

The Smart Grid is Coming: Why Hourly Pricing is Key

David Becker

Director of Dynamic Pricing



ELEVATE ENERGY

Smarter energy use for all



Our Mission

We promote smarter energy use for all.



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



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



Smart Meter – Customer Perceptions



powering lives

“ComEd begins smart meter installations in Westchester”



THE WALL STREET JOURNAL.

“Smart meter, dumb idea?”



“Security Pros Question Deployment of Smart Meters”

SmartMeters.com: “Sex, Lies and Smart Meters - The Truth Is Out There”



Smart Meters Enable Smart Rates

- Illinois default rate: Fixed/flat rate
 - Low-use households subsidize high-use households capacity charges
- Illinois residential customer pays ~\$3/month for smart meters

What Customers are *Told*

- Access to a website to view electricity usage
- Fewer estimated bills
- Quicker response time to outages
- Coming Soon: Dynamic Rates – PTR and Hourly

What Customers *Hear*

- Utility/Government wants to control my usage
- My electricity bill is going up
- RF waves cause health problems

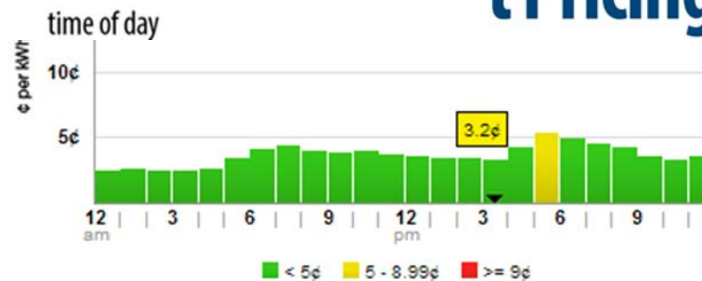
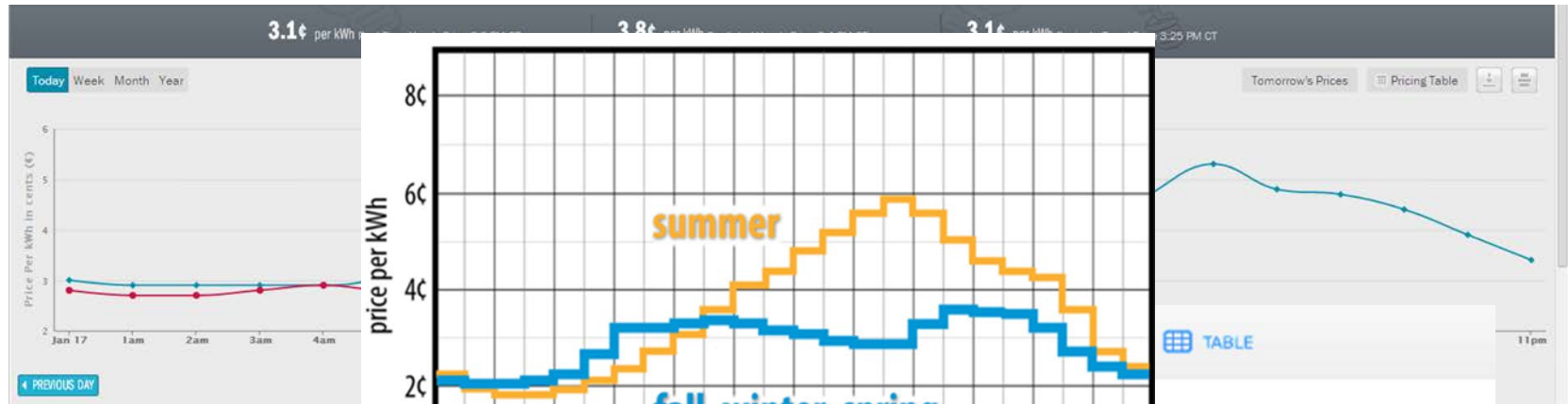
- Smart meters need smart rates to deliver **immediate consumer benefits** (savings) from the smart grid



