



# Autovation

September 25-28

# 2011

The **Smart Utility**  
Conference & Exposition

[www.utilimetrics.org](http://www.utilimetrics.org)

*Gaylord National Resort and Convention Center Washington, DC*



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# Smart Grid And Privacy September 27, 2011

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Executive Director  
Centre for Spatial Law and Policy

## Centre For Spatial Law and Policy

1. Educate businesses and governments on the current legal and policy environment with regards to geolocation and other types of spatial data.
2. Help develop a consistent and transparent legal and policy framework for collection, use and distribution of spatial data.
3. Identify solutions to legal and policy issues that limit the sharing of spatial data for critical transnational issues.
  1. Climate change
  2. Disaster response



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## Overview

- Why privacy has become an important issue?
- How privacy concerns are being addressed.
- The potential impact on clients.

## Big Data

- Data is becoming the fuel for IT growth
- Businesses are using data for a variety of purposes
- Estimates that 80 percent of data is spatially enabled
- 600 billion geolocation mobile phone transactions per day
- Increasingly businesses need real-time, accurate and complete data to:
  - Make critical decisions
  - Provide vital services
  - Design and manufacture key products

## Unique Aspects of Spatial Data

- Privacy
  - **Uncertainty over privacy from a location standpoint**
  - **Difficult to put location into existing privacy framework**
  - **Spatial data is critical to so many important applications**
- Data Quality/Liability
  - New Applications
  - Versatility
  - Little precedent
- Intellectual Property
  - Role of Government Data
  - Variety of Sources
  - Uncertainty Associated with Copyright
- Risk that laws, regulations, precedents, policies developed in one area will have unintended consequences when applied to other areas



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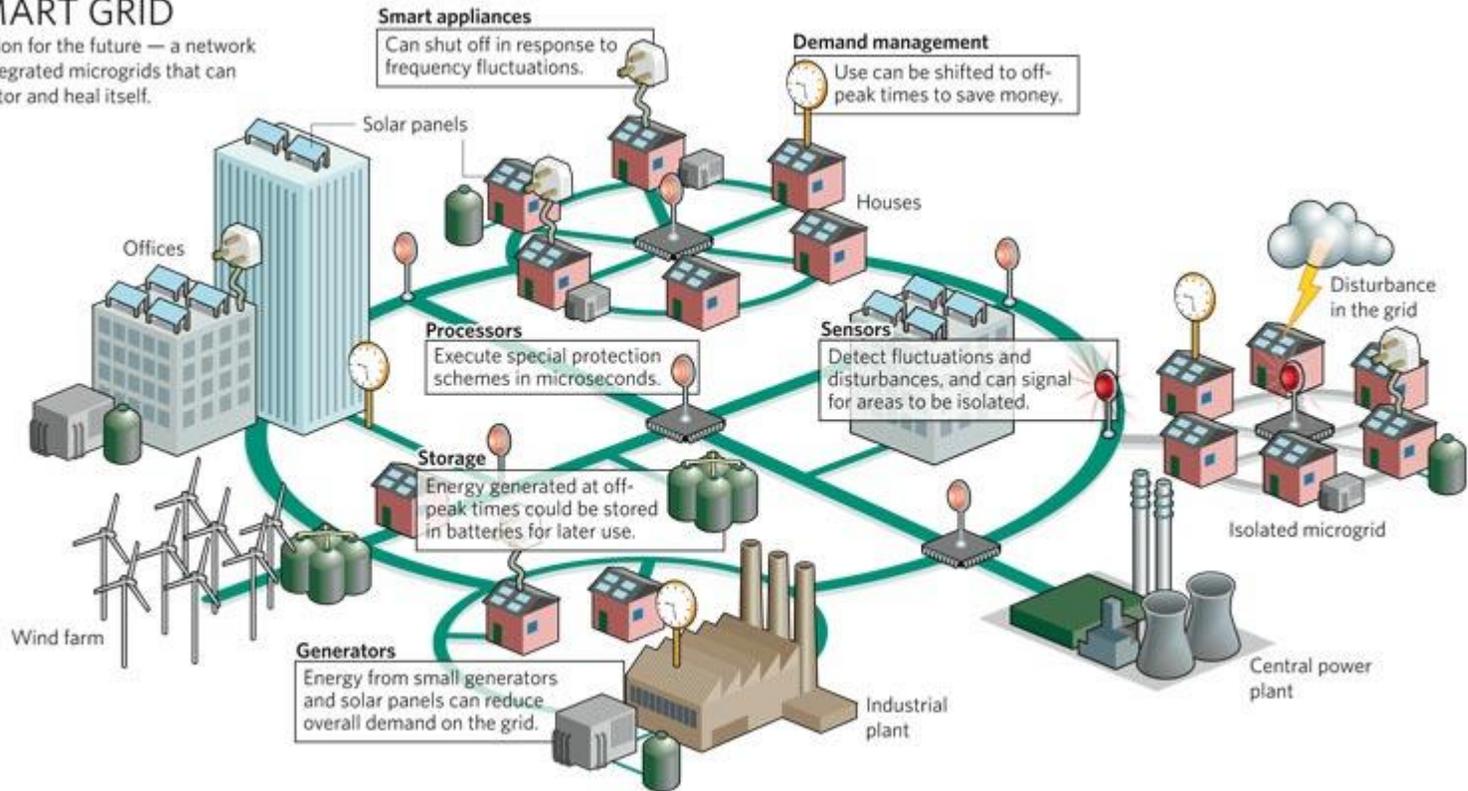


