

Advanced Metering Infrastructure (AMI) Update

Joint Committee on Energy &
Environmental Policy



February 7, 2013

Presented by Hal Jensen, Westar Energy

An Evolution



1970's



1990's

Today



Digital Electronic (Smart Meter)

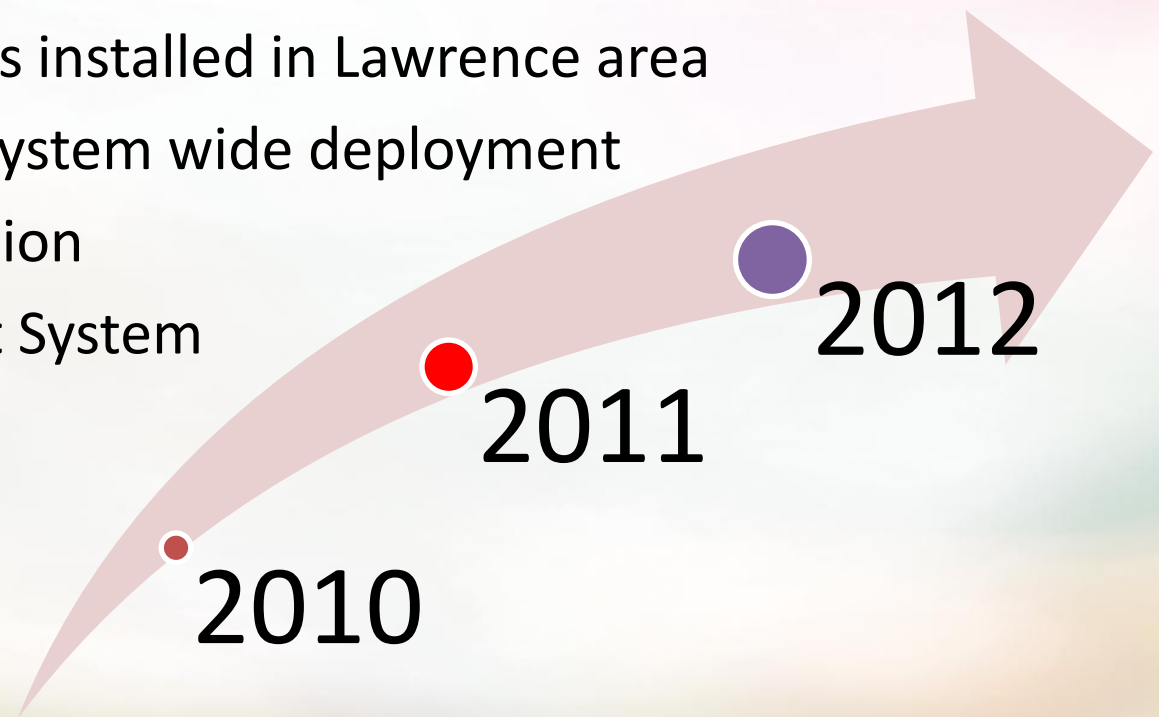
- Electronic and communicating metering in place for 20 years.
- “Smart Meter” is an upgrade from a one way meter to a two way, referred to as Advanced Metering Infrastructure (AMI).
- AMI provides platform for providing customer information & service options, service quality & reliability improvement and operational efficiencies.
- This is not radical new technology but instead a relatively simple upgrade from what already exists.

An AMI Meter ...

- **Measures whole house use only.**
- **Meter accuracy**
 - Meters tested prior to install and meet/exceed standards.
- **Data privacy & Security**
 - Transmits only usage information
 - Transmission is secure & encrypted.
- **Home use**
 - Meters are not controlling in home usage.
- **Radio Frequency**
 - Lower strength than a cell phone, microwave, baby monitor.
 - Transmission is less than 10 seconds a day total.
- **Safety**
 - Meters fully compliant with ANSI standards for safety.
 - Some reports of overheating predominantly linked to homeowner meter box.
 - Westar has experienced zero – we inspect with each exchange.