Hourly Pricing in Illinois



powering lives



TODAY TOMORROW Enter a Date: 1/17/2014



3rd Party Administrator – Our Role

- Customer service support – **dedicated call center**
- **Marketing** and **outreach**
- **Education** and enrollment
- On-line **bill comparison tool** to show customers how they perform
- **High price alerts** and notifications to prepare customers for higher prices
- On-going customer communication to help existing customers maintain and **improve savings**

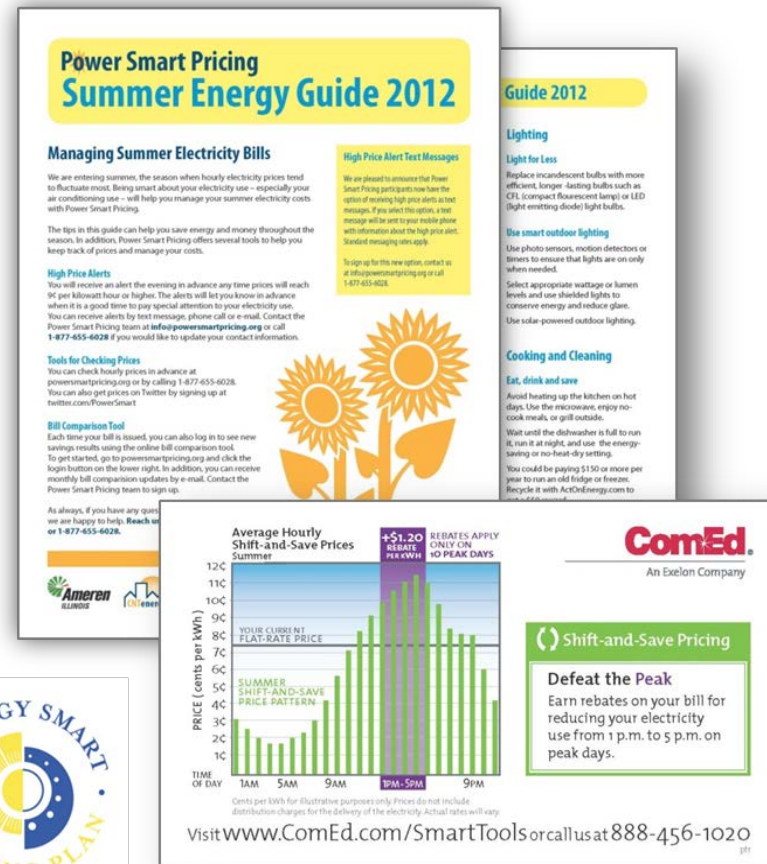


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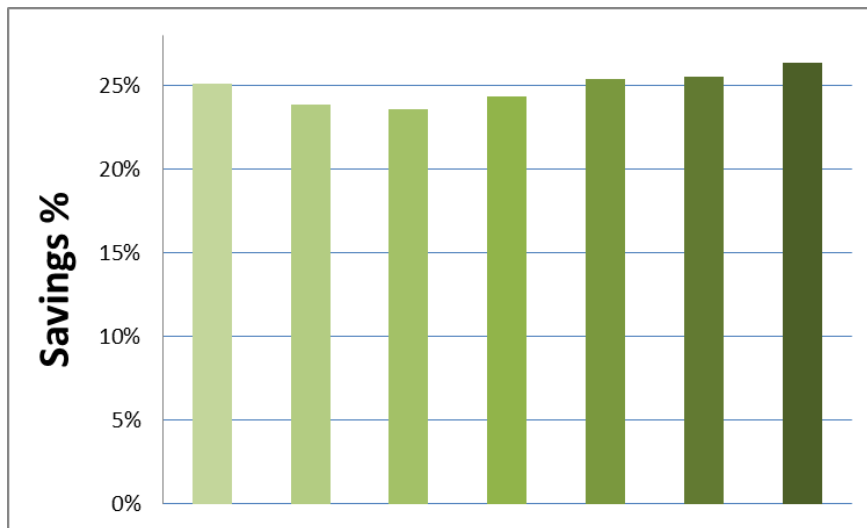
Hourly Pricing in Illinois

