EBA Fall Brown Bag/Teleconference
The EBA Demand-Side Resources and Smart Grid Committee
present:

Innovative Smart Grid Projects

Legal and regulatory issues generally and in comparison to those
presented by certain recent innovative projects

November 7, 2012
12:00 noon – 1:30 p.m. (EDT)

Todd S. McClelland, Partner, Alston & Bird LLP
Dale A. Bandy, Senior Counsel, GE Digital Energy
Peter K. Floyd, Moderator, Partner, Alston & Bird LLP,
General Counsel, Electric Cities of Georgia, Inc.
Dale Bandy is Senior Commercial Counsel for GE’s Digital Energy business. Her practice focuses on transactions with GE’s global utility customers and various Smart Grid applications. Dale received her J.D., with distinction, in 1996 from Emory University, where she was member of the Moot Court Society and received the Dean’s public service award. She received a B.A. from University of Central Florida.
Peter Floyd focuses on representation of governmental, nonprofit and private clients with respect to energy and other utility matters. Additionally, his practices include public finance, economic development and energy and utility (E&U) regulation and transactions (e.g., electric and gas (traditional and renewable), telecom, waste, water and sewerage). Peter was named to Georgia Trend’s “Legal Elite” in 2008.

Peter is general counsel to Electric Cities of Georgia and ECG Smartgrid, and assists in general representation of the Municipal Gas Authority of Georgia, MEAG Power, Public Gas Partners and Main Street Natural Gas, including general advice to officers, new service design, contracting and financing, legislative and regulatory advice, corporate governance, sunshine laws, compliance and property acquisition and management.

Peter is a frequent speaker at professional seminars and author of articles on topics such as DOE loan guarantees, smart grid, public finance and energy transactions. He received his J.D. in 2000 from Georgia State University.
Todd McClelland

Todd’s practice focuses on technology, IP, energy, outsourcing and data privacy and security. Recent engagements have included various types of outsourcing transactions, security incidents (management and response), smart grid, cloud, and providing guidance on global privacy compliance. Todd is featured in Chambers USA for his outsourcing practice. He is the past chair of the IP Section of the State Bar of Georgia. Todd is a frequent speaker at professional seminars and author of articles on topics such as global data privacy regimes, outsourcing, open source software, smart grid and energy transactions, cloud computing, and data security.

Todd received his J.D. in 1998 from Florida State University where he was a member of the Law Review and was the executive editor of the Journal of Land Use and Environmental Law. He received a B.S. in mechanical engineering, with high honors, in 1994 from the Georgia Institute of Technology (Georgia Tech). His engineering specialty is power plant design and automation. Prior to law school, Todd worked as an engineer designing automation systems for companies such as Coca-Cola and the Ford Motor Company.
<table>
<thead>
<tr>
<th>Topic</th>
<th>Lead</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction:</td>
<td>Peter Floyd</td>
</tr>
<tr>
<td>Smart Grid Basics:</td>
<td>Dale Bandy</td>
</tr>
<tr>
<td>General Legal Issues:</td>
<td>Todd McClelland (w/ Dale and Peter)</td>
</tr>
<tr>
<td>Deal Structures:</td>
<td>Dale Bandy (w/ Peter and Todd)</td>
</tr>
<tr>
<td>Concluding Thoughts:</td>
<td>Peter Floyd</td>
</tr>
</tbody>
</table>
SmartGrid ... What is it?

*SmartGrid* delivers electricity from suppliers to consumers using digital technology to save energy, reduce cost and increase reliability.

![Power Load Diagram](image)

- **Nuclear/Hydro**
- **Fossil**
- **Baseload GT**
- **Peak GT**
- **Solar**
- **Wind**
Integrating two infrastructures

Electrical infrastructure

Embracing renewables
Increasing productivity

Information infrastructure

Empowering consumers
Reducing CO₂ emissions
Increasing efficiency

Increasing productivity
Making the grid smarter

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<thead>
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<th>Integrated applications</th>
<th>Old Grid</th>
<th>SmartGrid adds</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>• Economic dispatch</td>
<td>• Energy network optimization</td>
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<tr>
<th>Smart field devices</th>
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<th></th>
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<tbody>
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<td>• Generation/transmission mgt.</td>
<td>• Distribution mgt.</td>
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<td>• Transmission automation</td>
<td>• Dist. automation</td>
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<td>• Sensors</td>
<td>• Advanced metering</td>
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<th>Renewable control</th>
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<tbody>
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<td>• Thermal generation</td>
<td>• Voltage control</td>
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<td>• Sub stations</td>
<td>• Renewable generation</td>
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<td>• Distribution equipment</td>
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Consumer empowerment

- Consumer empowerment
- Energy efficiency
- More renewables

Integrated applications

Smart field devices

Renewable control

Old Grid

• Consumer empowerment
• Energy efficiency
• More renewables

New Grid
Anticipate challenges of tomorrow …
... while delivering foundation today
Grid IQ™
Solutions as a Service
Application View

