

# Sustaining Cost Effective Incentives



**US Green Data**

*Data that makes a difference*

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Disclaimer: The information in this presentation provides an unofficial overview of materials and does not constitute advice, guidance, or the like and should only be used as a tool for provoking thought.

The Numbers Behind  
**Clean Energy**

# U.S. Green Data, Inc.

- Most up-to-date, machine readable data for all energy incentives, requirements, and forms in the U.S.
- Data analysis, consulting, and an arsenal of tools to drive better results and increase energy efficiency.
- A team of 20 top policy analysts, experts, and consultant

The screenshot displays the 'HOME SAVINGS CENTER' website. The header features the site's name and tagline 'YOUR HOME. YOUR MONEY. WE STRIVE TO HELP YOU SAVE!' along with navigation links for Dashboard, Savings Finder, Learning Center, About, FAQs, Ask a Question, My Account, Feedback, and Logout. A user is logged in as 'Lushen Wu' from Pittsburgh, PA. The main content area shows search results for 'AIR CONDITIONER' with a 'Your savings' of '\$300 flat rate'. Below this, there is a section for 'WATER HEATER' also showing a '\$300 flat rate' savings. The interface includes a search filter on the left, a 'WELCOME BACK!' message, and a 'PRINT ALL' button for the results.

# U.S. Green Data, Inc.

**Simplifying Incentives**  
*Find, print, and use instantly*

**Services We Offer:**  
*Incentive and Policy experts*

- Incentive Interfaces & Data
- Incentive Reporting & Analysis
- Consulting & Benchmark Studies
- Comparing Product-by-Product Energy Savings

**Solutions For:**

- Customized Web-Interfaces for a Utility, Business or State/City
- Property & Portfolio Reports per Technology
- Energy Professional & Retrofitter Tools
- Real Estate and Corporate Incentive Finder
- Retailer and Manufacturer Incentive-to-Product Matching
- Return on Investment (ROI) Analysis
- API Feeds

*And consulting on incentives, policy, and energy*

The screenshot displays the US Green Data website interface. At the top, a banner reads "Savings Center" with the tagline "FOR HOME. YOUR MONEY. WE TO HELP YOU SAVE!". Below the banner is a navigation bar with links for "Savings Finder", "Learning Center", "About", "FAQs", "Ask a Question", "My Account", and "Feedback". A "WELCOME BACK!" message is visible, along with user information: "Lushen Wu, 620 Liberty Ave, Pittsburgh, 15222". The main content area shows search results for "AIR CONDITIONER" and "WATER HEATER". For "AIR CONDITIONER", it lists "Your savings" as "\$300 flat rate" and provides a description: "The Internal Revenue Service (IRS) offers tax credits of up to \$300 for the installation of energy efficient central air-conditioning systems." A "PRINT ALL" button and pagination controls are also visible. The "WATER HEATER" section shows a similar "\$300 flat rate" savings for a "Heat Pump Water Heater".

# U.S. Green Data, Inc.

## Executive Summary

1. *Incentives can open doors, but not ends within it of themselves*
2. *The psychology of incentives*
3. *The gaps in driving impact*
4. *Finding the money to fund you*

