



Typhoon Soudelor (13W) Situation Report #12 August 14, 2015 (1:00 PM EDT)



CUC and GPA crews repairing feeder lines between Power Plants #1 and #4 in Saipan following damage from Typhoon Soudelor. **Photo credit:** ESF-12 DOE Responder embedded with FEMA IMAT. **Source:** U.S. Department of Energy.

Highlights:

- Typhoon Soudelor impacted the island of Saipan directly on Sunday, August 2, with highest reported wind speeds of 91mph. NOAA's Guam Forecast Office is no longer reporting on Soudelor.
- NOAA's Guam Forecast Office reported today, August 14, Tropical Depression Sixteen (16W) is located 330 miles southeast of Saipan and is moving west-northwest at 8 mph. Maximum sustained winds are 30 mph. A turn toward the north-northwest is expected tonight.
 - A Typhoon Watch is in effect for Tinian and Saipan. Typhoon conditions including destructive winds of 74 mph or more are possible within 48 hours.
 - A Tropical Storm Watch is in effect for Guam and Rota with winds of 39 mph or more possible within 48 hours.
 - A second Tropical Depression (17W) is developing in the Western Pacific. While not anticipated to make landfall over CNMI, the combination of the two systems, combined with



a reduced capacity to respond, presents an elevated threat to Guam and complicates support to Saipan and the CNMI.

- Effective as of 9:00PM ChST August 14 (7:00 AM EDT, August 14), the Captain of the Port has set Port Condition X-Ray for the Ports of Saipan and Tinian with gale force winds anticipated within 48 hours. Under current orders, Port Condition Yankee will take effect on August 15 at 9:00PM ChST (7:00AM EDT August 15) with gale force winds anticipated within 24 hours. The Ports of Saipan and Tinian will close on August 16 at 9:00PM ChST (August 16 at 7:00AM EDT) when the Captain of the Port sets Port Condition Zulu with gale force winds anticipated within 12 hours. The status of both Ports is dependent upon inbound tropical storm activity.
- All 14,662 electric customers on island Saipan remain without power, except for the hospital, as of August 14. Commonwealth Utility Corporation (CUC) and Guam Power Authority (GPA) continue repairs on the feeder lines to the airport.
- As of today, August 14, CUC has completed 80% of island-wide damage assessments on the primary and secondary systems; data and analysis from those assessments are being processed.
- ESF-12 continues to coordinate restoration strategies with ESF-3 (USACE) and the local utility to identify other critical assets that might require temporary power.

DOE Actions:

Operations:

- Effective July 31, 2015, at 12:00PM EDT/9:00AM PDT, the Department of Energy's Energy Response Organization (ERO) activated to Level III (Enhanced Watch) in support of Tropical Storm Soudelor (13W).
 - Effective August 5, 2015, DOE's Fossil Energy (FE), DOE's Energy Efficiency and Renewable Energy (EERE), as well as the Energy Information Administration (EIA) are contributing subject matter expertise to the response effort.
- Effective August 14, two ESF-12 field responders are deployed with Regional IMATs on Saipan. An additional responder has been deployed to Guam in anticipation of potential impacts from the new weather disturbance (16W).
- Effective August 14, one field responder is covering the ESF-12 desk at the FEMA Region IX Response Coordination Center (RRCC) in Oakland, CA. Due to potential new impacts from the new weather disturbance the RRCC will transition to 24/7 operations Saturday, August 15, and DOE will support the request by providing an additional ESF #12 representative.

Energy Sector Outreach:

- DOE ERO staff as well as DOE ESF-12 personnel deployed to Saipan are in direct communication with the petroleum terminal operators in Saipan.
- DOE ESF-12 in FEMA Region IX is coordinating with the California Utilities Emergency Association and Pacific Power Association to conduct outreach to their members to determine supply availability to assist Saipan's restoration efforts. Still current as of yesterday, August 13, four members from CUEA have responded with spare equipment availability to assist in restoration efforts. CUEA anticipates responses from 35 additional members. PPA has begun outreach to CUC directly.



Electricity Information:

The electric power generation and distribution system of Commonwealth of the Northern Mariana Islands (CNMI) is managed by the Commonwealth Utilities Corporation (CUC), a public corporation of the CNMI government. Three of the fifteen islands are inhabited and about 90% of the population lives on Saipan (48,220 citizens). CUC's primary 13.8kV distribution power system has 8 feeders for commercial and residential power supply. CUC's 34.5kV transmission power system is underground. Five (5) generators serve as primary power suppliers to five (5) feeders that span across the Northern part of Saipan. The remaining three (3) feeders provide power to the Water Loo Substation where three (3) feeders span across distribution lines on the Southern part of Saipan.

