a 12p 6p 12a 6a 12p 6p 12a

Previous day

Saturday Oct 23: 3.8 kWh used, Approx. \$188/year, Always on: 2.9 kWh used

Sunday Oct 24: 0.0 kWh used, Approx. \$214/year, Always on: 0.0 kWh used

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Google Finance Portfolios

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Dow	11,132.56	-14.01 (-0.13%)
Nasdaq	2,479.39	+19.72 (0.80%)
S&P 500	1,183.08	+2.82 (0.24%)

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Taskbar: start, 4 Internet Explorer, 3 Microsoft Office O..., Microsoft PowerPoint ...

System tray: 11:36 PM