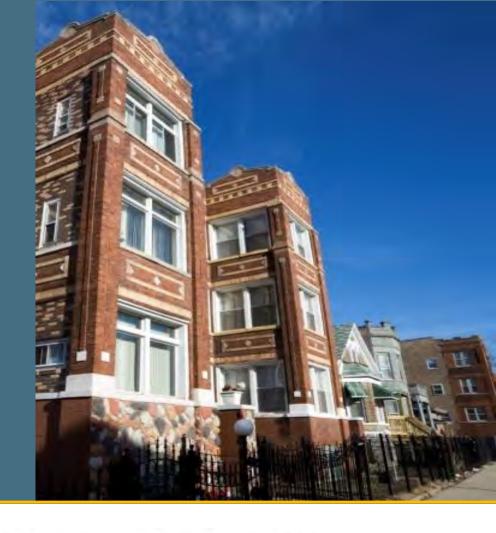


# Community Focused Energy Programs

ACEEE Intelligent Efficiency Conference

Mainstreaming Intelligent Efficiency

San Francisco, CA • November 18, 2014





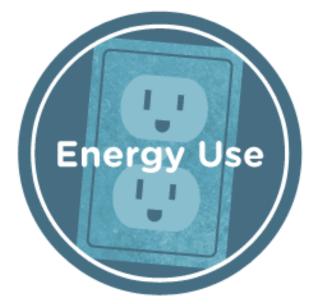
# **ELEVATE** ENERGY Smarter energy use for all





# Mission









- Smart grid benefits and dynamic electricity pricing in homes
- Energy efficient building retrofits
- Community-level programs
- Research, policy and innovation









### Residential

- Dynamic Pricing Programs
- Single Family Research
- Single Family Programs: Energy Impact Illinois

### Commercial

- Nicor Energy Challenge
- City of Chicago Benchmarking Implementation

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# **Residential Dynamic Pricing in Illinois**

### **Energy Smart Pricing Plan** (2003 – 2006)

### **Ameren Illinois Power Smart Pricing**

(2007-present)

- 12,500 households
- PTD: \$8.1 million saved (20%)
- Day-ahead hourly pricing

### **ComEd Residential Real Time Pricing (RRTP)**

(2007-present)

- 9,500 households
- PTD: \$13.2 million saved (25%)
- Real-time hourly pricing

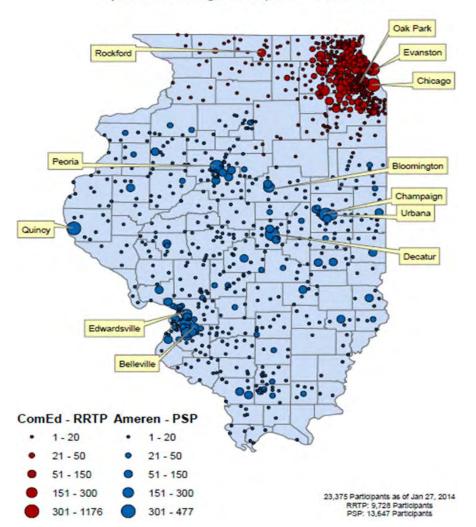






# **Dynamic Pricing Programs and Smart Meters**

#### Dynamic Pricing Participants in Illinois





# Illinois Smart Meter Deployment Schedule

- ComEd: 4,029,000 smart meters by 2018
- Ameren Illinois: 780,000 smart meters by 2019 (62%)

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# **Hourly Pricing Made Easy**

- Smart phone app provides current prices, bill comparison data and ability to collect 'savings badges' for participants
- Bill comparison tool provides savings information to track success
- High price alerts are delivered by phone, email and text when prices reach a certain threshold
- Dedicated customer support by highly trained staff available by phone, email and live chat





### **Engaged & Satisfied Customers**

- Utilities increase focus on customer engagement & satisfaction
- Hourly customers are:
  - More willing to adopt new technologies
    - 33% of ComEd RRTP participants are enrolled in A/C Cycling demand response program compared with 1.8% of all ComEd customers
  - More educated about electricity markets (peak and off-peak)
  - More engaged with their electricity service and usage
  - Really, really satisfied!
    - 98% Satisfaction with dedicated call center for Power Smart Pricing
    - 91% report the program is "Quick and Easy"
    - 88% Overall Satisfaction with ComEd RRTP program





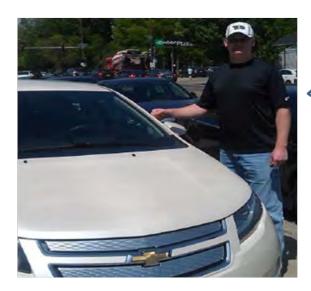
# **What Participants Are Saying**



"Power Smart Pricing saves us money because my family uses a programmable timer on our pool filter, using energy when it is least expensive."



