



nest 
Power
Project

September 2018



Agenda

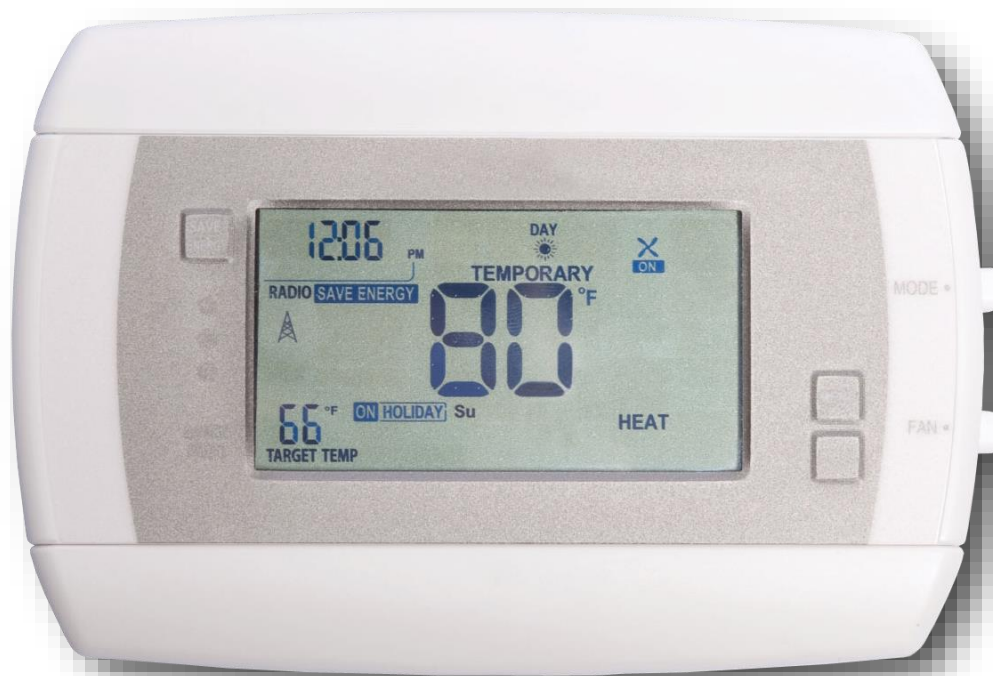
Introduction to Nest

Power Project Overview

Case Study: Colorado Energy Office/Arapahoe County

**To create a home that
takes care of the
people inside it and
the world around it.**





12:06

PM

DAY



TEMPORARY



ON

80°F

RADIO SAVE ENERGY



66°F

ON HOLIDAY

Su

HEAT

TARGET TEMP

MODE

FAN

Since introducing the Nest thermostat



Saved

24B kWh
\$1.5B worth of energy

Nest Thermostat E launched in 2017

E is for Easy, Energy, Everyone



It includes all Nest's proven energy-saving features.

- AutoSchedule
- Home/Away Assist (plus optional geo-fencing)
- Eco Mode
- Nest Leaf (behavioral feedback)
- Airwave
- Heat Pump Balance
- True Radiant
- Energy History
- Sunblock



NOTE: ENERGY STAR qualified savings do not require wifi

Power Project Overview

<https://nestpowerproject.withgoogle.com/>

THIS IS ENERGY POVERTY IN AMERICA

1 in 4

AMERICANS
HOUSEHOLDS ARE
ELIGIBLE FOR HOME
ENERGY ASSISTANCE
BASED ON INCOME

SOURCE: U.S. Census Report on Income and Poverty (2016)

37% skipped medical + dental coverage

24% went without food for at least 1 day

20% of families experience illness
because their home was too cold

SOURCE: 2011 LIHEAP Survey <http://neada.org/program-policy-reports/liheapsurvey/>

STARTING ON EARTH DAY, NEST IS DOING SOMETHING ABOUT IT.

- ✓ Providing **1 million Nest thermostats** units at reduced prices to existing low-income programs nationwide.
- ✓ Partnering with **Habitat for Humanity** to put a **Nest thermostat** in every new home.
- ✓ Building a digital platform to localize the issue and **facilitate consumer donations**.
- ✓ Launching a **national ad campaign** to raise awareness of energy poverty and create solutions.



How does Thermostat E benefit low-income households?

