State of California **Public Utilities Commission**
San Francisco

M E M O R A N D U M

Date : April 29, 2009

To : The Commission
(Meeting of May 7, 2009)

From : Gretchen Dumas, Legal Division
Tom Flynn, Energy Division
Chris Villarreal, Planning & Policy Division

Subject : Staff Seeks Authority to file Comments regarding FERC's proposed Policy Statement and Action Plan for a smart electrical grid (FERC Docket No. PL09-4-000)

RECOMMENDATION: The Commission should file comments regarding the Federal Energy Regulatory Commission's ("FERC") proposed Policy Statement and Action Plan for a Smart Electrical Grid that are consistent with the discussion below.

BACKGROUND: On March 19, 2009, the FERC issued its proposed Policy Statement and Action Plan to articulate its policies and near-term priorities to help achieve the modernization of the Nation's electric transmission system, one aspect of which is "Smart Grid" development. FERC's proposed Policy Statement and Action Plan focuses on the development of key standards to achieve interoperability of Smart Grid devices and systems. The FERC also proposes a rate policy for the interim period until interoperability standards are adopted. Smart Grid investments that demonstrate system security and compliance with commission-approved reliability standards, the ability to be upgraded, and other specified criteria under the FERC plan will be eligible for timely rate recovery.

The Commission initiated an Order Instituting Rulemaking ("OIR") on December 18, 2008, (R.08-12-009) to "consider setting policies, standards and protocols to guide the development of a smart grid system and facilitate integration of new technologies such as distributed generation, storage, demand-side technologies and electric vehicles." The Smart Grid OIR acknowledges that while federal law sets forth various requirements that the Smart Grid must meet, it does not define a "qualified smart grid system" for the purposes of state consideration of a smart grid forward-looking regulatory program. The Smart Grid OIR also notes that since technology is advancing too quickly for a one-size-

fits-all definition of a smart grid, it will seek to develop a set of characteristics and general principles that is technology neutral.

Commission staff is working collaboratively with other California regulatory agencies and entities, including the California Energy Commission ("CEC") and the California Independent System Operator ("CAISO"), which are also tasked to assist in developing a national Smart Grid policy. In addition, the Commission, through Commissioner Chong's office, has actively participated in the FERC-NARUC Smart Grid Collaborative.

Many of the questions raised by FERC in its Policy Statement will be explored in the Commission's OIR. As part of this proceeding, we will be holding five workshops over the summer addressing areas that overlap with FERC's interests. Specifically, we will be holding workshops on: Consumer Issues, Smart Grid and the transmission system, Smart Grid and the distribution system, electric vehicles, and a final workshop that addresses several regulatory questions, including return on investment. It should be noted that the issue of cyber-security, while not the subject of a stand-alone workshop, will be part of each of the five planned workshops. Finally, FERC's Policy Statement raises an overarching issue of federal versus state jurisdiction that needs to be addressed.

DISCUSSION:

Standards and Protocols

FERC asks for comments on a number of questions relating to standards and protocols that may or should be adopted by the National Institute of Standards and Technology (NIST). FERC already has the regulatory authority to implement such standards once they are adopted. The Commission should support the development of Smart Grid standards while advocating that any standards adopted by NIST should not be made mandatory, primarily because of the regional nature of the power system itself. Some grids may be able to more quickly implement these standards, and at a lower cost. Some states may not be advanced enough to be able to implement these standards without significantly higher costs, whereas other states may decide to require more stringent standards and requirements. States and electric companies should accordingly have significant leeway, as befits their local situation, in how they determine to implement any NIST-adopted standards.

Moreover, state commissions (and not FERC) should have the authority to direct their electric companies to institute certain NIST-adopted standards to the state-jurisdictional distribution network. The Commission should be concerned about any effort on the part of FERC to implement mandatory protocols in areas that are traditionally under state jurisdiction, such as the distribution network and behind-the-meter installations.

OIR Workshops

The Commission will be hosting a series of workshops pursuant to its own rulemaking on creating a Smart Grid for California. Our comments to FERC should note that these workshops will cover several of the same issues on which FERC is seeking comments, and that the CPUC will share the results of our workshops with FERC so that FERC will

have a greater understanding of what is occurring at the state level. In this regard, we should again suggest that FERC needs to respect the ability of the states to set their own policies with regards to areas traditionally under their jurisdiction.

