



Google

VOICE

TYPING



Welcome to The Age of Assistance

nest

Google Home

nest | Google Home



"OK Google,
raise the temperature
to 72 degrees."



What is the Age of Assistance?



Hey Google



**BUBBA GUMP
SHRIMP CO.**

Rainforest Cafe

TWIN PEAKS



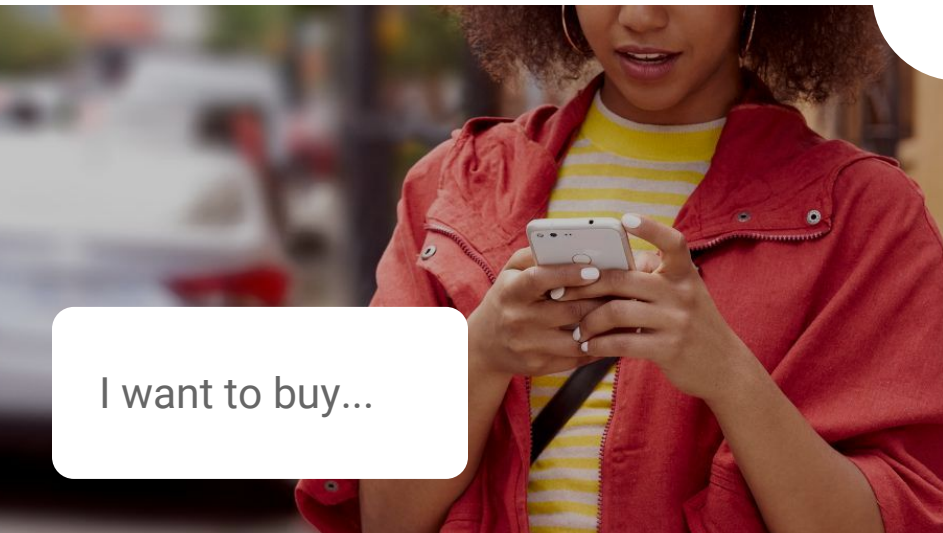
I want to know...



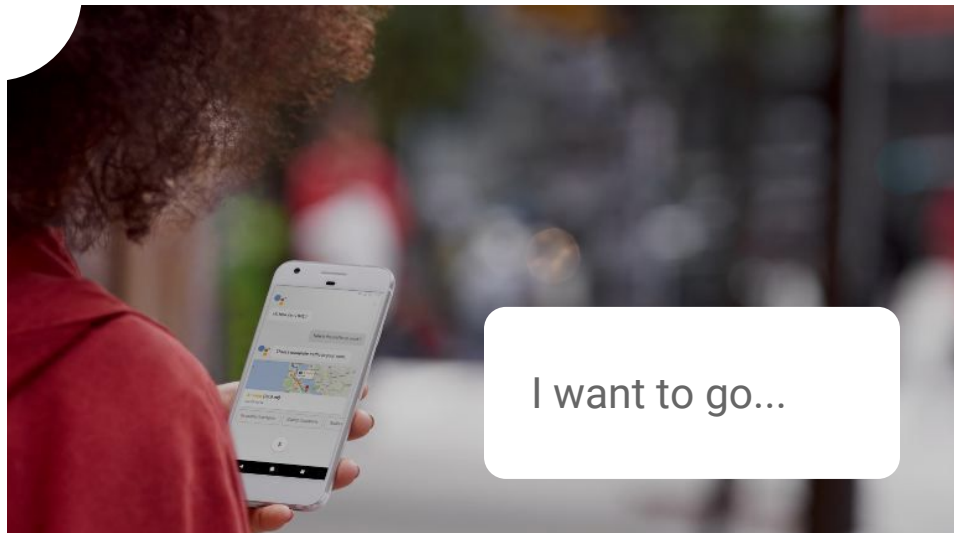
I want to do...



I want to buy...



I want to go...



Why is this happening?



PC

Computing is evolving again...



PC



Web

Computing is evolving again...



PC



Web



Mobile

Computing is evolving again...



PC



Web



Mobile



AI

Computing is evolving again...

... and so is the energy provider relationship

ENERGY STATEMENT
www.pge.com/MyEnergy

Account No: 1023456789-0
Statement Date: 09/12/2013
Due Date: 10/03/2013

Service For:
Residential Customer
1234 Main Street
Extra Address Line
Anytown, CA 90000

Your Account Summary

Amount Due on Previous Statement	\$144.79
Payment(s) Received Since Last Statement	-144.79
Previous Unpaid Balance	\$0.00
Current Electric Charges	\$86.31
Current Gas Charges	\$6.26
Total Amount Due by 10/03/2013	\$146.11

Questions about your bill?
24 hours per day, 7 days per week
Phone: 1-800-111-0000
www.pge.com/MyEnergy

Local Office Address
800 W. 1st St.
Anytown, CA 90000

Monthly Billing History

Bar chart showing monthly billing history from May 2012 to September 2012. The Y-axis represents the amount due, ranging from \$0 to \$200. The X-axis represents the months. The chart shows a general downward trend in billing amounts over the period.