Customer benefits

Bill Savings

- ✓ Helps reduce bills
- ✓ Manages consumption

Comfort

- ✓ Learns habits
- ✓ Allows automation



Utility/Agency benefits

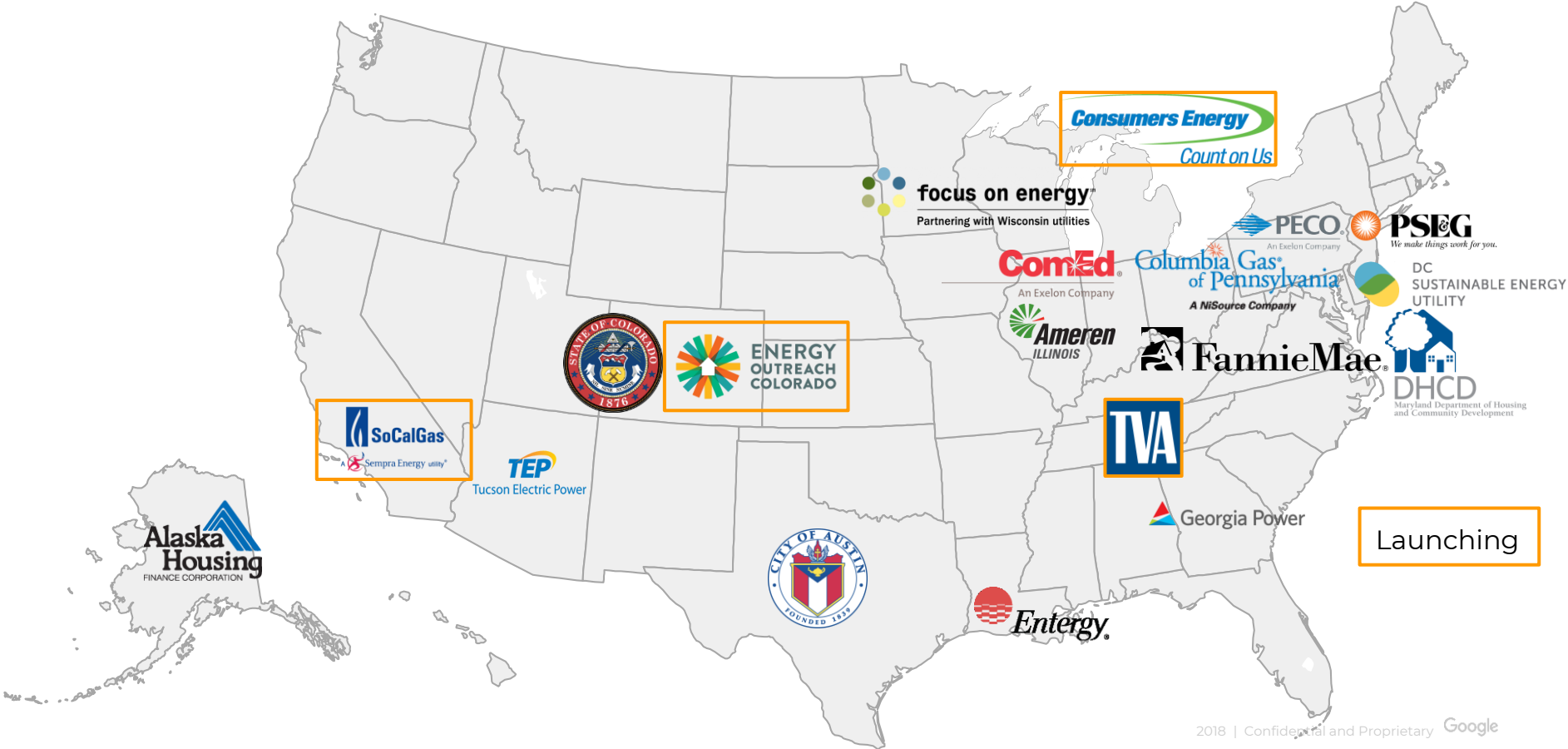
Maximizes weatherization

- ✓ Maximizes savings
- ✓ Visual indicator of work

Reaches everyone

- ✓ Simple interface
- ✓ Language options

Programs launched/launching



Background: Colorado Energy Office/Arapahoe County

- Nest partnered with Colorado Energy Office and Arapahoe County
- 250 thermostats provided for use in WAP
- Single-family, owner-occupied, gas heated, willing client
- No requirement for home WiFi
- Installed in about half the homes weatherized May 2016 – Dec. 2017

Results: Colorado Energy Office/Arapahoe County

- Homes that received a Nest thermostat achieved average gas savings of 18.4% compared to 11.1% for comparable standard WAP clients.
- Weatherization Assistance Program National Energy Audit Tool (NEAT) showed Nest thermostats to be very cost-effective, with SIRs ranging from 4.3 – 8.6.
- Just 5% of thermostats were removed due to either client request or hardware/compatibility problems.
- The absence of WiFi did not appear to have any significant impact on incremental savings.

Key takeaways

- Smart thermostats drive quantifiable, cost-effective energy savings for low-income households
- Low-income households are able to use smart thermostats effectively
- Smart thermostats provide a point of engagement that allows low-income households to participate in energy programs (e.g. demand response)



Thank you!

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