- Energy Smart Pricing Plan (2003 – 2006)
- Power Smart Pricing (2007-present)
 - 13,500 households
 - PTD: \$9.4 million saved (26%)
 - Day-ahead hourly pricing
- ComEd RRTP (2007-present)
 - 9,500 households
 - PTD: \$13.7 million saved (28%)
 - Real-time hourly pricing

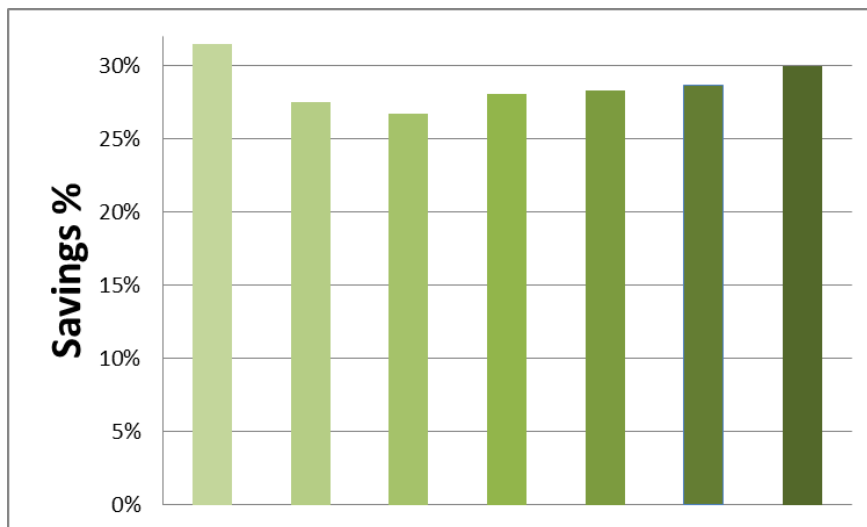




Low-Income Success



Low Income → High Income



Power Smart Pricing

24% - 26% Average
Electric Supply Savings



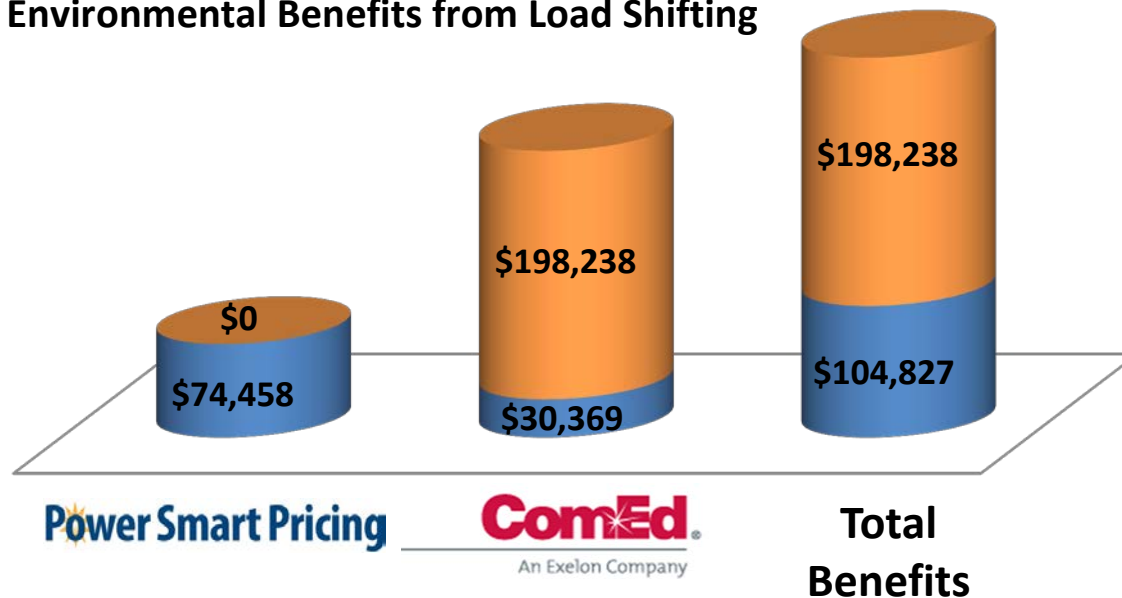
27% - 31% Average
Electric Supply Savings



