

**Joint Oversight Hearing of October 26, 2011
Pacific Southwest Power Outage of
September 8, 2011**

*Kevin E. Kelley, General Manager
Imperial Irrigation District*

The Imperial Irrigation District provides electric power to over 145,000 customers in the Coachella Valley, Imperial Valley and parts of San Diego County. The electric service territory covers over 6,470 square miles of southeastern California, extending from the Mexican border to Riverside County. IID is the sixth largest utility in California, controlling over 1,100 megawatts of energy derived from a diverse resource portfolio that includes its own generation, and long-term and short-term power purchases. The IID is an independent Western Electricity Coordinating Council-certified balancing authority with transmission interties with San Diego Gas & Electric, Southern California Edison, Western Area Power Administration and Arizona Public Service.

Normal summer temperatures in the Imperial Valley average between 110 to 117 degrees and were hovering at 115 degrees the day of the event. The peak system load for September 8 was 951 MW.

El Centro Unit 3, a resource of 44 MW, was out of service due to a major refurbishing project. Yucca Steam Unit, a resource of 75 MW, was out of service

due to a forced outage. The “KS” Line segment from Midway Substation to Highline Substation was out of service for maintenance, although this is a non-critical transmission line segment.

Because of the unseasonably warm temperatures across the region on September 8, there were heavy east-to-west regional power flows on two critical 500-kV transmission paths. One path is from the Palo Verde substation in Arizona to the Devers substation in Southern California Edison’s system. The other path runs from the Hassayampa Substation in Arizona to the Miguel Substation in SDG&E’s system. The latter path is known as the Southwest Powerlink or SWPL. One segment of the SWPL is the Hassayampa-North Gila line. It was the relay of the Hassayampa-North Gila line that was the initiating event of the September 8 event.

Following the Hassayampa-North Gila 500-kV line outage, IID’s 230-kV northern intertie experienced an increase in the amount of power flowing into its system. Concurrently, IID’s 230-kV southern intertie reversed flow direction from import to export.

IID’s northern interties saw increased flows at the 230/92-kV Coachella Valley and Ramon transformers. The 230/92-kV Coachella Valley transformers overloaded by over 150 percent and tripped, leaving Ramon bank as the only tie

from the north. Subsequently, the 230/92-kV Ramon transformer overloaded and tripped, causing power to blackout in IID's northern area in the Coachella Valley. The loss of the northern intertie left the IID system dependent on local generation and imports from the southern intertie. A California Independent System Operator/Imperial Valley Substation protection scheme detected abnormally high flows and disconnected IID's southern intertie. With no supporting imports, the system began to blackout as protection schemes properly acted to insulate the system. IID crews systematically restored energy to approximately 90 percent of its customers within four hours of the blackout, with the remaining scattered outages being restored through the night and into early morning. This quick restoration was possible because of local generation, transmission contractual rights with remote generation and assistance from CAISO.

IID is an active participant in the joint task force comprised of itself, CAISO, APS, SDGE, SCE, CFE and WECC that is reviewing the events of September 8. New criteria are being identified for the jointly used 500-kV system for prevention of future events. IID is, of course, reviewing its system and operations to determine whether any changes or modifications are warranted. In making this determination, the district will advance the twin goals of enhancing ratepayer value while ensuring system reliability.

###

BIOGRAPHY



KEVIN E. KELLEY

General Manager, Imperial Irrigation District

Kevin Kelley is a native of Brawley, California and a lifelong resident of the Imperial Valley. A 1984 graduate of the University of Southern California, where he majored in communications arts and sciences, Kelley's background in media consulting, marketing communications and public affairs is wide-ranging and extensive.

He is the former editor and publisher of Valley Grower magazine, an agricultural trade publication that was acquired by the Imperial Valley Press in 2003. As a freelance writer, his work has appeared in most major metropolitan newspapers in the West. From 2005-2006, he served as editorial page editor of the Imperial Valley Press.

Recruited to the Imperial Irrigation District in June 2006 to lead IID's public affairs and communications efforts, Kelley was named general manager in May 2011.