"I can save money by washing diapers late at night."



"Power Smart
Pricing
combined with
the Chevrolet
Volt save me and
my family
considerably in
daily
transportation
costs."



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# **Research Objectives**

Single family homes – Are there subgroups within the larger group?

- Describe housing stock and energy use characteristics in the County
- Explain how these data can be employed as part of a comprehensive community-scale approach
  - Development of measure packages by housing type
  - Target homes most likely to achieve deep energy savings and can be deployed at community scale
  - Align with other initiatives







# **Cook County Home Examples**



























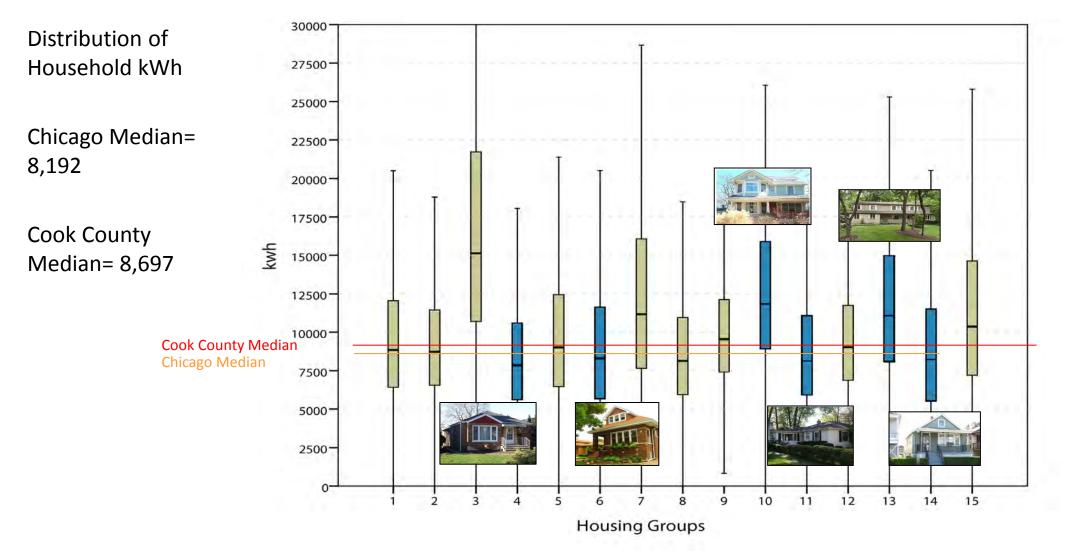


