



Save Energy. Get Paid.

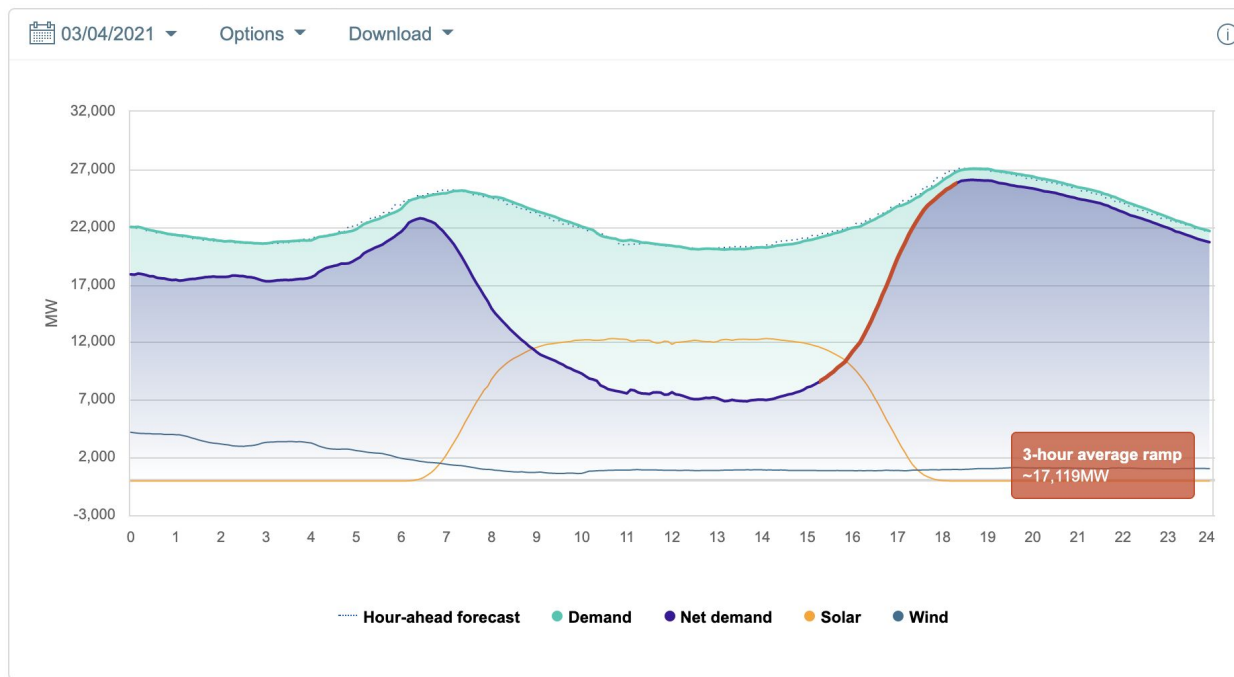
WiFi Smart Plugs:
The “Gateway Drug” to Home Energy Automation

John Anderson, Director of Energy Markets
john@ohmconnect.com
CalPlug 18th Workshop
October 18, 2021

Consider this (three-part) problem statement

2

(1) Flexible demand for electricity is needed to decarbonize the grid...



Consider this (three-part) problem statement

...and **(2)** automation of households' electric loads is necessary to achieve flexible demand at scale...



Consider this (three-part) problem statement

...but **(3)** many households face barriers to adopting energy automation technologies.