# The Incentive...Ever Smell a Cinnabon?...

*Are You Salivating yet?*

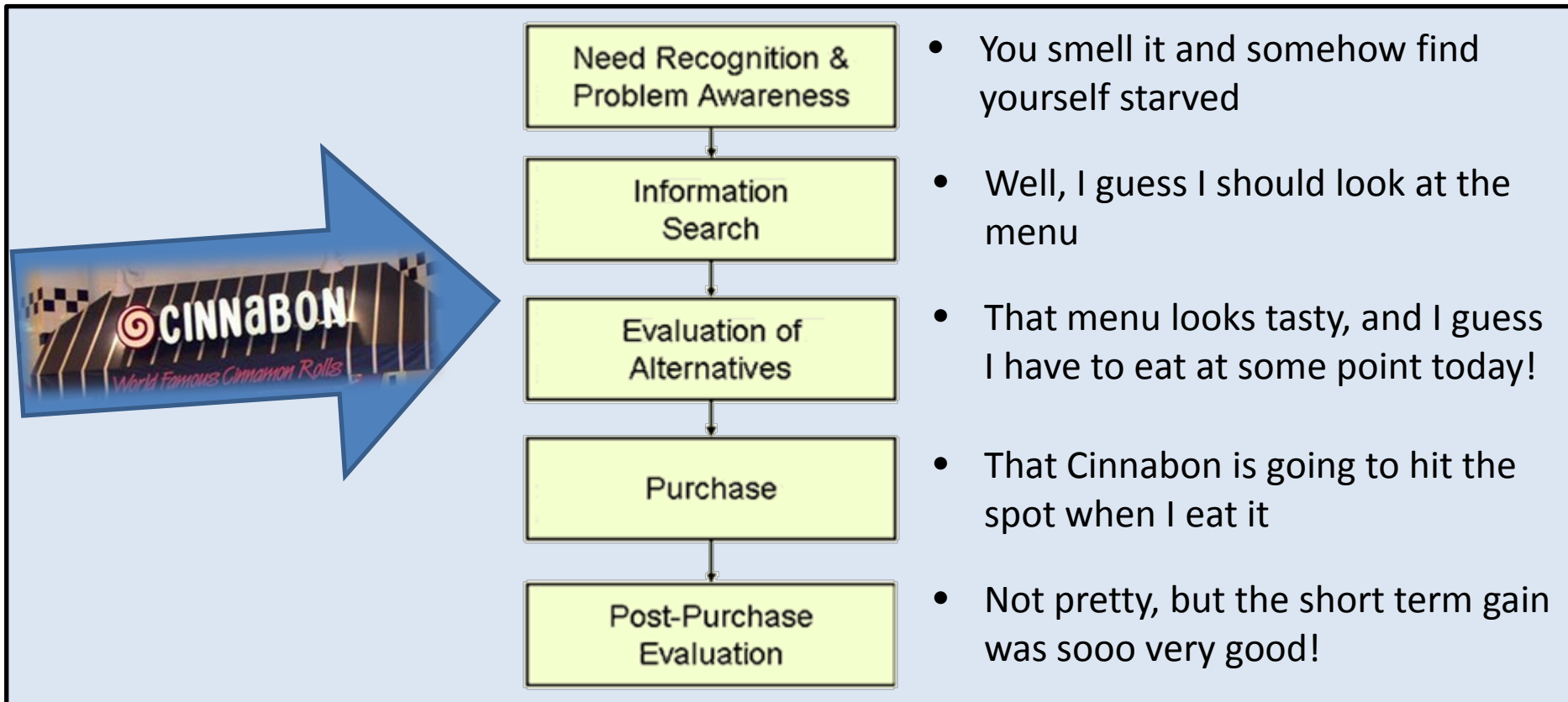
- ✓ *Smell it*
- ✓ *Salivate*
- ✓ *Must look at the menu*
- ✓ *Buy! ... or make it sooo hard to walk away.*



# What You're Thinking... Yum!

## How Our Mind Processes Incentives

*The psychology of what's going on in your head....*



# What is an Incentive? *A Bridge to Terabithia*

*The Dangling Carrot to Change Behavior*

1

**An Incentive Peaks Interest**



Motivation  
Hero  
Savings  
A BIG Coupon

2

**We Want To Learn More**



Specs?  
Costs?  
Benefits?  
Why?  
to educate,  
from

3

**Habits & Culture are Shaped**



*The Incentive is a tool to peak interest, focusing attention on what's important*

*The right education drives long-term change*

*Habits, a feeling of ownership, and a culture is developed*

*We have an opening! Self Perception Theory\* and Cognitive Dissonance Theory\**

*The Key Question: Are we using the "education" part of this process to teach the right things?*

# Like a Cinnabon Aroma, Incentives Should be looked At From the “What is the Job to Be Done” View

## New Paradigm: There are Two Major Categories of Jobs

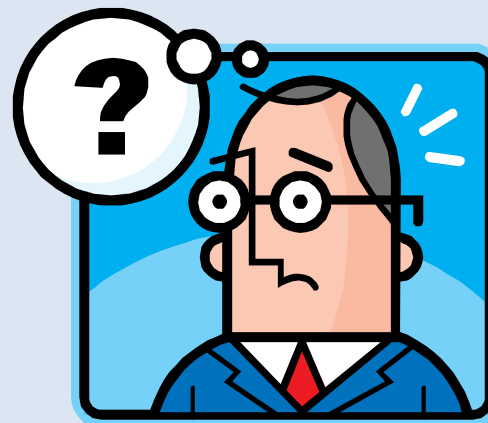
### 1. People Ready to Purchase (Replacements, etc)

**Market:** Whenever a homeowner has to replace something, there is an opportunity to drive impact with incentives at only a fraction of the cost.