Important Messages
GARE Program: You may qualify for a monthly discount with the California Alternate Rates for Energy (CARE) Program. To find out more and apply online, visit www.pge.com/care.
United profits may be eligible to be discounted instead of all California Alternate Rates for Energy Program (CARE) rates information / factor as stated on internet, visit www.pge.com/importantinfo.

Please return this portion with your payment. No staples or paper clips. Do not fold. Thank you.

99901234567890100000XXXXX000000XXXXXX

Account Number: 1023456789-0
Due Date: 10/03/2013
Total Amount Due: \$146.11
Amount Enclosed: \$

RESIDENTIAL CUSTOMER
1234567890
EXTRA ADDRESS LINE

PG&E
BOX 99700
SACRAMENTO, CA 95836-7000

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[illegible]

... and so is the energy provider relationship

ENERGY STATEMENT
www.pge.com/MyEnergy

Account No: 1023456789-0
Statement Date: 09/12/2013
Due Date: 10/03/2013

Service For:
Residential Customer
1234 Main Street
Extra Address Line
Anytown, CA 90000

Your Account Summary

Amount Due on Previous Statement	\$144.70
Payment Received Since Last Statement	-\$144.70
Previous Unpaid Balance	\$0.00
Current Electric Charges	\$86.41
Current Gas Charges	\$6.20
Total Amount Due by 10/03/2013	\$146.11

Questions about your bill?
24 hours per day, 7 days per week
Phone: 1-800-111-0000
www.pge.com/MyEnergy

Local Office Address
800 W 1st St
Anytown, CA 90000

Monthly Billing History

Important Messages
GARE Program: You may qualify for a monthly discount with the California Alternate Rates for Energy (CARE) Program. To find out more and apply online, visit www.pge.com/care.

United profits receive the equivalent of an discounts material cost of California Alternate Rates for Energy Program (CAEP) rate information / order as detailed on Internet, visit www.pge.com/energyassist.

Please return this portion with your payment. No staples or paper clips. Do not fold. Thank you.

99901234567890100000XXXXX000000XXXXXX

Account Number	Due Date	Total Amount Due:	Amount Enclosed:
1023456789-0	10/03/2013	\$146.11	\$

RESIDENTIAL CUSTOMER
1234 MAIN STREET
ANYTOWN, CA 90000
EXTRA ADDRESS LINE

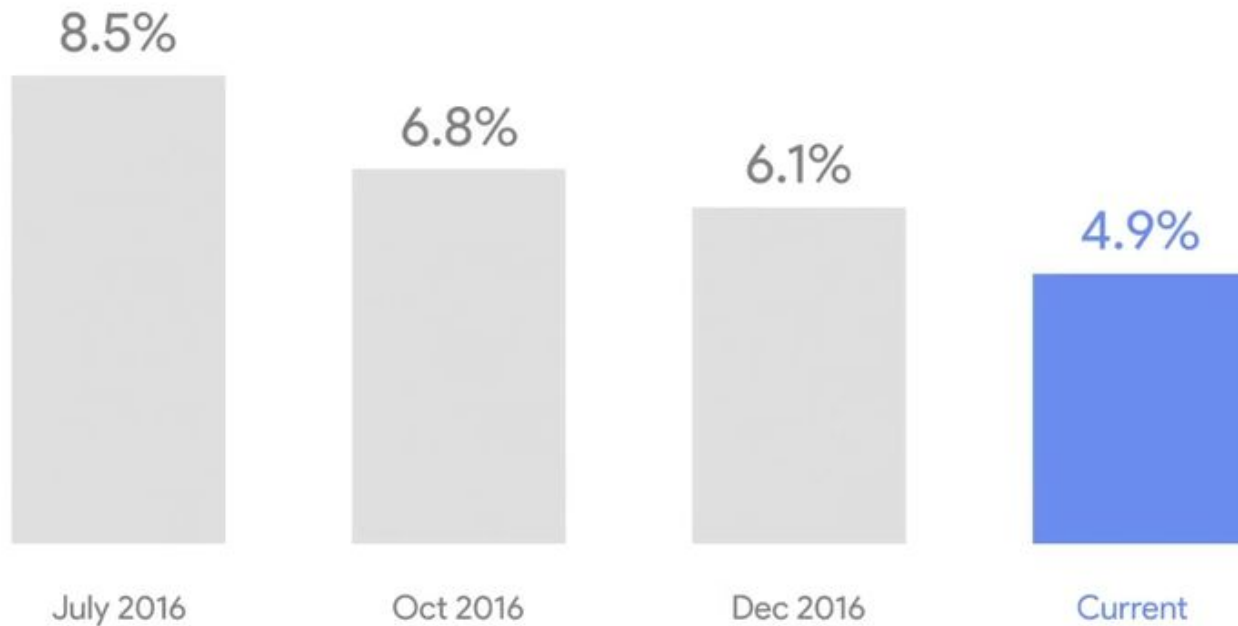
PAGE: BOX 997200
SACRAMENTO, CA 95834-7200