- GE GridIQ Architecture & Integrated SW Applications
- Secure Site to Site Private Network
- AMI Network & Infrastructure
- Utility Data Center
- Utility Web Portal
- Residential Consumer
- Consumer Web Portal
- C&I Consumer
- Smart Meter
- Gas Meter
- Water Meter
- Imagination at work
Customers may choose **ANY** package depending on their current level of Smart Grid implementation **OR** build upon and upgrade previous packages:

### Packages

#### Core Package
- Meter Services (Electric-Water-Gas)
- Outage Detection
- GIS
- Prepaid Electricity Billing
- Consumer Web Portal

#### Advanced Packages
- Consulting
- Asset Management Suite
- Mobile (Field Force Automation)

#### Demand Optimization
- DRMS
- Consumer Web Portal

#### Future
- DMS
- Business Intelligence

### Can be delivered as:

#### Managed Service
GE manages everything and delivers the data to the utility.
*Ideal for:* Utilities who are resource strapped, seeking a “hands-free” solution

#### Hosted Service
GE hosts the software in a GE data hosting center for the utility to access and utilize.
*Ideal for:* Utilities who want control of software without having to maintain IT infrastructure.

#### Implementation Service
GE installs, commissions, and gets the system up and running, then hands operations over to the utility.
*Ideal for:* Utilities who wish to utilize their own IT staff and/or wish to own the assets.

* Dependent upon your utility’s current level of Smart Grid technology in place - to be evaluated by the GE GridIQ™ Engineering team
General Legal Issues

- Contractual Issues and General Concerns
- Planning for Incidents and Response
Core Legal Issues with Smart Grid Solutions

- The Contract
- Security and Privacy
- SLAs & Performance
- Exposure
- BC/DR
- Subcontractors
- Exit Rights & Strategy
- Installed Hardware
- Data Access and Preservation
• Similar issues with other cloud or outsourcing transactions
• Vendor contracts can be an off-the-shelf, standard solution, or a project-type contract
  • Don’t expect changes to off-the-shelf offerings that materially affect the vendor’s mode of operation
• Look for other incorporated documents
• Many risks can be mitigated through due diligence
Security and Privacy

- Single biggest concern
- Get your IT/InfoSec/Security Team involved at the beginning
- Do your due diligence
  - Start early
  - Consider reviewing at least the following:
    - Security policy
    - Past audits (SSAE16, Penetration Tests/Vulnerability Scans, etc.
    - Breach history (i.e., have they had a breach before)
- Consider a site visit
- Submit a questionnaire
  - Consider starting the questionnaire process by asking for the vendor’s security FAQ and asking appropriate follow-up questions. This greatly speeds up the process.
Address security requirements in the agreement (or an exhibit/attachment)
  ▪ Standards (e.g., CIP)
  ▪ Minimum requirements
  ▪ Ongoing practices and controls

Audit rights
  ▪ Address your audit requirements in the contract
  ▪ Anticipate that the vendor may push back against audit rights
  ▪ Address whether the vendor must perform separate third party audits
    ▪ Application scans, SSAE16, Penetration Tests, etc.

Incidents
  ▪ Discussed below
  ▪ Responsibility for your acts of your customers

Address compliance issues
  ▪ Does the vendor understand your requirements and your regulatory environment?
  ▪ Data collection, storage and disposal
Privacy is a sensitive issue
- Biggest source of consumer concern
- Consider appropriate limitations on vendor collection and use of information
- If it is available, it will be pursued by third parties
- Reconciling legal requirements of applicable legal regimes
- Inherent issues with virtual environments:
  - Where is your data now, where will it be?
SLAs and Performance

- **SLAs & Credits**
  - What is being measured and reported? How?
  - It will be up 99.x% of the time, except for “Downtime”. Read these carefully!
  - Are credits included? What are they?
  - Root cause analysis required?
- Software/Hardware failures and outages
- Force Majeure
- Scheduled Maintenance
  - When is scheduled maintenance? Will it conflict with your operations?
Exposure

- Security Breach (notification issues, etc.)
- Compliance with laws
- Pricing
  - Lock in
  - Price creep and increase
- Contractual
  - Many contractual obligations on the customer
  - Most risk shifted to the customer (e.g., compliance with law)
  - No or weak indemnity (in fact, you may be indemnifying them!)
  - Low limit on vendor’s liability
  - Few if any limits on the customer’s liability
  - Responsibility for your customers
Exposure (continued)

- IP
- Change in laws
- Disaster Recovery/ Business Continuity
- Tax
Does the vendor have a BC/DR plan?
- Reconcile with your legal obligations (e.g., CIP 009-3)
- Is there a recovery time objective or commitment?
- Is the vendor realistically operated and able to meet this commitment?
- How will the vendor help you during an incident (e.g., Sandy)?

