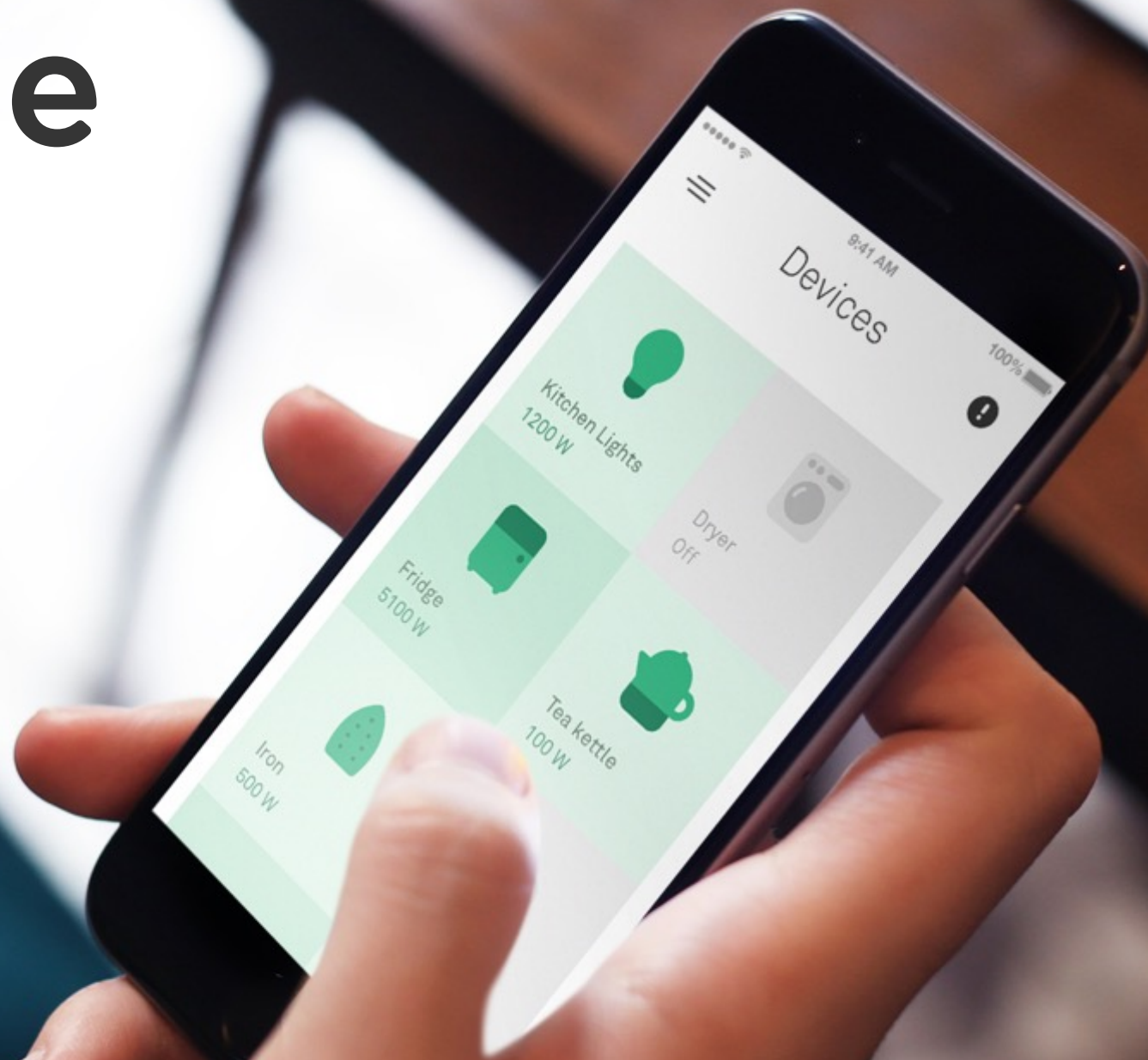




Company intro
May 2016




 AT&T billing
 questions
 1 800 222-0300

COMMUNICATION SERVICES (continued)

