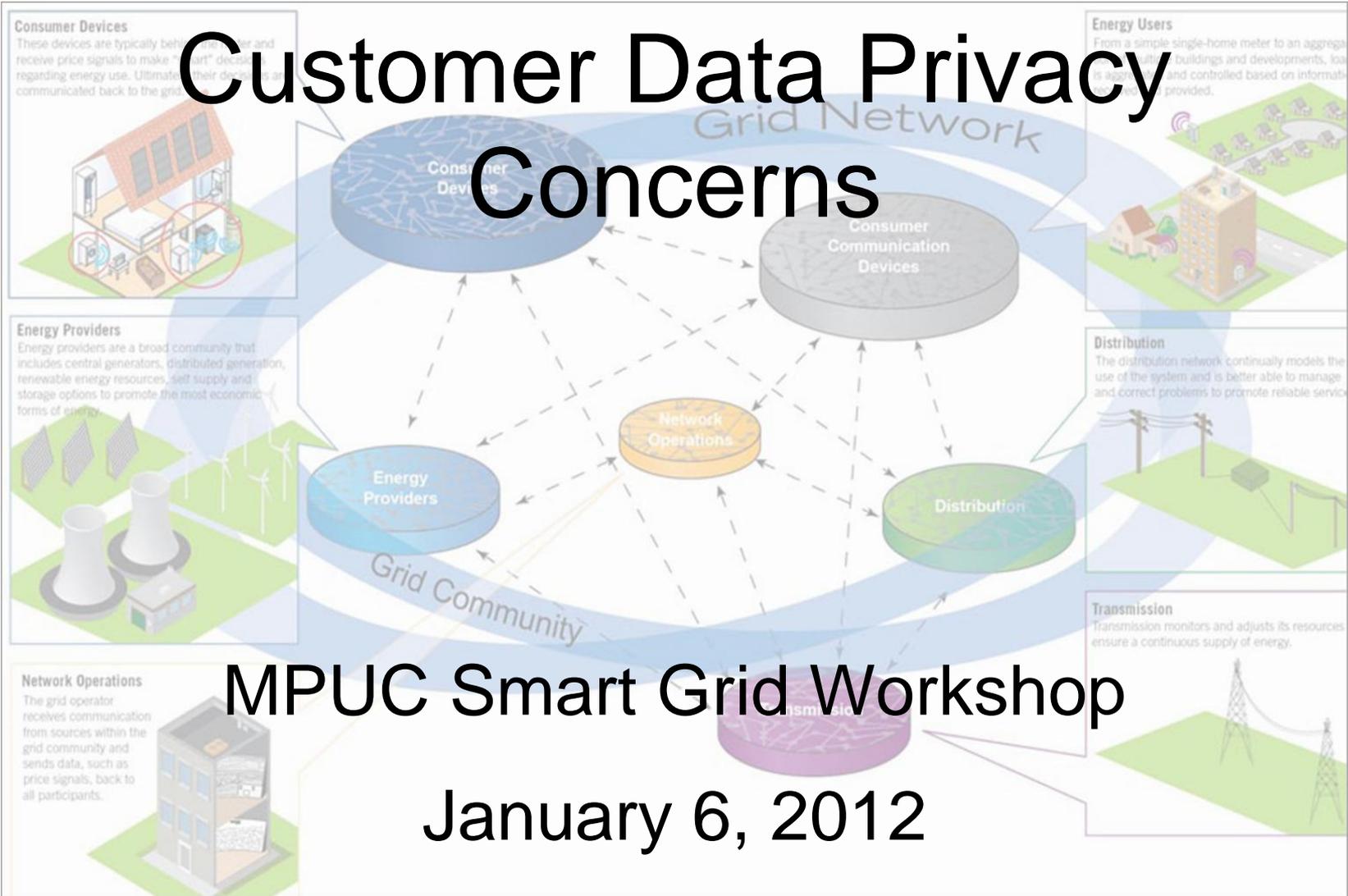


# Customer Data Privacy Concerns



## MPUC Smart Grid Workshop

January 6, 2012



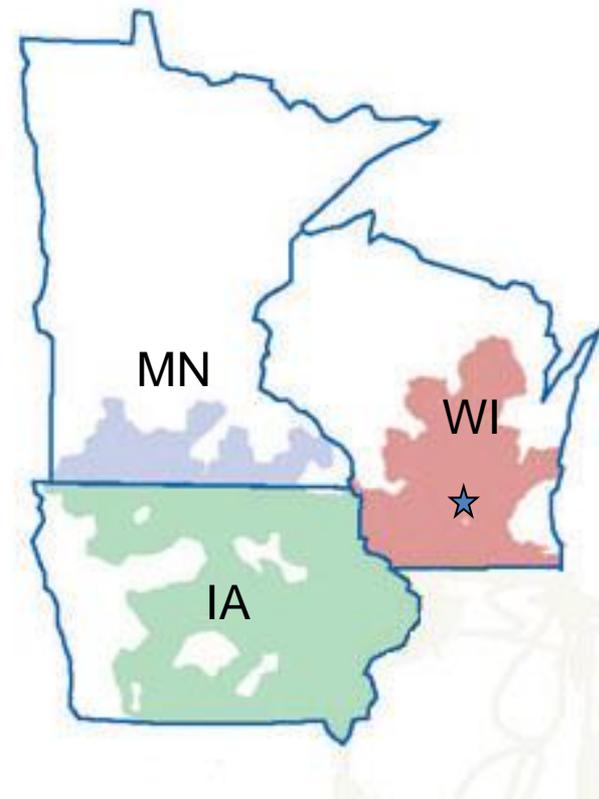
# Customer Data Privacy Concerns

- To what extent is privacy a concern to customers? A case study from Alliant Energy.
- What steps have been taken to educate consumers on privacy issues associated with advanced metering or other smart grid programs?



# Alliant Energy – Who are we?

- Parent of and Interstate Power and Light (IPL) and Wisconsin Power and Light (WPL)
- 5,000 employees provide energy services to over 1000 communities in Wisconsin, Iowa and Minnesota, over 54,000 square miles
- 1.4 M customers total
  - Wisconsin Power and Light (WPL)
    - 455,000 electric & 177,000 natural gas
  - Interstate Power and Light (IPL)
    - 526,000 electric & 234,000 natural gas
    - MN: 43,000 electric & 11,000 natural gas
- 9,700 miles of electric distribution lines and 8,000 miles of natural gas main.
- Generate 31 million MWh of electricity annually
- \$3.4 B revenues, and \$9.3 B assets for 2010



# Overview of WPL's AMI Project

- Deploy 2-way licensed RF fixed network for entire territory
- Retrofit all existing 173,100 natural gas meters with AMI one-way communications modules
- Replace 454,900 electric meters with electronic AMI-enabled meters with two-way communications capability.
- Implement a Meter Data Management System (MDMS) to support interval-based billing
- WPL expects to realize net annual gas and electric operating expense savings of about \$6.3 M
  - Reduced Meter Reading Costs (labor, transportation, injuries)
  - Reduced Billing-Related Costs and Improved Billing Accuracy
  - Improved Services to Customers
  - Reduced Outage Restoration Costs and Duration
  - Improved Revenue Cycle



# WPL AMI - Deployment

- WPL AMI 2008 – 2010 deployment
  - Low-key approach to communications
  - Focused on direct impacts to customers during meter installation, and operational benefits
    - AMI info added to main page of website
    - Targeted region media release and direct post card mailings to customers 2-weeks in advance of install
    - Door hangers left during install
  - Virtually no customer push-back during deployment