# **Energy & Housing Datasets to Focus on Communities**



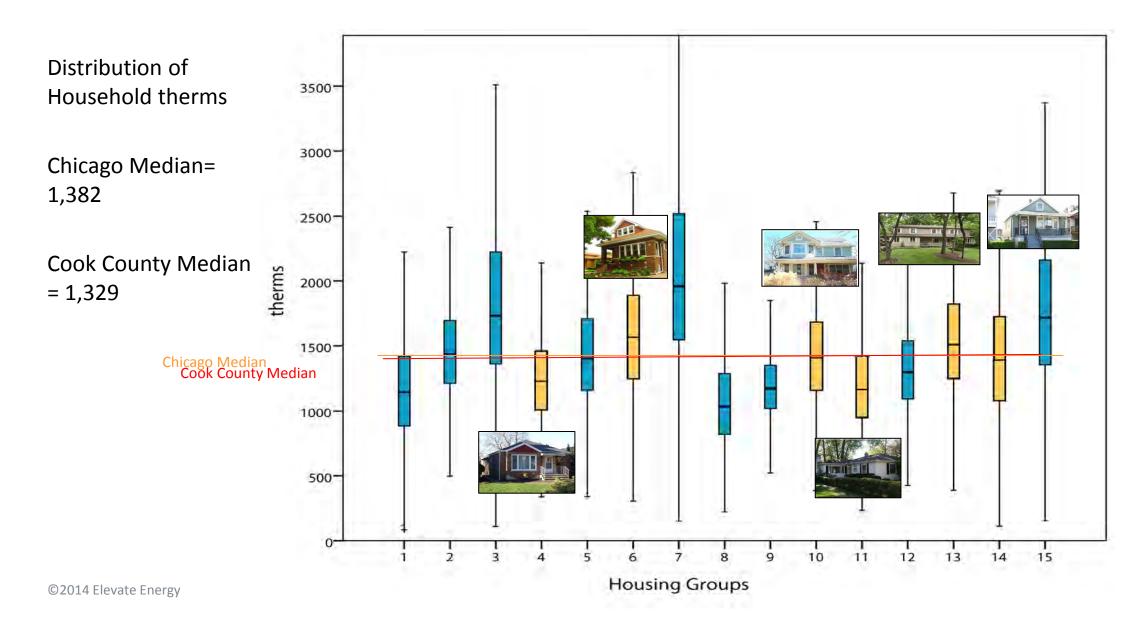


# **Homes Use Energy Differently**





# **Homes Use Energy Differently**





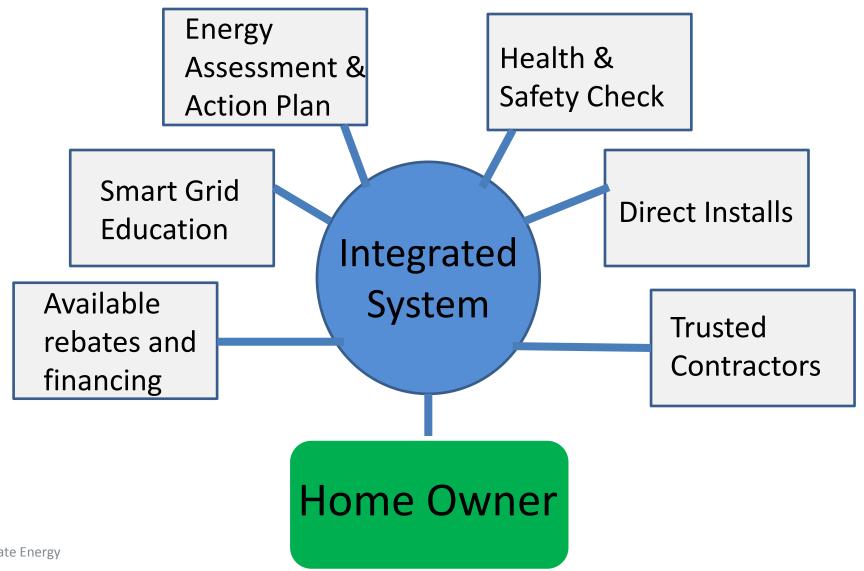
# **Applying Single Family Research**

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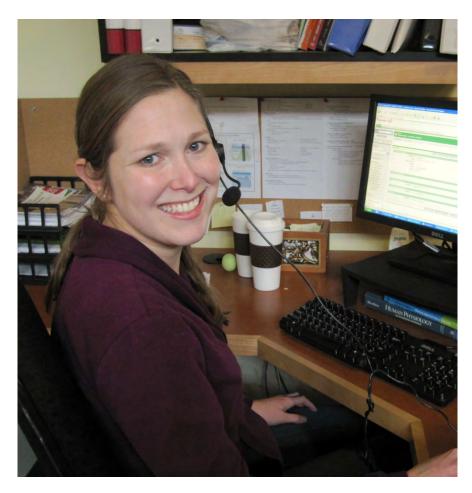
# **Our Approach**







# **Provide Easy-to-Access Expertise**









# **Engage Neighbors in Their Homes & Communities**









### **Make Energy Visible**

- First municipality in country to disclose residential energy costs on home sale listings (July 2013)
- Chicago approach
  - Existing ordinance updated; mayoral leadership
  - Innovative MLS : Midwest Real Estate Data (MRED)



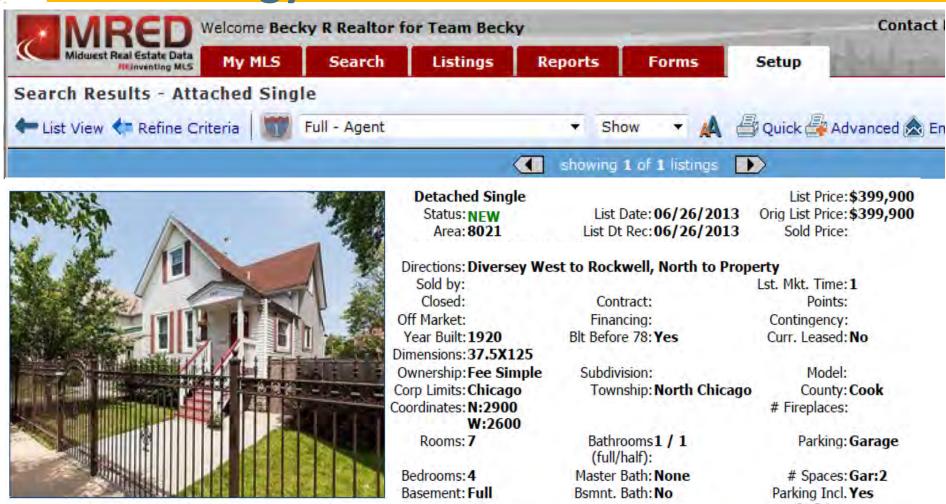
CONTROL OF CHICAGO INCOME.

