

**American Recovery and Reinvestment Act of 2009
Smart Grid Matching Funds, NTIA Broadband Technology Opportunities
Program and the RUS Program on Broadband**

**Remarks of CPUC Commissioner Rachelle Chong
Joint Informational Hearing - Senate Energy, Utilities and Communications and
Assembly Utilities and Commerce
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I am Rachelle Chong, a Commissioner of the California PUC. It is a great privilege to be here today to report on the Smart Grid and Broadband portions of the American Recovery and Reinvestment Act (Recovery Act).

Smart Grid

The Recovery Act appropriated \$4.5 billion for activities to modernize the electric grid, also referred to as Smart Grid. The US Department of Energy (DOE) is administering these funds. To date, DOE has provided little detail on how it plans to administer the funding. However, I would like to review steps we are already taking at the PUC, based on what we know, to increase the chances that federal funds flow to California for Smart Grid.

We are pleased that Congress has recognized that incorporating information and control technologies into the electric grid can support three goals: (1) the expansion of renewable energy, (2) empowering consumers, and (3) improving reliability.

We believe DOE will fund two programs that were authorized in the Energy Independence and Security Act of 2007 (EISA). One of those programs will provide up to 50 percent matching funds to establish Regional Demonstration Projects. The other program will provide grants to pay up to 50 percent of “qualifying Smart Grid investments.” We expect that utilities and other entities

will have an opportunity to apply for Smart Grid matching funds on a competitive basis. For many potential applicants, the challenge will be obtaining the 50% matching fund requirement.

The Federal Energy Regulatory Commission and the National Association of Regulatory Utility Commissioners formed a collaborative group last year focused on Smart Grid. I represent California on that collaborative. The Smart Grid collaborative submitted input to encourage DOE to adopt funding criteria that are fair and on the cutting edge.

Back at the CPUC, we have been a national leader in this area. In December of 2008, prior to the signing of Recovery Act, the CPUC began a rulemaking to consider policies for California's investor-owned utilities to guide the development of a smarter electric grid in the state.

In that proceeding, the PUC will be holding a March 27th workshop specifically focused on the Smart Grid portions of Recovery Act. We have asked the utilities, consumer groups and other innovative companies in this space to share with us their plans to pursue Smart Grid funding, hopefully with an emphasis on demonstration projects that advance the ball. We intend to focus in particular on what the PUC can do to support California companies. We have been coordinating with the California Energy Commission and California ISO in these areas.

The investor-owned utilities are already making significant Smart Grid investments, and in some areas are regarded as national leaders. Let me provide three examples:

First, the PUC has approved funding for the three largest IOUs to install 11 million advanced electric meters, covering their entire service territories. The new meters are being installed now and will be completed by 2012.

Advanced meters are a key component of the Smart Grid. These new meters will provide the utilities more detailed information on customers' energy use remotely, without visiting a customer's meter. This new information will help utilities detect outages more quickly and reduce operating costs.

The meters will also be powerful tools for consumers. For the first time, consumers will be able to understand how they use electricity on a real-time basis, because -- for the first time -- we can send a frequent energy price signal to consumers and encourage them to conserve energy during peak energy periods. By sending real time pricing signals and encouraging conservation, we expect to be able to shave peak electric demand by enough so that that we need not build new power plants and can take off line more polluting and expensive peak energy generation units. The PUC has been directing the utilities to put in place dynamic pricing rates that give consumers an opportunity save money by making smart energy choices.

We expect the new smart meters will also lead to new innovations from Silicon Valley and other technology centers. For example, recently Google announced a new on-line Google Gadget PowerMeter tool to help customers understand their daily energy use.

Second, Southern California Edison has installed systems called "Synchronized Phasor Measurement Systems" on its transmission grid. These systems enable Edison to see where action must be taken to avoid blackouts. In the future, these systems may be able to anticipate problems and automatically isolate certain parts of the grid to keep outages contained.

A third example is San Diego Gas & Electric's "microgrid" pilot project. The idea of a microgrid is to develop systems that tie together distributed generation, such as fuel cells, energy storage and end-use demand, in a limited portion of the grid. In an emergency, a microgrid could disconnect from the rest of

the grid and continue providing reliable service. Microgrids could be very valuable in areas where there are critical facilities like hospitals or fire stations. SDG&E is working with the California Energy Commission and US Department of Energy on this project.

I hope that the publicly owned utilities also join the investor owned utilities in applying for federal funding to advance their Smart Grid projects.

Looking beyond the utilities, it is a fact that California is also home to some of the leading providers of Smart Grid products and services. As such, even for the funding that goes to projects outside of our state, California companies will have opportunities to benefit through their involvement in those out-of-state projects.

Broadband

I will now shift gears to talk about the portion of the Recovery Act that deals with broadband. The Act requires the National Telecommunications and Information Administration (NTIA) – a part of the Department of Commerce – to establish a Broadband Technology Opportunities Program (the “BTOP”). The Recovery Act also establishes authority for the Rural Utilities Service (RUS) – a part of the Department of Agriculture – to make grants and loans for the deployment and construction of broadband programs in rural areas. California has a good chance at the BTOP dollars and less chance at the RUS dollars. The available dollars are significant. There is \$7.2 billion in the Recovery Act for broadband with a bit targeted to the Digital TV transition.

