

# Behavioral Insights: Maximizing energy saving opportunities in commercial- tenant buildings

A Better City

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# ***Behavior insights to engage commercial tenants***

1. Opportunity and challenge of engaging energy efficient behavior
2. Research insights
3. Examples and best practices



# Let's start with it...

## The split incentive

Space	Energy Use	Control	Efficiency Opportunities
<b>Base Building</b>	+/- 30%	<ul style="list-style-type: none"><li>- Owner (C-suite)</li><li>- Large Tenants</li><li>- Facility Staff</li></ul>	Heating, ventilation and cooling, building management systems, data centers, operations
<b>Office Spaces</b>	+/- 70%	<ul style="list-style-type: none"><li>- Small Tenants</li><li>- Workers/employees</li><li>- Facility staff and Office managers</li></ul>	Lighting, plug load, space conditioning, office equipment, behavior

# 10%

**The amount of energy  
to be saved through  
changes in behavior**

A study by the American Council for an Energy Efficient Economy (ACEEE) found that utility programs that used feedback and other energy monitoring devices to target energy saving behaviors resulted in an average of 10% in energy savings.

MIT's study on operational efficiency in office buildings found that low cost operational activities and routines in offices could easily garner 5% savings.

**Behavior change is  
the cornerstone of  
sustainability...**

**and it's hard.**

Every energy efficiency opportunity has a human dimension. With every technology comes the need for a choice, a purchase, a maintenance behavior, and operation. Human behavior is thus a central part of any energy efficiency effort.

Research shows that behavior change is more than financial motivations and information. **That means, that behavior can be changed, and energy can be saved, without relying solely on a financial argument or compelling information.**

# Education ≠ Change

- Energy efficiency workshop
- Evaluation



# Education ≠ Change

- Energy efficiency workshop
- Evaluation
  - 1 of 40 Lowered HWH



# Education ≠ Change

- Energy efficiency workshop
- Evaluation
  - 1 of 40 Lowered HWH
  - 2 Wrapped Tank





# Education ≠ Change

- Energy efficiency workshop
- Evaluation
  - 1 of 40 Lowered HWH
  - 2 Wrapped Tank
  - 8 Installed Showerheads



# Education ≠ Change

**Research shows time and time again that education is insufficient for the change we'd like to affect.**

We fall back to conventional marketing techniques – and we still want to draw upon those, but we're not asking people to buy a new product. We're asking people to change the way they think about how they use resources, make decisions throughout the day, and live their lives.

Education will especially not be enough to break through the split-incentive experienced in tenant-landlord relationships. In fact, information simply informs us that no party has a clear incentive to act.

We need to move beyond simple education campaigns and financial arguments.