AMI Pilot Project – 2010 to present

- Westar's three-year \$40M SmartStar Lawrence pilot program
- Investment Grant - \$19M
- Customer energy dashboard with up-to-date energy cost, usage and environmental information
- 43,000+ smart meters installed in Lawrence area
- IT infrastructure for system wide deployment
- Distribution Automation
- Outage Management System



Current Assessment

- 43,000 meters installed in 2011.
- Wide customer utilization - 20,000+ dashboard accounts.
- 99%+ meter network communication on schedule.
- Service order automation in 2012, ~ 14,000 truck roll equivalent, April – December.
- Distribution equipment installed.
 - Improves reliability and service quality
- Enhanced outage management system in 2013
 - Automated outage and restoration notifications
- Early development of analytical tools.

My Account

Manage your electric account

mdlkka [View account details](#) [Sign Out](#)

SmartStar Home

Pay my bill

- Pay by Check/ma/Savings
- Pay by Debit or Credit Card
- Bank Plan
- Authorized Pay Station

My Account

- Profile

Manage My Bill

- View Bill
- Enter Meter Read
- Average Payment Plan
- Meter History
- Meter Reading Schedule
- Payment Extension
- Transaction History

Report a Power Outage

- Report a Power Outage
- Report a Street Light Problem

Start/Stop Service

- Have Existing or Start Additional Service
- Stop Service

Project Deserve

- Contribute

My Electric Account

For Service at -- 4242 JAYHAWK BLVD - LAWRENCE

Dashboard My Energy Alerts Profile Help

TAKE A VIDEO TOUR.

Watch the video

Check out the new SmartStar features

Account #: 86496
Next Bill Period Ends: May 23
Website Updated Through: 3/14/2011 3:13 PM
Most Recent Bill: \$96.91
Due Date: 4/26/2011
Account Balance: (\$1.14)

[Go To Billpay](#)

Projected Energy Cost

\$71 Projected **\$50** As of MAY 14

[Details](#)

Cost is estimated and may not reflect all charges associated with this account.

Energy Usage

Usage is UP **44%**

[Details](#)

Current average daily usage compared to last bill period.

Environmental Impact

4 trees

[Details](#)

Planting this many trees would offset your impact for the current bill period.

Cut Energy Costs

Switch to low-wattage light bulbs

Think of areas in your home where you don't need high intensity lighting. Considering switching to low-wattage bulbs in

Be Energy Efficient

Manage your energy usage

Install a programmable thermostat to maintain a comfortable temperature in your home and to manage usage during the winter and

Reduce Your Impact

Plant some deciduous trees

Reduce your heating and cooling costs with an energy-efficient landscape design

Alert Settings

[Alert History](#)

Savings Alerts Summary Reports Delivery Settings

Send Me a Summary...

Every 7 days and at the end of the bill period

Send me a report with my Cost, Usage, and Environmental impact

Email

Just at the end of a bill period

Send me a report at the end of my bill period with my Cost, Usage, and Environmental Impact

Email

[Save](#)

[Feedback](#)

Electric Costs

\$40 Projected **\$31** As of DEC 3

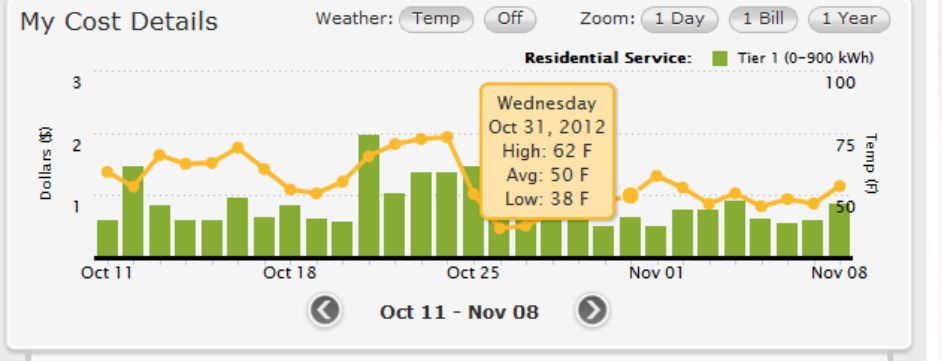
Your pricing plan is currently set for Residential Service (303)

What should I be looking for?

Look for a spike in the graph to the left. Maybe something out of the ordinary happened that day? Look to past bill periods to see if this pattern is typical for your usage.

