# Smart Meters and Dynamic Pricing Need Each Other

### **David Becker**

**Director of Dynamic Pricing** 

Elevate Energy





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## Elevate Energy – About Us

### We promote smarter energy use for all.



We give people the resources they need to make informed energy choices.



We design and implement efficiency programs that lower costs, and protect the environment.



We ensure the benefits of energy efficiency reach those who need them most.





### **Smart Meter Confusion**

### Illinois Electricity Customers Forced to Get 'Smart Meters' or ...

www.weeklystandard.com/.../deferring-inevitable\_... 
The Weekly Standard 
Feb 13, 2014 - In the early days of the Obama administration, "smart power" was all the rage—and not just on the foreign policy scene. In April 2009, National ...

#### Smart Grid/Meter | Illinois Tea Party illinoisteaparty.net/smart-gridmeter/ \*

For to most up-to-date information about **Smart Meters** and the Smart Grid in **Illinois**, click to visit Naperville **Smart Meter** Awareness. April 26, 2014 : The Smart ...

#### The facts on smart meters - Citizens Utility Board

www.citizensutilityboard.org/ciElectric\_cubfacts\_S... Citizens Utility Board ComEd and Ameren aim to replace old analog electric meters with "smart meters," ... Utilities are mandated by Illinois law to "secure the privacy of the customer's ...

### ComEd Rolling Out 'Smart' Meters, Ameren To Follow « CBS ...

chicago.cbslocal.com/.../comed-rolling-out-**smart-meters-**am... ▼ WBBM-TV ▼ Sep 8, 2013 - CHICAGO (AP) — The days of the meter reader are numbered in most of Illinois with the advent of new digital "smart" meters — wireless ...

### Smart Meter | ComEd - An Exelon Company

https://www.comed.com/.../smart-meter-smart.../s... 
Commonwealth Edison 
Smart meters are a key component of the smart grid. ... plans to install approximately
million smart meters in all homes and businesses across northern Illinois.

Thorner: Say NO! Smart Meters violate our basic rights ... illinoisreview.typepad.com/illinoisreview/.../say-no-smart-... Illinois Review Jun 4, 2014 - A "Smart Meter" is a wireless or hard-wired two-way communication device that ... ComEd Accelerating Smart Meter Deployment in Illinois.

### Articles about Smart Meters - Chicado Tribune



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## Smart Meters Need Dynamic Rates

- Illinois residential customer pays ~\$3/month for smart meters
- Illinois default rate: Fixed/flat rate
  - Low-use households subsidize high-use households capacity charges
- 3<sup>rd</sup> Party Suppliers Many flat rate offerings
  - MC<sup>2</sup> Smart Value Power program Time of use (TOU) rate
- Smart meters need dynamic rates to deliver immediate consumer benefits (savings) from the smart grid





# **Residential Dynamic Pricing in Illinois**

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

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

(2007-present)

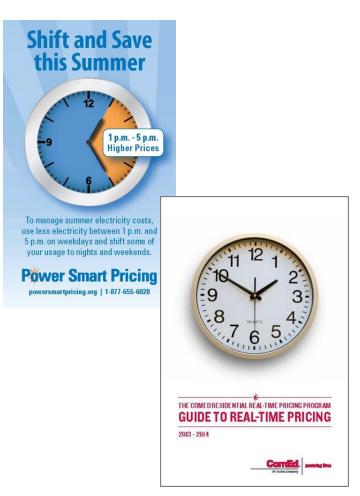
- 12,500 households
- PTD: \$8.1 million saved (20%)
- <u>Day-ahead</u> hourly pricing

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

(2007-present)