Non-Nuclear Power Generation

- As of August 14, Power Plant 4 is currently energized and has a capacity of 3.8MW. Power Plant 4 is providing service to the hospital through feeder #1.
- As of August 11, CUC has completed testing on the Power Plant 1 station service 1 and 2, and have found no issues. One Station Service unit in operation powering the Power House. CUC continues to assess and test the control equipment that became wet from the failed roof/siding. The building contractor has set up scaffolding and has begun repairs. Power restoration is estimated to be completed at Power Plant 1 by August 31.
- As of August 11, Power Plant 2 cannot be put into operation due to the damaged step up transformer. The transformer needs the oil removed, properly tested and disposed of, and the transformer removed for recycling.

Saipan Power Plants & Electric Statistics								
Location	Power Plant	Nameplate Capacity (MW)	Fuel	Peak Load (MW)	Number of Customers (2013)	Operating Status	Damage and Restoration	Date
Tanapag, Saipan	Saipan Power Plants 1 & 2 (CUC)	69.9	Diesel	45	14,662	Partially Operational	Structure housing Power Plant 1 impacted by rain, adding week to restoration. Plant 1 roof repair has begun. Plant 2 requires a step up transformer. One unit in on, serving Power House 1.	Aug. 11
	Saipan Power Plant 4 (CUC)					Operational	Damage to all distribution lines, roof and generators. Generator Unit # 7 running. Generator Unit # 2 (2MW) started and operating under no-load. Power Plant 4 is currently at 3.8MW capacity.	Aug. 14

Source: DOE Communications, EIA

Electricity Distribution

Electric Customers: Saipan as of August 12, 2015						
Electric Service Provider: Commonwealth Utilities Commission (CUC)						
	Customer Total	Percent of Demand	Number of Customers without Power	Percent of Customers Without Power	Number of Customers Able to Receive Power	Percent of Customers Restored
Residential	11,138	76%	11,138	100%	Unknown	0%
Commercial	3,524	24%	3,524	100%	Unknown	0%*
Transportation	N/A	N/A	N/A	N/A	N/A	N/A



Industrial	N/A	N/A	N/A	N/A	N/A	N/A
TOTAL	14,662	100%	14,662	100%	Unknown	0%

Source: DOE communications, EIA data release 2013.

*As of today, August 13, hospital is receiving power from Power Plant #4.

- As of today, August 14, CUC has completed 80% of the island-wide damage assessments on the primary and secondary systems; the data and analysis from the assessments are being processed.
- On August 13, CUC's Power Division updated its post Typhoon Soudelor electrical hardware and equipment repair effort. The August 13 CUC report published preliminary statistics of damaged field materials:
 - There are 355 damaged wooden power poles. This is an increase from 276, as reported by CUC on August 10.
 - There are 195 damaged transformers within the CUC system on Saipan.
 - There are 137 damaged meters within the CUC system on Saipan.

Restoration efforts underway

- The joint CUC/GPA restoration work plan for line crews was updated August 14:
 - Priority I: Re-build feeders through the business district.
 - Priority II: Get generation units online at Power Plant #1 to carry load at Kiya Substation.
 - Kiya Substation has been assessed and is ready for service.
 - The 34.5kV underground conductors have been tested and inspected and are ready for service.
 - The 34.5kV conductors/risers are ready to be reinstalled on the new concrete poles when installed.
 - Priority III: Build out the Kiya feeder line to the airport.
 - As of August 12, restoration of the primary feeder line to the airport is underway.
- Still current as of August 14, CUC is without any spare power poles. All power poles in stock have been utilized in restoration efforts. As of August 13, CUC is coordinating with its operations in Rota and Tinian to source approximately 40 poles.
- As of August 14, joint coordination on Saipan to source and supply additional wooden poles is underway.
- As of August 14, feeder #1 from Power Plant #4 to the hospital has been rebuilt and approximately 20 poles have been set to support it.
- CUC has mutual aid agreements in place with the Guam Power Authority (GPA).
- US Army Corps of Engineers (USACE) 249th Delta group have arrived in Saipan to assist with power restoration, the group is comprised of eight linemen, and one engineer. As of today, August 14, the installation of port lighting remains the priority for USACE 249th Delta group.
- GPA has 30 personnel on island Saipan to include linemen, electricians, equipment operators, relay technicians and mechanics supporting power restoration.
- The California Utilities Emergency Association (CUEA) and Pacific Power Association (PPA) are conducting outreach to members to determine supply availability to assist Saipan's restoration efforts. As of August 13, four members from CUEA have responded with spare equipment availability to assist in restoration efforts. CUEA anticipates responses from 35 additional members. PPA has begun outreach to CUC directly.