Keep in mind

- Most people tend to use more on the weekends
- Most people tend to use more on weekdays between 6 AM-11 AM and 5 PM-8 PM



Date	0-900 kWh	Total	Temperature
10/11/12 - 11/08/12	\$25.07	\$25.07	
Total with Customer Charge, Taxes, and Fees		\$36.69	55° F (average)

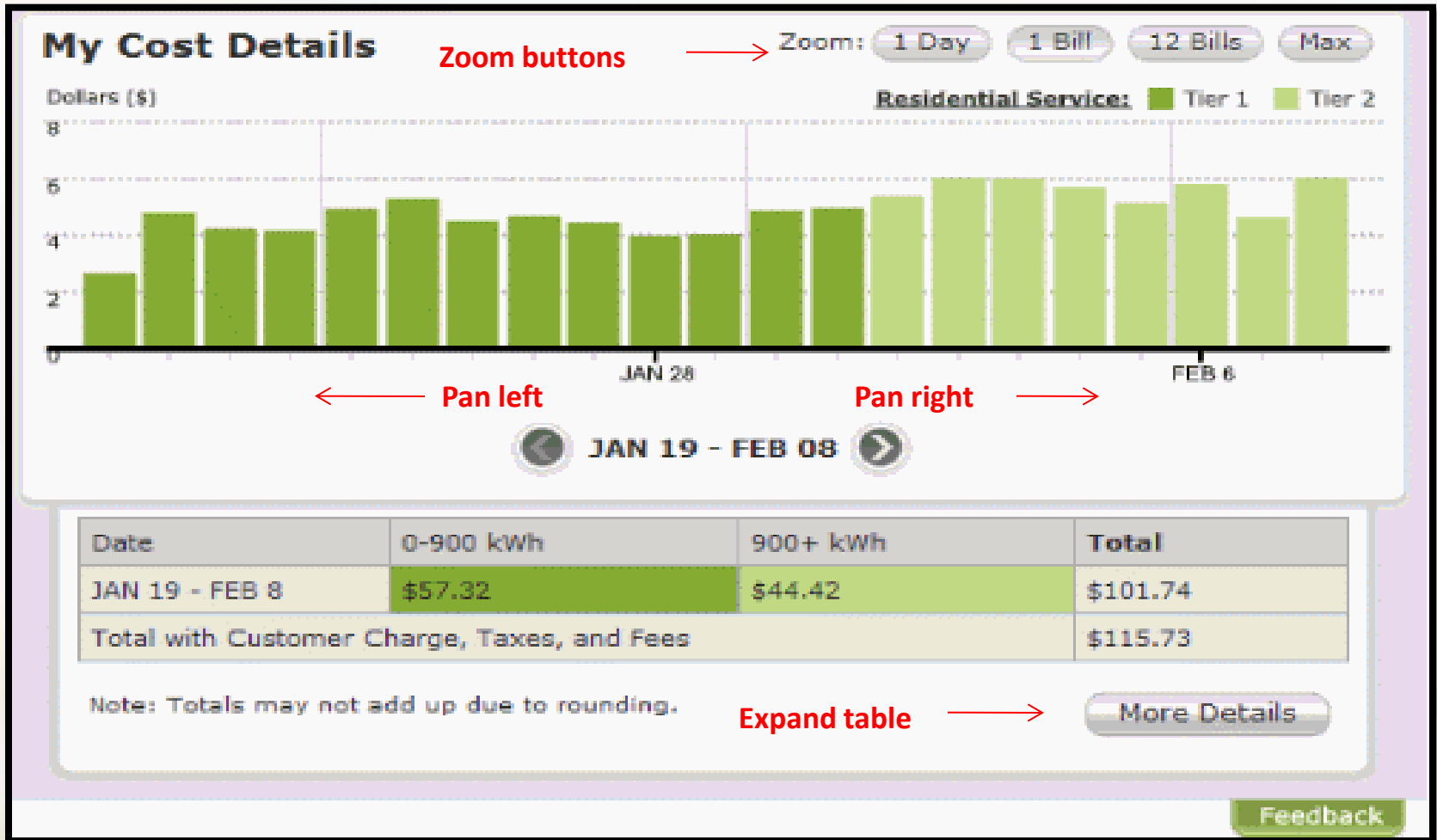
Note: Totals may not add up due to rounding. \$0 may indicate adjustment to your bill, see View Bill.

