

# NEST

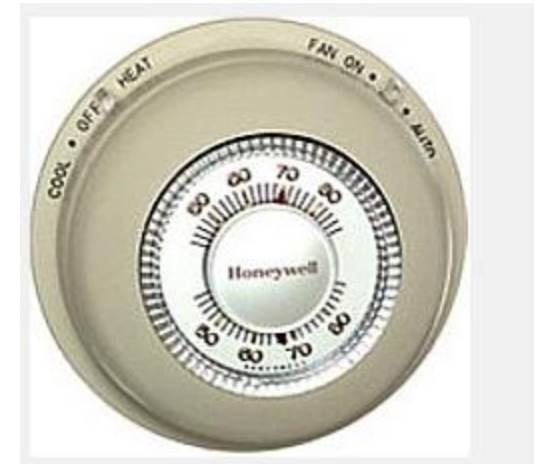
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Intelligent Thermostat



# Normal Thermostat

- Temperature Sensor
  - Temperature Setting (manually entered)
  - Time (entered manually)
  - Heat/Cool/Off Switch (entered manually)
  - Fan Auto/On manual switch
- 
- Some thermostats allow for a schedule to be entered manually



**LET US SEE WHAT A  
NEST THERMOSTAT  
CAN DO**

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# Nest Senses and Learns



## Senses and learns from you.

Nest Sense™ is a combination of sensors and algorithms that help Nest understand what's happening around it. It's all built in.



### Activity sensors

Nest's activity sensors have a 150° wide-angle view so Nest knows when to set itself to Auto-Away.



### Humidity Sensor

Nest's humidity sensor activates Airwave. When indoor humidity is low, Airwave can cut your cooling costs up to 30%.



### Weather aware

Nest uses its Wi-Fi connection to keep an eye on current weather conditions and forecasts so it can understand how the outside temperature affects your energy use.



### Temperature Sensors

Three temperature sensors track your home's heating and cooling. A one-degree difference can reduce energy use up to 5%, so precision is important.

# NEST is Always Connected

## Always connected.

Monitor Nest and adjust the temperature from the office, the car, your smartphone, your couch, anywhere. You just need Wi-Fi and an Internet connection at home.



### Real-time control

Control your home's temperature from your laptop, smartphone or tablet. Make adjustments in real-time, miles from home.



### Your Nest Account

Log in online or download the Nest Mobile app to your smartphone. You'll be able to see and adjust your schedule, change the temperature and check weather.



### Automatic updates

Software updates will load automatically as long as Nest is connected to your Wi-Fi.



### Secure, private & reliable

Nest is completely secure and uses public key cryptography. Its security features include HTTPS, SSL and 128-bit encryption.



# NEST Thermostat Looks Great



• Brushed stainless steel ring

• Bright LCD screen:  
320x320px display, 1.75" diameter

• Built-in rechargeable lithium ion battery

# NEST Keeps Getting Better

## Nest keeps getting better.

With every new software update, we improve Nest's features or add new ones. The Nest you buy today will keep getting better.



### 2.0 Software

Our 2.0 software update touches every part of Nest - the thermostat, Web app and Mobile app.

Nest and its apps now give you more control, more info and easier access to Nest features like Energy History, Away temps and Airwave.

[See all the details >](#)



### Energy History

More info helps you make better decisions, so we've expanded Energy History to show you exactly when your heating or cooling system was on each day.

Now you can view Energy History on the Web and Mobile apps, including the [iPhone](#), [iPad](#) and most [Android](#) smartphones.

[See the new Energy History >](#)



### Airwave™

Airwave automatically switches off your air conditioner a few minutes early, since your AC continues to make cold air for 5-10 minutes after it's off. Then Airwave uses the fan to spread the cool air through your home. This Nest exclusive can save up to 30% on your cooling costs.

[Learn more about Airwave >](#)

# Heat/Cool Range Schedule



Your thermostat has also gotten an upgrade. We've made a few updates to Nest's menu so you now have easier access to popular features:

- **Range Schedule.** We've added Range to the Heating/Cooling/Off menu. A [Range Schedule](#) is available in homes with both heat and AC and allows auto-switching between the two. You set a range of temperatures that you want – from 68 to 73, for example. When the temperature falls outside that range, Nest will automatically turn on heating or cooling. Range isn't currently compatible with Auto-Schedule, but that doesn't mean you can't save energy. The Nest Leaf will still appear if you set an energy saving range of temps.

