

## Energy Emergency Alert 3 Report

---

NERC requires that a deficient control area or load-serving entity declaring an Energy Emergency Alert 3 must complete the following report. Upon completion of this report it is to be sent to the reliability coordinator for review within two business days of the incident.

**Requesting Control Area: CEN (Centro Nacional de Control de Energia, CENACE)**

---

**Entity experiencing energy deficiency (if different from Balancing Authority):**

---

**Date/Time Implemented: 09/10/2016 10:42 PDT**

---

**Date/Time Released: 09/10/2016 19:18 PDT**

---

**Declared Deficiency Amount (MW): 255 MW of firm load and 110 MW of large customers load reduction appeal (Water pump and Steel Mill).**

---

**Total Energy supplied by other Balancing Authority during the Alert 3 period:**

**Energy Supplied as Emergency Assistance**

HE	11	12	13	14	15	16	17	18	19	20
CAISO	320	222	40	-	-	-	-	-	-	-
APS*	-	-	-	16	16	16	16	16	16	16

\*This load was transferred to APS on a radial emergency tie, up to 16 MW.

**Energy from the HA CAISO Market**

HE		14	15	16	17	18	19	20
CAISO HA		400	400	400	400	400	396	400

---

**Conditions that precipitated call for "Energy Deficiency Alert 3": On 09/10/2016 at 09:42 PDT CEN loss 585 MW of generation of the IPP Ciclo Combinado Mexicali (CCM), aka, "LRP1" (3X1, combined cycle). This generation loss resulted in an exceedence of WECC Path 45, N-S direction. Although all Operating Reserve were deployed and all the emergency assistance was utilize, the flow over WECC Path 45, N-S direction was exceeding the transmission transfer limit.**

---

**If "Energy Deficiency Alert 3" had not been called, would firm load be cut? If no, explain: Yes**

---

Explain what action was taken in each step to avoid calling for “Energy Deficiency Alert 3”: The generation lost was above our MSSC and sequentially trip out the whole LRP1 generating station. The actions were taken to return WECC Path 45, N-S direction flow back to limit (408 MW). The amount of generation trip (585 MW) was above the WECC Path 45, N-S direction limit.

1. All generation capable of being on line in the time frame of the energy deficiency was on line (including quick start and peaking units) without regard to cost. Yes, all the units capable of being on line were called, regardless of cost. Presidente Juarez U08, out on schedule maintenance, was cancelled and put on line.
2. All firm and nonfirm purchases were made regardless of cost. Yes, they were
3. All nonfirm sales were recalled within provisions of the sale agreement. There were no sales during the EEA3 time frame.
4. Interruptible load was curtailed where either advance notice restrictions were met or the interruptible load was considered part of spinning reserve. We appealed to large customers, ("Acueducto Rio Colorado-Tijuana, ARCT", 80 MW and "Compañía Siderurgica California, CSC", 30 MW; totalling 110 MW, to reduce their load during the emergency.
5. Available load reduction programs were exercised (public appeals, voltage reductions, etc.). Only appealed to large customers.
6. Operating Reserves being utilized. We exhausted all of our available Operative Reserve during the EEA 3.

Comments: At 09:42 PDT CCM U04 (steam unit of a 3X1 Combined Cycle) trip. Generation station personnel communicate the unit trip and warns CEN dispatcher that the whole facility (585 MW of generation, at that moment) will shut down on generation runback, caused by circulation water pumps and fans shoot down, on a cooling tower loss of signal from the PCU's (Processing Control Unit) main and redundant. CCM U01 (CTG1C) is normally connected, through the export bus, to the CAISO BAA and normally is not part of the CEN generation fleet. During the 2016 summer operative season (07/2016-09/2016) CCM U01 was contracted and connected to CEN system.

---

Reported by: Gabriel Santillan

Organization: CENACE (CEN)

---

Title: Real Time Operations, Head of Department

---