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# Make Energy Value Visible



Utility Costs: Elec. - \$770.60/yr,\$64.22/mo; Gas - \$1198.00/yr,\$99.83/mo

Remarks: CHARMING 4 BED+DEN, 1.1 BATH SINGLE FAMILY HOME ON LOT &A HALF IN DESIRABLE LOGAN SQAURE/AVONDALE LOCATION. REMODELED APPROX 10 YEARS AGO W/ NEWER HVAC, ELECTRIC, PLUMBING, H2O HEATER &ROOF. DIAG HDWD FLRS; LARGE EAT IN KITCHN W/ SS APPLS; HIGH CEILINGS; FULL BASEMENT; HUGE FENCED YARD W/ BLUE STONE PATIO; SECURITY SYS © 2014 Ele OVERSIZED 2 CAR GARAGE. CLOSE TO 90/94 & ALL LOGAN SQAURE/BUCKTOWN SHOPPING & RESTAURANTS!





⊌ZU14 Elevale Ellergy

# **Make Energy Visible**

Lookup utility estimates for:  *Air Conditioning: A  *Water: A  *Water: A  *Sewer: D  *Comas  *Sewer: D  *Heat/Fuel: A,F  HERS Index Score:  Green Supporting Documents:  Energy/Green Building Rating Source:  Green Features:  Green Features:  Equipment: A, I, I, N  *Conditioning: A  *W Farragut Ave, Chicago, II  Enter the applicable Utility Customer Account Number(s) then click "Continue." If you do not know an account number, check "Unknown." If the property does not have a utility, check "Not Applicable." MRED Rules & Regulations Department will review "Unknown" and "Not Applicable" values.  ** Electricity: C  ** Gas Customer Account #:  -or- Unknown -or- Not Applicable "Interview "Unknown -or- In Not Applicable" and an authorized to lookup this information.  ** When you click "Continue," utility estimates will be retrieved from MyHomeEQ who are providing this service in conjunction with the City of Chicago, in accordance with Chapter 5-16 of the Municipal Code of Chicago pertaining to the disclosure of utility costs.	
Welcome Laura    Miduest Real Estate Date   My MLS	
Continue  Contin	1 5
Lookup utility estimates for:  *Air Conditioning: A  *Water: A  (2 ma)  *Sewer: D  (2 ma)  Electricity: C  *Heat/Fuel: A,F  HERS Index Score:  Green Supporting Documents:  Energy/Green Building Rating Source:  Green Features:  Green Features:  Equipment: A, I, I, N  Equipment: A, I, I, N	C017
Lookup utility estimates for:  # Air Conditioning: A  # Water: A  # Water: A  # Sewer: D  # Camal  # Electricity: C  # Heat/Fuel: A,F  HERS Index Score:  Green Supporting Documents:  Energy/Green Building Rating  Source:  Green Features:  Energy/Green Building Rating  Facility C  Source:  Green Features:  Energy/Green Building Rating  Facility C  # Air Conditioning: A  # Farragut Ave, Chicago, II  # W Farragut Ave, Chicago, II  # Y you do not know an account number, check  "Unknown" If the property does not have a utility, check "Not Applicable." MRED Rules & Regulations Department will review  "Unknown" and "Not Applicable" values.  # Electricity Customer Account #:  # Gas Customer Account #:  # Gas Customer Account #:  # J or # Unknown -or # Not Applicable * Or # Unknown -or # Unknown -or # Not Applicable * Or # Unknown -or # Not Applicable * Or # Unknown -or # Or # Unknown -or # Not Applicable * Or # Unknown -or # Or # Unknown -or # Not Applicable * Or # Unknown -or # Or # Unknown -or # Not Applicable * Or # Unknown -or # Or #	ncel
*Heat/Fuel: A,F  HERS Index Score:  Green Supporting Documents:  Energy/Green Building Rating Source:  Green Features:  Equipment: A. L. I. M  * Gas Customer Account #:  * Heat/Fuel: A,F  * Gas Customer Account #:  * Gas Customer Account #:  * Heat/Fuel: A,F  * Heat/Fuel: A,F  * Gas Customer Account #:  * Heat/Fuel: A,F  * Heat/Fuel: A,F  * Gas Customer Account #:  * A Li Li M  * Heat/Fuel: A,F  * Gas Customer Account #:  * A Li Li M  * Heat/Fuel: A,F  * Gas Customer Account #:  * A Li Li M  * Heat/Fuel: A,F  * Gas Customer Account #:  * A Li Li M  * Heat/Fuel: A,F  * A Li Li M  * Gas Customer Account #:  * A Li Li M  * Heat/Fuel: A,F  * A Li Li M  * Heat/Fuel: A,F  * A Li Li M  * Gas Customer Account #:  * A Li Li M  * Base C	
Equipment: A,I,L,M	
Continue Ca	ncel
To fill-in the following fields, click the "Lookup Estimates" link and follow the instructions.  *Annual Estimated Electricity Costs:  *Monthly Estimated Electricity Costs:  *Annual Estimated Gas Costs:  *Annual Estimated Gas Costs:  Required  *Required  *Required  *Required  *Required  *Required  *Required  *Required  *Required  *Required	