Billing for AT&T

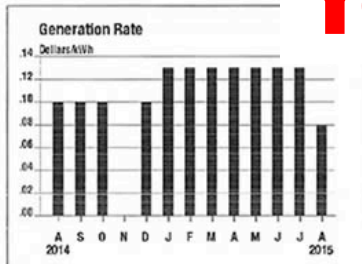
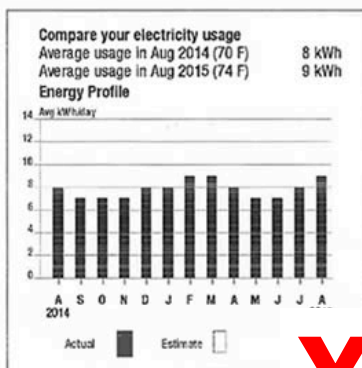

AT&T BASIC SERVICES

Card Calls (continued)

 Card - **3477 (continued)**

Date	Time	Called from	Called to	Period	Min.	
Sep 29	8:11 pm	Indio	CA New Haven	CT Eve	1	2.14
Sep 29	9:11 pm	Indio	CA Wallingfd	CT Eve	63	57.32
Sep 30	9:10 am	Indio	CA New Haven	CT Night	1	2.14
Sep 30	9:11 am	Indio	CA Wallingfd	CT Night	1	2.14
						2.14
						2.14
						35.96
						10.15
Sep 30	5:42 pm	Indio	CA New Haven	CT Night	1	2.14
Sep 30	5:43 pm	Indio	CA New Haven	CT Night	37	34.18
Oct 1	3:26 pm	Indio	CA Wallingfd	CT Night	1	2.14
Oct 1	3:27 pm	Indio	CA Wallingfd	CT Night	1	2.14
Oct 1	3:44 pm	Indio	CA New Haven	CT Night	1	2.14
Oct 1	3:45 pm	Indio	CA New Haven	CT Night	1	2.14
Oct 1	4:59 pm	Indio	CA Wallingfd	CT Night	1	2.14
Oct 1	5:00 pm	Indio	CA Wallingfd	CT Eve	10	10.15
Oct 1	7:34 pm	Indio	CA New Haven	CT Eve	3	3.92
			CA Wallingfd	CT		

Delivery Services Detail	Distribution Rate: 001	
Transmission Chrg	313.00 kWh X .026550	\$8.31
Distr Cust Srv Chrg		\$19.25
Distr Chrg per kWh	313.00 kWh X .033260	\$10.41
CTA Chrg per kWh	313.00 kWh X .000410	-\$0.13
FMCC Delivery Chrg	313.00 kWh X .001690	\$0.53
Comb Public Benefit Chrg*	313.00 kWh X .010390	\$3.25
Subtotal		\$41.62

 Supplier Services
 Generation Detail **Standard Service**


Your electric bill vs your phone bill



PEOPLE DON'T CARE ABOUT ENERGY.

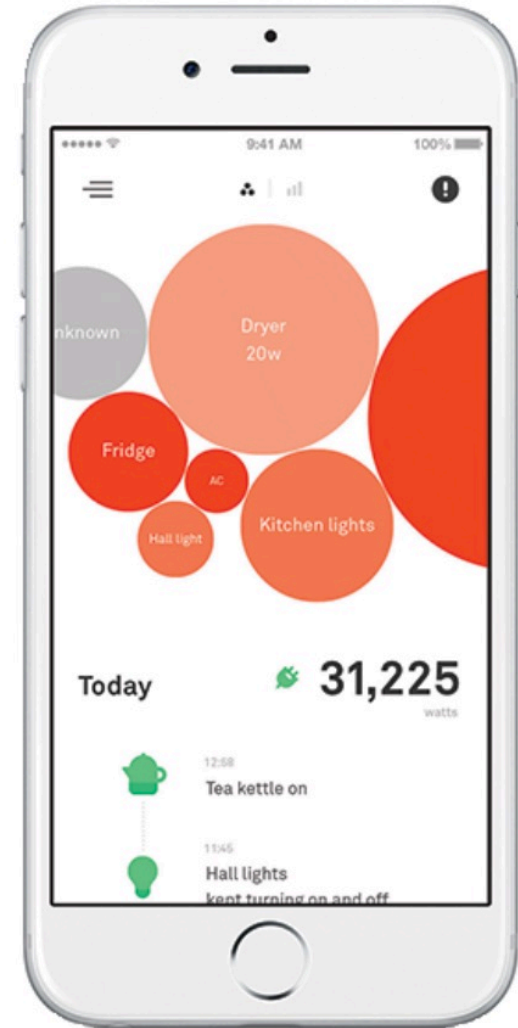
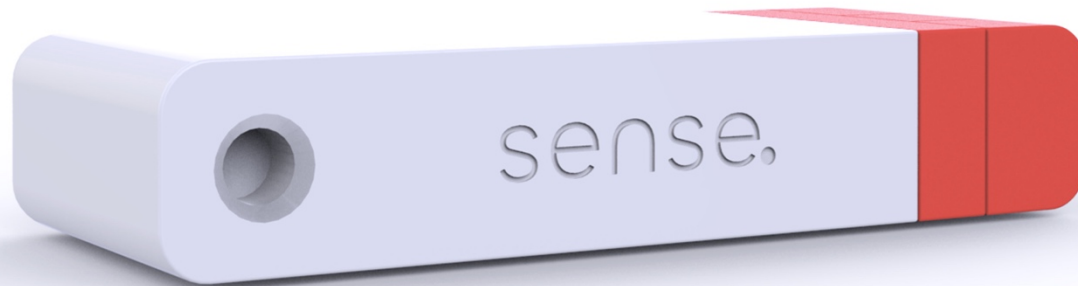
Well.