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



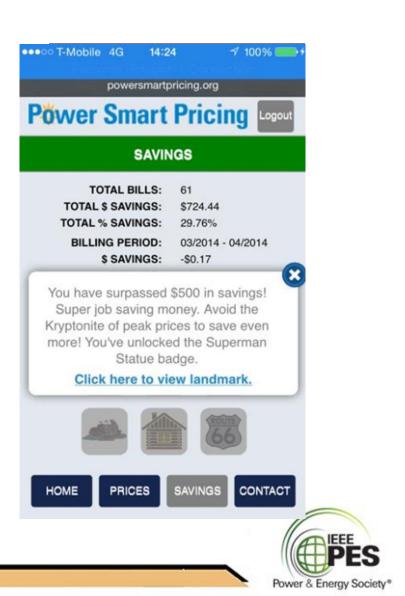




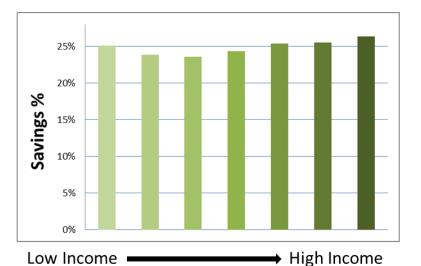
# Hourly Pricing Made Easy

- 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

at ILLINOIS INSTITUTE OF TECHNOLOGY

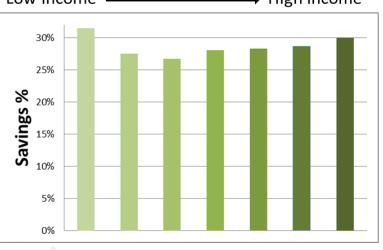


## **Bill Savings: Low Income Success**



### **Power Smart Pricing**

**24% - 26%** Average Electric Supply Savings



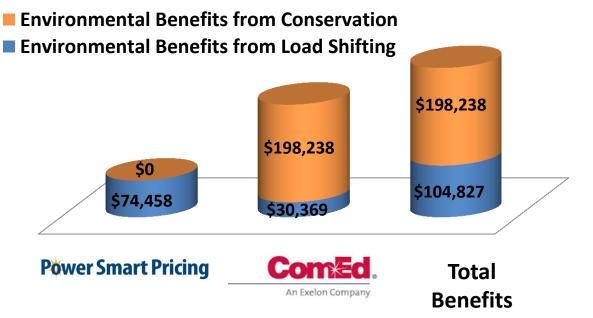




### **27% - 31%** Average Electric Supply Savings



### **Environmental Benefits**



	Reduction in Within-day Load Variance	Annual Conservation Savings (MWH)	CO2 Benefits	SO2 & NOx Benefits
Power Smart Pricing	25%	0	\$11,458	\$63,000
ComEd RRTP	12%	5,000	\$117,396	\$111,211

\*Data analysis courtesy of Klos Energy Consulting – www.KlosEnergy.com





## **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 if Hourly Pricing Were the Default Rate?

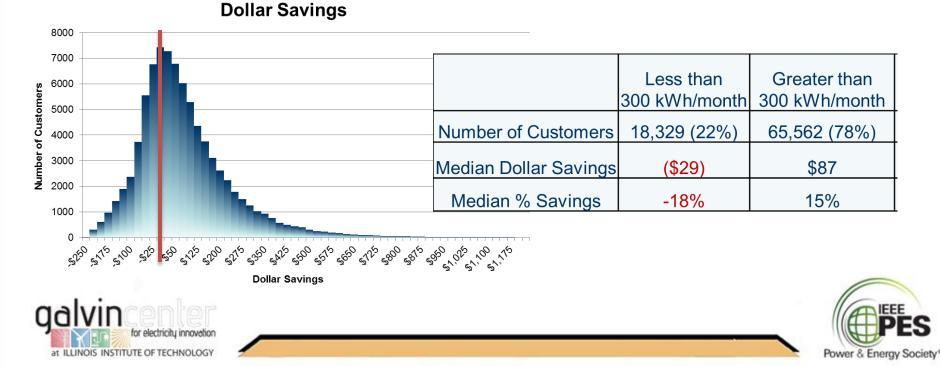




# Hourly Pricing as the Default Rate

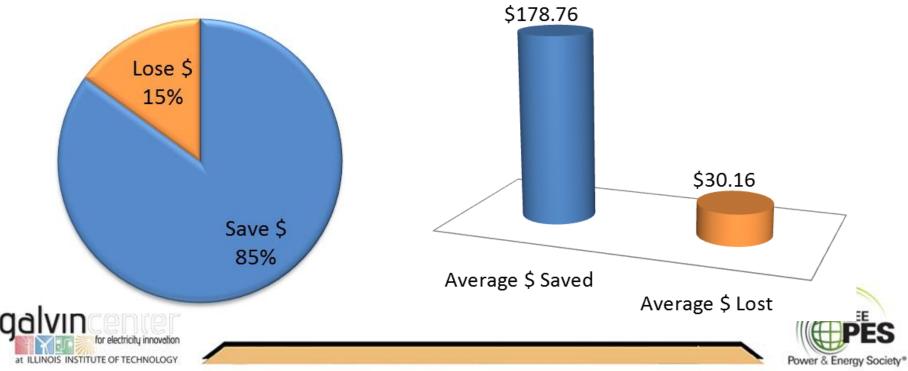
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- Included ComEd customers with 12 months of reported usage between June 1, 2010 and May 31, 2011
- No awareness of hourly rates
- Sample size: 83,891 customers
- Total Savings \$8.6 Million



## Hourly Pricing as the Default Rate

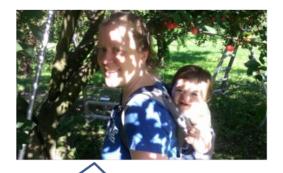
- Included ComEd customers with 12 months of reported usage between December 1, 2011 and November 30, 2012
- No awareness of hourly rates
- Sample size: 97,938 customers
- Total savings: \$15 million



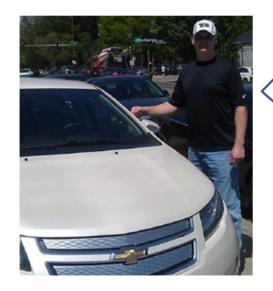
### What Participants Are Saying



"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."



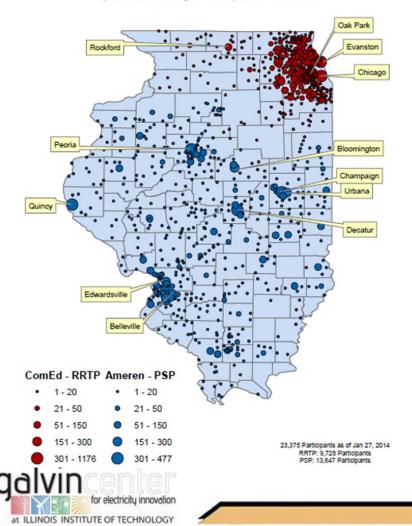
"Power Smart Pricing combined with the Chevrolet Volt save me and my family considerably in daily transportation costs."





# Dynamic Pricing And Smart Meters Need Each Other

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%)



## Questions? -- Stay in Touch

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