# **Make Energy Visible**

Option to attach user-friendly full report/disclosure





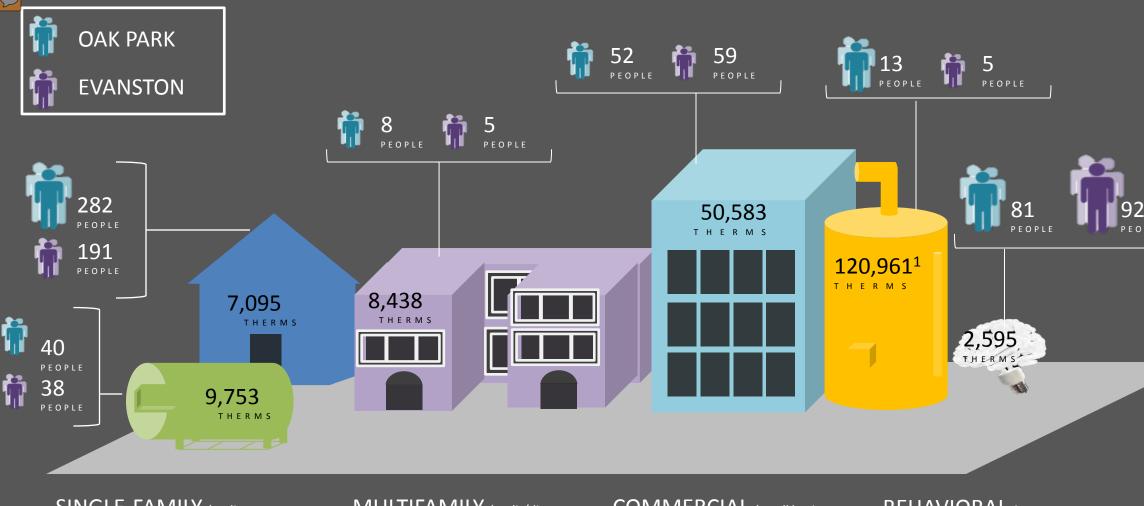


# **Make Energy Visible: Early Results**

- 18,605 single family homes listed between July 1, 2013 February 19, 2014
- 10 % (1,869) disclosed energy costs
- 67 % attached (i.e. condominium or townhome) and 33 % detached
- Home listings that disclosed energy costs had higher closing rate and spent less time on market (statistically significant in some neighborhoods)
- Early trend does not imply causation
- Next steps: Monitor and report trends; realtor training



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**SINGLE-FAMILY** (audit and rebate programs)

MULTIFAMILY (audit/direct install program)