Not enough.

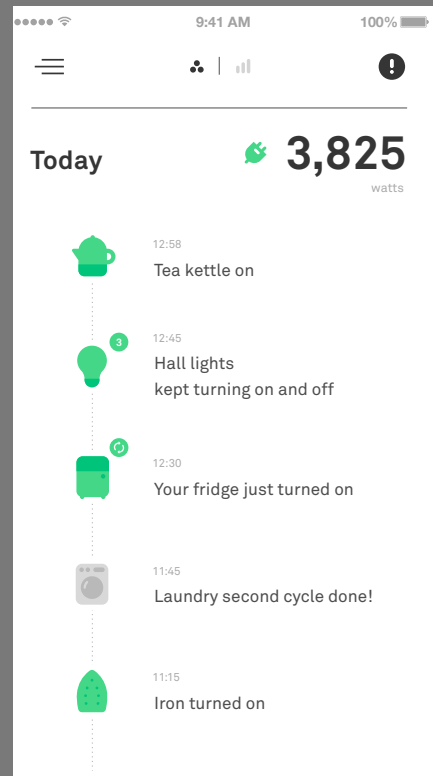
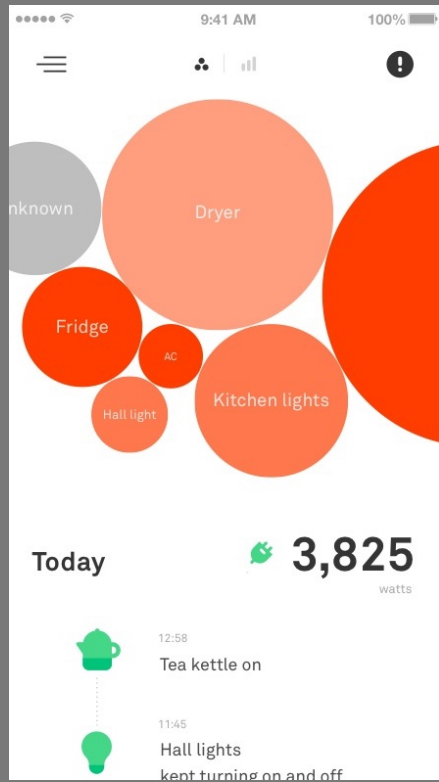
And not very frequently.



Sense: Intelligence for the home



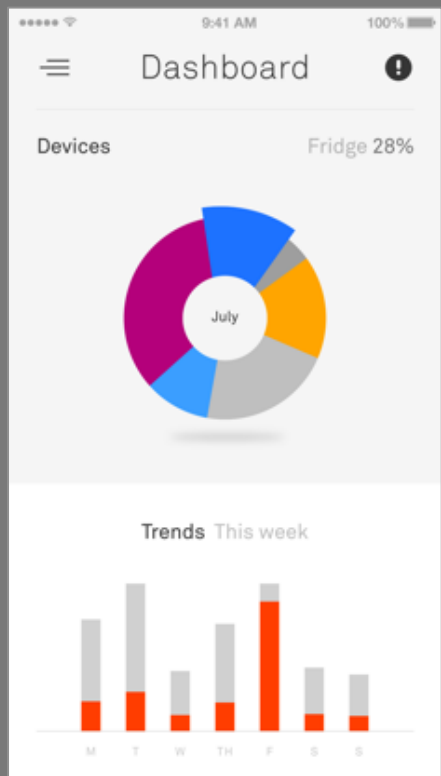
Sense today: Home awareness



**Awareness drives engagement
and...**

Know what's happening at home.

