

Using Data to Provide Value to Ratepayers

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Customer Specific and Aggregated Data

PG&E balances responsibility to **protect customer privacy with need to provide aggregated data** where use is mutually beneficial to third parties, PG&E and its ratepayers.

Customer Identifiable Information

- **No release of customer information to third parties without consent**
- **Provide transparency for customers who do elect to provide their information**
- **Provide technology to facilitate transfer of data securely to third parties**

Aggregated customer data

- **Aggregate sufficiently to protect customer identifiable information**
- **Provide aggregated data where use is mutually beneficial**
- **Protect value of data for ratepayers**
- **Provide expertise, analysis and tools**



Automated Benchmarking Service

PG&E customers are increasingly driven to benchmark their buildings, in part because of recent legislative initiatives.

AB 1103

- Requires non-residential building owners to disclose benchmarking data at the point of a real estate transaction.

San Francisco Existing Commercial Building Energy Performance Ordinance

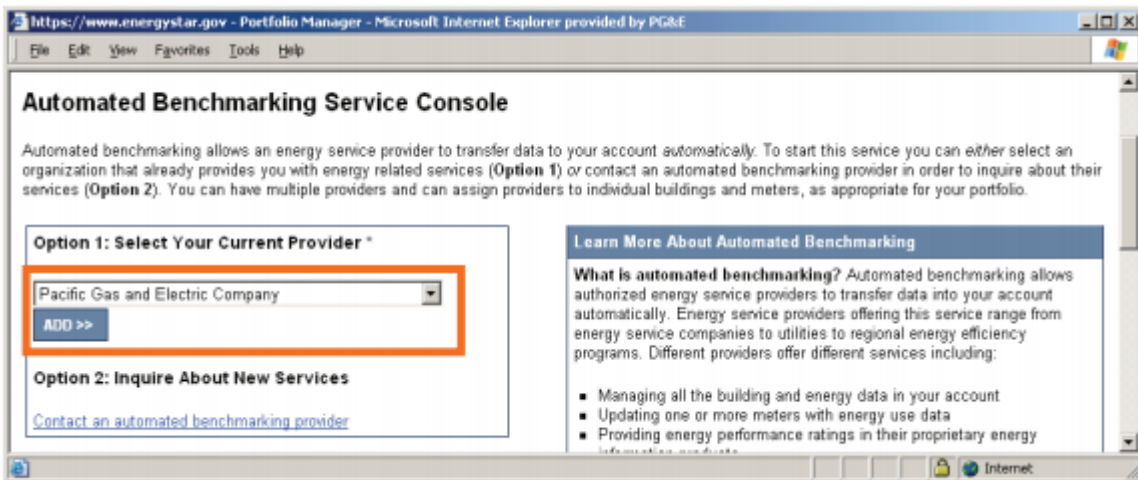
- Requires annual benchmarking disclosure for buildings > 10,000 square feet (first deadline is October 1, 2011).

Both laws require building owners to use ENERGY STAR Portfolio Manager (ESPM), a free web tool developed by the EPA.



PG&E's Automated Benchmarking Service (ABS)

PG&E provides energy data electronically to Energy Star Portfolio Manager customer's request to make continuous benchmarking easy and efficient.



Customers provide consent to PG&E to begin automated download service

PG&E provides:

- Automated upload of data
- Training and technical assistance
- Follow-up audit and project assistance

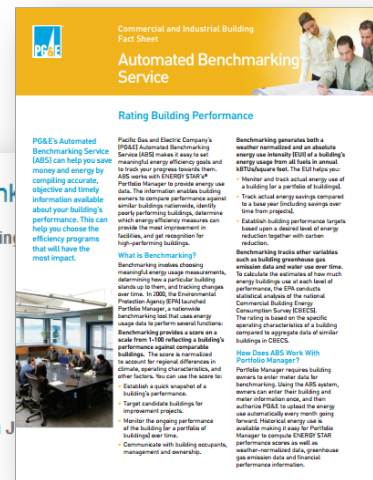
Workshop Schedule & Registration Link

Benchmarking Tutorial/What's Next After Benchmarking
8:30am – 4:30pm

Pacific Energy Center, 851 Howard St., San Francisco
August 7
September 4
October 16
November 20

Pipe Trades Training Center, 780 Commercial St., San J
August 21
November 29

San Ramon Valley Conference Center, 3301 Crow Canyon Road, San Ramon
November 19



PG&E Green Communities

Program provides aggregated community data to local governments and key stakeholders to support strategic energy and climate action planning

- Combine customer information from with data from multiple sources as an **ongoing decision making tool**
- Protect customer privacy while providing expertise and analytics third parties
- **Non-Disclosure Agreements** arranged as required to allow PG&E to provide proprietary data when required.