NTIA

The NTIA Broadband Technology Opportunities Program (BTOP) has \$4.7 billion in funding to stimulate demand and bring greater use of broadband services, while contributing to economic growth and job creation. Of that \$4.7 billion:

- There is \$350 million for the Broadband Data Improvement Act, which is for national map of broadband availability. California has done its broadband mapping through our Broadband Task Force exercise a few years ago, but we intend to apply for money to update the map.
- There is \$4.3 billion for broadband grants:
 - In that \$4.3 billion, at least \$200 million should go to expanding public computer center capacity, including community colleges;
 - At least \$250 million should go to sustainable broadband adoption projects;
 - \$10 million goes to the Inspector General for audits and oversight of the program; and
 - \$650 million of this amount goes to the non broadband related Digital TV converter box program (of which \$90 million goes to education outreach to vulnerable communities).

The NTIA BTOP program provides opportunities for California:

- (1) First, it allows providing broadband service to unserved and underserved areas. Because the CPUC has a similar program called the California Advanced Services Fund, we anticipate being able to gather applications quickly to bring broadband access to more unserved and underserved areas, with some changes in the CASF to reflect the NTIA criteria. Most importantly, we can increase the current 40% CASF infrastructure grant to at least a 80% match with federal dollars and perhaps higher with CASF funds.
- (2) NTIA's program focuses on bringing broadband education and support to schools, health care providers and community organizations. We have many schools, libraries, and community based groups who currently use

broadband technology to enhance their activities. They can apply for broadband related programs. The California Emerging Technology Funds has agreed to devote another \$1 million in matching funds for the California Telehealth Network so we can bring fast broadband to about 1,000 health care sites, not just 500 sites throughout the state.

- (3) NTIA focuses on helping organizations get broadband service that assist vulnerable populations, including job creation strategic facilities. Our state's California Emerging Technology Fund already has some grantees performing this type of job creation work, and is prepared to help them prepare applications for NTIA grants.

The federal share of the project may not exceed 80%, and a 20% match is required. An applicant may petition for a waiver however, if there is financial need.

The allowable uses of the broadband funds are quite expansive, and can include broadband service infrastructure, hardware/software, equipment, instrumentation, and network capability. It also allows funds for ensuring access to broadband service by community anchor institutions, access to broadband service by vulnerable communities for education and employment opportunities, and for broadband facilities to improve public safety broadband communication services.

RUS

The Rural Utility Service has \$2.5 billion for rural broadband access in the form of grants, loans or loan guarantees for distance learning, telemedicine and broadband funding. While funding is available for anywhere in the US, RUS requires that at least 75% of an area to be served by the project must be a rural area without sufficient high speed broadband access.

There is no double dipping between the RUS and NTIA broadband programs. The NTIA and RUS emphasized they wish to deploy half the money by

end of this fiscal year and the other half by end of next fiscal year. Further, they want the projects finished in 24 months of grant.

We were pleased to see the NTIA is advised in the Recovery Act to consult with the States on where the broadband grants should go. Accordingly, the Governor's Office has asked the CIO's office to coordinate the broadband projects, with advice from state agencies, such as the CPUC, BTH and others, in addition to the California Emerging Technology Fund (CETF).

The CETF is a program with \$60 million in seed capital to help bridge the digital divide in California. CETF has funded dozens of community based organizations who are working hard on a broad variety of broadband related projects, including tech job creation, community computer centers for urban disadvantaged communities, computer training for seniors, tele-education and tele-medicine. The signature project of CETF is the California Telehealth Network, which with a \$22 million grant from the FCC, will be a state of art telemedicine network ultimately encompassing 500-1000 health care sites.

I attended a public meeting with NTIA, RUS and the FCC last week to learn more about the broadband grant application process. In short, NTIA and RUS have not yet set the process, but announced six public workshops to obtain input. Three of the workshops are in Washington DC, and one each in Las Vegas, Nevada and Flagstaff, Arizona.

Also last week, I participated in a meeting between NTIA and the National Association of Regulatory Utility Commissioners to discuss the state consultative role. The states are urging the two agencies to allow the states to gather and rank the applications, and make recommendations to the NTIA on what should be granted, consistent with the priorities of the state.

It is unlikely that any of the broadband stimulus funds will flow directly to California as a state block grant; however, we have the opportunity to make sure California's priorities are known. By leveraging our existing broadband programs, California is well positioned to rapidly apply for and use federal broadband stimulus. The federal broadband stimulus bill dovetails nicely with California broadband initiatives created through the foresight of the Governor, Legislature, and state agencies like the PUC.

On March 23rd, the CPUC is hosting a workshop at the CPUC to gather possible applicants for these broadband grants to begin educating them on the Recovery Act opportunities and encouraging them to put together applications once the criteria is set by RUS and NTIA. We hope to have a broad variety of folks there, including broadband providers, grant hopefuls, rural phone companies, and localities. Our desire is to maximize broadband grants to our state.

I would be happy to answer any questions you may have.