Annual Environmental Benefits

■ Environmental Benefits from Conservation

■ Environmental Benefits from Load Shifting



	Reduction in Within-day Load Variance	Annual Conservation Savings (MWH)	CO ₂ Benefits	SO ₂ & NO _x 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

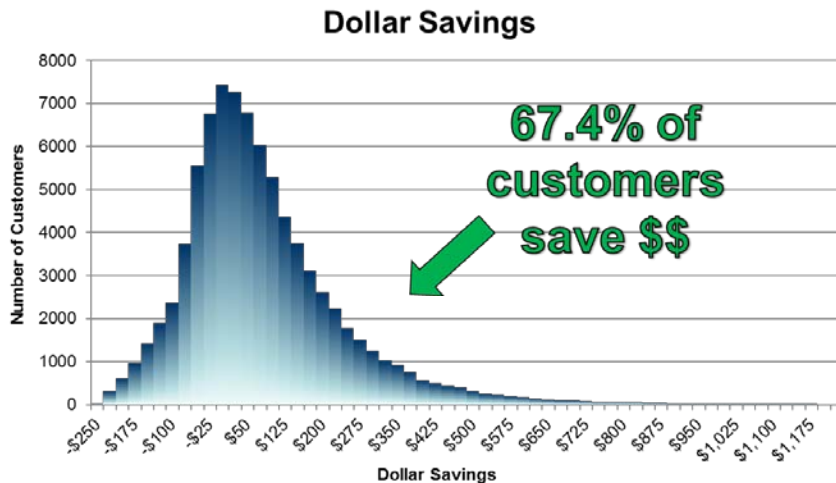
What If Hourly Pricing Was the Default Rate?





Hourly Pricing as the Default Rate – Study #1

- 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**

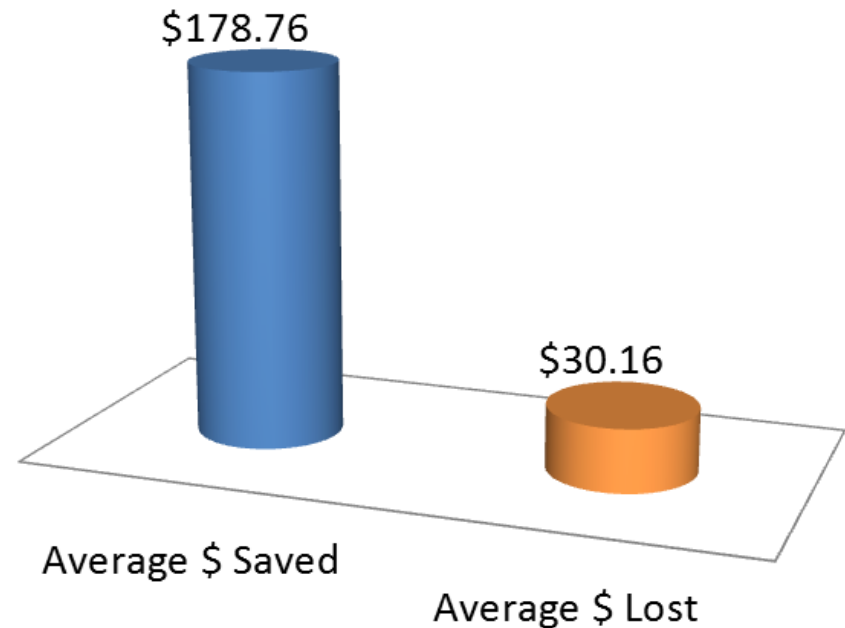


	Less than 300 kWh/month	Greater than 300 kWh/month
Number of Customers	18,329 (22%)	65,562 (78%)
Median Dollar Savings	(\$29)	\$87
Median % Savings	-18%	15%



Hourly Pricing as the Default Rate – Study #2

- 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**





Creating Engaged and Satisfied Customers

- Utilities want more engaged and satisfied customers
- 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





Hourly Pricing: Gateway to Transactive Energy?