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Speech Recognition

Word Error Rate



Why is this interesting to
utilities?

Quick visit to utility budget spends by category

\$1 billion

Demand Response

\$3 billion

Energy Efficiency

\$30 billion

Customer Operations

Google Mini costs just 2X of a customer service phone call



\$20 - \$40
per call

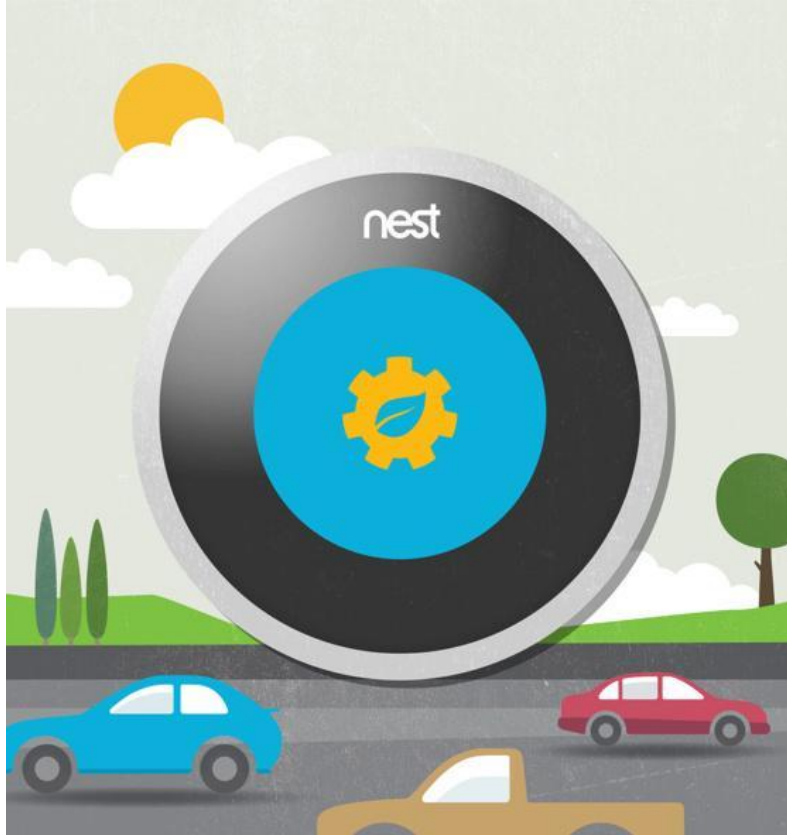


\$80
per Google
Mini

What could we potentially do?

Years of experience in demand
response programs

Rush Hour Rewards: Personalized Demand Response



Provide utilities opportunity to leverage connected thermostats for demand response programs

Enables customers to be rewarded for having flexible loads

Saves the customer money all year round by using a smart adaptive thermostat

Demand Response to Solve Grid Challenges

greentechmedia:



**Bloomberg
Business**

**Alphabet's Nest Wants to
Make a 'Citizen-Fueled'
Power Plant**

Nest Labs Confidential



Utility
DIVE

SCE, Nest partner on virtual power plant to mitigate Aliso Canyon gas shortage

By Robert Walton | September 16, 2016 [print](#)