    - Only 3 customers requesting info about RF emissions
    - No customer contacts on concerns about data privacy



# AMI Pre-deployment Post Card

Within the next two weeks, you may notice our crews in your neighborhood or on your property. They will be performing upgrades on electric and/or gas meters with advanced metering infrastructure (AMI) technology. For your safety and security, each technician will carry an Alliant Energy picture ID card.

**Q. What is AMI?**

**A.** AMI is a new technology that enables meters to be read remotely, ensuring accurate billing and efficient service. Your usage information will be sent to us automatically without us having to visit your property on a regular basis.

**Q. How will I know you have visited my home?**

**A.** You will be notified with a door hanger that your meter was successfully upgraded or that an appointment will be required to gain access to your meter. In most cases, employees will upgrade AMI meters between 8:00 AM – 5:00 PM.

**Q. Will you need to turn off my service to install the AMI equipment?**

**A.** There may be a brief interruption of your electric service making it necessary for you to reset clocks or other devices affected by the meter exchange. We will make sure that your service is back on before leaving. The AMI upgrade will not interrupt your gas service.

Thank you for the opportunity to install our new AMI equipment. We appreciate your cooperation as we work in your area. There will be no charge to you for this upgrade. If you have any questions or need additional information, please call us toll-free at **1-800-ALLIANT (255-4268)** or visit [alliantenergy.com/AMI](http://alliantenergy.com/AMI).



*We're upgrading your electric and/or gas meters with advanced metering infrastructure (AMI) technology that will enable us to read meters remotely.*



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# Post-Installation Door Hanger Notice



## Sorry, We Missed You

We were here today to upgrade your electric and/or gas meter with new advanced metering infrastructure (AMI) technology that will enable us to read your meter remotely. There will be no charge to you for this installation.

- We successfully installed new electric and/or gas metering equipment.