“A device at home that has a video interface showing the hourly prices, and the trend of the prices would let us be more **proactive in reducing our energy use.**” – 2013
ComEd RRTP Customer Survey

“Better real time access to energy usage. Software developers could build systems that **access cost and household usage data in real time** and make intelligent choices about what devices to turn on and off in my house.” – 2013
Ameren IL PSP Customer Survey



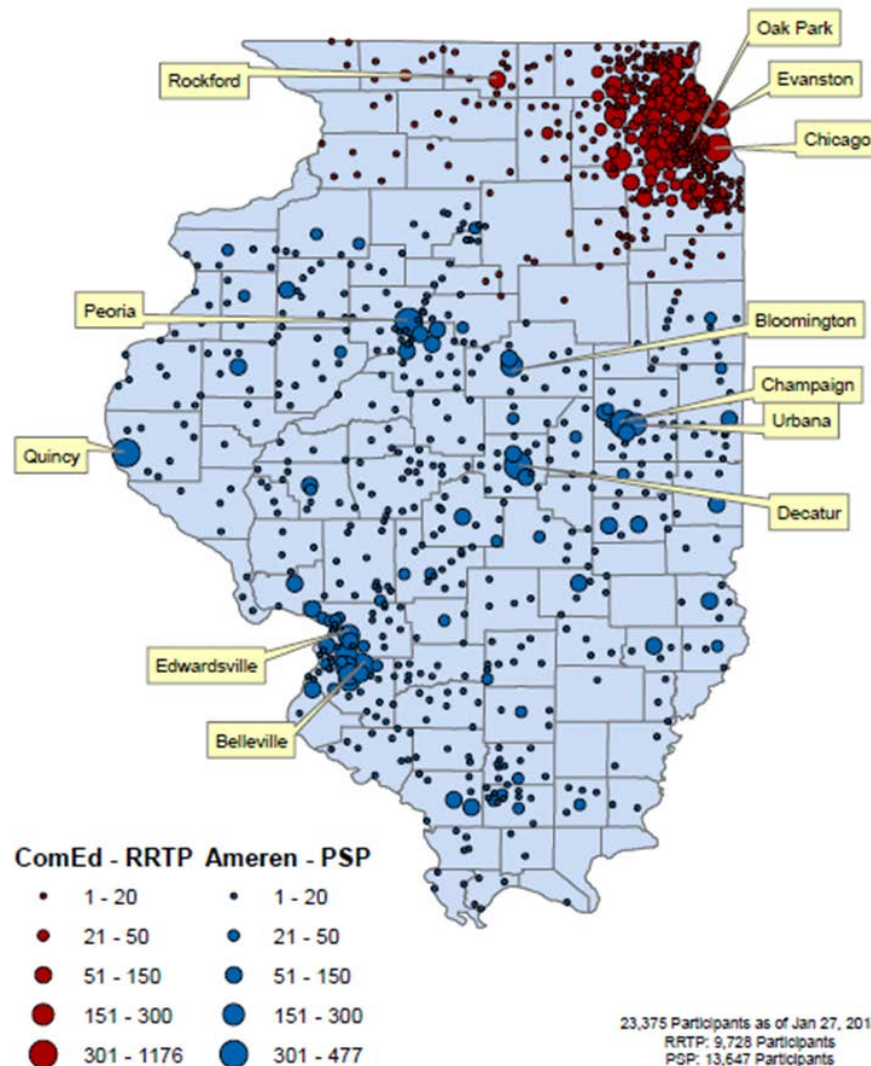
Technology Integration





Smart Rates Need Smart Meters

Dynamic Pricing Participants in Illinois



Illinois Smart Meter Deployment Schedule

- **ComEd: 4 million smart meters by 2021**
- **Ameren Illinois: 660k smart meters by 2019**



Questions? -- Stay in Touch

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