

Future of Energy Efficiency Policies for Energy Providers



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Pacific Gas and Electric Company



Energy services to 15 MM people:

- 5.1 MM Electric customer accounts
- 4.3 MM Natural Gas accounts

70,000 square miles with diverse topography and climate zones

20,000 employees

A regulated investor-owned utility



Ranked the greenest utility in the United States in 2009 and 2010



PG&E's Diverse Customer Base





Forward Thinking Energy Policies

35+ years of energy efficiency programs facilitated by “decoupling”

Renewable Portfolio Standard:

- **20% by 2010**
- **33% by 2020**

Preferred loading order:

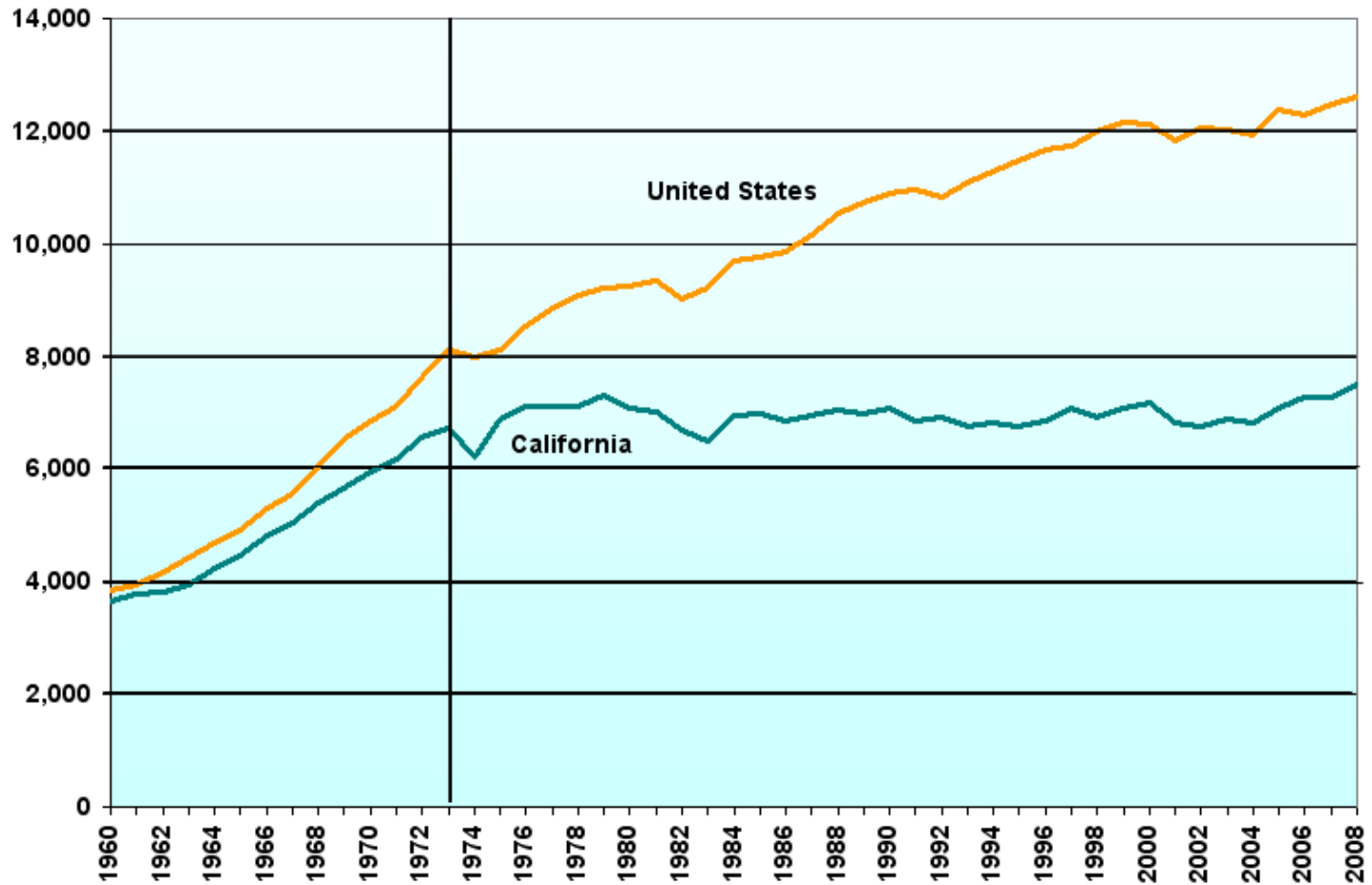
1. Demand reductions: energy efficiency, demand response
2. New renewable and distributed generation
3. Clean gas-fired power plants