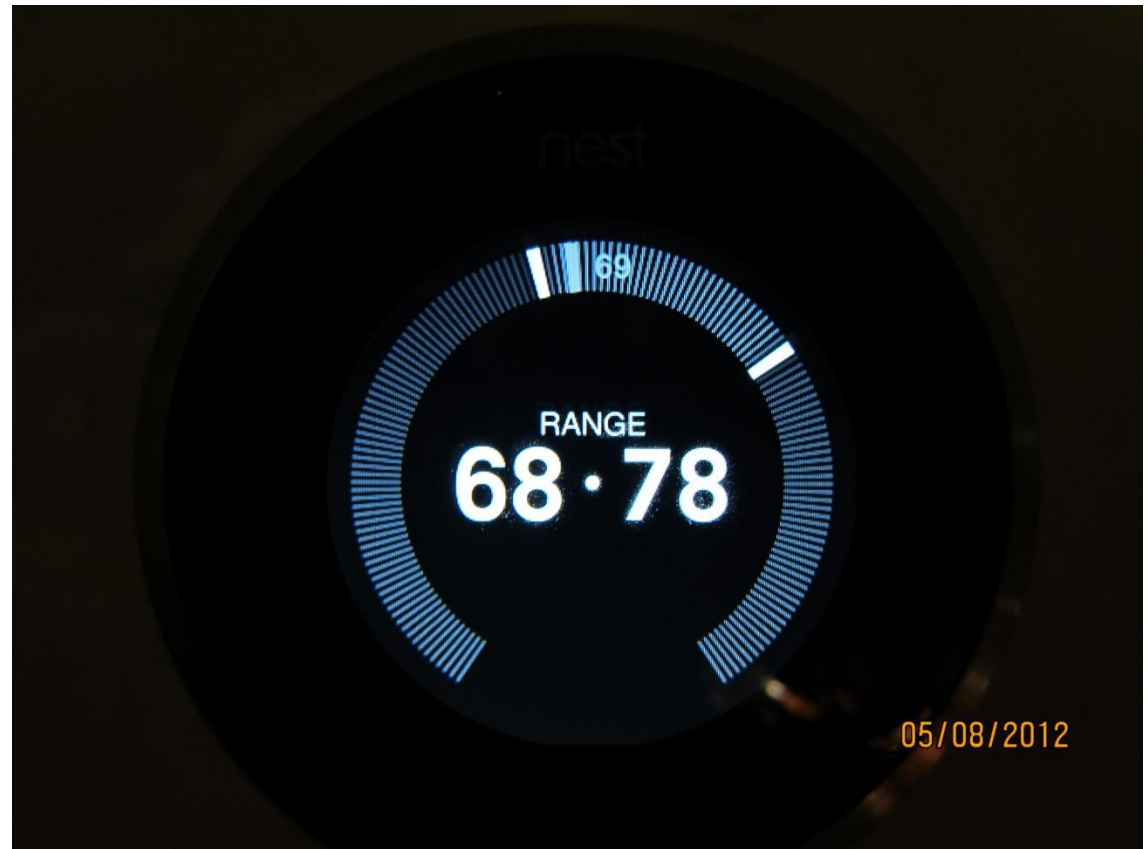
## When you set a Range Schedule

- One can program both heating and cooling temperatures for any given set-point.
- Range Schedules can't be learned, only programmed.
  - When using a Range Schedule, Learning Mode will be paused



# Nest Range Setting on My Thermostat

- Heats when temperature is below 68 degrees
- Cools when temperature is above 78 degrees
- Currently house temperature is 69 degrees