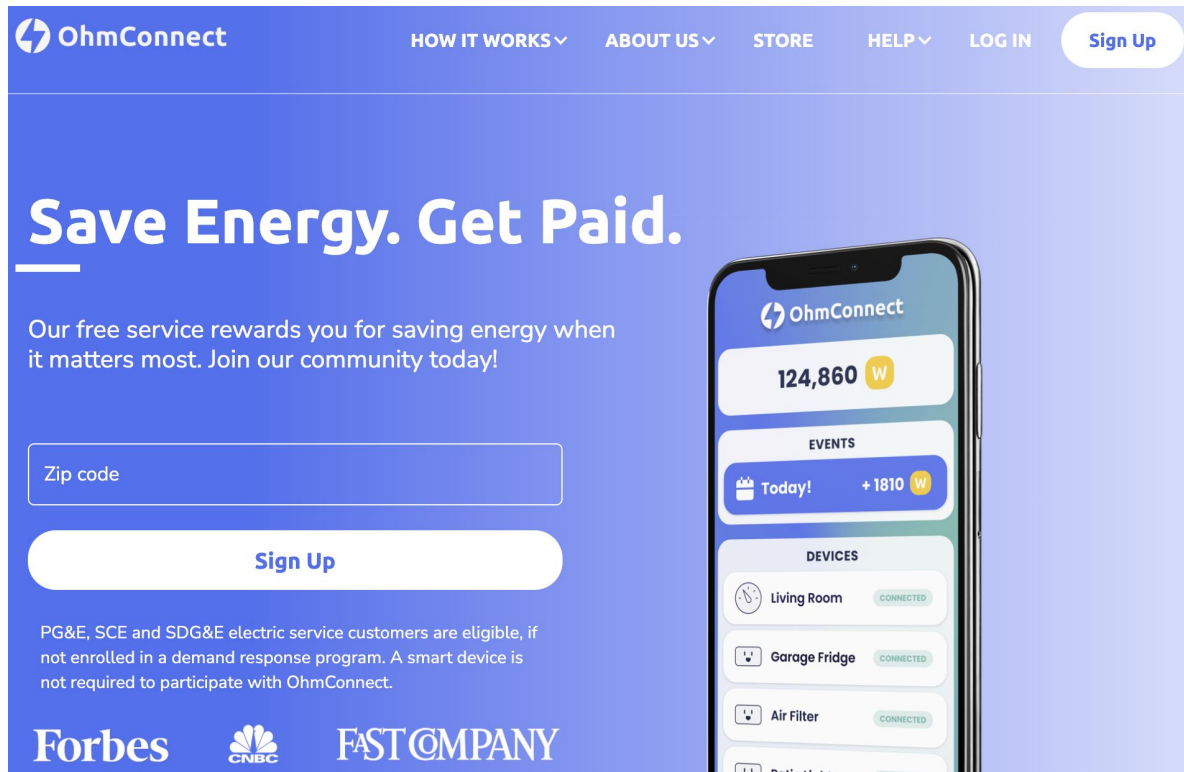
Now, consider a simple solution

- **WiFi smart plugs** can overcome common barriers to home energy automation, thereby catalyzing the flexible electricity demand needed to decarbonize the grid

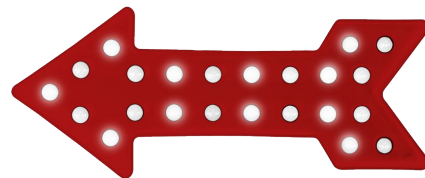


Pause for shameless self promotion...

Overview of OhmConnect's California demand response platform



The image shows a screenshot of the OhmConnect website and its mobile app. The website has a blue header with the OhmConnect logo and navigation links: HOW IT WORKS, ABOUT US, STORE, HELP, LOG IN, and a Sign Up button. The main content area features the headline "Save Energy. Get Paid." followed by a sub-headline: "Our free service rewards you for saving energy when it matters most. Join our community today!". Below this is a form for a Zip code and a large Sign Up button. At the bottom, logos for Forbes, CNBC, and FAST COMPANY are displayed. The mobile app interface is shown on the right, displaying a balance of 124,860 W, an event for today with a reward of +1810 W, and a list of connected devices: Living Room, Garage Fridge, and Air Filter, all marked as "CONNECTED".

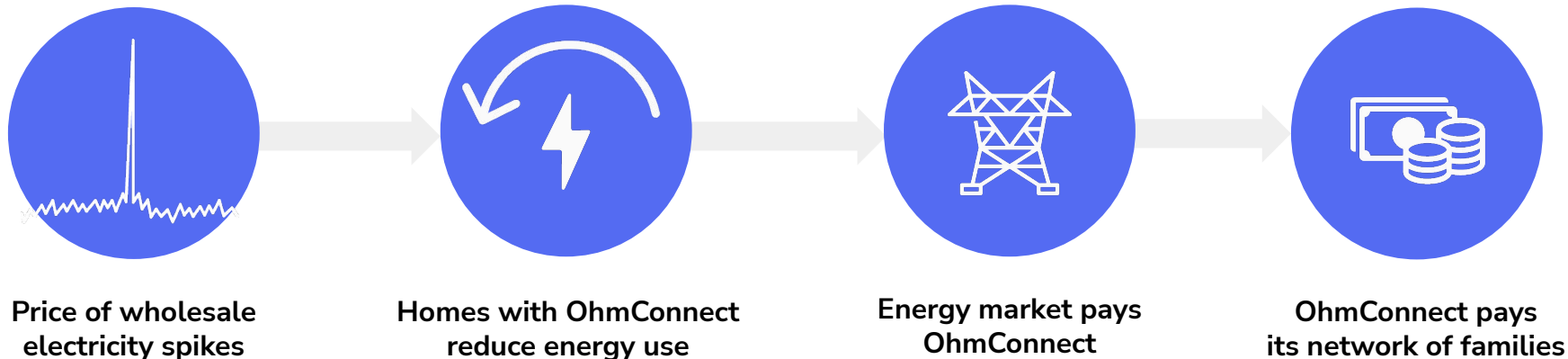


Folks in California:

<https://ohm.co/john-anderson>

Pause for shameless self promotion...

185,000 active OhmConnect customers have earned \$15 million for saving energy



Pause for shameless self promotion...