Exchanging your electric meter may have created a momentary loss of electricity so please be sure to reset clocks or any other devices affected by the meter exchange. We apologize for any inconvenience this may have caused.

- We were unable to access the electric and/or gas meter because:
  - No answer at door
  - Locked fence/gate
  - Dog in the yard
  - Other \_\_\_\_\_

Please call us toll-free at 1-800-ALLIANT (255-4268) to schedule a date and time we can visit again. For additional information regarding AMI, visit [alliantenergy.com/AMI](http://alliantenergy.com/AMI).



## Un Representante de Alliant Energy Estuvo Aquí

Hoy estuvimos aquí para actualizar su medidor de gas y/o electricidad con la nueva Infraestructura Avanzada de Medición (AMI), tecnología que nos permitirá leer su medidor remotamente. La instalación es gratuita.

- Hemos instalado el Nuevo equipo medidor de gas y/o electricidad.

Durante la instalación del medidor eléctrico, una pérdida momentánea de electricidad ha podido suceder. Por favor revise sus relojes u otros artefactos eléctricos que pudieron ser afectados durante la instalación. Disculpen por la molestia.

- No hemos podido instalar el Nuevo equipo medidor de gas y electricidad por las siguientes razones:
  - Nadie contestaba la puerta
  - Las rejas o puertas estaban con llaves
  - Mascota en su vivienda
  - Otro \_\_\_\_\_

Por favor de llamar al 1-800-ALLIANT (255-4268) para hacer una cita y visitarlos otra vez. Para más información de AMI, visite [alliantenergy.com/AMI](http://alliantenergy.com/AMI).



# WPL AMI - Post Deployment

- Concerns about perceived health risks from RF
  - Denied 10 requests for AMI smart meters removal
  - Information provided comparing AMI system operation to cell phones and other common devices
  - Reports by EEI/UTC and EPRI on AMI RF studies also provided
  - Full support by PSCW to install and maintain AMI meters



# WPL AMI - Post Deployment

- Smart meter “surveillance” concern
  - Received one form letter requesting meter replacement based on [YouTube Video](#)
  - WI Coalition Against Smart Meters
    - Flyers posted in one community
    - One-day news story by local media
    - Media interview opportunity allowed us to dispute inaccurate information flyers
    - No surge in activity – No additional removal requests based on data privacy
  - Developed a standard response letter

\*\*\* URGENT NEIGHBOR ALERT \*\*\*

## Your Privacy vs. Government Surveillance?

### Just Say NO to “Smart Utility Meters”

**How Will “Smart Meters” Impact Your Home, Family, & Your Right to Privacy?**

Dear Neighbor,

A national government-sponsored program is forcing states and utility companies to implement a new device known as the Smart Meter. Let's join other states like California, Texas and Florida in saying NO. For four years, Wisconsin Power & Light, a subsidiary of Alliant Energy, has been planning to deploy AMI technology in Wisconsin. (See [AlliantEnergy.com](#)) This multi-phase program will allow your utility company to control your overall usage of power and invade your privacy. How? The new AMI Smart Meter is capable of collecting detailed data about you in order to control your future energy usage. Using your old meter, your utility company already knows your overall electrical usage, so why would the utility company need to know additional details about when you use your hair dryer, television, washing machine, dish-washer, etc.? Could this data be sold? How else might this data be used – or abused?

**FREQUENTLY-ASKED QUESTIONS**

- 1) How do you know if you have an AMI Smart Meter?**  
Look inside of the meter's glass for a label designating an “ECC ID” number.
- 2) How do I stop a Smart Meter from being installed?**  
Please see the attached letter that you can sign and send to your utility company—preferably by certified mail with a return receipt requested. It is advised you also send a signed copy of this letter to your State Representative and State Senator's office at the State Capitol.
- 3) What do I do if a “Smart Meter” has already been installed?**  
Contact your State Legislature toll-free at 1-800-362-9472 and ask them to immediately have the AMI Smart Meter removed from your home. Elected officials have a fundamental obligation to protect private citizens from government overreach.
- 4) Why is this personal information needed?** Good question.
- 5) How will this personal information be used?** Good question.

This science-fiction-like technology is coming to completion as all new appliances will have Smart Meter responsive technology. Your new Smart Meter will likely result in Smart Growth laws to govern us. The new Smart Meter is the foundation for Smart Grid technology. The Smart Meter transfers control of your electric power usage to your local utility. Is the Smart Meter invasive surveillance of you and your family? Think about it!

**JOIN CITIZENS ACROSS WISCONSIN IN SAYING NO!**

- ✓ SAY NO to the invasion of privacy.
- ✓ SAY NO to remote shut-downs.
- ✓ SAY NO to the health effects from Smart Meter radiation.
- ✓ SAY NO to increased utility costs.
- ✓ SAY NO to required appliance change outs.