# 85%

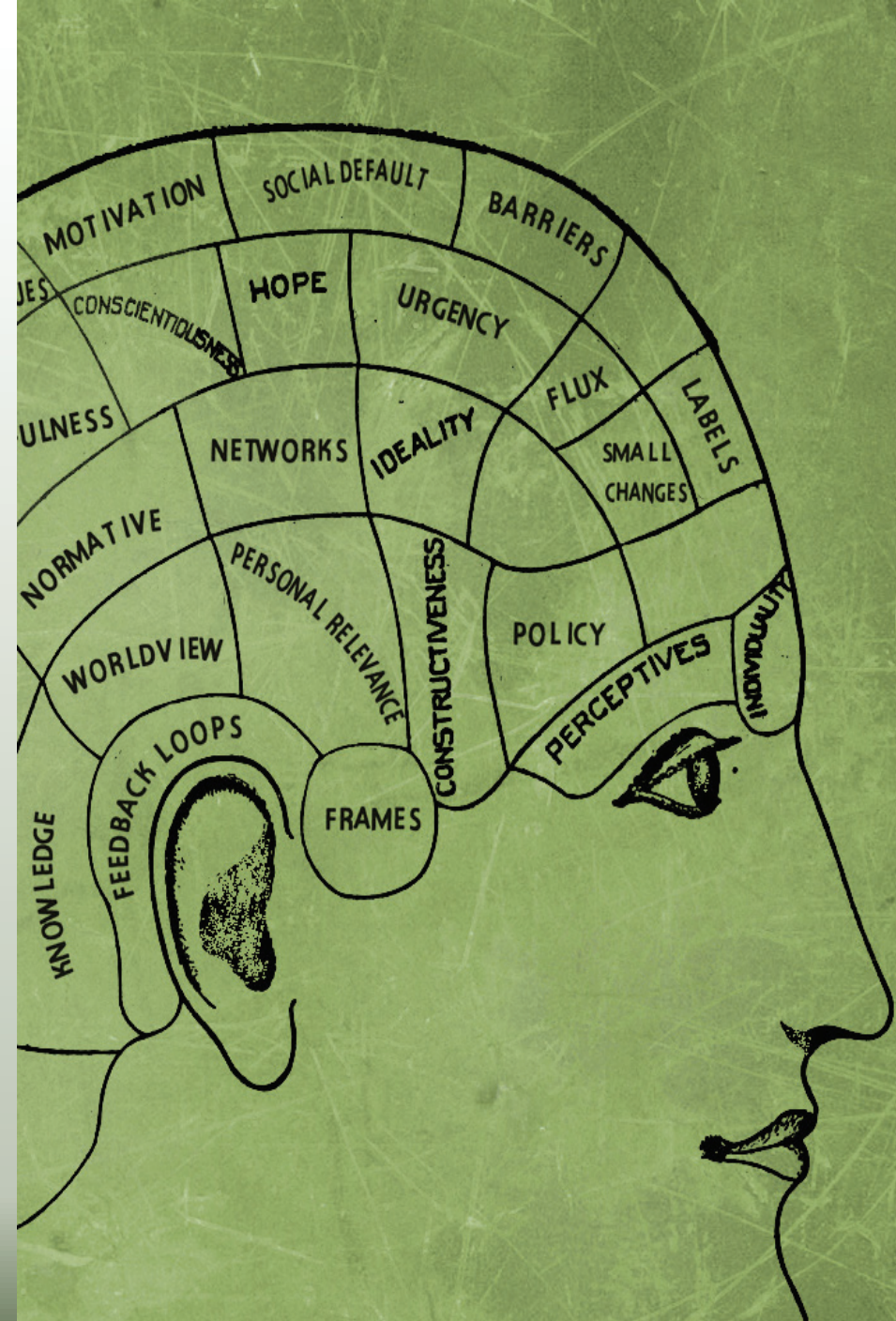
of our  
behavior is  
“automatic”

