

**STATE OF NEW YORK
PUBLIC SERVICE COMMISSION**

**Proceeding on Motion of the
Commission Regarding an
Energy Efficiency Portfolio
Standard**

Case 07-M-0548

**CURRENT GROUP, LLC COMMENTS ON
STAFF'S PRELIMINARY PROPOSAL FOR ENERGY
EFFICIENCY PROGRAM DESIGN AND DELIVERY**

CURRENT Group, LLC¹ (“CURRENT”) hereby submits its comments on the Department of Public Service Staff’s August 28, 2007 Preliminary Proposal For Energy Efficiency Program Design And Delivery (“Staff Proposal”). As the Staff Proposal observes, Governor Spitzer’s “15 by 15” goal – a 15% reduction in energy use in 2015 compared with present projections for that year – “is the most ambitious energy reduction goal, in terms of total energy savings, of any program in the nation.”² CURRENT applauds the Staff’s significant efforts at addressing this monumental task, and supports its recommendations for expanding the State’s energy conservation efforts.

At the same time, however, CURRENT urges both the Staff and Judge Stein to recognize that the ambitious scope of the 15 by 15 goal calls for broad and creative thinking about energy efficiency solutions. New York can and should do more to pursue underexploited traditional

¹ CURRENT, a privately held company based in Germantown, Maryland, and with its Network Operations Center and other operations in the Rochester, New York area, is the nation’s leading provider of Broadband over Powerline (BPL) solutions and services to electric distribution companies worldwide. The *CURRENT*[®] BPL portfolio includes BPL network equipment, software solutions and *CURRENT* Smart Grid Services, which are electric utility applications that enable real time management of the electric grid. CURRENT is also a fully integrated communications service provider offering high performance broadband Internet services to consumer and business users over existing electric power lines and in-home electric wiring. Further information about CURRENT is available at <http://www.currentgroup.com>.

² Staff Proposal, p.4.

efficiency measures such as improved building codes and appliance standards, weatherization programs and the like – there are substantial, cost-effective energy reductions yet to be wrung from such measures. Nevertheless, New York will not achieve its 15 by 15 goal merely by doing more of the same – new technologies must become an essential component of the State’s energy conservation regime. In particular, upgrading New York’s electric distribution infrastructure to make it a “Smart Grid” can both directly save significant amounts of energy and enable other programs, such as enhanced demand response and distributed generation, to help make the 15 by 15 goal a reality.

The Electric Power Research Institute (“EPRI”), an independent, nonprofit center for public interest energy and environmental research, projects that by reducing inefficiencies in the existing power grid, Smart Grid-enabled electrical distribution could reduce electrical energy consumption by 5 percent to 10 percent and carbon dioxide emissions by 13 percent to 25 percent.³ These figures do not include savings that can be achieved from utilizing a Smart Grid to facilitate and enhance other conservation strategies. A 2004 EPRI analysis of 11 peer-reviewed studies found that widespread adoption of Smart Grid devices such as an “intelligent air conditioning unit with embedded software and hardware capable of two-way interacting with the power system” could produce a median achievable savings of 24% of total U.S. electricity demand.⁴ A Smart Grid permits electric utilities to increase the efficiency of their existing electric distribution networks by enabling real time collection and analysis of power supply and usage data from distribution network elements and from millions of end user devices. A Smart Grid connects advanced meters, smart thermostats and other load control devices in homes and

³ Electric Power Research Institute, *Electricity Sector Framework for the Future: Achieving the 21st Century Transformation* (Aug. 2003), page 42 (“EPRI Report”), available at: http://www.globalregulatorynetwork.org/PDFs/ESFF_volume1.pdf.

⁴ Michael W. Howard, SVP, Electric Power Research Institute, *Facilitating the Transition to a Smart Electric Grid*, House Energy & Commerce Subcommittee on Energy and Air Quality, May 3, 2007.

businesses directly to the utility through a broadband communications network that overlays the electric distribution system. This enables meters and other end-user energy management devices to provide users with information about wholesale prices and reliability events as they change in real-time. Alternatively, because many consumers do not have the time or desire to monitor and respond to such information, a Smart Grid allows the utility to administer demand response programs with surgical precision. Because a Smart Grid provides a broadband, low latency connection to virtually every electrical outlet, a utility can use CURRENT's software solutions to control literally millions of demand response customers and verify the amount of load shed in real time. For example, a Smart Grid can cycle down 1,000,000 air conditioners one degree, instead of 10,000 air conditioners at four degrees; or it can adjust only units served by particular substations or customers who have agreed to specific pricing plans. A Smart Grid also will allow the Commission to reduce demand by enabling time of use pricing plans.⁵ And because a Smart Grid permits real-time monitoring of electricity use at the individual customer level, it greatly reduces the thorny problems of measurement and verification that traditionally plague energy efficiency programs.⁶

CURRENT understands and supports the aim expressed in Judge Stein's June 22nd Order to "focus initially on measures to be considered for ready adoption" (p.2). To that end, CURRENT emphasizes that the Smart Grid satisfies that criterion. CURRENT is deploying its Smart Grid in and around Dallas/Fort Worth, Texas with Oncor Electric Delivery (formerly known as TXU Electric Delivery). CURRENT's Texas system, which ultimately will reach

⁵ There is a rapidly accumulating body of evidence suggesting that providing customers with real-time information about their energy usage and its costs at different times of day serves, in itself, to reduce consumption. *See, e.g., Electricity Deregulation: Taking the Next Step*, National Center for Policy Analysis, Aug. 9, 2007 (<http://www.ncpa.org/pub/ba/ba592/>).

⁶ For more information about the Smart Grid's capabilities, see the Written Statement Of James D. Mollenkopf For The July 19-20, 2007 Overview Forum, previously filed by CURRENT in this proceeding.

almost two million homes and businesses, already passes over 100,000 homes and is being used to read over 60,000 advanced meters at 15-minute intervals (as well as on-demand), with installation continuing at a rapid pace.⁷ In addition, the system allows network monitoring that can detect problems before they cause power outages, safety hazards or system quality problems. In Dallas, CURRENT's technology "has already allowed Oncor to detect grid problems before they cause outages,"⁸ and also provides power outage and restoration detection when problems do occur. Further, CURRENT will support demand side management programs over its Smart Grid network with numerous retail electric providers in Texas.

Governor's Spitzer's 15 x 15 goal is, by design, too ambitious to be achieved merely by pursuing traditional approaches to the challenges of energy conservation in the 21st century. CURRENT urges the Commission to explore and adopt new strategies and new technologies, including a Smart Grid.

Respectfully submitted,

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⁷ See, *Oncor's 'Smart Meters' Kicking Off BPL System*, Dallas Morning News, Sept. 19, 2007 (<http://www.dallasnews.com/sharedcontent/dws/bus/industries/energy/stories/dnbus091807oncor.35afb11.html>)

⁸ *Id.*