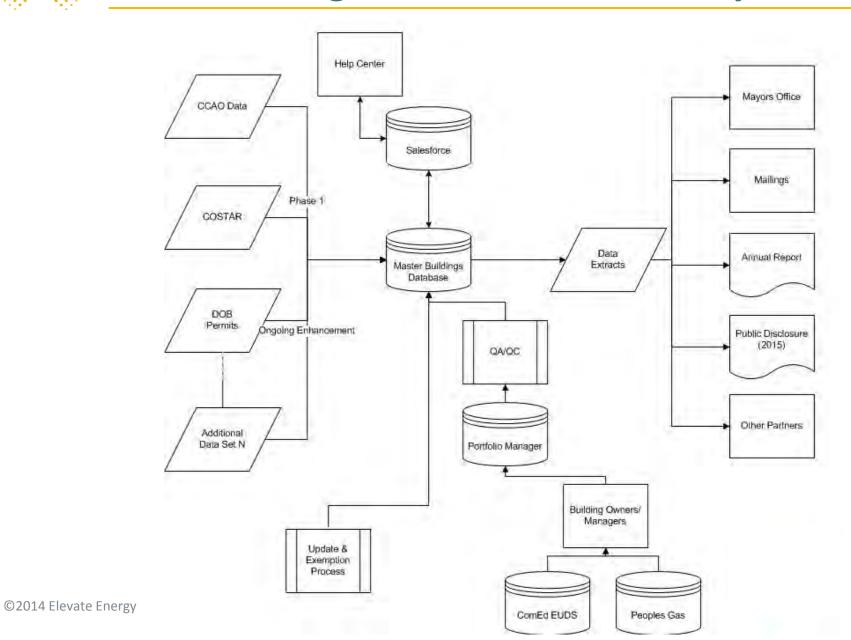
**COMMERCIAL** (small business direct installs, rebates)

BEHAVIORAL (EnergyBUZZ tracker)

This includes a steam trap project at Northwestern University that accounted for 67,172 therms. The work was done in September 2012, and the application was submitted in January 2013.



# **Benchmarking Data Architecture – City of Chicago**







# A Smart Energy System, For Everyone





# **Questions? -- Stay in Touch**

Rachel Scheu Rachel.Scheu@elevateenergy.org

ElevateEnergy.org



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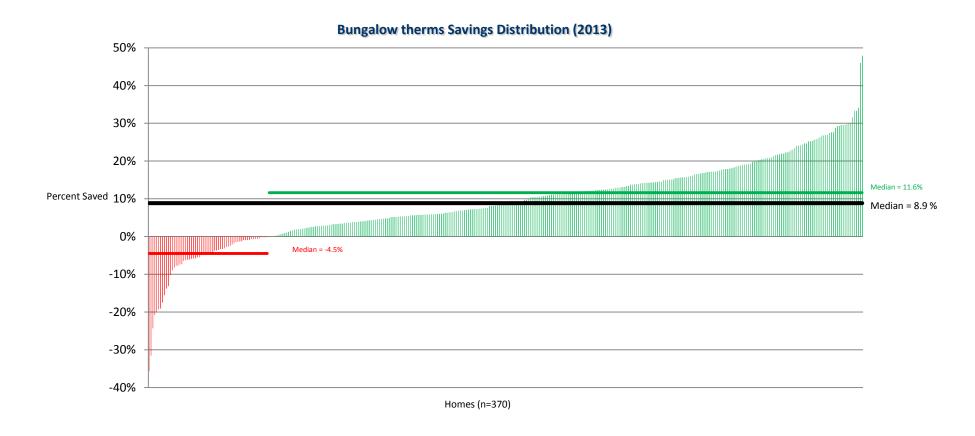






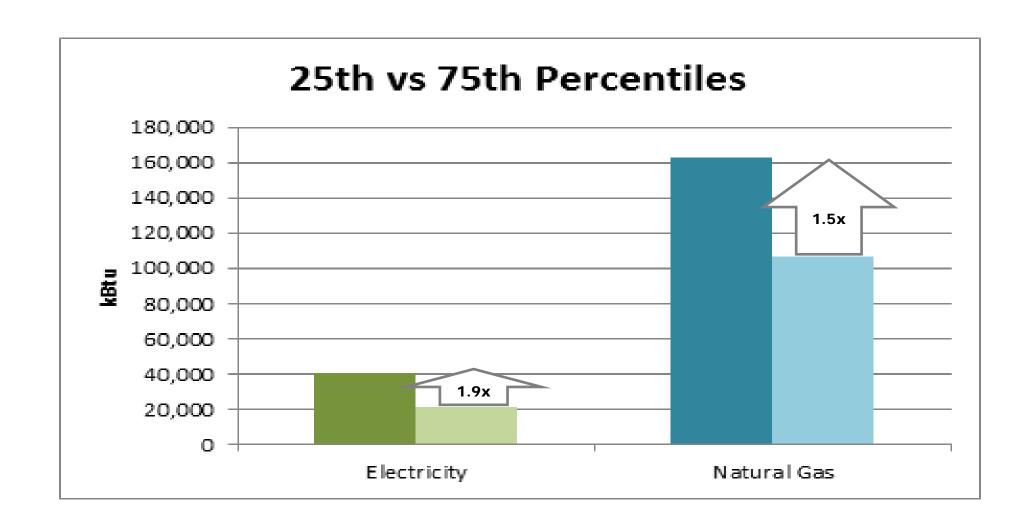
### **Bungalow Gas Savings**

- 83% of homes reduced gas use. (range -36% to 48%; median = 8.9%)
  - 18% of savers saved >20% (55)