Sense future: Energy efficiency



Engagement drives efficiency.

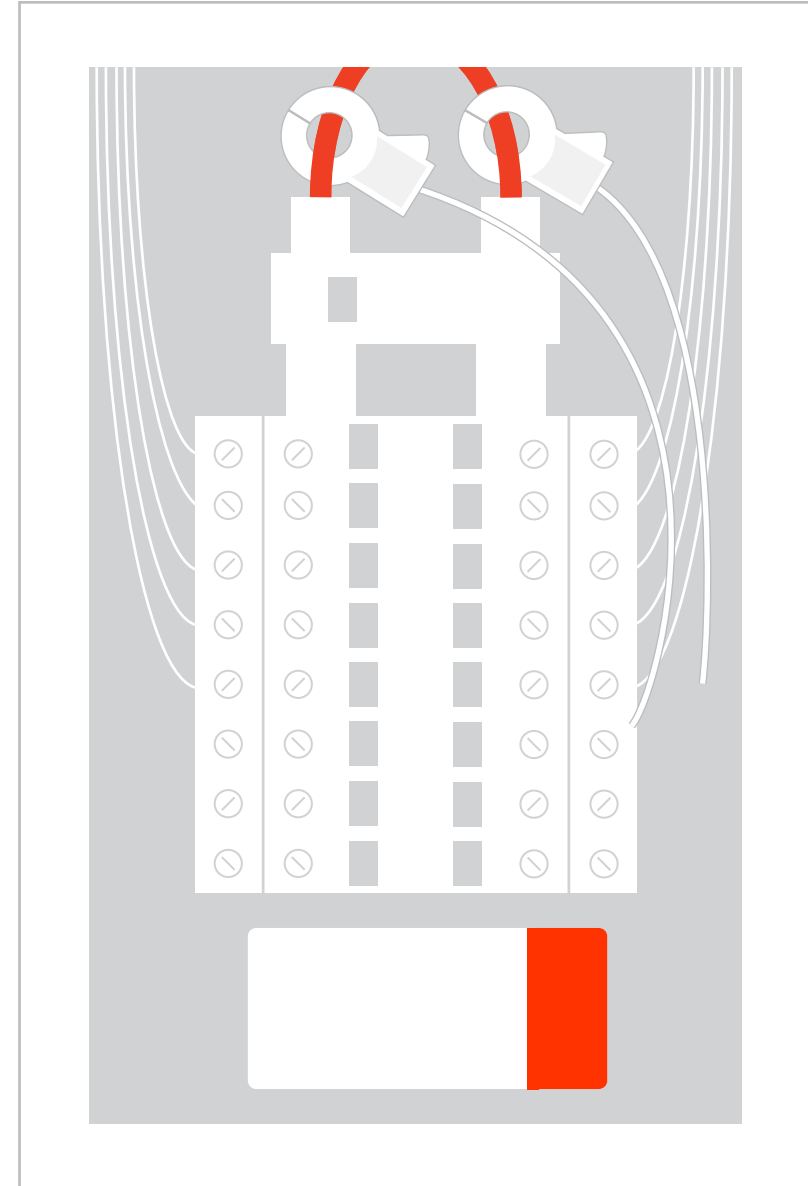
Track your energy usage by appliance.