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## Two View of Smart Grid: System-wide

### SMART GRID

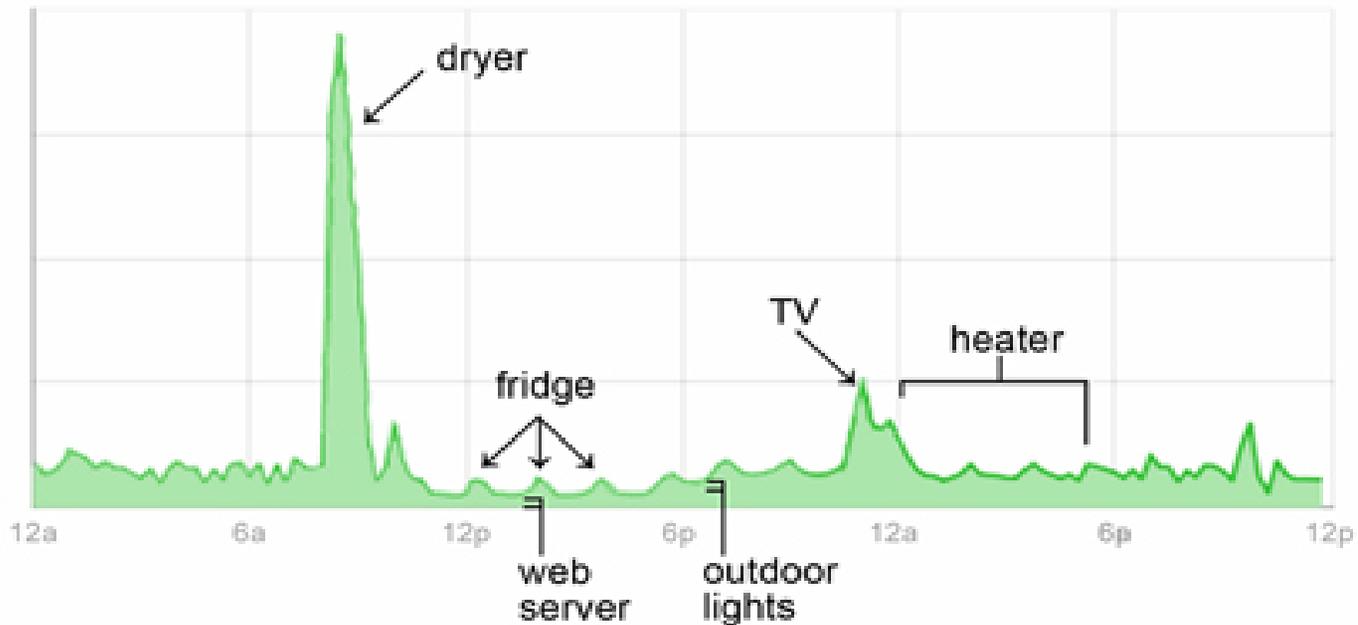
A vision for the future — a network of integrated microgrids that can monitor and heal itself.