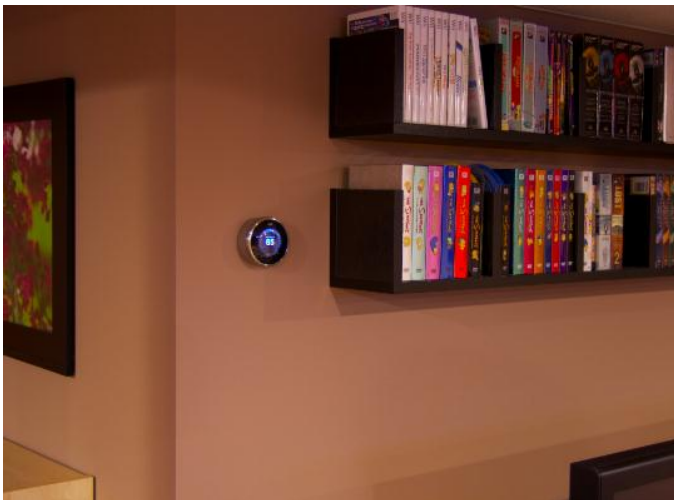


# NEST Auto Away

- **What is Auto-Away?**
  - Nest uses its activity sensors to detect when a person's nearby or when you're using Nest.
  - If Nest doesn't notice you for a while, it can start Auto-Away.
    - It'll turn down your system until your home reaches a minimum or maximum temperature.
    - You choose those temps when you set up your Nest.
    - So, if your minimum Auto-Away temp is 50° and it starts getting colder, Nest will maintain the house at 50° till you get home.
  - Nest will turn on Auto-Away a couple hours after you left.
    - On the other hand, if you generally spend the day working in your room, Nest will learn and give you more time before it turns on Auto-Away.

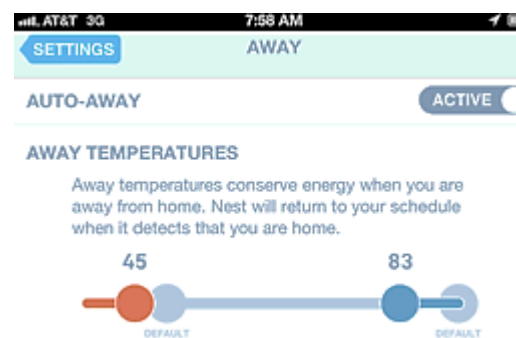
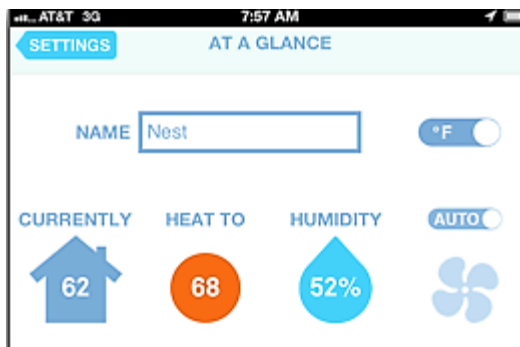
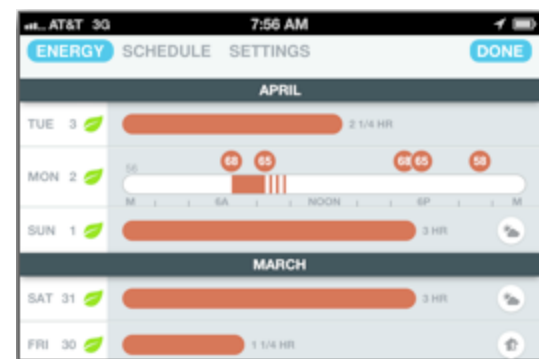