[Download](#) [More Details](#)

Log in to your dashboard at www.westarenergy.com

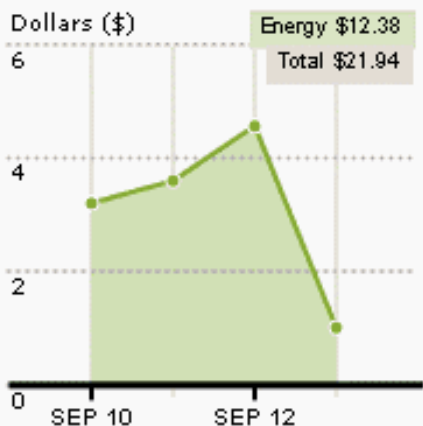
Customer Dashboard

*Daily Information Available in Detail Level
Energy Use and Cost*



Customer Dashboard

15 minute information available at most detailed view



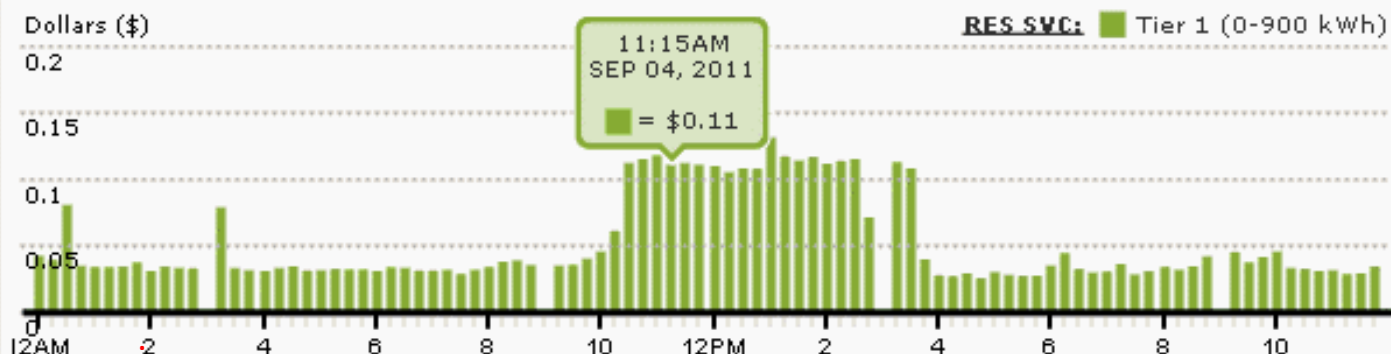
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My Cost Details

Zoom: 1 Day 1 Bill 12 Bills Max



Weekly Energy Report

Available via email on weekly and monthly basis



Weekly Energy Report: MAY 4-MAY 10

2600 W 6TH ST L2
LAWRENCE, KS 66049-4322
Account # *****8503

FOR INFORMATIONAL PURPOSES ONLY - NOT AN INVOICE - DO NOT PAY †

Energy Cost to Date
\$42.89



[See your Cost details >](#)

Energy Usage
173.3 kWh



[See your Usage details >](#)

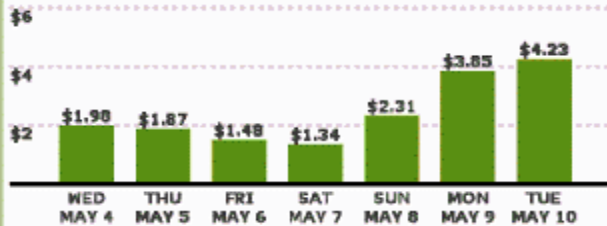
Environmental Impact
302 lbs CO2



This is equal to
4
trees

[See your Carbon details >](#)

This Week's Estimated Daily Cost



Legend

Residential Service:
■ Tier 1 (0-900 kWh)

Week Totals

Cost:
\$27.52

Usage:
95.2 kWh

Carbon:
166.1 lbs

[See this data by the hour >](#)

† Weekly Energy Report is based upon projected usage and does not include any additional Westar Energy services on this account. Please refer to your monthly Westar Energy Bill Statement for actual billed usage, applicable taxes, fees, and/or charges.