Historical Load Growth in California

Per capita electricity sales (not including self-generation)
KWh per person

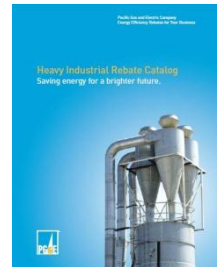




California's Success with Energy Efficiency

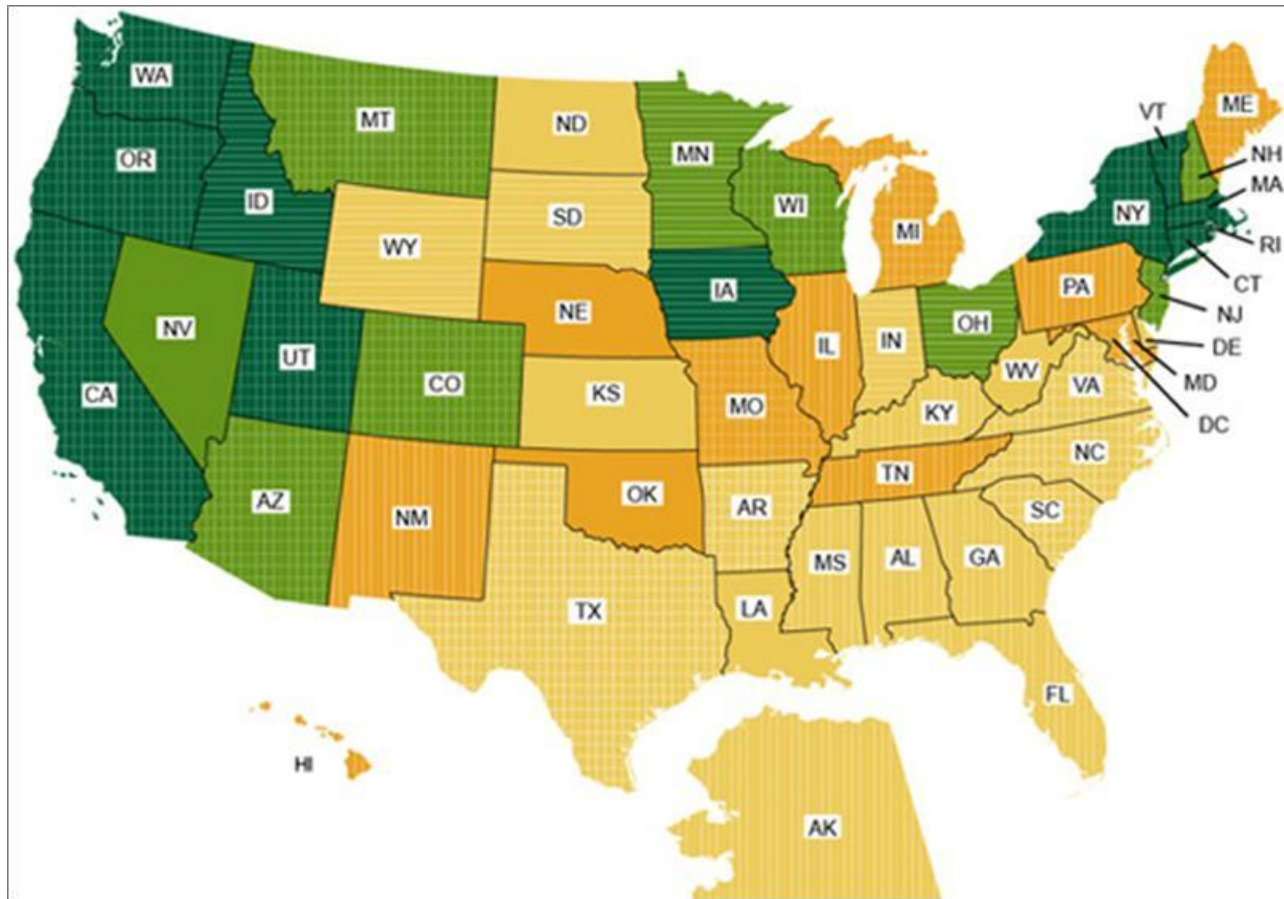
California has saved more than 60,000 GWh and more than 15,000 MW of supply-side resources through past and present demand-side programs:

