

TO: Western Interconnection Regional Advisory Body  
Committee on Regional Electric Power Cooperation

FROM: Doug Larson

DATE: September 9, 2011

SUBJECT: **Arizona/California blackout**

Yesterday at 3:30 (PDT), the North Gila-Hassayama 500 kV transmission line near Yuma, Arizona, tripped off line resulting in a major power outage across Southwest Arizona and Southern California. WIRAB staff believes this may be the largest power outage in the West since the outages of 1996, which resulted in a Presidential investigation and, ultimately, the development of the WECC Reliability Management System.

According to Arizona Public Service (APS), the outage appears to be related to a procedure an APS employee was carrying out in the North Gila substation. According to APS, protection protocols typically would have isolated the resulting outage to the Yuma area. "The reason that did not occur in this case will be the focal point of the investigation into the event..." (APS press release)

According to APS, 56,000 APS customers lost service. The California ISO said 5 million people were affected in San Diego, Orange and Imperial Counties. By Friday morning, power had been restored to all customers.

On Friday, September 9, FERC and NERC issued press releases announcing a joint inquiry into the outage. FERC and NERC will coordinate with the Department of Energy and other federal agencies, the California ISO, the Western Electricity Coordinating Council, California and Arizona state regulators and the companies involved to monitor the situation. The inquiry will focus on causes of the outages. Attached is the NERC press release.

Also on Friday, WECC announced it is launching an Event Analysis to establish the cause of the outage, and develop lessons learned to prevent a similar event from occurring again. Attached is the WECC press release.

#### Investigation of 2008 major outage in Florida may provide clues on what's next

The Florida blackout disabled 22 transmission lines, resulting in the loss of 4,300 megawatts of generation and 3,650 megawatts of customer service. This was a category 4 event according to NERC. (A category 5 event is the most severe.) In September 2009, FERC, NERC, and FPL signed a Stipulation and Consent Agreement relating to alleged violations of Reliability Standards committed by FPL. The settlement was approved by the Commission on October 8, 2009. Under the settlement, FPL was required to pay a \$25 million civil penalty. FPL is also adding significant additional protection redundancy at several transmission stations and has committed to undertake numerous specific reliability enhancement measures. These measures include enhancing its compliance program; enhancing training and certification

requirements for operating employees; improving its frequency response; updating emergency operating procedures; providing additional staffing for Bulk Electric System analysis; and ensuring that specified equipment is properly inspected and maintained. FPL has also agreed to make quarterly progress reports to Enforcement and NERC and conduct an independent audit after one year following the Agreement to ensure compliance with the Agreement. (FERC 2009 Report on Enforcement.)

In the Florida outage, the Florida Reliability Coordinating Council (FRCC) was implicated in the outage and paid a \$350,000 fine. One-half of the FPL and FRCC penalties went to the U.S. Treasury; the other half went to NERC and was used to offset the NERC budget.

*WIRAB staff has the following initial questions:*

- 1. Human error during work on transmission facilities has been the cause of recent blackouts. Will WECC (or NERC) respond with a program to address human error?**

NERC recently initiated a Human Performance Practices Group that will look at the role of human performance in reliability across the continent. NERC is establishing an Event Analysis guide to assist the industry in performing root cause analysis, getting to the real causal factors of events.

At the July joint WECC Committee meetings, PG&E staff made a presentation to the WECC Operating Committee recommending a WECC program to address human error. Subsequently, WECC formed a Human Performance Workgroup, led by Bob Schwermann (PG&E). By chance, the workgroup had its kickoff meeting on September 7-8, when the blackout occurred. So far, a key purpose of the workgroup is to share human performance best practices among the entities in the western interconnection.

- 2. Why did the outage on the North Gila-Hassayama line cascade into southern California?**

Contrary to the recommendations of the Western Systems Coordinating Council (predecessor to WECC) following the 1996 Western outages, are we operating the system in regions that have not been studied? What should have occurred, but didn't, to contain the outage?

- 3. Will the investigation into yesterday's outage clearly identify which standards, if any, were violated and whether the standards are adequate to protect against outages of this type?**

The investigation of the Florida outage did not result in the identification of specific violations, something Commissioner Spitzer expressed concern about. Following is a statement by Commissioner Spitzer in FERC's Order Approving Stipulation and Consent

Agreement (issued October 8, 2009) with regard to the standards violated in the Florida Blackout.