Cut Energy Costs
Bundle up in winter

Be Energy Efficient
Install lighting control

Reduce Your Impact
Prevent pollution; Take

Benefits

- **Customer access to information and convenience**
 - Dashboard available 24/7, anywhere with internet access.
 - Personalized alerts and summaries delivered via text and email.
- **Customer service improvements**
 - Billing accuracy and timeliness.
 - Outage and storm recognition and restoration.
 - Proactive recognition of potential outages and other service issues.
 - Improved service order speed via automation.
- **Platform to deliver customer options in service**
 - Supports various pricing plans, prepay, as a customer choice.
- **Operational efficiencies**
 - Reduced costs with improved customer service.
 - Improve system operation.

Wichita – 2013 Plans

- Westar balancing speed of meter deployment to cost benefit - a slow but steady approach planned.
- An infrastructure investment to deliver customer service improvement similar to other system upgrade work.
- Plan 17,000 meter exchanges, in highest service order area that includes an older distribution infrastructure.
 - Approximately \$3.5M investment
- Keep key community leaders informed of progress.
- Inform customers of new benefits and information available.
- Late 2013 integration with new outage management system.

Customer Pamphlet for Every Exchange

NO MORE POWER BILL SURPRISES

Track your energy use anytime, anywhere.



THREE STEPS TO MAXIMUM SAVINGS.

Three simple steps will help you get the most out of these new services.

- 1 Access your online account.**
 If you already have a Westar Energy online account, you're all set. When you sign in to My Account on the Westar Energy home page, you will automatically be directed to your new Dashboard. If you don't have an online account yet, simply set one up at WestarEnergy.com. There's no charge, and all you need is your Westar account number.
- 2 Set your notifications.**
 Once you've set up your account, Westar Energy will begin sending you weekly email summaries of your energy usage for your convenience. Visit the Alerts page of your Dashboard to switch to monthly emails or to turn this feature off entirely. You can also set alerts to receive text and/or email updates when your bill has reached a certain amount (selected by you) or to be notified of uncharacteristic spikes in energy use.
- 3 Monitor your energy use and start saving.**
 Your new Dashboard gives you the power to save energy. Information on your energy use is available in increments of 15 minutes, one day or your current total to within 24 hours. Access your Dashboard via your Westar online account anytime, anywhere. Knowledge is power.



WestarEnergy.com
1-800-383-1183

Westar Energy has upgraded the power meter with new technology that will help us improve service and reliability for you. Even better, the upgrade allows you to access information about your energy usage and its cost at any time, rather than waiting until a bill arrives.



Your online Dashboard gives you round-the-clock access to your personal energy use information.



Custom notifications help you stick to a budget and alert you to uncharacteristic spikes in usage.



View detailed information about your energy use - in increments as small as 15 minutes.



View your energy use history by units of energy, cost in dollars* or environmental impact.



It's easy to stay informed with weekly and monthly email summary reports.