# Pictures of Nest in Homes



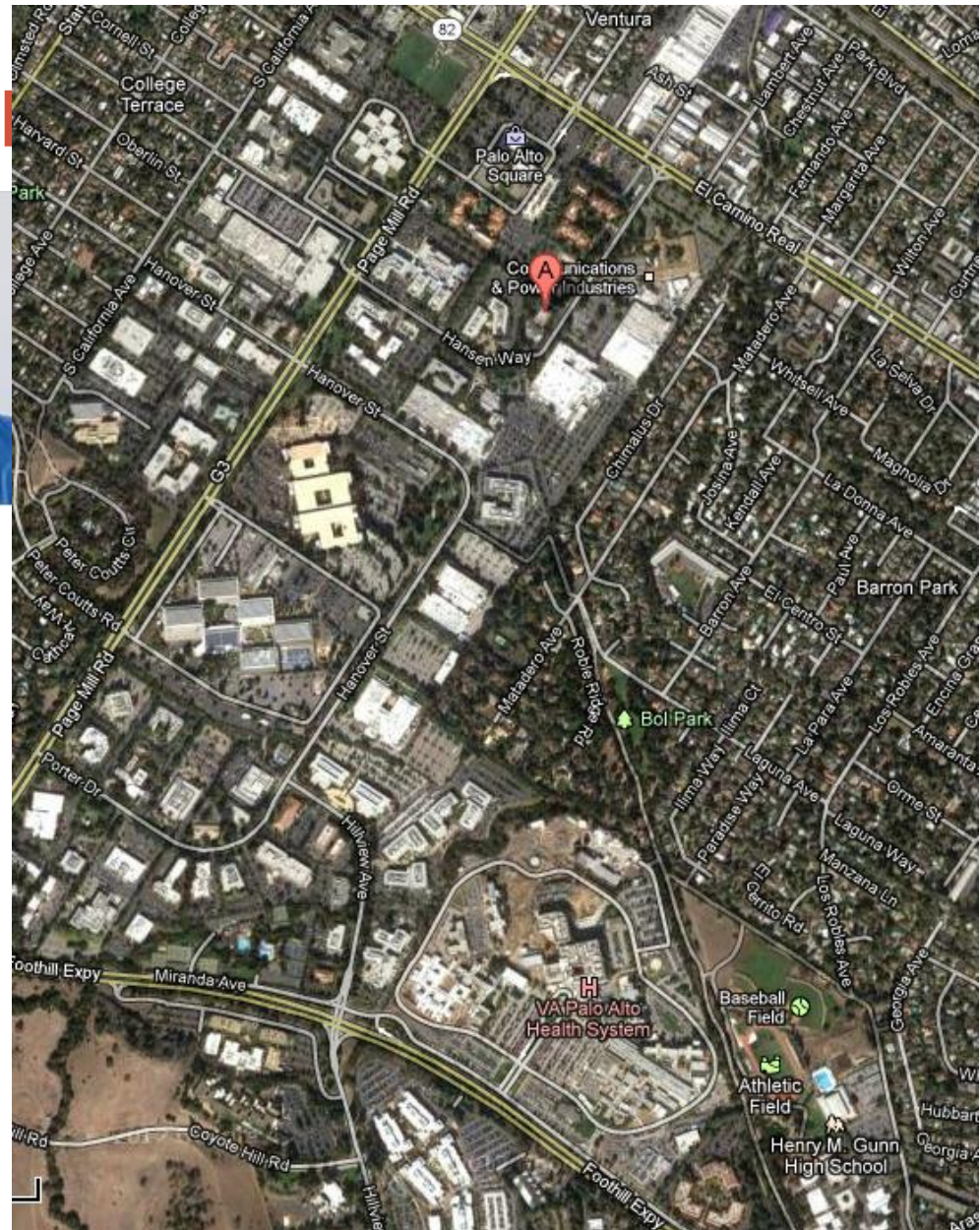
# NEST Phone App Screens

## Control Your Thermostat from you Phone



# Nest Corporation

- Founder / CEO
- **Tony Fadell**
- **Bio**
  - Tony led the team that created the first 18 generations of the Apple iPod and the first three generations of the Apple iPhone.
- Nest Location
  - **900 Hansen Way, Palo Alto, CA 94304**