Easy to sign up, connect an automated device, and start saving immediately

1

Signing up takes
1 minute

2

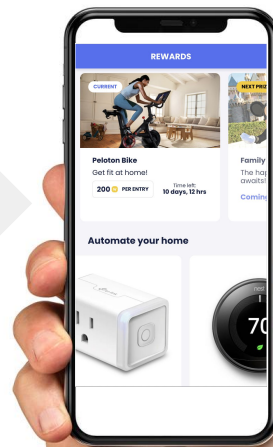
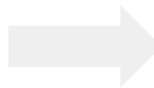
Connect smart device
in less than 5 minutes

3

Automatically
save energy

4

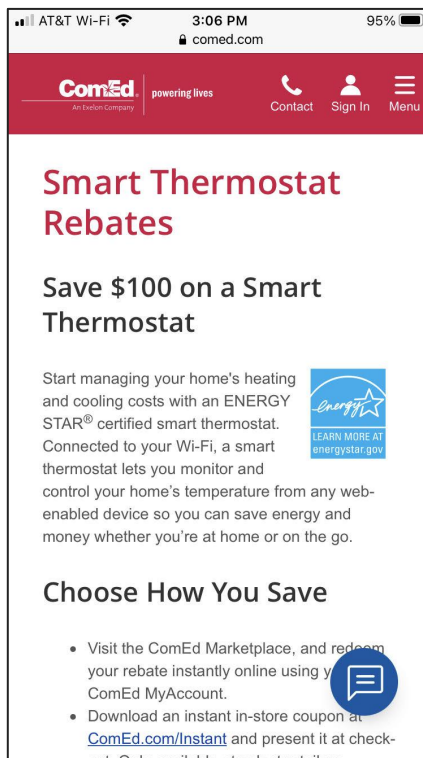
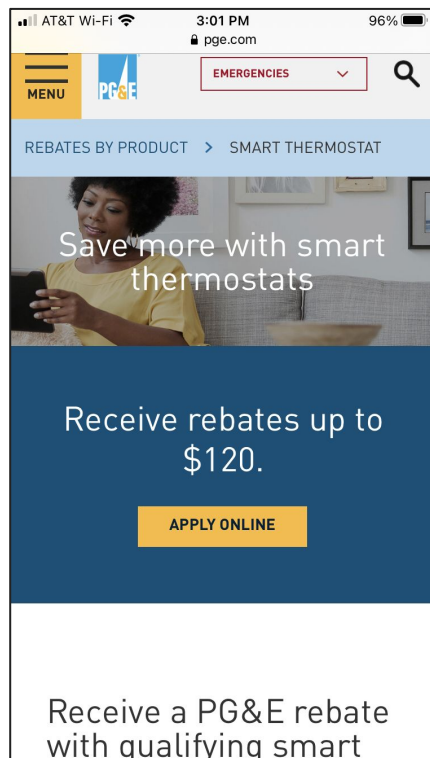
Cash out or
earn prizes



OhmConnect hardly first to incentivize home energy automation

9

But most utility-provided incentives are for intermediate/advanced technologies like smart thermostats



Barriers to adoption of home energy automation technologies

There are many reasons households may be unable or unwilling to automate control of their energy use



Cost – Smart devices (thermostats, appliances, etc.) are expensive



Home ownership – Renters not incentivized or allowed to install technology



Installation – Technology can be difficult to install (or uninstall)



Security – Control of your home's energy use by a third party can seem scary



Compatibility – Smart devices often belong to competing “ecosystems” (Amazon Alexa, Google Home, etc.)

The WiFi smart plug addresses each of these barriers

What's in your outlet?



Cost – Inexpensive (retail for as little as \$10)



Home-ownership – No need for landlord's permission



Installation – Setup is (literally) plug-and-play



Security – Control is limited to what is powered by the plug



Compatibility – Works with most smart home platforms

Smart plugs do more than just direct load control

Scheduling and remote-control capabilities provide convenience and security in the home

“In the winter, I keep my bedroom heater plugged into my smart plug and set a schedule for it to turn on for 30 minutes before I wake up. This way, the room is toasty when I wake up and I don't need to turn on the thermostat for the whole house.”

“We use [a smart plug] as our nightly bedtime reminder! It's hooked up with a power strip that has the TV and light source for the living room. Come bedtime, it's lights out – literally.”

“I plug my garage door opener into the smart plug when I go on vacation. I turn it off and no one can open the garage door with a scanner because it has no power. When I come home I turn it on from my phone and my garage door opener works again.”

Smart plugs as a catalyst for flexible demand

Consider how OhmConnect customers with smart plugs compare to those without

- ⚡ More likely to **reduce load** during demand response events
- 📈 More likely to connect **advanced technology** like smart thermostats
- ❤️ Less likely to **drop off** the OhmConnect platform (i.e. “churn”)
- 👨👩👧 More likely to **refer friends and family** to the OhmConnect platform
- ✉️ More likely to **engage with content** from OhmConnect (e.g. email and SMS)



Questions?
