

NARUC SUMMER MEETING
July 18, 2009 10:15 – 11:45 a.m.
Staff Subcommittee on Telecommunications

Smart Grids: What Makes Them So Smart?
A Small Rural ILEC Perspective

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National Telecommunications Cooperative Association (NTCA)

NTCA – Estab. 1954, represents 580+ ROR rural telecom. providers across US. HQ = VA.

Members: Rural ILECs; some also provide wireless, cable, Internet, satellite and long distance services to rural communities.

All are rural telephone companies per Comm. Act of 1934.



“What we’re talking about is overlaying a communications network over our old power network.”

Andy Tang, senior director of smart energy web for Pacific Gas and Electric Co., commenting on Cisco’s smart grid technology – 5-18-09
<http://www.SFGate.com>.



Smart Grid – Power grid improvements:

- Situational awareness
- Prevention
- Management
- Restoration

Concern: Cybersecurity – more access points

Miles Keogh, NARUC Director, Grants & Research – 5/09 report.



Smart grids consist of real-time, two-way communications systems that allow consumers to make timely, effective decisions on electricity use as a function of price spikes.



“The market for communications equipment to support smart grid will reach \$20 billion annually over the next five years.”

Broadband NOI, UTC/EEI comment, 6-8-09.



“Achieving a smart grid for California will require the merging of two primary infrastructures: the electrical power system and a communications infrastructure,

including information systems that incorporate common information models and interoperability guidelines.”


Electric Power Research Institute report, 12-23-08.

The Demand Response Coordinating Committee

The Demand Response Coordinating Committee (DRCC) is a non-profit organization formed in 2004 to increase the knowledge base in the U.S. on demand response and facilitate the exchange of information and expertise among demand response practitioners and policy makers.

Demand Response = now done by aggregators for large companies

Smart Grid = Demand Response for Residential and Small Business Consumers



The DRCC has developed the following definition of
“demand response”

Providing electricity customers in both retail and
wholesale electricity markets with a choice

whereby they can respond to dynamic or time-based
prices or other types of incentives by reducing and/or
shifting usage, particularly during peak periods,

such that these demand modifications can address
issues such as pricing, reliability, emergency response,
and infrastructure planning, operation, and deferral.



US Dept. of Energy - \$3.9 Billion grant program 6-26-09 FOA - ARRA

- \$3.3 B – Smart Grid Investment Grant Program
- \$615 M – Smart Grid Demonstration Program
- Purpose: lower utility bills, lessen oil dependence, promote clean energy.



DOE's Smart Grid Demonstration Program – encourages pilot programs

Example: July 2008, MA Governor Patrick signed into law SB 2768, the “Green Communities Act,” which includes demand response, smart metering, and smart grid provisions.

MA - SECTION 85—Smart Grid Provision

4/1/09 - each electric distribution company - file proposed smart grid pilot program with MA DPU. Pilot program must use advanced technology to operate an integrated grid network communication system in a limited geographic area.

8/1/10 – DPU must review and approve or modify plans.

9/1/12 – MA Secretary of Energy and Environmental Affairs - report results to the joint committee on telecommunications, utilities and energy:

- changes in consumer's energy use patterns
- assessment of program to both participants and non-participants
- recommendations.



Mixed Reactions to Smart Grid Pilot Programs

- Boston Globe, 7-14-09, regarding Western Mass. Electric Co.'s pre-payment smart grid pilot program in Springfield, MA
- concerns about effects on low-income ratepayers.



FCC's Broadband NOI:

“Utilities have used their private internal networks to provide broadband services.” UTC/EEI Joint Comments, 6-8-09;

“Seven electric cooperatives ... are providing broadband access to their customers, using BPL [broadband over power line] service provided by IBEC and IBM ... funded in part with loans from the USDA's Rural Utility Service broadband loan program.”). NRECA Comments, 6-8-09.



NTCA: Smart grids, an integral part of the Obama Administration's broadband plans, are intensive high-consumption users of Internet services which, consequently, can place substantial demands on broadband providers.



NTCA: Utility groups are asking the FCC for favorable treatment by allocating 30 MHz of spectrum in the 1800 – 1830 MHz range to smart-grid applications without the necessity of bidding at auction.

Broadband NOI - UTC/EEI Joint Comments, pp. 10-11; NRECA Comments, p. 12.



NTCA: Smart grid enticements (ARRA grants) to utilities will encourage entry into telecom sector – broadband.

One result: Broadband competition between electric and telco in remote rural areas using federal dollars.

One question: How will this affect telco access to electric poles?



NTCA: Utilities are stifling broadband services competition by barricading their poles through unreasonable and unjustified rates, terms and conditions.

- As part of the national broadband plan, the Commission should modify the pole attachment rules to create a dispute resolution mechanism to allow ILECs to resolve complaints of unjust and unreasonable pole attachment rates, terms and conditions against utilities.



NTCA: Utilities can control the broadband consumption of smart grids by controlling access to their poles.

Utilities will have an unfair advantage over rural telcos who must pay excessive rates without recourse.



NTCA: Small rural ILECs and their customers are entitled to just and reasonable rates, terms and conditions for pole attachments.

NTCA: Rural ILECs need and deserve a remedy mechanism by which ILECs can present claims of unjust, unreasonable pole attachment rates, terms and conditions imposed by utilities.



NARUC Proposed Draft Resolutions – Summer Mtg.

Resolution on Smart Grid – pp. 17-18
10 principles

Alternative Resolution on Smart Grid – pp. 27-28
10 principles

Pay attention! – not on Telco Committee roster

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