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Senate 'smart grid' hearing - first step toward new energy bill

By Jon H. Harsch

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In the first of a four-part series of key hearings to prepare for drafting a comprehensive Senate energy bill, the Senate Energy & Natural Resources Committee held hearings Tuesday on "smart grid" initiatives and technologies. Committee Ranking Member Lisa Murkowski (R-AK) noted that since the stimulus bill has provided \$4.5 billion for smart grid technology, wise policy choices must be made quickly to avoid "investing in technology that may become obsolete."

Witnesses and Senators sparred over whether it makes sense to set standards immediately for technologies that are still being developed. Dr. Patrick Gallagher of the National Institute of Standards and Technology which is responsible for writing standards said that "You can't write a standard for a technology that doesn't exist yet."

Former astronaut Edward Lu, heading up smart grid technology development at Google, pointed out that Google already has a pilot program in place that allows Lu and other Google employees to monitor their home electricity use from their cell phones. He compared the present inefficient system of electricity distribution to making shoppers patronize a grocery store with no prices and no check-out aisles – just an incomplete, incomprehensible bill at the end of each month. Lu said studies show that informed consumers cut their energy bills by 5 to 15 percent. He said that if just half the nation's consumers cut their electricity use by 10 percent, the savings would equal taking eight million cars off the highways.

Senator Mark Udall (D-CO) pointed out that Boulder, Colorado's "SmartGridCity" demonstration is leading the way by giving some residents the ability to "program their dishwashers to start when energy prices are low from their BlackBerries or use energy stored in a hybrid car battery to wash clothes." He also pointed out that for Boulder's experiment, "the federal government has not contributed to the approximately \$100 million cost. The fact that private, profit-driven companies put so much money towards this experiment shows just how promising this technology is."

Udall said "Smart grid technology will play a critical role in making all Americans smarter and better informed about how we use our energy. By providing up-to-the minute information about how much energy each individual is using and conveying the price at

that moment for that energy, this technology allows consumers to be the ultimate decision-makers about their energy use.”

To make this future happen, Senators and witnesses agreed that uniform national standards must be developed. They called for replacing the patchwork quilt of state-regulated systems and “decades old technology” with instantaneous, two-way, nationwide “interoperability.” They also agreed that this replacement won’t happen unless the public is educated to understand the potential benefits and accept the upfront costs.

The Senate Energy Committee’s next three hearings scheduled to prepare for introducing energy legislation are:

1. Energy R&D, March 5th, with testimony from Energy Secretary Steven Chu.
2. Water Development and Energy Production, March 10th, on legislation to authorize an in-depth analysis of the impact of energy development and production on national water resources.
3. Electricity Transmission, March 12th, on legislation on siting electricity transmission lines to include increased federal siting authority and regional transmission planning.

To read the “smart grid” witness statements or watch the hearing webcast, go to:
http://energy.senate.gov/public/index.cfm?FuseAction=Hearings.Hearing&Hearing_ID=aa1ce631-aae4-f0e3-0756-d667268c8551

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