Consumer Issues

In our workshops, the Commission will be looking into areas such as customer access to usage and prices, interoperability between customer-owner devices and the Smart Grid, and cyber-security issues. Based on this examination, the Commission expects to be able to identify ways in which individual consumers can benefit from a smarter electric grid and contribute to the achievement of various California-wide policy goals, such as increased energy efficiency and demand response. Our comments to FERC should express support and appreciation for FERC's commitment to pursue direct communications with the States on the demand response elements of Smart Grid through the NARUC-FERC Smart Grid Collaborative. Our comments should note that the Smart Grid has the ability to enable customers to make more informed decisions about their usage, as well as how they may want to interact with the larger grid, if they so choose, and that the states have an important role in reducing barriers for more wide-spread customer adoption of Smart Grid technologies and in encouraging innovation for these technologies in the marketplace. In other words, while demand response may benefit the bulk power and interstate transmission of electricity that is within FERC's jurisdiction, much of the Smart Grid infrastructure that supports demand response is firmly within the jurisdiction of the states.

Transmission

The Commission will be holding a workshop to address how Smart Grid issues may impact the transmission system. This workshop will address topics including the integration of renewable energy and large scale storage, wide-area situational awareness, dynamic limits on transmission lines, and facilitating non-utility investments. Although we recognize FERC's primary jurisdiction over the transmission grid, our comments should point out that this Commission and other States have an interest in ensuring that Smart Grid-related investments in the transmission system are done prudently, and are in line with State policy goals.

Distribution

The Commission will also be holding a workshop to address how Smart Grid issues may impact the distribution system. This workshop will address customer-side distributed generation and storage, extending situational awareness into the distribution system, increasing distribution system efficiency and automation, and cyber-security issues. Arguably, Smart Grid investments will have the greatest impact on the distribution system, as customers become more aware of their actions, and resources become more decentralized and diffuse. Our Comments should emphasize the primary role of State Commissions in overseeing investment in these distribution system-related Smart grid technologies.

Electric Vehicles

The Commission's workshop process will also be addressing system upgrades that may be needed to accommodate the potential effects on the grid from the widespread implementation of plug-in electric vehicle ("PHEV") technology. This is also an issue of great interest to FERC, and our comments should emphasize the need for careful state-federal coordination on this issue.

Jurisdictional Concerns

The Commission's workshops should give us a very good idea of what policies would be best for California in moving towards creating a smarter grid for the state. It is essential for FERC's own actions in this area to be harmonized with the policies that the states, such as California, adopt based on their own investigations into Smart Grid technologies. For this reason, our comments to FERC should seek clarification on a number of issues that are raised in the FERC's Policy Statement.

Specifically, we should seek clarification on the following points: (1) how does FERC propose to define the impacts of Smart Grid technology on the bulk power market; (2) which types of technologies on the distribution system does FERC intend to provide rate-recovery; (3) which types of technologies on the customer-side of the meter does FERC intend to provide rate-recovery; and (4) under what authority does FERC intend to claim to possess jurisdiction over both distribution and customer-side investments that are traditionally under state authority.

Furthermore, the Commission should also express its concern about the prospect for double recovery of Smart Grid-related investments pursuant to the Federal Stimulus bill. The Commission is in the process of creating a mechanism for Commission-jurisdictional utilities to recover from rate payers the remaining 50% of costs for any Smart Grid related projects chosen for funding by DOE. However, FERC's Policy Statement appears to allow IOUs to apply to FERC for cost recovery for demonstration projects, including projects that would otherwise be under the jurisdiction of this Commission. The Commission should communicate that we need to have the opportunity to review and decide on the cost effectiveness of Smart Grid investment within our jurisdiction that affects ratepayers.

Finally, the Commission's comments should state the Commission's appreciation of FERC's involvement in moving towards a smarter grid, (i.e., we should acknowledge FERC's desire to encourage Smart Grid), and its understanding of the need for FERC to create rules and allow for recovery of certain investments. We do plan to work with FERC, as well as NARUC and other states in the West, to coordinate policies and investments where needed, and we will gladly share with FERC any results from our own Smart Grid rulemaking, in order to keep FERC informed on the progress we are making here in California. In this regard, we should invite FERC to attend any and all of these workshops to get an "on-the-ground" view of issues and concerns that may be raised by parties here in California.

However, we should emphasize that it is imperative that FERC not merely allow for the states to have a say in this process, but also to understand and acknowledge that this

Commission has a direct role to play in creating this new grid for California, just as other state commissions have similar roles in their respective states. Thus, FERC should recognize that this Commission is responsible for implementing many of the states' ambitious policy goals, and this Commission is in the best position to address concerns as they pertain to California's customers and ratepayers. FERC should accordingly take no action to interfere with, or preempt this critical, coordinated role that the states have in moving our nation toward a smarter and more efficient electrical grid.

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