# Comparison of High/Low Users by Fuel Type

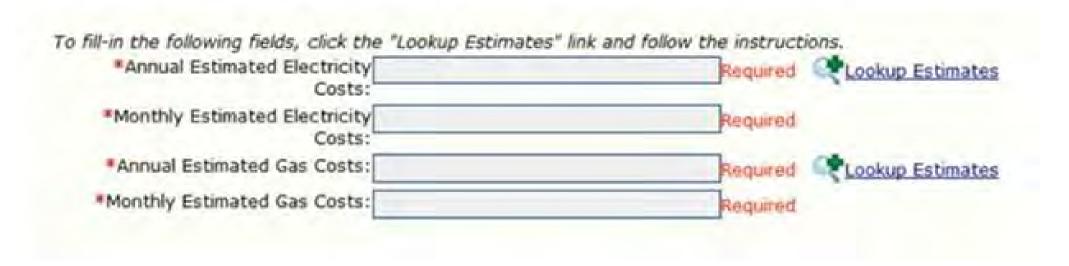






# In Practice: Chicago - How it Works

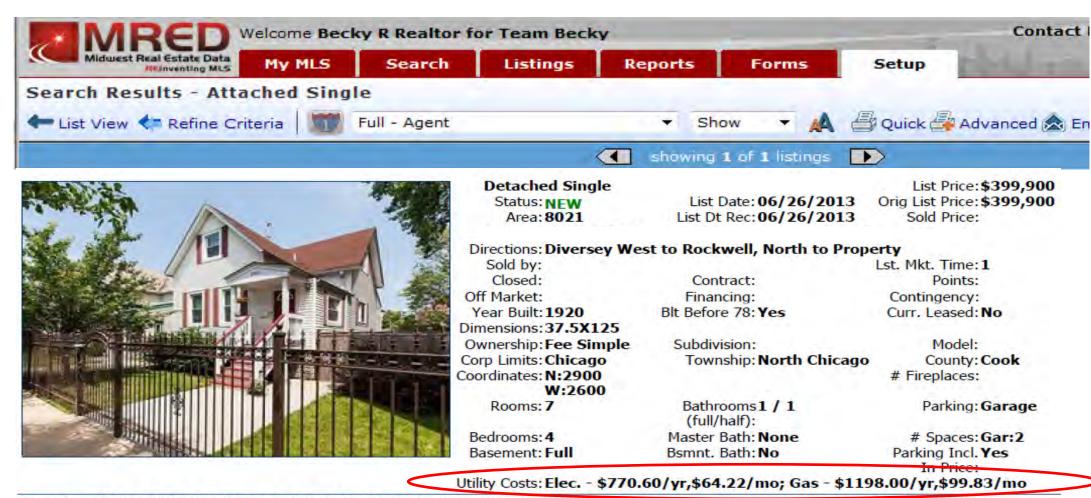
- Verified users securely logged into connectMLS, user is prompted to enter utility cost data
- API to 3<sup>rd</sup> party database





### In Practice: Chicago - How it Works

Auto-Populates fields on agent/buyer listing



Remarks: CHARMING 4 BED+DEN, 1.1 BATH SINGLE FAMILY HOME ON LOT &A HALF IN DESIRABLE LOGAN SQAURE/AVONDALE LOCATION. REMODELED APPROX 10 YEARS AGO W/ NEWER HVAC, ELECTRIC, PLUMBING, H20 HEATER &ROOF. DIAG HDWD FLRS; LARGE EAT IN KITCHN W/ SS APPLS; HIGH CEILINGS; FULL BASEMENT; HUGE FENCED YARD W/ BLUE STONE PATIO; SECURITY SYS OVERSIZED 2 CAR GARAGE. CLOSE TO 90/94 & ALL LOGAN SQAURE/BUCKTOWN SHOPPING & RESTAURANTS!





#### HISTORIC CHICAGO BUNGALOW.INFO

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The Chicago Bungalow Initiative

Green Bungalows

Searching for a Bungalow

Listing your Bungalow

Bungalow of the Month

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FIFTEN STEPS TO THE LIVES HER LIVES

#### YOUR MARKETPLACE FOR BUYING & SELLING HISTORIC CHICAGO BUNGALOWS

Welcome to the first web site devoted exclusively to buying and selling historic Chicago bungalows. You will find me as passionate as you are about preserving these historic bungalows in ways that is as true and authentic as the Arts & Crafts movement that inspired them, while sincerely devoted to helping you upgrade them in ways that meet a modern lifestyle.