**Is this your New Smart Meter?**

**Contact Your Legislators Now!**

**1-800-362-9472**

Urge Your State Senator & Representative to Co-Sponsor Legislation to Ban Smart Meters

- ✓ Be Informed
- ✓ Share Information with Others
- ✓ Don't be Afraid to Ask Questions
- ✓ Liberty is Lost When Good People do NOTHING!

*Act Now For the Sake of Our Kids!*

Wisconsin Coalition Against Smart Meters, P.O. Box 2821, Janesville, WI 53547-2821 Email: nosmartmeter@charter.net



# AMI Surveillance Concern Response Letter



Wisconsin Power and Light Co.  
An Alliant Energy Company  
Corporate Headquarters  
4902 N. Biltmore Lane, Suite 1000  
Madison, WI 53718-2148  
Office: 800.862.6222  
www.alliantenergy.com

[Day/Month/Year]

[Customer Name]

[Customer Address]

[Customer City], [State], [Zip]

Re: Wisconsin Power and Light Company's AMI Smart Meters

Dear [NAME]:

Thank you for your letter regarding Advanced Metering Infrastructure (AMI) smart meters in use by Wisconsin Power and Light Company (WPL). We take seriously your concerns regarding privacy about our AMI system. Provided below is background on the metering system that WPL completed deployment of in 2010, as well as information relating to your privacy concerns, and information regarding rights to access that information.

WPL understands the concerns customers might have about privacy of information. We believe that individualized energy usage data, including the information relating to the quantity, technical configuration, type, destination and amount of use of products or services our customers receive from us, can only be shared when the customer has provided explicit consent to disclosure, or as may be authorized by law, including for legitimate business purposes such as billing or in response to a legally issued subpoena. WPL's privacy policy provides for protection of private customer information including energy usage data.

Security is also of paramount importance to WPL. We apply security best practices to protect our information networks and the electric grid to maximize the security of our AMI systems. We maintain a comprehensive cyber-security program based on national standards followed by other leading companies in the energy and defense industries.

WPL's AMI smart meters, like the legacy meters they replaced, measure how much energy customers use, not how they use energy. The meters are not "surveillance devices." The AMI meter does not store or transmit any information about who our customers are, where they live or what they are doing, nor do these meters know what appliances are in use by our customers.

Furthermore, use of AMI smart meters is not wiretapping and their use is completely legal in all respects. WPL's AMI system was reviewed and approved by the Public Service Commission of Wisconsin (PSCW). Just as traditional meters have done, WPL's AMI meters measure the amount of energy used at a premise as part of a customer's purchase of electricity and/or natural gas from us. In another respect, AMI meters will increase your privacy, because we will no longer send a meter reader to your property to read your electric or natural gas meter.

There is no risk of sharing of customer private data with, or interception by, "criminals, blackmailers, hackers of wireless transmissions, power company employees, terrorists or other unidentified parties". No customer personal identifiable information is stored in the meter, or is sent across the AMI network.

As with any service, we must measure energy consumption for accurate billing. WPL measures your energy consumption, similar to how municipalities measure water use in order to bill their customers, or just like cellular phone providers measures your cell phone use to bill you. AMI system merely allow utilities like WPL to automatically perform an otherwise manual process while giving customers more frequent and detailed information about their own energy usage, which can help them save energy and money.

Lastly, I wanted to bring your attention to WPL's tariff for retail service, which gives WPL the right of access to your property and to install meters, facilities and equipment. Meters are the property of WPL, and interference with the meter or its connections, service piping, mains or other property of the company is strictly prohibited. WPL's tariffs are approved by the PSCW, and have the effect of law. As such, WPL has a legal right to access your existing meter and to make changes, modifications or improvements to its facilities, including meters.

We want our customers to remain confident in the safety and reliability of our entire electric and natural gas distribution systems, including our AMI system. Moreover, we protect and respect the privacy of customer usage information. I hope the information I have provided is informative and reassuring. Please let me know if you have any additional questions or concerns.

We are committed to providing you with safe, dependable and efficient energy.

Sincerely,



# WPL Home Energy Management Pilot

- In-home display provided at no charge
- Web display of usage via Google PowerMeter
  - Customer consent agreement to participate in Pilot with terms & conditions, and sharing of energy data with Google
  - Customers required to establish a Google account
  - Separate consent for Google policies and data storage
  - Customer Authentication and validation for both enrollment and un-enrollment processes (Last 4 of SSN)
- No customer concerns expressed on data privacy
  - Voluntary participation could have screened out concerns
  - Google was a known and trusted entity to our customers



# Questions



**Rick Potter**

Principal Smart Grid Technology Consultant

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