- Avoided need for thirty 500-MW power plants
- PG&E has contributed roughly half of the savings and has avoided 22.9 million tons of CO₂ emissions





National Perspective: Energy Efficiency



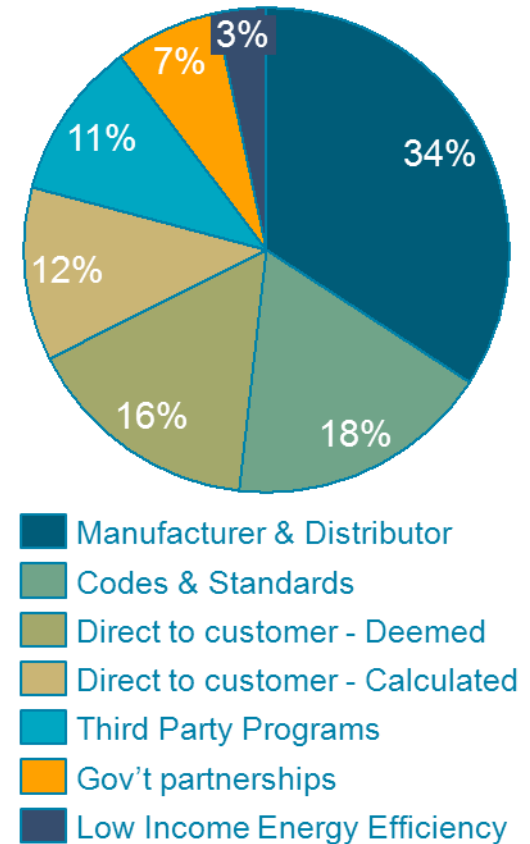
- These states budgeted over 2% of electric revenues for electric energy efficiency programs in 2010
- These states budgeted between 1% and 2% of electric revenues for electric energy efficiency programs in 2010
- These states budgeted between 0.5% and 1% of electric revenues for electric energy efficiency programs in 2010
- These states budgeted less than 0.5% of electric revenues for electric energy efficiency programs in 2010 or did not provide data



EE Program Administration

- Since 1976, California's Investor Owned Utilities have designed and coordinated EE programs
 - Relationship with all customer segments
 - Ability to offer integrated solutions
 - Experienced contract manager overseeing many contractors and partnerships
- Successful coordination with other IOUs, state agencies, regulators, intervenors
- Trusted source among contractors

2010 Peak Electric Savings by Delivery Channel (MW)





Overview of PG&E EE Portfolio

2010-2012 EE Portfolio has a total budget of \$1.3 Billion

Multiple Customers

- Agriculture
 - Agriculture
 - Food Processing
- Commercial
 - Healthcare
 - High Tech / Biotech
 - Hospitality
 - Offices
 - Retail
 - Schools
- Industrial
 - Chemicals & Minerals
 - Petroleum
 - Wastewater & Water Treatment
- Public
 - Federal Government
 - State Government
 - Local Government
- Residential
 - Residential
 - Low Income

Multiple Delivery Channels

- In-store promotions
- Manufacturer incentives
- Distributer incentives
- On-bill financing
- Third-party programs
- Government partnership programs
- Direct utility rebates
- Point of sale rebates

Multiple Market Development Mechanisms

- Codes & Standards advocacy / compliance training
- Emerging Technology assessments / demos / incubation
- Workforce education