Old Model

Offer **raw data** directly to local governments when requested only for emission inventories



A screenshot of a large spreadsheet with multiple columns and rows of data, representing raw data provided to local governments for emissions inventories.

Raw data provided to over **80% of 243 local governments** in PG&E Service Territory for emissions inventories



New Model

Use **data as an engagement tool** - provide insights and analysis



Interactive reports focus on community, residential, and non-residential sectors.



Residential Energy Efficiency Opportunity

Interactive residential targeting report presents **customer energy, marketing, household, appliance and other information** in aggregated format.

Provided under **Non-Disclosure Agreement** free of charge to any requesting local government

Residential Energy Efficiency Opportunity Map for City of Fresno

Select either Usage or Energy Efficiency Opportunity ..

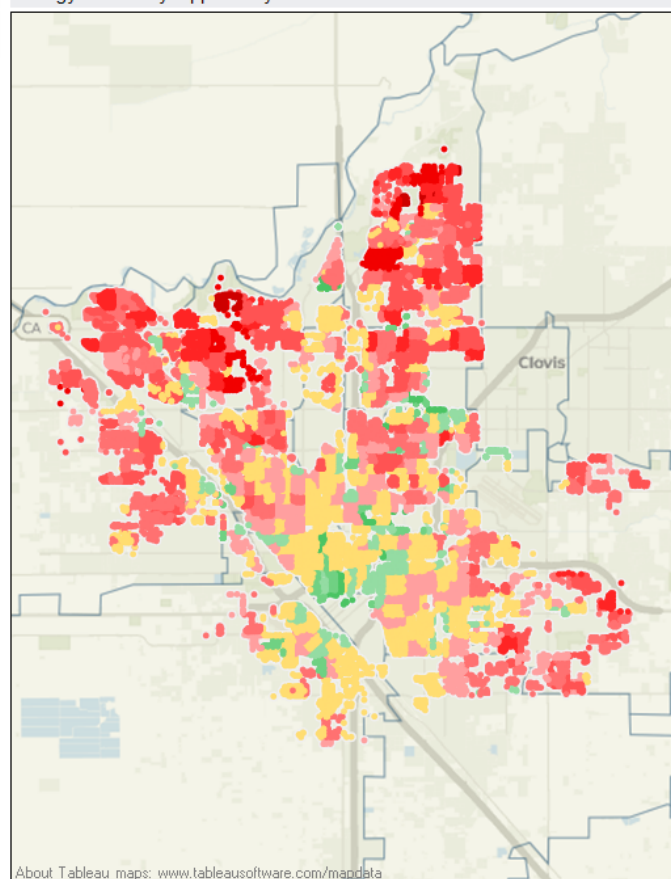
Energy Efficiency Opportunity

Then you can select a Zip Code and finally a Zip + 2 for a closer view:

Zip	Total Customers	Highest Opportunity	High Opportunity	Medium Opportunity	Low Opportunity	Lowest opportunity
937	21,554	6,743	5,867	3,908	2,297	1,977
937	16,522	5,681	4,079	2,857	1,626	1,745
937	14,873	4,220	3,913	2,863	1,671	1,450
937	13,674	3,399	3,149	2,681	1,902	1,757
937	11,483	4,019	2,428	1,891	1,295	1,387
937	11,172	2,885	2,844	2,233	1,424	1,271
937	11,155	2,362	2,634	2,387	1,774	1,444
937	10,565	3,095	2,579	1,887	1,284	1,152
937	7,199	1,662	1,666	1,480	1,115	963
937	6,945	1,429	1,566	1,384	1,132	1,067
937	6,772	1,505	1,560	1,359	943	991
937	4,792	994	1,026	876	734	855
937	3,337	1,574	789	440	199	267