share



tweet



post



email

FORTUNE

TECH CONNECTED HOME

How Alphabet's Nest Helps Utilities Cope With Summer Heat Waves

by Katie Fehrenbacher @katiefehren AUGUST 29, 2016, 3:30 PM EDT



Nest Energy Partnerships



Pioneering voice-enabled energy
conservation



OK Google, turn the
temperature up downstairs

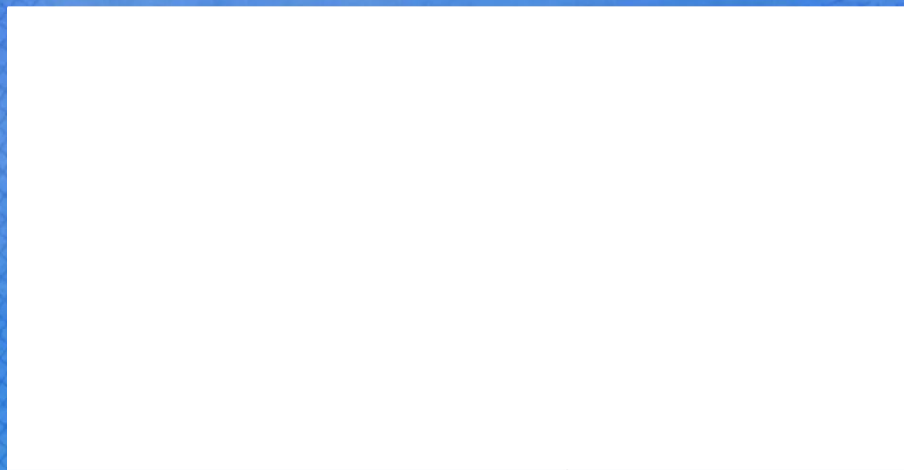


Sure, warming up
downstairs





Hey Google, what's my
energy usage?



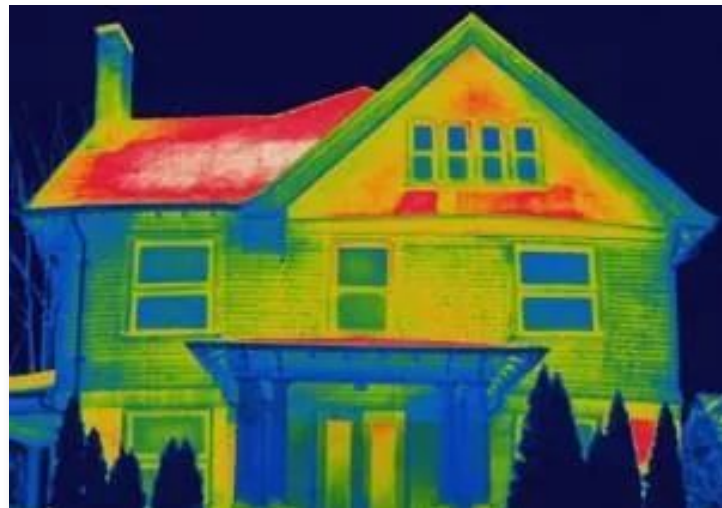


Hey Google, what's my energy usage?



You used...







Second step, layer in each jar six to seven raspberries, two tablespoons of cheesecake filling and two tablespoons of crushed graham crackers.





First step, check your doors and windows for any obvious air leaks. Let me know when you're ready for the next step...






Hey Google, am I eligible for a
Nest Thermostat rebate?

It looks like you are eligible for
a \$100 rebate from
Hydro-Quebec. Would you
like more information?



A few utilities are already there

[About us](#)[Careers](#)[Newsletters](#)[Contact us](#)




[Sign Up](#)[Log In](#)

[Accounts](#)[Energy savings](#)[News](#)[Projects & operations](#)[Community](#)[Work with us](#)[Outages & safety](#)

[Residential](#) • [Business](#) • [Electric vehicles in B.C.](#) •

[Home](#) • [Energy savings](#) • [Energy Management Trials](#) • [Smart speaker trial](#)

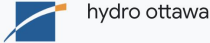
Smart speaker trial



Join the trial


ENERGY MANAGEMENT TRIALS

[SidneyN. Saanich Home Reno Rebate](#)[CASA wi-fi-connected thermostat trial](#)[Smart speaker trial](#)





[Link](#)[Send to device](#)


DETAILS


 Local


AVAILABLE DEVICES


 Android 6.0+ TVs

 Google Home

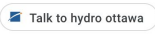
 Android 5.0+ phones

 iOS 10.0+ devices

 Chromebook

 Smart Displays

ASK YOUR ASSISTANT



Ask Hydro Ottawa about electricity prices, outages, account information and conservation tips. To check your account information you will need to login with your Hydro Ottawa account credentials on the settings page.

Nest is a registered trademark of Nest Labs, Inc. Google and Google Home are trademarks of Google LLC. Voice commands require a compatible device and working internet and Wi-Fi. PUCT #10007

nest | Google Home

SAVE TIME. **SAVE MONEY.**
SAY THE WORD.



reliant  **1.866.RELIANT | reliant.com**

SPEAK & SAVE PLAN

Thank you and merci!

Iuliana Calin

icalin@google.com