Sense installation

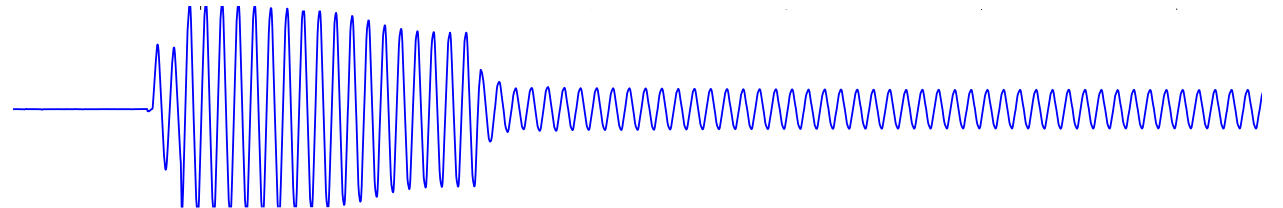
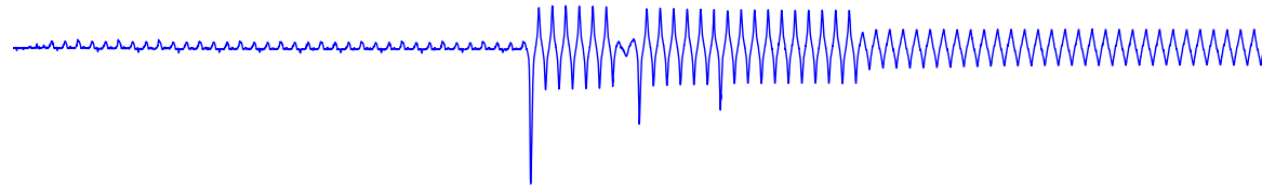
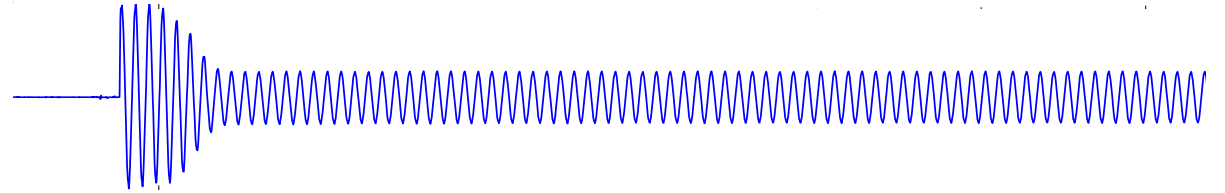
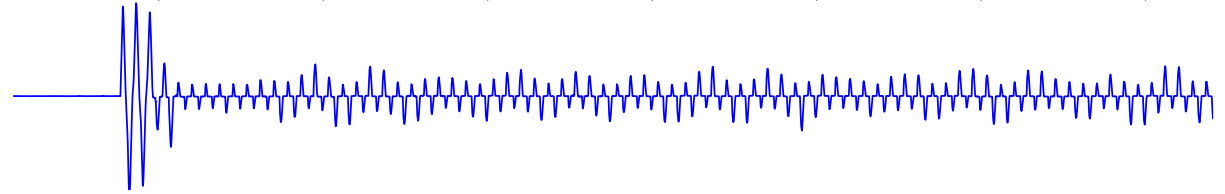
- Installed in the electric panel
- One monitor + 2 current transformers
- CTs attach to service mains
- Sense recommends electrician install

**No need for sensors on each circuit breaker.
No need for smart plugs for each appliance.**



How does Sense work?

- **Sense measures the incoming power in high resolution (current and voltage at sub-cycle times)**
- **Machine learning to determine state and power use of active devices.**
- **Over time, we build up a library of signatures.**
 - **“House Independent”**
 - **“House Specific”**