## Two Views of Smart Grid: Home Use

Home Electricity Use



## Privacy Implications

- Utilities already get some of this data
  - Energy usage + place = personal information?
  - But there will be much more of it and more personal
  - Data is becoming more spatially and temporally enabled
- Can be used to violate consumer privacy in a number of ways:
  - Third party vendors
    - Solicitations for appliances, services
  - Stalkers
    - Identify your location and movement patterns
  - Hackers
  - Law Enforcement
  - Future
    - ???

## Fair Information Practices

- Common themes
  - Notice/Awareness
    - Clear notice of what is being collected, how used
  - Choice/Consent
    - Opt-in/Opt-out
  - Access/Participation
    - Ability to correct errors
  - Integrity/Security
    - Data security
  - Enforcement/Redress

## Federal Privacy Law

- Consumer Privacy Protection
  - U.S. is only major country without a comprehensive consumer privacy regime
  - A number of bills before Congress
- Federal Trade Commission
  - Section 5 authority to protect consumers
    - Very broad authority increasingly being used to protect privacy



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## Privacy Bills In US Addressing Geolocation Information

- Commercial Privacy Bill of Rights Act of 2011
- BEST Practices Act
- Do Not Track Me On-line Act
- Geolocation Privacy and Surveillance Act
- Consumer Privacy Protection Act of 2011
- Update to Children's Online Privacy Protection Act
- Update to Electronic Communication Protection Act

## Federal Trade Commission

- Broad authority under Section 5 of the Federal Trade Commission Act
- Subsequently brought actions against companies that did not comply with their own privacy policies
- Then began to bring actions against companies who did not protect “personally identifiable information”
- Recently began to bring actions against companies who did not protect “sensitive information”
  - Twitter enforcement action
- Has recently stated that ‘precise geolocation information’ is sensitive.

## Fourth Amendment Issues

- ‘Unreasonable Search and Seizures’
- What is a ‘reasonable expectation of privacy’ for energy usage?
  - Home record vs. Business record
- *R. v. Gomboc*, 2010 SCC 55, [2010] 3 S.C.R. 211
  - Canadian Supreme Court finds no warrant required to attach digital recorder on home

## Smart Grid

- State level
  - California
    - Adopted comprehensive rules on July 29, 2011
  - Pennsylvania, Texas, Colorado have also enacted or considered enacting regulations
- Federal level
  - National Institute of Technology Standards
    - Draft standards
  - Electronic Consumer Right to Know Act
    - Sen. Mark Udall (D-CO) and Sen. Scott Brown (R-MA)
    - Similar to California rules



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## California Rules Covered Information

“Covered information” is any usage information obtained through the use of the capabilities of Advanced Metering Infrastructure when associated with any information that **can reasonably be used** to identify an individual, family, household, residence, or non-residential customer. [emphasis added]