What is your plan if this vendor goes down indefinitely?
- Can your software/platform/data/installed hardware be easily transferred to another vendor?
- What is the financial viability of your vendor?
  - Is anyone monitoring them?
- Do you have your data?
- Do you have APIs and interfaces to installed hardware?
Subcontractors

- Investigate the subcontractors that are material to the services provided to you
- Cloud SaaS vendors commonly operate their applications and platform on third party cloud infrastructure
  - What happens if something goes wrong with your vendor’s vendor?
Exit Rights and Strategy

- Think of this as a separation “prenup”
- What happens to installed hardware?
- Return of data, no matter what
  - Include desired format and right to data maps
  - Can the vendor isolate and return your data?
  - Will any residual data remain?
- Who has termination rights?
- How long will it take to transition?
- Termination fees? What is the total cost to terminate?
- Termination & Transition assistance?
- Equipment returns and compatibility issues
Data Access and Preservation

- Audit trails
  - Many laws require that data be capable of tracking and audit.

- Preservation of data for litigation
  - Does the service accommodate a litigation hold?
  - Can data be retained and separated for discovery?
  - Can you prove compliance?

- Are the Vendor’s storage and retention policies and practices consistent with your policies and practices?
  - Anticipate that the vendor’s systems will be discoverable
Planning for Incidents

- Pre-Contract Due Diligence
  - The Contract

Incident Response

- General Complexities and
  - Forensics Challenges
Again, get IT/InfoSec/security involved early

Much of the hassle of dealing with incidents can be reduced if you and the vendor have a common understanding w/r/t incident handling. For example:

- Understand what data/applications will be hosted and perform necessary security mapping and gap analysis against the vendor’s security policy and practices
- Ask for and review the vendor’s incident response plan. Does it work with your plan? Has it been tested?
- What countermeasures does the vendor employ?
- Investigate what incident detection and analysis tools the vendor uses.
- Is your vendor coordinated with its host vendor?
- How generally prepared is your vendor for an incident?

Understand your compliance obligations for the data and applications to be hosted.
Planning for Incidents: The Contract

Notification:
- Define Incidents. What is the materiality threshold for notification?
- When will the vendor notify you about an incident?
  - Only incidents that are known to affect you? Incidents that affect other vendor customers? Suspected, but not confirmed incidents? Access vs. Acquisition of data.
  - Make sure the timing and threshold meet your compliance obligations
- What does the vendor have to share with you about the incident?
  - E.g., type of attack, consequences of the attack, status of the incident, who was the attacker (employee?), the attacker’s apparent purpose, accounts compromised, etc.
Planning for Incidents: The Contract

- Investigations and Third Party Notification:
  - What is your role in the incident?
  - Will the vendor allow you to do your own investigation and bring in your forensics investigators?
  - Will a third party do the investigation?
  - Who will notify affected individuals and governmental authorities?
  - Will you get a copy of investigation reports?
  - Does the cooperation the vendor is willing to provide satisfy your legal and third party contractual obligations?
Planning for Incidents: The Contract

- **Damages:**
  - What are your monetary remedies in the event of an incident?
  - Can you recover incident-related damages from the vendor?
    - Are they excluded from the damages cap?
  - Are you indemnified from third party claims?
  - **Data Breach Insurance**
    - This is increasingly prevalent. Consider looking into your vendor’s data breach insurance. Note that it comes in many flavors. Also consider your own policy and whether it extends to your vendor’s actions.
Incident Response

- Service issues: Containment, eradication and recovery
  - How do these efforts affect you and the services you receive?
    - SLAs are generally weak, but its performance you want, not credits.
  - Can the incident be contained and eradicated without taking the entire system offline?
  - Is your data safe? Can it be exported?
- Vendor relations: Your interests and your vendor’s interests may quickly diverge.
  - The Vendor has its own liability to consider (to you, other customers, data subjects, governmental authorities, shareholders, etc.)
  - Incidents will be conducted with an eye towards litigation
Incident Response

- You will probably not be the only customer affected.
  - Multiple customers of your vendor will want to be involved in the investigation.
  - Who gets access? Will you get server images, logs, etc.?
  - Vendors may restrict your access to protect other confidential customer data
  - What about your customers?
- Governmental authorities may want input into the investigation.
- Consider privilege issues
Incident Response

- Forensics:
  - Who hires the forensics investigators?
    - Can you satisfy your investigation obligations?
  - Your data could be at data centers around the world.
  - VMs can overwrite data, fragment data, and make finding data difficult.
- PR
  - Make sure your PR team is engaged.
  - Be prepared to have your name mentioned in connection with the breach.
    - Are you identified on their website as a customer?
  - Be mindful of your confidentiality obligations.
Incident Response

- Notification:
  - Many issues involved with notification
    - What is the trigger event?
    - Timing
    - Who to notify
    - Content
    - Different audiences to consider
  - Sources of notification obligations
    - State breach notification obligations
    - NERC/FERC and other regulatory obligations
    - PCI-DSS?
    - SEC
More Information on GE Smart Grid as a Service (SaaS)

- For more information regarding GE’s Saas see:
  - [http://www.gedigitalenergy.com/demand_opt.htm](http://www.gedigitalenergy.com/demand_opt.htm)
Questions?

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