### 2. People Unsure about Purchasing (Retrofits, etc)

**Market:** Whole home audits for retrofits fall in this category; and the larger the incentive, the higher the potential for retrofit is.





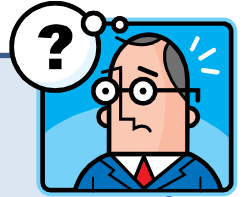
# For People at The “Point of Purchase,” there is a Low Cost To Influencing Their Purchasing Decision



## *1. People Ready to Purchase (Replacements, etc)*

- Market:** Whenever a homeowner has to replace something, there is an opportunity to drive impact with incentives—at a fraction of the cost.
- Lower Hurdle:** The customer wants to purchase, is looking for a deal, and the incentives are smaller.
- Admin Cost:** Administering purchases is much less costly and as a result funds last longer--which then equals more impact.
- Measurability (Breadth):** Impact is quantifiable and many times measurable.

# Trying to Perform an Unsolicited Comprehensive Home Retrofit has a Very High Cost To Influenced



## 2. People Unsure about Purchasing (Retrofits, etc)

- Market:** Whole home audits for retrofit fall in this category; and the larger the incentive, the higher the potential of a retrofit.
- High Hurdle:** The customer needs to be guided along the process, and larger incentives are required to entice participation.
- Admin Cost:** Marketing cost and administrative cost are exceedingly high, reaching from **20% to 80% of total allocated funds\***.
- Measurability (Depth):** Impact is expensive, but measurable.

\*Sources: [http://www1.eere.energy.gov/wip/solutioncenter/webcasts/EECBG\\_Webex\\_111510.html](http://www1.eere.energy.gov/wip/solutioncenter/webcasts/EECBG_Webex_111510.html)

# Uncertain Homeowners Require Being Educated to a Point of Purchase

## *Prior to the Point of Purchase (i.e. for retrofits)*

1. **Education:** People not ready to make a purchase and need to be educated
2. **Hurdles:** The cost associated with lost time, skepticism about a new tech, and return on investment (ROI) risk hinder a consumer's decision
3. **Complexity:** In many cases, the complexity of the payback and decision requires a third-party coach to explain

## *Risk*

1. Even after education, this may be out of a person's budget or comfort zone

## *Points of Education Examples*

1. Audits
2. Retrofits
3. Renewables
4. Construction
5. Energy Services



**Significant up-front program costs**

# Focusing on People Ready to Purchase, at the Actual “Point of Purchase”, Drives High Impact with Low Cost



*Comparatively, there is little cost for providing incentives at store fronts*

## Point of Purchase Education

1. **Retailers Need Attention:** Provide equipment specific incentives to retailers (manufacturers, distributors, etc.). They profit from incentives!

2. **Education Is Needed to Change Culture:**

- Consumers notice discounts, we can then educate.
- Compared to status quo, providing more educational materials is critical due to the high probability that little learning, changing of personal habits, and identity will actually take place.



- ✓ Self Perception Theory
- ✓ Cognitive Dissonance Theory

# The Cost-Benefits Analysis of Incentives at the Point of Purchase Shows Clear Value

## *The Research From Advertising Studies*

*Less is More.* Smaller dollar values can go further here than at the home.

*Faster Checkout.* Incentives increase speed of decisions.\*

*Purchases Get Made, But Incentives May Not Get Used:* Incentives increase purchases, but many people do not submit the incentive form after purchasing something--leaving even more impact per dollar for a program.

*Wording Matters (% vs \$).* Framing smaller item incentives as a % of total cost, and larger item incentives as a dollar value drives uptake.\*



\*Sources: Dr. Dhruv Graywall

# The Cost-Benefits of Point of Purchase Incentives Show Clear Value

## *The Research From Advertising Studies*

*\$ for \$.* A 10% discount equals a 10% increase in consumption in a market with an elasticity of 1. The less elastic, the less impact of each dollar.

**Energy Efficient Model Cannibalization.** As price decreases, energy efficient models will cannibalize other model's sales. Energy efficient models typically have higher margins for retailers so they not only benefit with in increased sales, but also increased profit margins.

**Energy Multiplier Effect.** More uptake, more disposable income per household, and more technological investment equals fewer power plants, less carbon, and better health!