## California Rules Notice Requirements

- **Covered entities shall provide customers with meaningful, clear, accurate, specific, and comprehensive notice regarding the accessing, collecting, storage, use, and disclosure of covered information. Including:**
  - **each category of covered information collected, used, stored or disclosed and the reasonably specific purposes for which it will be collected, stored, used, or disclosed,**
  - **each category of covered information that is disclosed to third parties, the purposes for which it is disclosed, and the categories of third parties to which it is disclosed,**
  - **the identities of those third parties to whom data is disclosed for secondary purposes, and the secondary purposes for which it is disclosed;**
  - **the means by which customers may view, inquire about, or dispute their covered information, and**
  - **the means, if any, by which customers may limit the collection, use, storage or disclosure of covered information and the consequences to customers.**

## California Rules Access and Control

- **Covered entities shall provide to customers upon request convenient and secure access to their covered information –**
  - **in an easily readable format that is at a level no less detailed than that at which the covered entity discloses the data to third parties.**
- **Covered entities shall provide customers with convenient mechanisms for –**
  - **granting and revoking authorization for secondary uses of covered information,**
  - **disputing the accuracy or completeness of covered information that the covered entity is storing or distributing for any primary or secondary purpose, and**
  - **requesting corrections or amendments to covered information that the covered entity is collecting, storing, using, or distributing for any primary or secondary purpose.**



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## California Rules Disclosure Pursuant to Legal Process

“Except as otherwise provided in this rule or expressly authorized by state or federal law or by order of the Commission, a covered entity shall not disclose covered information **except pursuant to a warrant or other court order naming with specificity the customers whose information is sought.**”  
[emphasis added]

## California Rules Disclosure and Retention

- **Generally.** Covered entities shall collect, store, use, and disclose only as much covered information as is reasonably necessary or as authorized by the Commission to accomplish a specific primary purpose identified in the notice required under section 2 or for a specific secondary purpose authorized by the customer.
- **Data Retention.** Covered entities shall maintain covered information only for as long as reasonably necessary or as authorized by the Commission to accomplish a specific primary purpose identified in the notice required under section 2 or for a specific secondary purpose authorized by the customer.



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## California Rules Data Quality and Integrity

‘Covered entities shall ensure that covered information they collect, store, use, and disclose is reasonably accurate and complete or otherwise compliant with applicable rules and tariffs regarding the quality of energy usage data.’

## California Rules Data Security

- **Generally.** Covered entities shall implement reasonable administrative, technical, and physical safeguards to protect covered information from unauthorized access, destruction, use, modification, or disclosure.
- **Notification of Breach.** A covered third party shall notify the covered electrical corporation that is the source of the covered data within one week of the detection of a breach.
- **Customer Complaints.** Covered entities shall provide customers with a process for reasonable access to covered information, for correction of inaccurate covered information, and for addressing customer complaints regarding covered information under these rules.
- **Training.** Covered entities shall provided reasonable training to all employees and contractors who use, store, or process covered information.
- **Audits.** Each electrical corporation shall conduct an independent audit of its data privacy and security practices in conjunction with general rate case proceedings following 2012 and at other times as required by order of the Commission.

## Other Legal Considerations

- Intellectual Property Issues
  - Who owns the data?
- Data Quality/Liability Issues
  - Tampering
  - Flores v. Pacific Gas & Electric Co., No. S-1500 – CV-268647 (Ca. Sup. October 16, 2009)
  - Cordts v. Oncor Electrical Delivery Co., 10-03504 (D. Dallas, March 26, 2010)
    - “The ‘Smart’ Meters Apparently Ain’t So Smart”
- Health Issues

## Conclusions

- 1. Roll-out of smart grid technology will continue**
  - Issues are not going away.
- 2. Smart Grid technology will result in collection of much more data with higher level of accuracy and precision**
  - Utilities are going to have to think like IT companies.
  - Lawyers are going to have to better understand data.
- 3. Privacy concerns are going to increase**
  - Utilities will want to review/develop policies and procedures:
    - Dealing with customers with respect to data;
    - Dealing with retention, storage, access and security of data;
    - Dealing with transfer of data to third party vendors; and
    - Dealing with requests for information from government agencies.



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## Questions?

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