“I write separately to express my concern with a lack of transparency and an absence of clarity in the [Florida outage] Order.... However, when it comes to identifying the Reliability Standards that FPL is alleged to have violated with regard to the Florida Blackout ... the Order merely identifies the categories of the relevant Reliability Standards. Although we impose a substantial penalty on FPL and require FPL to enhance its reliability measures through specific mitigation, nowhere does the Order identify with any specificity the Reliability Standards that the Commission and NERC alleged FPL violated in connection with the Florida Blackout. Nowhere does the Order provide an explanation of how the facts support the application of those Reliability Standards in this case....[B]y failing to identify with any specificity the Reliability Standards that FPL is alleged to have violated or how the facts support the application of the Reliability Standards, the Commission fails to provide clarity or transparency to the industry as to what is expected under the relevant Reliability Standards.... This proceeding, however, is the first reliability enforcement matter in which we impose a substantial penalty and specific mitigation measures in response to a serious outage. Yet we provide no meaningful information as to why the actions taken by FPL leading up to and after the Florida Blackout are, in the Commission’s view, violative of the Reliability Standards. We provide no information as to which Reliability Standards caused the Commission and NERC to investigate the matter in the first instance or to impose the penalty and mitigation program herein.”

#### **4. How did the WECC Reliability Centers respond to the outage?**

Staff will continue to monitor industry and FERC actions resulting from the outage.



## Federal Energy Regulatory Commission



September 9, 2011

Contacts: Mary O'Driscoll, FERC (202) 502-8680

Kimberly Mielcarek, NERC (202) 383-2622

### NERC, FERC Announce Joint Inquiry into Outage

The Federal Energy Regulatory Commission (FERC) and the North American Electric Reliability Corporation (NERC) today announced a joint inquiry into the September 8 power outage that left more than 1 million customers in Southern California, parts of Arizona and Northern Baja Mexico without electricity. As of 2:15 a.m. PDT today, all but 200 MW of the initial 4,300 MW lost had been restored.

FERC and NERC will coordinate with the Department of Energy and other federal agencies, the California ISO, the Western Electricity Coordinating Council, California and Arizona state regulators and the companies involved to monitor the situation. The inquiry will focus on causes of the outages.

"NERC and FERC are partnering to conduct a full inquiry into the cause of this event," said Gerry Cauley, president and chief executive officer of NERC. "Partnering brings together the expertise of both organizations, and emphasizes the importance placed on reliability of the bulk power system."

"This inquiry is an effective way for us to protect consumers and ensure the reliability of the bulk power system," FERC Chairman Jon Wellinghoff said.

The initial focus remains on ensuring a timely and safe restoration of power to customers. Updates will continue as more information is confirmed.

FERC is charged with oversight of reliability of the nation's bulk power system. FERC has designated NERC as the organization that develops and enforces mandatory reliability standards.



## MEDIA RELEASE

Rachel Sherrard  
360-213-2674  
rsherrard@wecc.biz

FOR IMMEDIATE RELEASE

**Contact:** Rachel Sherrard (360) 213-2674

September 9, 2011

### **The Western Electricity Coordinating Council launches Event Analysis of Outage**

**Salt Lake City, Utah:** The Western Electricity Coordinating Council, the Regional Entity tasked with overseeing the reliability of the bulk electric system in the Western Interconnection, announced today that it will be launching an Event Analysis into the widespread outage in Southern California, parts of Arizona and Northern Baja, Mexico. The outage, which began at around 3:30 p.m. PDT on September 8, 2011 affected over a million customers. As of 2:15 a.m. PDT today, all but 200 MW of the initial 4,300 MW lost had been restored.

“WECC has two roles in an event such as this,” said Mark Maher, Chief Executive Officer of WECC. “Our Reliability Coordinator function has a real-time overview of the entire Western Interconnection and has been working closely with the impacted utilities to coordinate assistance from other adjacent utilities to facilitate restoration of power. In addition, WECC is launching an Event Analysis to establish the cause of the outage, and develop lessons learned to prevent a similar event occurring again.”

WECC is coordinating the Event Analysis activities within the region. It is also assisting the North American Electric Reliability Corporation (NERC) and the Federal Energy Regulatory Commission (FERC) with their joint inquiry into the event. Updates will be issued as more information is known

#### **Note to Editors:**

WECC – one of eight Regional Entities in North America, encompassing a geographic area equivalent to over half the United States – is responsible for promoting electric system reliability and providing a forum for coordinating the operating and planning activities of its member organizations. WECC members — representing all segments of the electric industry — provide electricity in 14 Western states, two Canadian provinces, and part of one Mexican state.