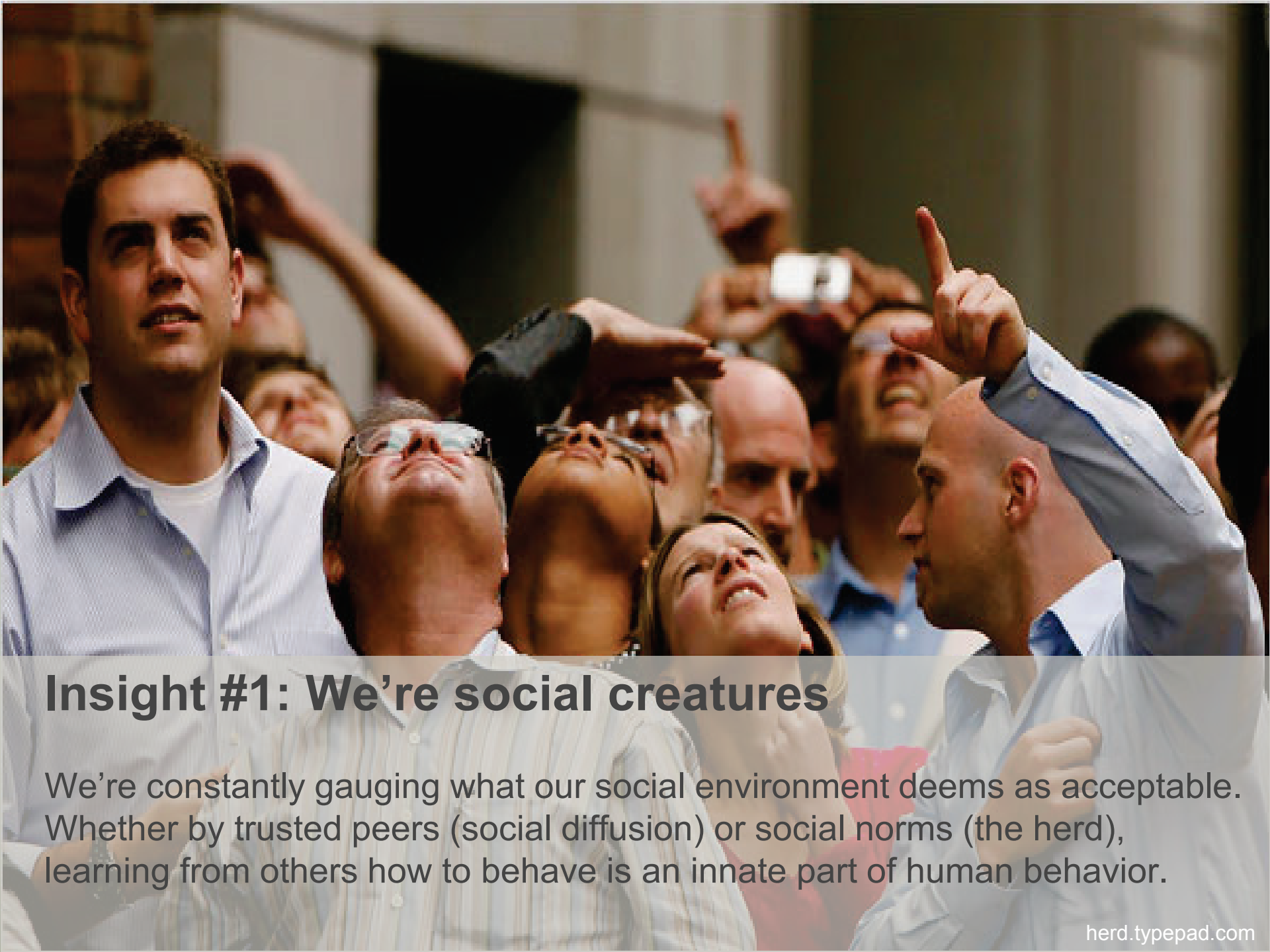
Studies show that 40-85% of our actions are completed on “auto-pilot”.



# What's really going on?

Our human brain is always taking in information, so much that we can't be conscious of it all, and therefore we rely heavily on **habits, social norms, our culture and environment, what our personal history and position tell us, and other emotional or symbolic cues.**





## **Insight #1: We're social creatures**

We're constantly gauging what our social environment deems as acceptable. Whether by trusted peers (social diffusion) or social norms (the herd), learning from others how to behave is an innate part of human behavior.



OPT IN

OPT OUT

## Insight #2: Options Matter

We are very efficient with our short-term time and resources, and will often choose the path of least resistance. In some cases, this means opting for the default. How we offer choices inherently encourages one thing or another.



## **Insight #3: We are forgetful**

Sometimes the behavioral barrier isn't social pressure or the convenient availability of options. When we try to change a routine habit and transition from acting on "automatic" to actively choosing something else, we often forget. Prompts are an effective way to combat forgetfulness.



## Insight #4: We like to play games

When we play games and compete, we change our behavior – we do what might otherwise be silly or irrational things, but in the context or world of a game, we will try new things and shed our previous constraints. And if it's fun, we also get valuable positive reinforcement.