For buyers, my goal is to help you find, buy, and if desired transform Chicago's most common form of residential architecture into certified historic treasures. For sellers, I'll help you understand how your bungalow compares to others on the market, find the craftsmen who can make any necessary repairs, target market to an audience who most care about preserving them, and ultimately, get you top dollar for your bungalow.



In both cases it is my knowledge of the market, bungalow certification process, and relationships with honest and competent contractors that sets me apart from other realtors. As a buyer's agent, I preview literally hundreds of h year, and that view from the inside out helps my bungalow buyers and sellers truly understand a bungalow's real value.

I look forward to helping you buy or sell your own historic Chicago bungalow. In the pages that follow, I offer a bit of bungalow history, a graphical depiction of how a historic Chicago bungalow is defined, a direct link to my friends a Chicago Bungalow Association, a little color on the Historic Chicago Bungalow Initiative, and a way to search for bungalows only (without having to sift through hundreds of irrelevant properties).

There is much more on these pages, so I invite you to linger, to learn, and if and when you are ready, contact me for specific information or services.

# HISTORIC BUNGALOW



Saturday, April 9 • 10am-4pm •

at The Merchandise Mart (Chicago River at Wells St.)

> FREE ADMISSION & RAFFLE PRIZES





#### SPECIAL GUEST APPEARANC

Kelly Edwards of HGTV's "Design on a Dime," Lou Manfredini of HouseSmarts TV and WGN 720, and "The House Doctor" Bob Yapp

- 16 Workshops
   More than 100 exhibitors, artisans, lenders and tradespeople
- Grants and resources for energy improvements On-site HCBA certification





### FOR INFO: Visit chicagobungalow.org or call 311

REGISTER ONLINE FOR A CHANCE TO WIN AN WASHER/DRYER



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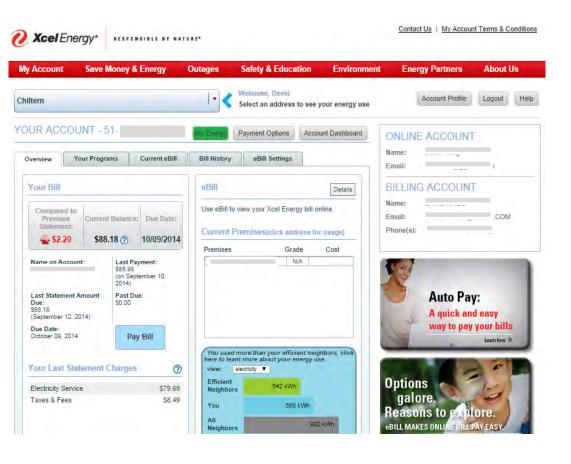
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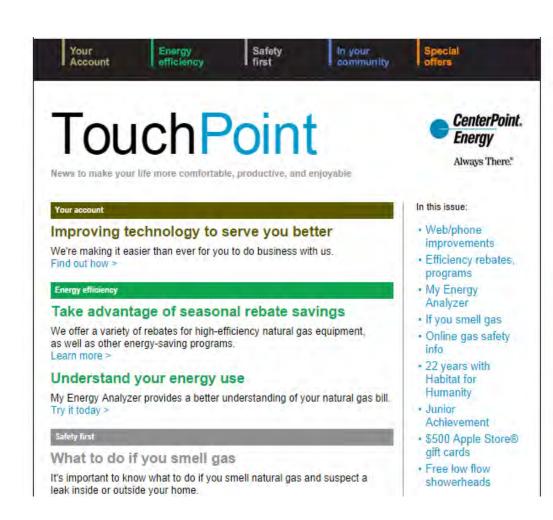
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# Simple Improvements Everywhere





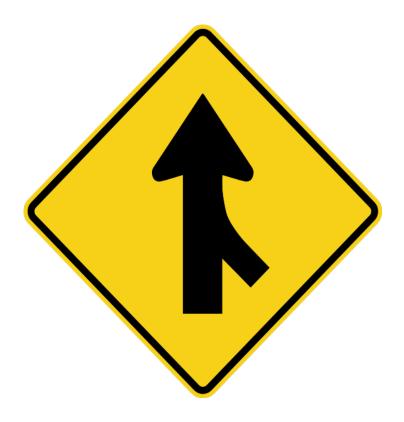




# **Two Approaches**



Educate & Motivate the Busy & Disengaged



Merge Your Ideas into Existing Systems





# **Energy is Totally Valued and Transparent**





# **Greater Community Engagement**