Zip + 2	Highest Opportunity	High Opportunity	Medium Opportunity	Low Opportunity	Lowest opportunity	
93711-	734	198	193	142	92	85
93727-	729	300	192	126	53	44
93720-	655	155	151	140	81	99
93725-	651	200	182	127	57	64
93720-	616	127	156	120	84	99
93720-	616	176	149	129	81	54
93711-	605	62	132	122	124	118
93722-	601	122	128	147	80	90
93722-	593	167	184	107	63	55
93722-	584	156	152	107	55	79
93722-	583	233	169	94	37	33
93722-	577	220	166	102	39	28
93720-	568	220	140	104	38	54
93722-	556	214	163	93	33	38
93720-	546	234	149	66	36	48

Energy Efficiency Opportunity



About Tableau maps: www.tableausoftware.com/mapdata

Lowest Highest



Non-Residential Sector Overview

Interactive non-residential targeting to help decision makers understand commercial energy usage in their community.

Available **free of charge** to any requesting community.

County of SONOMA Non-Residential Customer Segment Impact



Select Electricity, Natural Gas, Gas & Electricity Usage or CO2 Emissions

Electricity Usage

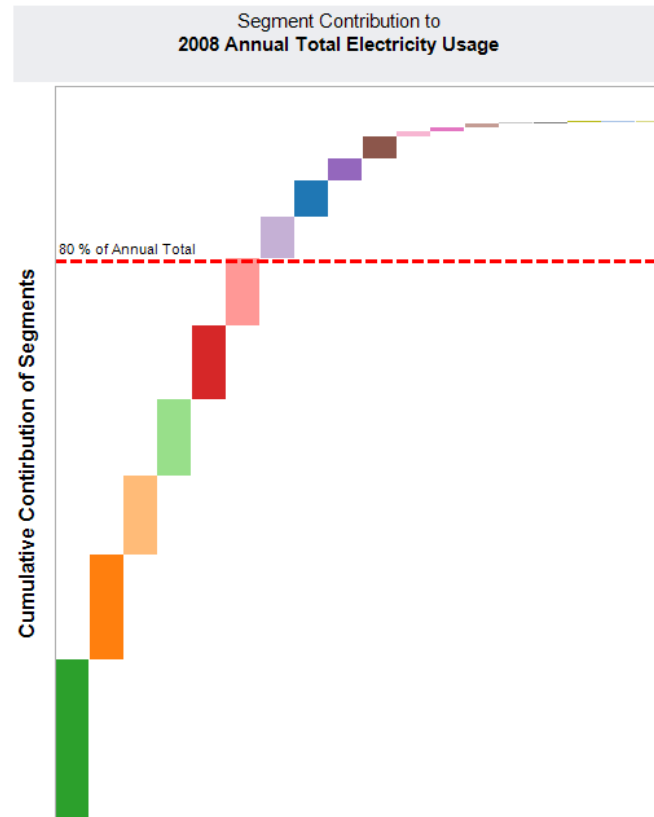
for

2008

SORT BY: Total

Electricity Usage in 2008

Market Segments <i>Service Location Types</i>	Annual Total Electricity Usage	Average Electricity Usage per Service Agreement	# of Electricity Service Agreements
	Rank	Rank	Rank
Retail	1	7	3
Offices	2	11	1
Hospitality	3	9	4
Healthcare	4	6	6
Manufacturing & Transportation	5	4	8
High Tech	6	5	7
Government	7	10	5
Schools	8	3	11
Uncategorized	9	18	2
Food Processing	10	1	13
Agricultural Manuf. & Transportation	11	15	10
Unallocated	12	16	9
Residential	13	13	12
Wastewater & Water Treatment	14	14	14
Chemicals & Minerals	15	2	16
Agriculture	16	17	15
Biotech	17	8	18
Petroleum	18	12	16





Customer Adoption

Automated Benchmarking

- **Over 7,000 buildings are currently enrolled in PG&E Automated Benchmarking Services**

Aggregated customer data

- **83% of local governments have received climate action planning data from PG&E**
- **52% of local governments have received an advanced report with zip code or sector information**
- **18 local governments have entered into non-disclosure agreements with PG&E to receive proprietary data**