Community Focused Energy Programs

ACEEE Intelligent Efficiency Conference
Mainstreaming Intelligent Efficiency

San Francisco, CA • November 18, 2014
What We Do

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

• Residential
  • Dynamic Pricing Programs
  • Single Family Research
  • Single Family Programs: Energy Impact Illinois

• Commercial
  • Nicor Energy Challenge
  • City of Chicago Benchmarking Implementation
Residential Dynamic Pricing in Illinois


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

Illinois Smart Meter Deployment Schedule

- ComEd: 4,029,000 smart meters by 2018
- Ameren Illinois: 780,000 smart meters by 2019 (62%)
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, e-mail and text when prices reach a certain threshold

- **Dedicated customer support** by highly trained staff available by phone, email and live chat

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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.”
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

- **Frame Pre-1942 Less than 2 stories non split level** (Group 6)
- **Masonry Pre-1942 Less than 2 stories non split level** (Group 4)
- **Frame 1942-1978 Less than 2 Stories no split level** (Group 11)
- **Masonry 1942-1978 Less than 2 Stories** (Group 13)
- **Frame Post-1978 2 or more stories** (Group 10)
- **Frame Post-1978 2 or more stories** (Group 14)

**Top 6 Housing Groups Cook County IL (n=653,820)**

<table>
<thead>
<tr>
<th># of Homes</th>
<th>Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 - 499</td>
<td>White</td>
</tr>
<tr>
<td>500 - 999</td>
<td>Orange</td>
</tr>
<tr>
<td>1000 - 2999</td>
<td>Yellow</td>
</tr>
<tr>
<td>3000 - 13632</td>
<td>Green</td>
</tr>
</tbody>
</table>

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Homes Use Energy Differently

Distribution of Household kWh

Chicago Median = 8,192

Cook County Median = 8,697
Homes Use Energy Differently

Distribution of Household therms

Chicago Median = 1,382

Cook County Median = 1,329
Our Approach

- Energy Assessment & Action Plan
- Smart Grid Education
- Available rebates and financing
- Health & Safety Check
- Direct Installs
- Trusted Contractors

Integrated System

Home Owner
Provide Easy-to-Access Expertise
Engage Neighbors in Their Homes & Communities

Start Small
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)
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 SQUARE/AVONDALE LOCATION. REMODELED APPRX 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 OVERSIZED 2 CAR GARAGE. CLOSE TO 90/94 & ALL LOGAN SQUARE/BUCKTOWN SHOPPING & RESTAURANTS!
Make Energy Visible

Welcome Laura Reedy-Stukel My MLS

Edit Listing - 2344 W FARRAGUT

To fill-in the following fields, click the "Lookup Estimates" link and follow the instructions.

- Annual Estimated Electricity Costs: Required [Lookup Estimates]
- Monthly Estimated Electricity Costs: Required [Lookup Estimates]
- Annual Estimated Gas Costs: Required [Lookup Estimates]
- Monthly Estimated Gas Costs: Required [Lookup Estimates]

Lookup utility estimates for:

W Farragut Ave, Chicago, IL

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 Customer Account #: -or- Unknown -or- Not Applicable
- Gas Customer Account #: -or- Unknown -or- Not Applicable

I affirm that I am Laura Reedy-Stukel and am 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 8-16 of the Municipal Code of Chicago pertaining to the disclosure of utility costs.

Continue Cancel
Option to attach user-friendly full report/disclosure
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
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.
A Smart Energy System, For Everyone
Questions? -- Stay in Touch

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ElevateEnergy.org

@elevate energy
Facebook/elevateenergy
LinkedIn
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

25th vs 75th Percentiles

- Electricity: 1.9x
- Natural Gas: 1.5x
In Practice: Chicago - How it Works

- Verified users securely logged into connectMLS, user is prompted to enter utility cost data
- API to 3rd party database
**In Practice: Chicago - How it Works**

- Auto-Populates fields on agent/buyer listing

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**List View**

<table>
<thead>
<tr>
<th>Detached Single</th>
<th>List Price: $399,900</th>
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<tbody>
<tr>
<td>Status: NEW</td>
<td>List Date: 06/26/2013</td>
</tr>
<tr>
<td>Area: 8021</td>
<td>List Dt Rec: 06/26/2013</td>
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<tr>
<td>directions:</td>
<td>Lst. Mkt. Time: 1</td>
</tr>
<tr>
<td>Diversey West to Rockwell, North to Property</td>
<td>Points:</td>
</tr>
<tr>
<td>Sold by:</td>
<td>Contingency:</td>
</tr>
<tr>
<td>Closed:</td>
<td>Curr. Leased: No</td>
</tr>
<tr>
<td>Off Market:</td>
<td></td>
</tr>
<tr>
<td>Year Built: 1920</td>
<td></td>
</tr>
<tr>
<td>Dimensions: 37.5X125</td>
<td></td>
</tr>
<tr>
<td>Ownership: Fee Simple</td>
<td></td>
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<tr>
<td>Corp Limits: Chicago</td>
<td></td>
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<tr>
<td>Coordinates: N:2900 W:2600</td>
<td></td>
</tr>
<tr>
<td>Rooms: 7</td>
<td>Bathrooms: 1 / 1</td>
</tr>
<tr>
<td>(full/half):</td>
<td>Master Bath: None</td>
</tr>
<tr>
<td>Basement: Full</td>
<td>Bsmt. Bath: No</td>
</tr>
<tr>
<td></td>
<td>Parking: Garage</td>
</tr>
<tr>
<td>Remarks:</td>
<td></td>
</tr>
<tr>
<td>Charming 4 Bed+Den, 1.1 Bath Single Family Home On Lot &amp; A Half In Desirable Logan Square/Avondale Location. Remodeled Approx 10 Years Ago W/ Newer HVAC, Electric, Plumbing, H2O Heater &amp; Roof. Diag Hdwd Flrs; Large Eat In Kitchen W/ SS Appls; High Ceilings; Full Basement; Huge Fenced Yard W/ Blue Stone Patio; Security Sys Oversized 2 Car Garage. Close To 90/94 &amp; All Logan Square/Bucktown Shopping &amp; Restaurants!</td>
<td></td>
</tr>
</tbody>
</table>

**Utility Costs:**
- Elec. - $770.60/yr, $64.22/mo
- Gas - $1198.00/yr, $99.83/mo
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 homes per 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 at the 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 CHICAGO BUNGALOW
AND GREEN HOME
EXPO 2011

Saturday, April 9
10am-4pm
at The Merchandise Mart
(Chicago River at Wells St.)

FREE ADMISSION
& RAFFLE PRIZES

SPECIAL GUEST APPEARANCES:
Kelly Edwards of HGTV’s “Design on a Dime,” Lou Montredini of
HouseSmart TV and WGN 729, 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

SPONSORS
Will not use
Simple Improvements Everywhere
Two Approaches

Educate & Motivate the Busy & Disengaged

Merge Your Ideas into Existing Systems

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Energy is Totally Valued and Transparent
Greater Community Engagement
Closing the Information Gaps