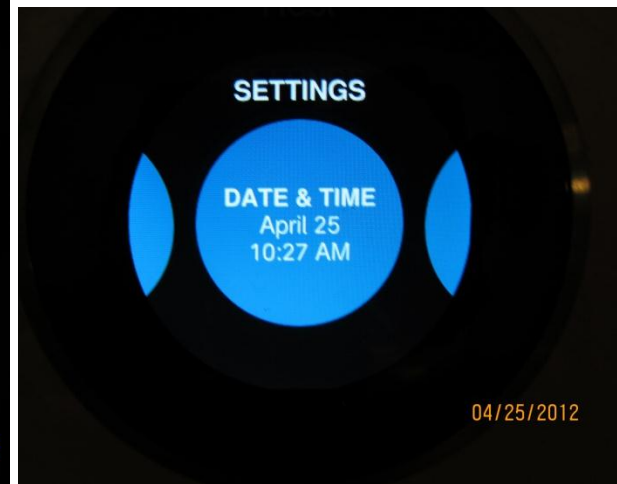
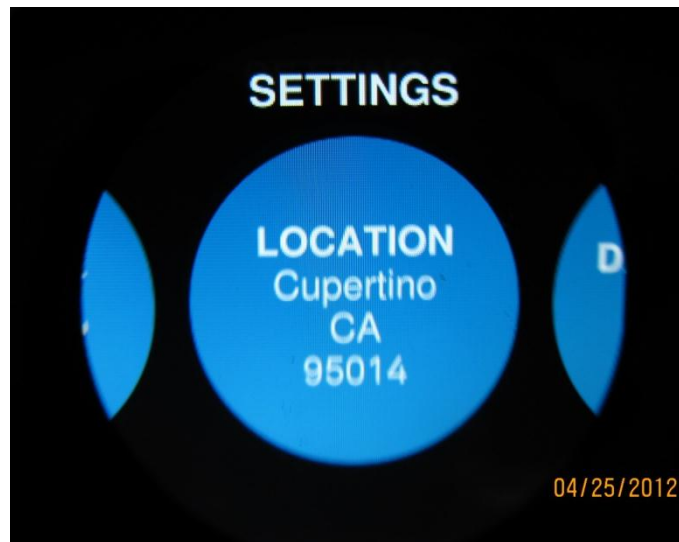
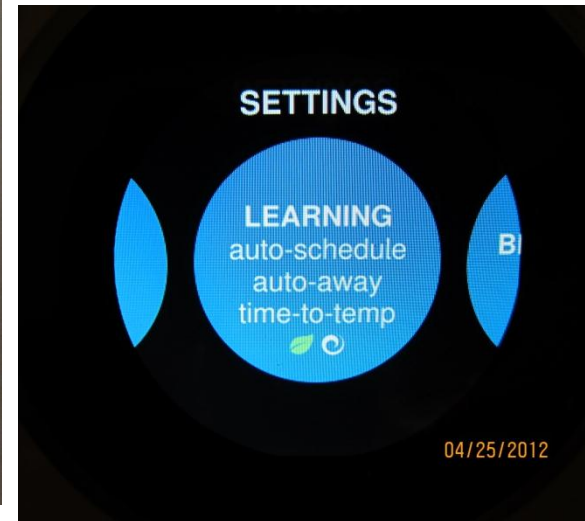
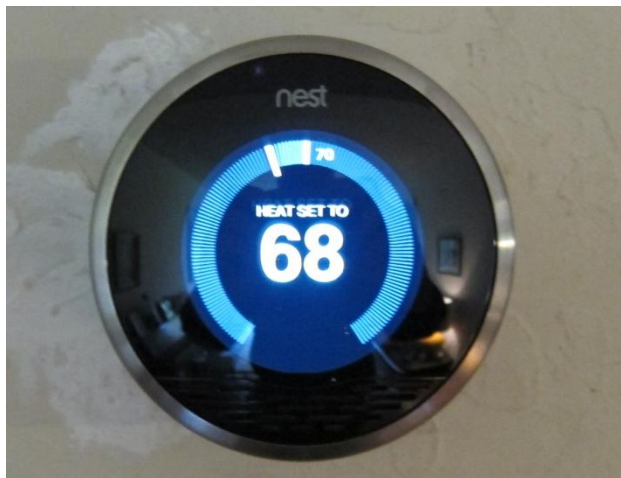
# NEST Saves Energy

- **Auto Away**
  - Turns heating or air conditioning off when you are away
- **Airwave**
  - Airwave technology takes advantage of the fact that your air conditioner's compressor stays cold for 5-10 minutes after its been turned off
- **Nest Leaf**
  - When adjusting the temperature shows energy saving settings
- **Learning**
  - Learns to adjust temperature at night