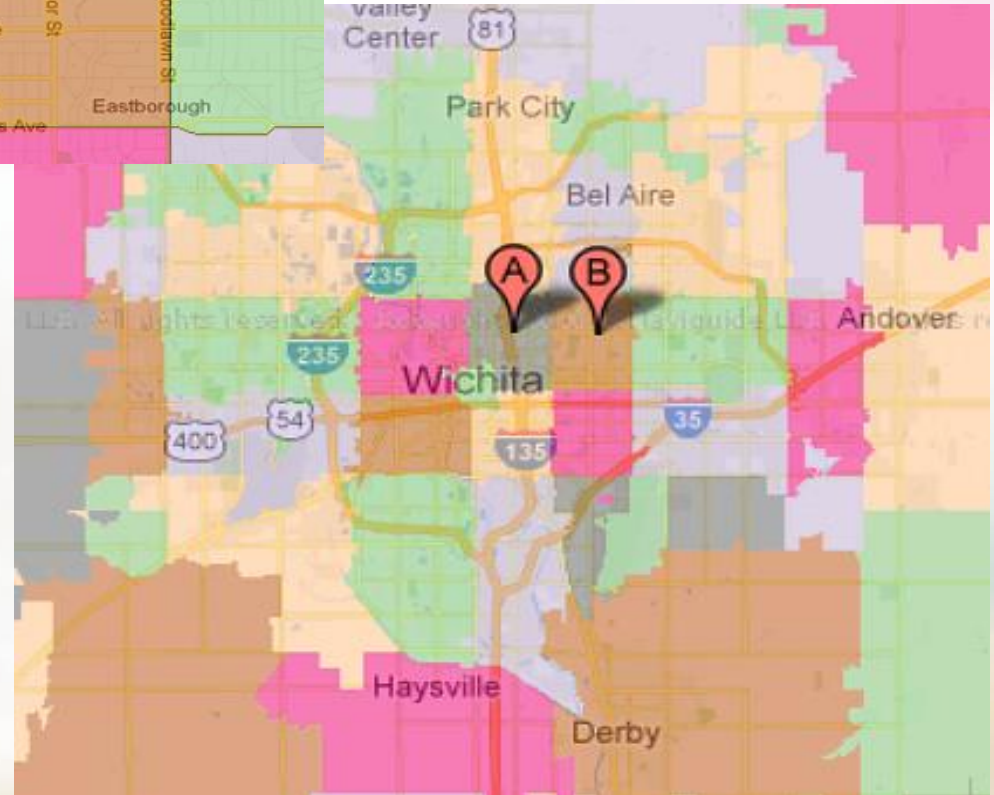
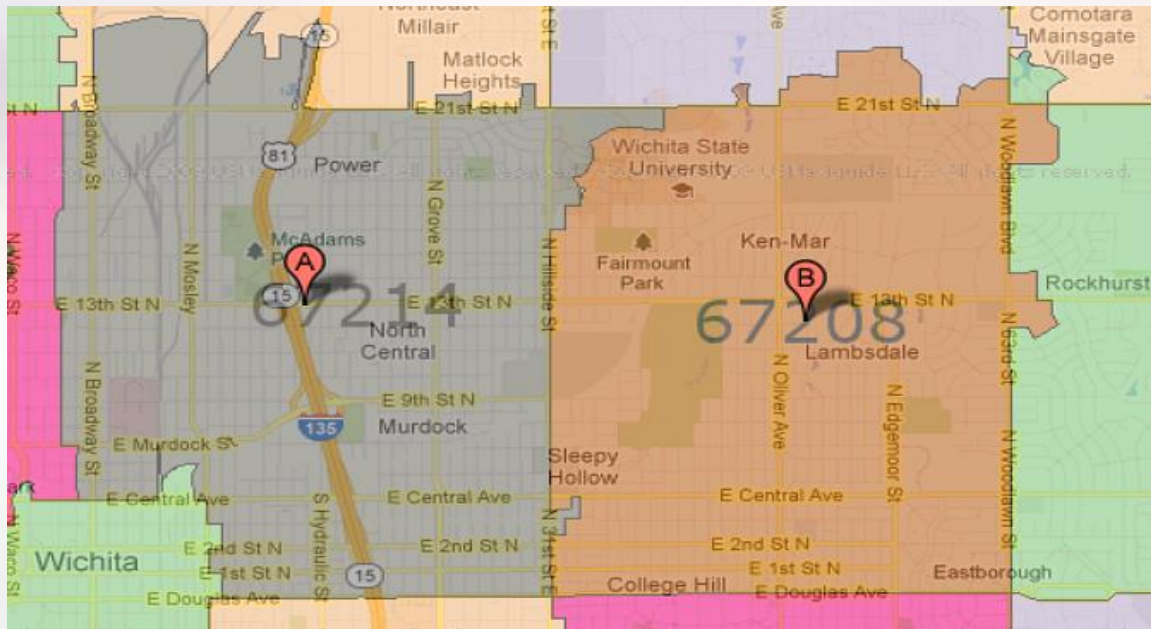
If a power outage should occur, this new technology can help us pinpoint the exact location and restore power to your area more quickly.

*Costs on the Dashboard are projections and may not match the actual bill.

Front

Back

Inside



2013 Wichita
Meter upgrade map
17,000 installations

Thank You

Hal Jensen
Westar Energy