Rulemaking:	12-03-014
Exhibit No.:	CEJA x SDG&E – 2
Commissioner:	Florio
ALJ:	Gamson

Order Instituting Rulemaking to Integrate and Refine Procurement Policies and Consider Long-Term Procurement Plans	R.12-03-014 (Filed March 22, 2012)

SDG&E Website Article About WEIL
(http://www.sdge.com/newsroom/press-releases/2012-03-07/weil-urges-adoption-smart-inverters)

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA
October 28, 2013

The Western Electric Industry Leaders (WEIL) Group Urges The Adoption Of Smart Inverters On All New Solar Generators

Aug 7, 2013

Category: Energy Efficiency, General, Renewable Energy

SAN DIEGO, August 7, 2013 – The Western Electric Industry Leaders (WEIL) Group is urging the installation of "smart inverters" on all new solar generators in the region to ensure the smooth integration of these environmentally friendly resources onto the electric grid. This vital technology would allow the effective integration of these solar installations by providing the necessary voltage support for these intermittent resources, which can cause power quality problems and reliability impacts because of fluctuations in their generation output. The smart inverters would help ensure the integrity and reliability of the overall electrical system and enable the increased use of clean renewable energy for the benefit of the community.

WEIL has released a report detailing the immediate need for smart inverters and a letter urging all relevant state public service commissions and/or legislatures to act decisively on this issue to ensure the reliability and safety of the grid for the region's millions of customers. WEIL is comprised of executive leaders from numerous utility companies, government agencies and other organizations that provide reliable electricity to millions of citizens throughout the Western United States, serving and empowering their lives each and every day. Many of these utilities have been called to integrate large amounts of clean, renewable energy into the interconnected electric system, and to do so in a reliable, cost-effective manner.

"As more and more solar generators are placed on the regional electric grid, we need to work together to smoothly bring these clean resources onto our system by fitting them with smart inverters to counter the voltage fluctuations that occur with these intermittent renewable resources," said Mike Niggli, president and chief operating officer of SDG&E. "This will ensure the integrity, safety and reliability of our system and enable the continued adoption of more clean, environmentally-beneficial solar power for our communities."

The challenge is that these new, cleaner forms of renewable energy – wind and solar – tend to be intermittent by nature. If a cloud covers the sun, or the wind stops blowing, the power output of these sources can become unavailable suddenly and indefinitely. The key, then, is to seamlessly integrate them onto the grid without sacrificing reliability during these unpredictable fluctuations. That is where the smart inverters will play a vital, transformative role. These devices are a low-cost way to mitigate the voltage changes caused by the fluctuating solar generation, thus preventing potential power quality problems. However, if smart inverters are not installed, these voltage swings can potentially damage utility equipment and residents' home appliances; increase overall cost of maintaining the grid; require installation of larger, more expensive alternatives; and could even contribute to distributed outages.

This problem is a major concern not only for U.S. utilities and regulators, but has already caused the government of Germany, where renewable installations are particularly common, to order a mass retrofit of smart inverters on solar installations at a cost of hundreds of millions of dollars. The Western utilities have the opportunity to avoid this scenario by planning ahead and installing the smart inverters before reliability is affected on the grid.

With well over 100,000 solar arrays already installed in the region, WEIL Group member companies have studied this issue extensively and found significant improvement in power quality when smart inverters are placed on the system. This change is well worth the small cost to the consumers who choose to use solar installations. For a solar installation costing $12,000, the new smart inverter technology will only cost about $150 more than the current inverters, approximately 1 percent of the overall cost. This is a bargain price given the expensive retrofit process in Germany.

The letter and report located at the following link elucidate this issue in more detail, while providing empirical support for the need for smart inverters: http://www.sdge.com/weil.

This documentation demonstrates that smart inverters are imperative to integrating large amounts of renewable energy and realizing the many environmental benefits of these resources, while maintaining the vital integrity and reliability of the system that millions of people rely on every day. By encouraging the widespread adoption of smart inverters that promote renewable integration, America will have a safer, more efficient and greener energy system for everyone.

SDG&E is a regulated public utility that provides safe and reliable energy service to 3.4 million consumers through 1.4 million electric meters and 860,000 natural gas meters in San Diego and southern Orange counties. The utility's area spans 4,100 square miles. SDG&E is committed to creating ways to help customers save energy and money every day. SDG&E is a subsidiary of Sempra Energy (NYSE: SRE), a Fortune 500 energy services holding company based in San Diego. Connect with SDG&E's Customer Contact Center at 800-411-7343, on Twitter (@SDGE) and Facebook.

###