Multiple Technologies

- Appliances
- Lighting
- Electronics
- Buildings
- New construction
- Retrofits
- Home / facility audits
- HVAC systems
- Food services
- Refrigeration
- Boilers / steam systems
- Industrial systems / processes
- Motors
- Pumps and fans
- Energy Management Systems

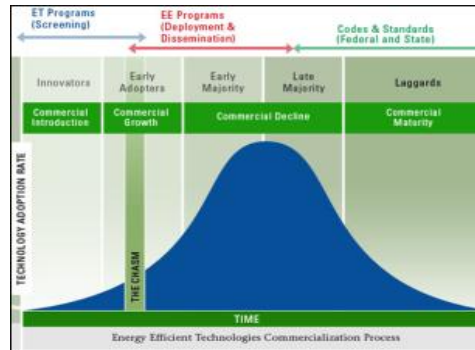


Key Trends in California

Financing



Market Transformation



Technology Trends



Information-Based Products

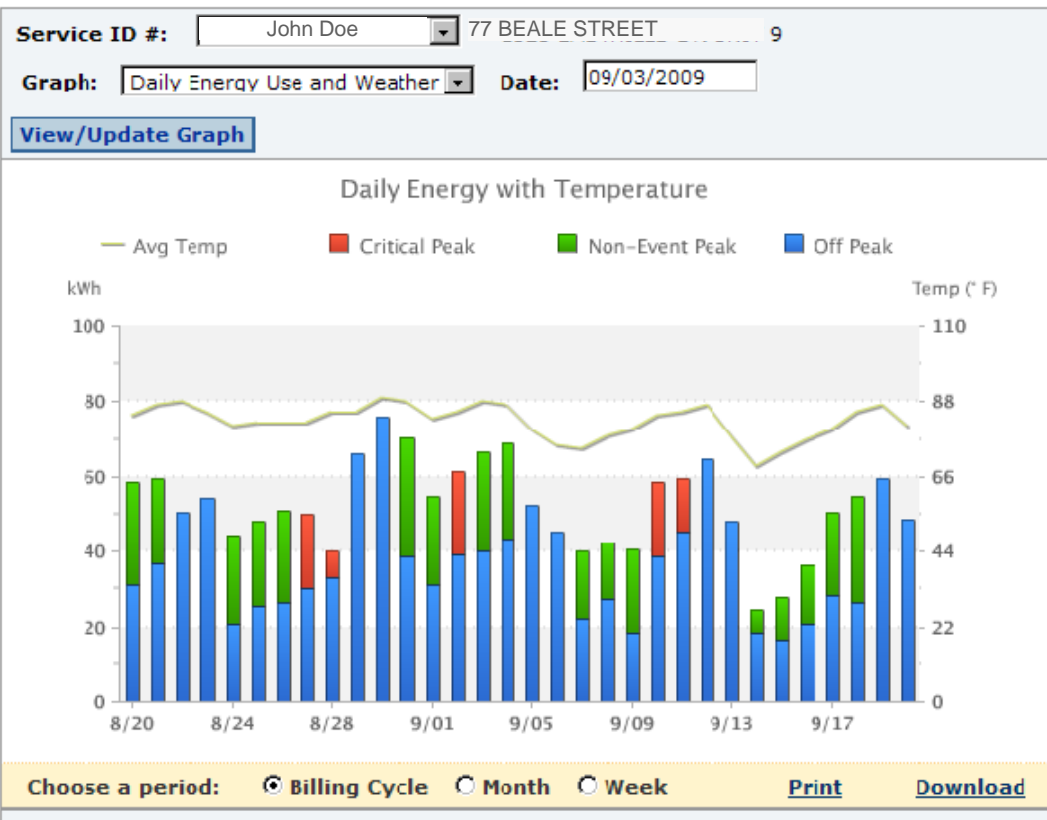


Customers Can View Their Energy Use

SmartMeter™ Usage

Please note that SmartMeter™ usage for today will be available tomorrow between 3–10 pm.