# Nest Internet Links

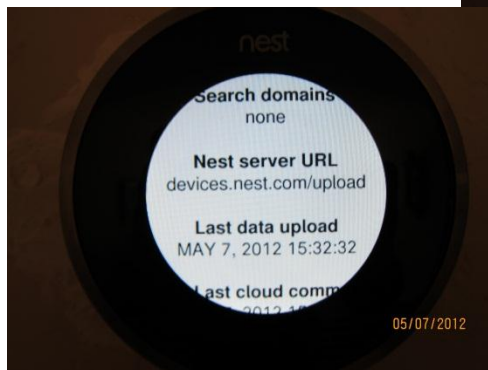
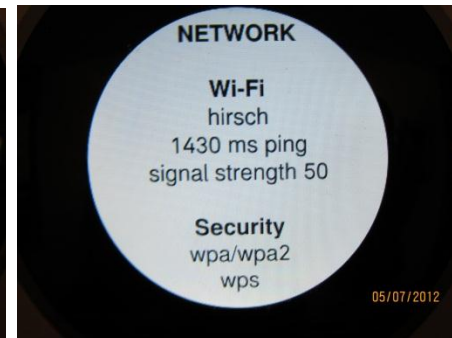
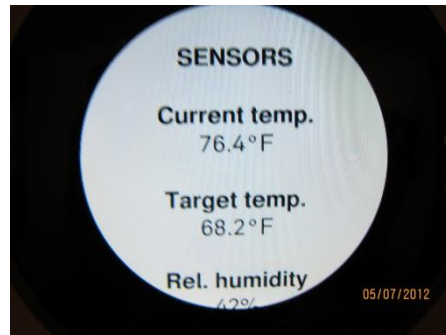
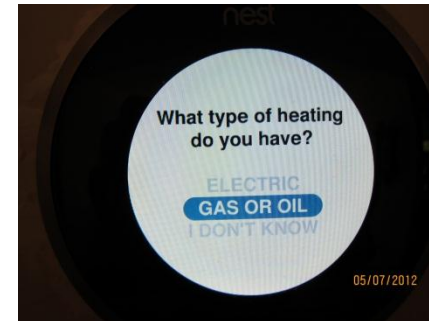
- Home Page
  - <http://www.nest.com/>
- Installation Video
  - <http://youtu.be/P9fnfZnk6v4>
- Setting up Nest Video
  - <http://youtu.be/UXzTAZSBnrE>
- Learning Features
  - <http://youtu.be/6InjhtZ6NP8>

# My NEST Thermostat





# My NEST Thermostat (cont.)





# NEST ENERGY SAVINGS

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Comparison of 1 month only

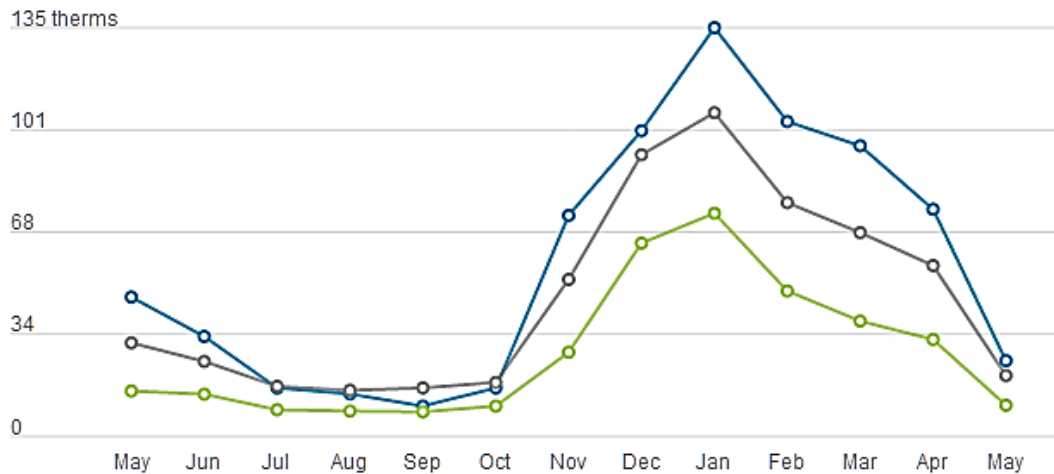
Comparison May 2011 to May 2012

# Energy Similar Home Comparison

## My Energy Use

Show my natural gas

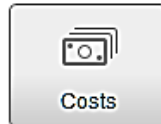
May 2011 – May 2012  
Similar homes comparison



