Draft Agenda (4/18/2011)

Rule 21 Working Group Workshop, April 29, 2011

In the ten years since Rule 21's last reform, utilities in California have interconnected [75,000] distributed renewable energy generating systems. This enormous increase in volume has been accompanied by wide variation in output (ranging from serving only onsite load to wholesale exporters), , and new metering and operating technologies. These changes, alongside California's ambitious renewable energy goals, have naturally focused marketplace and regulatory interest on the need for sound interconnection policy. Rule 21's technical standards and procedures must remain robust to serve as California's key distributed generation interconnection tariff.

The CPUC has learned of the problems set out below from utilities, generators, advocates, and customers. The CPUC has two objectives for this workshop:

1) Build consensus on the open and urgent issues affecting Rule 21 and the interconnection of DG resources.

2) Brainstorm outcomes that would resolve these issues and ensure Rule 21's ongoing viability.

## Agenda

**I. Overview – CPUC Staff** **10:00 – 10:30 AM**

- Introductions
- Housekeeping
- Workshop objectives and scope
- Problem statement

**II. Rule 21 Working Group Accomplishments, 2000-2008** **10:30-11:00 AM**

- Accomplishments and key items learned to carry forward

**III. Stakeholder Discussion and Feedback** **11:00 AM – 12:00 PM**

1. The current Rule 21 is based on a low penetration methodology that seeks to avoid/minimize the impact of generators interconnections on the existing design and operation of utilities' distribution systems. What specific types of issues are emerging in the marketplace that may be overtaking this methodology?

    a) Volume-related: Is the volume of either customer-side or system-side applications leading to system effects? How will the current low-

penetration approach affect the system reliability at higher DG penetrations? When do we transition from low penetration approach to high penetration approach? At high penetration, how do we handle the units interconnected using low penetration methodologies? Should we allow active voltage regulation at higher penetration? Also, at high penetrations, do we need to require the larger DG's to be under system operator control? Do we need a high-speed real-time computer along with the communication infrastructure to control the DG's at higher penetration? What publicly posted queue information would be helpful to IOUs and customers?

b) Cost-related: What trends are emerging in the cost of distribution system upgrades as the volume of DG is growing? As Rule 21 now serves 20,000 simplified customer interconnections annually, should certain costs be tracked? Should the definitions of shared assets (where upgrade costs are borne by all ratepayers) and customer-specific assets (where the customer bears costs) be altered? If Rule 21 should contain a cost allocation methodology, what principles should guide it?
With higher penetration levels may not be able to rely on certification to trip the DG's during fault or inadvertent islanding situations therefore one of the major cost drivers will be installation of teleprotection transfer trip to ensure the larger DG's are tripped off-line during abnormal system condition.

c) Study-related: What trends are emerging in the volume and electrical interdependence of Rule 21 applications that point to the need for changes to the Rule 21 study process, such as defined timelines or methodology? Is coordination with CAISO needed? Is coordination with each IOU's WDAT study needed?

d) Export-related: If wholesale exporting systems are to be interconnected to IOU distribution systems under Rule 21, how should the technical screens be adapted? Can a standard interconnection agreement be developed for the new context of CAISO markets?

e) Research-Related: What studies can we look into to better monitor and support our interconnection issues? Can we study the interaction between different certified DG technologies and inverters and DG technologies interconnected in close proximity (for example, machine based and inverter based generators)? What other research needs can the group identify not already covered? How should storage issues be addressed?

**LUNCH** **12:00 - 1:00 PM**

**IV. Stakeholder Discussion and Feedback** **1:00 – 2:30 PM**

1. Continue discussion from the morning session as needed.

2. In 2008, the Rule 21 Working Group identified dispute resolution as an issue. Is this an issue today?

3. The Commission requires language in Rule 21 tariffs to be consistent among IOUs and with state law. Have inconsistencies emerged since 2008 that need to be addressed?

4. At present, the California Energy Commission is not conducting certification for new DG technologies whose users could interconnect under Rule 21. Has a significant amount of new operating and metering technology come to the market that merits consideration for certification so that customers can interconnect using Rule 21?

**V. Rule 21 WG Structure and Process**

Process, structure, and governance: How should the Rule 21 working group be organized? Preference is to separate the working group into two subgroups: 1) policy/process and 2) technical group. How can we prioritize to achieve the best results? Should subgroups be further delineated to address 1) low kW "fast track" projects and 2) larger and exporting project? How often should the group and subgroups meet? What if group consensus is not reached? How should we structure this group in coordination with Re-Dec (perhaps Re-Dec handles research, and broad policy-related issues, while Rule 21 working group focuses directly on the Tariff)?

**VI. Wrap-up** **2:30 – 3:00 PM**

Summary and Next Steps