# Simplicity of Design is a Key To Impact

“Simplicity is the ultimate sophistication.”

-Steve Jobs quoting Leonardo da Vinci

“Simple can be harder than complex: You have to work hard to get your thinking clean to make it simple. But it’s worth it in the end because once you get there, you can move mountains.”

-Steve Jobs

The iPad is so simple a 2-year-old can use it



## Simplicity by design

# The Gap



***We see gaps in consumer awareness, program budgets, and usability***

***Complexity is significant:*** Identifying an incentive, finding the necessary forms, digging out what requirements you must meet, filling out the paperwork, making sure funds are still available, and getting up to date data....

***Awareness is lacking:*** 61% of the population doesn't know they are eligible for incentives.\*

***Lack of Information at the Point of Purchase:*** Incentives are different per home, moreover, there is little information at the point of purchase as to what is available for me.

***Little Education at the Point of Purchase:*** Even when the incentive makes it to the consumer, the education process of “why energy efficiency makes sense” isn't appended or provided at a time when the purchaser is looking for information. We lose the ability to foster long-term habits.



# The Gap



***Program Budgets Are Disappearing:*** Raising money from the PUCs, States, and Utilities is possible if you bring a value proposition and metrics. Ask yourself, “Are you collecting the right metrics?”

***Misaligned Incentives:*** We often fail to align involved parties incentives to drive efficiency. For example, homes are consistently audited in America, with the average residence turning over in about 7 years. After each sale an auditor is typically required to assess the condition and value of a property. At this point, we could energy audit and retrofit our nation’s entire housing stock in potentially less than a decade (loans are there and nobody is in the house).

Unfortunately, this process could also yield information that might delay or halt a sale due to a property appearing unattractive and thus relators and banks may be indirectly incentivized to avoid energy audits even though it can add great value to customers.

# Some Solutions



## Gaps

Awareness is lacking

Complexity is significant

Lack of Information at the Point of Purchase:

Misaligned Incentives

Education Gap

## Solutions

### Increase Awareness:

- Make it easy for vendors
- Provide easy to use incentive websites
- APIs for local vendors to put on their websites for shoppers during the “point of decision”
- Continue to work with retrofitters to spread the word. Like volunteers, they can replace advertising budgets via word-of-mouth.

### Remove Complexity & cost:

- **Simplify Incentive forms and processes.**
- Point of purchase as a target point of interaction

### Adjust Policy:

- **Mandating an energy audit when a home is sold** is a small cost seeing as the auditor is: already inside, the financing is available, and nobody is living in the home.

### Education/Culture Gap:

- If someone is going to look at an incentive, let’s make sure we **educate them on why green is economic** and drives savings. This creates awareness and culture.

# Need Funding? Some Practical Thoughts



## Getting the PUCs and state legislators on board....

State legislation or regulatory commission establish energy savings targets for utilities and are key drivers of customer-funded energy efficiency.

## Over half of the U.S. has put in place energy savings targets via either

1. Energy Efficiency Resource Standard (EERS),
2. Statutory requirement for utilities to acquire all cost-effective energy efficiency,
3. An Integrated Resource Plan for utilities that have energy efficiency goals
4. A Renewable (or Alternative Energy) Portfolio Standard
5. Demand Side Management multi-year plans

## Most states rely on the Total Resource Cost (TRC) test to validate a program

The TRC compares the net present value of all costs for acquiring the energy efficiency resource to the benefits of the resource (avoided energy and resulting capacity)

Additional Information from LBNL (p.75): <http://eetd.lbl.gov/ea/emp/reports/lbnl-5244e.pdf>

# Build Coalitions, Don't Do it Alone

To drive impact, you will need to build a coalition between community leaders, members of your state legislature, officials at the governor's office, the utilities, and city commissions can all help!

Show clear results!



# Thanks

## Our team:

Our team of 20 works hard to simplify incentives, consult on and analyze the markets, quantify impact, increase effectiveness or sales, benchmark, and work with retailers and retrofiters to provide product and home specific incentive data.

## Our Goal:

Make incentives easy for anyone to understand, harness, and help proliferate energy efficiency and renewable energy.

## Raffle:

We are going to donate 5 residential facing interfaces for the year to put on five websites showing residents in your area their incentives, giving them home reports they can print, and the exact incentive forms they need.

## Reach Out:

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