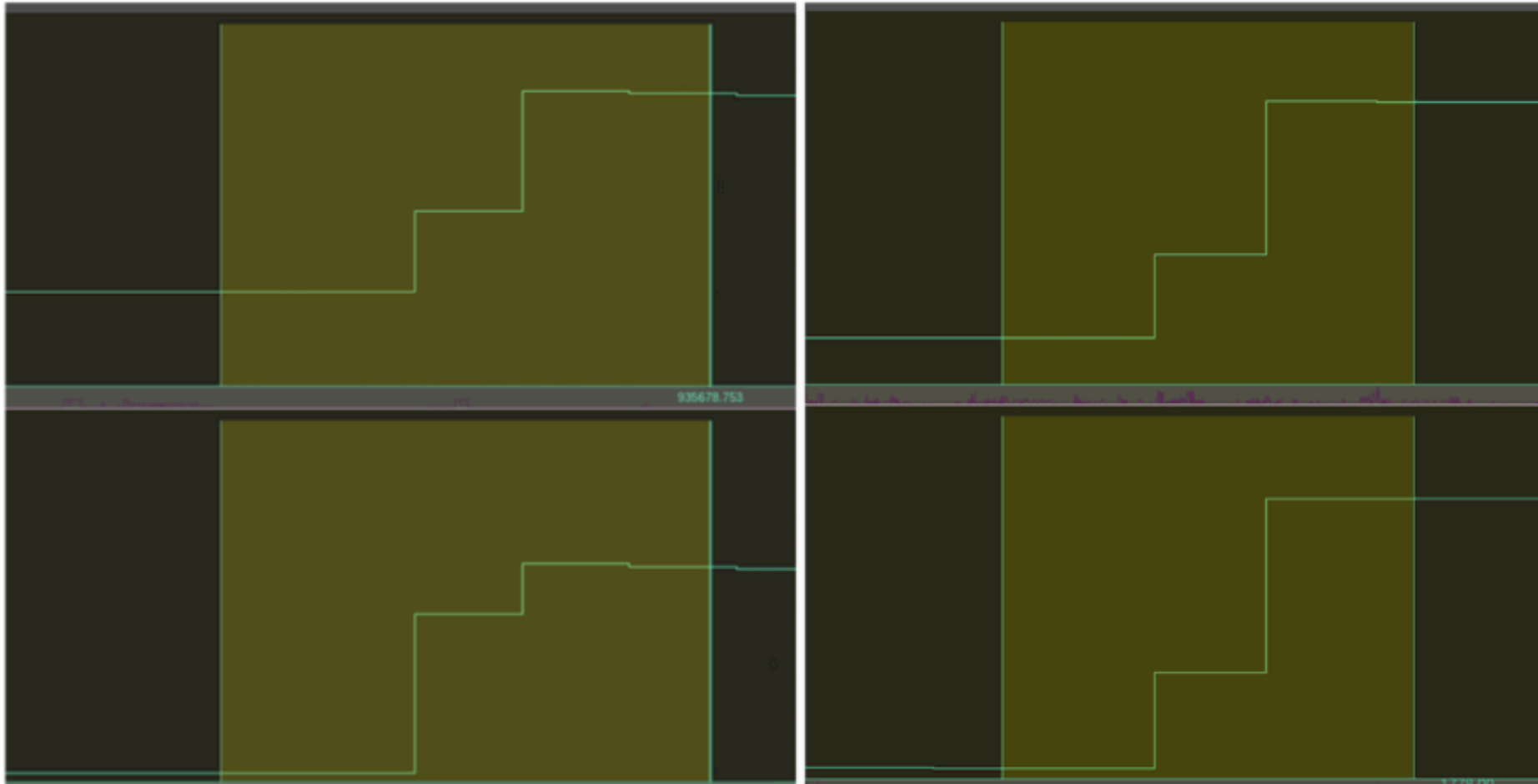
Technology

- **Real-world signals, real-time feedback are significant challenges**
- **Our speech recognition backgrounds have been useful preparation!**
- **We have a working solution that will improve as we scale # of houses**