## Insight #5: Physical barriers matter

Sometimes no amount of “nudges” or social marketing will compel adoption of some of the more difficult behaviors. Consider any physical or contextual barriers to an action and if there is a way to adjust access, control, equipment or a system to make a behavior easier.

# Behavior change insights can overcome the tenant-landlord split-incentive

By incorporating behavior change insights and **engaging tenants, managers, and employees** in socially and psychologically compelling ways, you can bypass the need to make a financial argument and yet engage your tenants in saving energy that benefits all stakeholders.

A Better, Smarter  
Charlotte now.



 DUKE ENERGY | Smart Energy Now.

## Smart Energy Now, Charlotte, NC

Smart Energy Now incorporates social feedback, commitment, and gaming strategies to engage employees across its Uptown businesses. In partnership with Duke Energy, Smart Energy Now tracks and presents energy data in real-time for participants.

*Key methods: Social norming (via feedback), choice architecture*



## Cool Choices

Not-for-profit organization that administer games in various commercial businesses. The games focuses on what employees are doing at home as much as what they are doing in the office. The idea is that the values and actions transfer, and they are supported by a fun environment, and not held to a financial agreement.

*Key methods: Social norming, Gamification, Culture and Context*

# HinesGO (Green Office)

Green Office is a point-based “certification game” that Hines rolled out to all of its properties and offices. If offices earned a certain number of points, they would earn designation as a HinesGO. Actions to earn points were targeted to tenant behaviors and decision-making.

*Key methods: Gamification, Recognition, Choice-bias*



**ASK THE “GREEN” QUESTIONS BEFORE TAKING ACTION.**

Develop and establish relationships with vendors/contractors that have sustainable products and missions. When ordering products/supplies ask about the products’ environmental impact; ask if there is an alternate product with less impact to the environment.

SUSTAINABLE GOAL	LEAF CREDITS	GREEN OPPORTUNITIES
Energy Efficiency		
A	3	Install occupancy light sensors in private offices, conference rooms, restrooms, and copy rooms to automatically turn off lights when the room is not in use.
B	1	Turn off your computer, printer, monitor and task lights when not in use.
C	1	Set computers to energy saving modes to reduce power consumption.
	1	Unplug chargers, fans or any items that draw power when turned off but still plugged in.
	1	Lower blinds in the summer to reduce heat gain and burden on the air conditioning system.
	3	Conf...

**HinesGO**  
GREEN OFFICE  
SCORECARD



August 2011 Edition

*Cushman & Wakefield's (C&W) Energy and Sustainability Mission: As a world leader in real estate services, C&W provides clients with the highest quality and most cost-effective energy and sustainability solutions. This is accomplished by combining best practices, technical expertise, and market knowledge to enhance the overall performance and value of our clients' assets.*

## Cushman & Wakefield

Cushman & Wakefield's Environmental Challenge tracks resource use in its managed properties and provides strategies to engage tenants in energy-saving and sustainable actions. They provide a "checklist" for tenant spaces, and provide awards to recognize their program leaders.

*Key methods: Social norming, Gamification, Culture and Context*

# Engaging commercial tenants to save energy

Research demonstrates that we can change our behavior outside of financial and informational interventions.

Engaging tenants in games and socially appealing programs...*and* lowering barriers through choice-bias and prompts, are just a few ways to “nudge” tenants to save energy and resources.

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# Resources to learn more

## *Books*

**Fostering Sustainable Behavior: An Introduction to Community-Based Social Marketing** by Dr. McKenzie-Mohr

**Weapons of Influence** by Robert Cialdini

**Nudge: Improving Decisions About Health, Wealth, and Happiness** by Thaler and Sunstein

## *Website*

**Fostering Sustainable Behavior - Community-Based Social Marketing:**  
<http://www.cbsm.com>

**American Council for an Energy-Efficient Economy: Behavior & Human Dimensions**

<http://aceee.org/topics/behavior>

## *Conferences*

Behavior, Energy and Climate Change Conference (BECC)

November in Sacramento, CA

<http://www.beccconference.org>



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