Please be aware that the energy usage data presented here may differ slightly from the energy usage data reflected on your monthly bill. Be assured that prior to your monthly bill date, your energy usage data is validated to ensure you receive an accurate bill.



Secure customer access through PGE.com

Energy use by hour or day

View by billing cycle, month, or week

Colors designate critical peak, peak, and off-peak

Temperature overlay



Audit Tool

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PG&E My Energy

Overview | Pay & Manage | My Usage | **Ways to Save** | Community

My Plan to Save | Ideas & Advice

Get expert advice for your home

Do you have drafty windows or doors? Or rooms that are too hot? Wondering if you should upgrade those old, inefficient appliances? We're here to help! Tell us a little bit about your home. We'll find the top ten tips for your home.

Get expert advice

By Type

- Heating (23)
- Cooling (27)
- Hot Water (10)
- Lighting (9)
- Appliances (16)
- Other (14)

By Cost

- Free (25)
- Smart purchases (33)
- Great investments (32)
- Rebates (12)

Free tips to reduce your use

Sort by: Featured

- Wash clothes with cold water (705 people do this)
- Open your shades on winter days (13 people do this)
- Reduce your water heater's temperature (14 people do this)
- Adjust your thermostat before leaving home (16 people do this)

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PG&E My Energy

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My Plan to Save | Ideas & Advice

Tell us about your home and we'll find your top 10 ways to save!

Here are the top 10 energy savings tips for your home:

- Buy ENERGY STAR® appliances and electronics (8 people do this)
- Recycle your second refrigerator (17 people do this)
- Turn off lights when not needed (17 people do this)

Why? Refrigerators from the year 2000 and before use 40% more energy than today's most efficient units. You probably pay more to run your spare, older appliance ... more. Save up to \$150 per year.

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My Home

- Heating
- Cooling
- Hot Water
- Appliances
- Lighting
- Other
- Advice for your home

When it's cold outside, where do you set your thermostat?

Home: 75

Away: -select one-

Asleep: -select one-

The recommended temperature 71°F or cooler when you are at home during the winter (health permitting).

Throw on a sweater and try turning down your thermostat. You can always change it back if you're not comfortable with the new setting.

Previous Next

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My Plan to Save | Ideas & Advice

My Plan

Your plan for saving energy

When you complete tips in your plan, check them off.

You don't have any tips in your plan. Find tips for your plan >

Your plan for saving energy

When you complete tips in your plan, check them off.

- Set your refrigerator's temperature to 35°F (16,709 people do this)
- Use and switch off power strips (2,480 people do this)

Tips you've completed

- Replace your old clothes washer
- Use motion detectors outdoors
- Use a laptop instead of a desktop computer

Find tips for your plan

- Heating
- Cooling
- Appliances
- Lighting
- Free steps to take
- Smart purchases
- Great investments
- View all tips



Personalized Energy Advice

Your Recent Usage Jun 6 - 16 Usage Cost



How you're doing

Great

Good

More than average



Comparative Norms

You have 2 problem areas

We've analyzed your usage and identified some areas to focus on. How it works

Your biggest problem is cooling.

Last summer you spent \$287 more on cooling than your neighbors. Find out why you use more than normal. Take the cooling audit.



Deep Dive into Usage

Your baseload use is higher than average.

Baseload is from the things in your home that are always on. You're spending \$89 more than your neighbors on baseload.

Find out why you use more than normal. Take the baseload audit



We've created a plan just for you

Based on: Homeowner High cooling High baseload No pool [Update & add more](#)

Turn up your thermostat by 2 degrees

435 neighbors do this

I'll Do It

[I already do it](#) | [No thanks](#)

Maintain your cooling system

333 neighbors do this

I'll Do It

[I already do it](#) | [No thanks](#)

Install compact fluorescent lightbulbs

192 neighbors do this

I'll Do It

[I already do it](#) | [No thanks](#)



Relevant, actionable tips

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Green Button App Contest



\$100,000 prize for best app

Complete picture of customer's energy use

Open standard energy usage data

27 million American households by year-end





What We've Learned

Commercial and Industrial Customers



Small Business Customers



Residential Customers