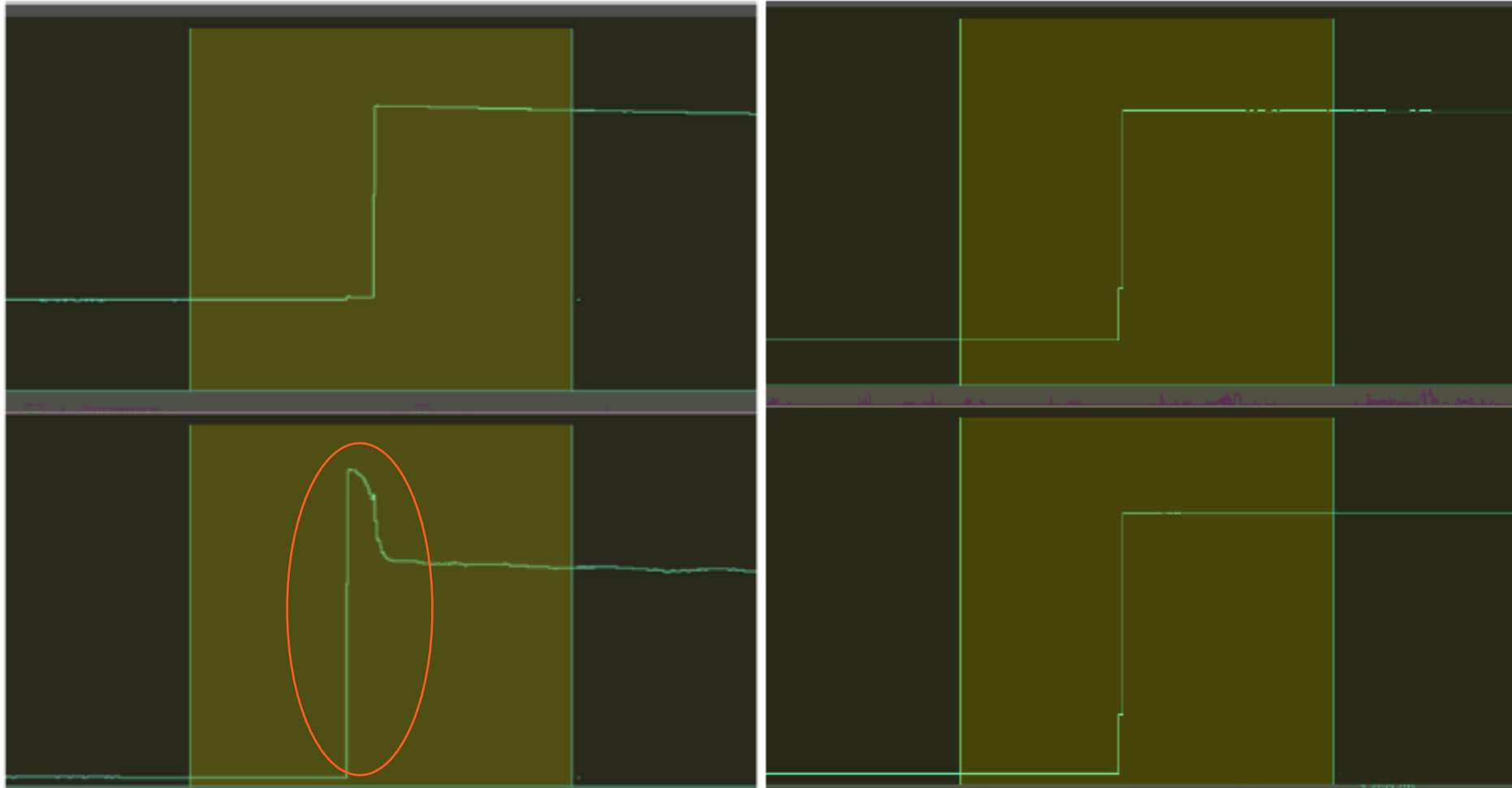
High sampling frequency is required for accurate device detection

Two different high wattage devices at low-resolution look identical:



High sampling frequency is required for accurate device detection

The same two devices at a higher sampling rate.



Dryer

Oven



Team background in speech recognition (Speechworks and Vlingo)



Mike Phillips
CEO & Co-Founder
Founder & CTO,
Speechworks & Vlingo
CMU, MIT



Ryan Houlette
VP Engineering & Co-
Founder
Senior Architect, Vlingo
Stanford



Chris Micali
VP Product & Co-Founder
Product Manager, Vlingo.
Tufts



Charlie Rutledge
VP Operations
COO, Vlingo
VP Professional Services,
Speechworks, MIT Sloan



Rhoda Ullmann
Marketing & Biz Dev
Biz dev Bertelsmann
New retail channels
Staples. INSEAD



John Watlington
Hardware
VP Hardware, OLPC
Research Scientist,
France Telekom & MIT
Media lab MIT



Shakwan Burnett
Field Ops, Device
Discovery



Etienne Bernard
Sr Data Scientist



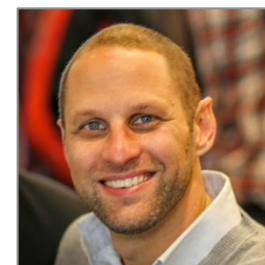
Ghinwa Choueiter
Sr Data Scientist



Caleb Marcus
Data Scientist



Fadi Saffouri
Software Engineer



Joe Bamberg
Hardware





Thank you

www.sense.com

From Sense customers

The app kicks ass, it's engaging, gorgeous, pretty addicting. I feel like I have a little glimpse into the future of energy, analytics, and customer engagement. I am pretty addicted to this app.

This is like a Twitter feed for my home.

It's the product I have dreamed of. When I get a letter from the power company telling me my usage vs my neighbors is the highest, now we will find out!

I have to first commend you on an amazing approach to whole home monitoring. I have been wanting this type of system for a lot of years, but did not want to go through the cost and complexity of installing CTs on each circuit.

Installation was easy. It has been recognizing new appliances on an average of 1 every 2 - 3 days for the past 2 weeks. Things like our heating system, garage door opener, etc. I like gadgets and this fits in well with our home automation and focus on energy conservation. Even the kids like to learn and see what is consuming a lot of energy and enjoy finding ways to reduce waste.