Similar homes



Usage



Costs



Weather

You

All similar homes

Efficient similar homes

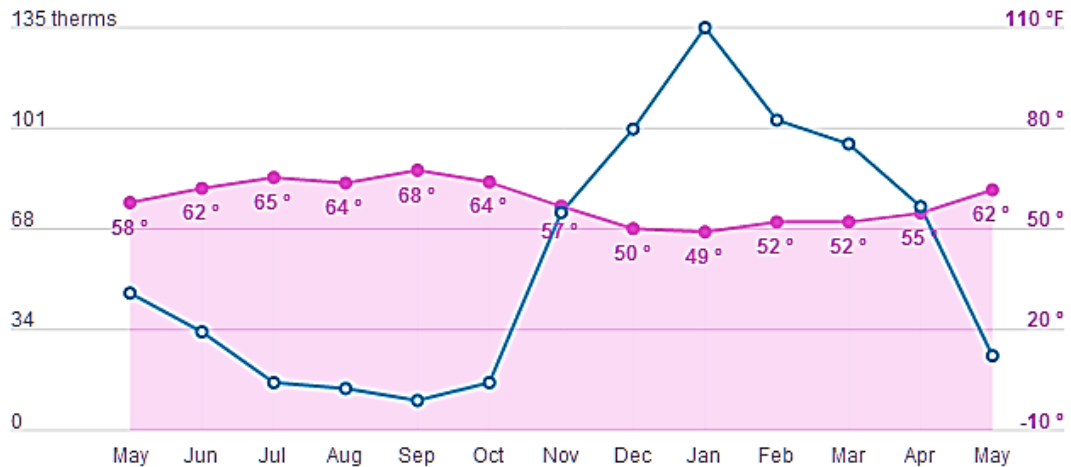
[What homes are compared?](#)

# Temperature Comparison

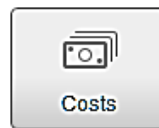
## My Energy Use

Show my natural gas

May 2011 – May 2012  
My usage & weather



**Avg. Outdoor Temp.**  
May 2011 58°  
May 2012 62°  
4 degrees warmer



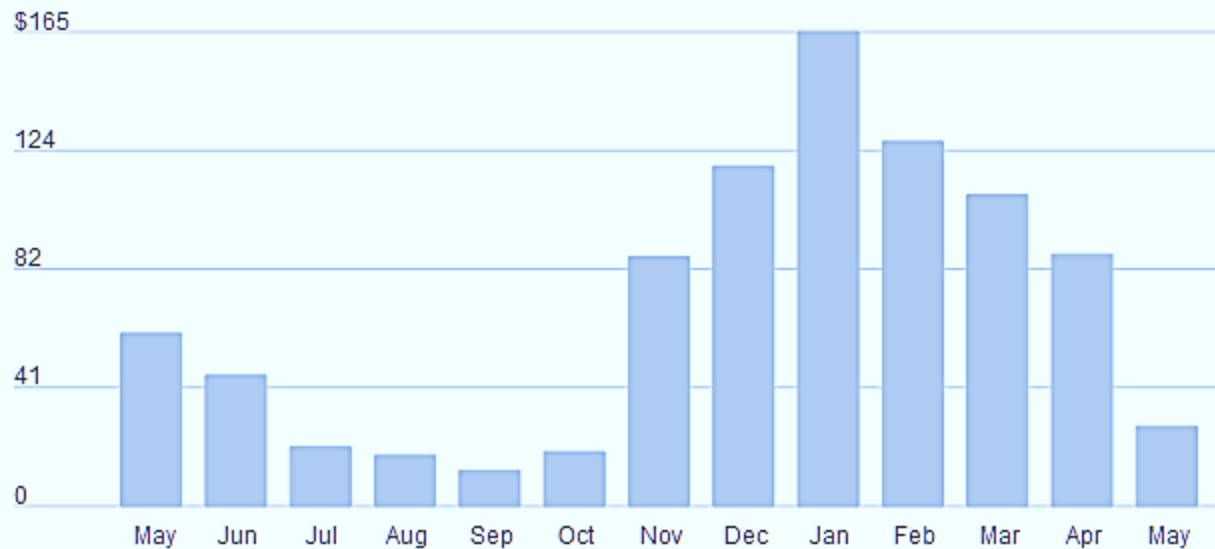
Your usage  
 Average outdoor temperature (°F)

# My Home Gas Energy Costs from PG&E

## My Energy Use

Show my natural gas

May 2011 – May 2012  
My costs



May 2011 \$60  
May 2012 \$28  
Savings \$32

# Electricity Usage and Net Savings

- May 2011
  - Total energy -248 kWh
  - Credit \$55.68
- May 2012
  - Total Energy –212 kWh
  - Credit \$47.87
- (Note: Using solar panels so electricity is a credit in May)
- Electricity Cost Increase \$7.81
  
- Gas Savings - \$32.00
- Electricity Cost \$ 7.81
- Net Savings \$24.19

# NEST Benefit Cost vs Savings

- Nest price about \$270-\$300
  - Available on the Internet via Search or E-Bay
  - Now available at Lowes Hardware and Amazon.com
- Energy Savings
  - Estimate average \$10-15/month for 9 months = \$90-\$135/year
  - Payback after 2-3 years