Nuclear Generation Facilities

- There are no nuclear generating plants in the Northern Mariana Islands.

Petroleum & Natural Gas Information

The Commonwealth of the Northern Mariana Islands (CNMI) has no conventional energy resources and meets nearly all of its energy needs, including electricity generation, with petroleum received by ship at harbors on its three inhabited islands: Saipan, Tinian, and Rota.

Crude Oil & Natural Gas Production

- CNMI has no indigenous crude oil or natural gas production.

Petroleum Refineries

- CNMI has no petroleum refineries.

Petroleum Terminals

- Two fuel storage facilities operated by Mobil Oil (10 tanks – gasoline, diesel, and jet fuel) and IP&E (4 tanks – gasoline) are located in Tanapag Harbor at the Port of Saipan on the central northwest side of Saipan (the largest island). These facilities receive shipments from larger storage terminals on Guam, and from tankers after offloading cargo on Guam.
 - **Mobil Oil:** The Saipan terminal resumed normal operations August 6, and fuel deliveries are ongoing to the airport and gas stations. The facility is running on backup generation. Mobil reassured that it has sufficient fuel in its tanks at the terminal. There is sufficient fuel to meet the demand of Saipan according to Mobil Oil Marianas Islands, Inc. and Mobil Oil Guam Inc. representatives. Mobil's *Nord Sakura* tanker ship is due to port in Saipan on Saturday August 15. Harbor Master records indicate that pilots are expected to board the tanker at 7:00AM ChST on Sunday August 16 (5:00 PM EDT Saturday, August 15).
 - **IP&E (Shell):** No major damage sustained at the terminal and truck loading operations have been functional since August 4. All four tanks were refilled on Thursday, July 20. The terminal operates on grid power but is currently running on a backup generator fueled by stocks from the terminal. IP&E/Shell company representatives reported the company is not short on fuel supply, and a tanker delivery is planned for September 1.
 - **Tanapag Harbor Spill:** A major pollution event was declared by USCG following a gasoline spill in the Port of Saipan August 2. The Port of Saipan reopened August 4, a Safety Zone was in effect around Tanapag Harbor but has been lifted as of August 8. The spilled fuel has been coated with a protective, absorbent foam.
 - **Saipan Airport Fuel Farm:** Mobil Oil currently has 300,000 gallons of fuel at the airport fuel farm as of August 5. Airlines were requested to tanker in their own fuel to relieve the island of the limited capacity until the harbor fully reopens. Mobil Oil is delivering fuel to the airport and in support of relief efforts.

Retail Service Stations

- Industry reports that while supplies remain ample, demand for gasoline on island Saipan, following the Typhoon, is above pre-storm levels. Tanker ships are scheduled for delivery to the Apra Harbor in Guam and to Saipan this week.
- Still current today, August 14, as reported yesterday August 13, sixteen (16) of nineteen (19) known retail service stations in Saipan have returned to normal operations. According to company



communications, one (1) station is dedicated exclusively to servicing government official vehicles only, including responders. ESF-12 confirmed that shorter lines were observed at all fueling stations now that Mobil has returned to normal service station operations

- CNMI Emergency Management has on-island fuel vendor making fuel deliveries.

Fuel for Power Generation

- **FAA generators have been added to airport fuel resupply deliveries and a point of contact has been established at Mobil Oil to coordinate deliveries**
- USACE fulfilling generator requests for 44 facilities and 15 water wells requiring generator support.
- An Air Bridge is operating between Guam and CNMI transporting relief goods and materials such as generator sets and essential commodities to Saipan through Wednesday August 12.
- Across Saipan, facilities are on generator power and fuel re-supply plans have been established.

Ports

- **The Captain of the Port set Port Condition X-Ray for the Ports of Saipan and Tinian at 9:00PM ChST August 14 (7:00AM EDT August 14) with gale force winds anticipated within 48 hours.** The Port of Saipan continues daylight operations only due to damaged lighting towers. FEMA delivered via the USS Ashland, four light towers designated for port operations. As of **August 14**, the Saipan Harbor Master's office confirmed that operations remained restricted to daylight hours from 6:00AM – 6:00PM ChST due to damaged lighting towers.

Status of Ports		
Port Sector	Status	Date Stamp
Saipan (CNMI)	Port Condition X-Ray. Open for daytime operations until lighting is installed or repair.	9:00 PM ChST, Aug. 14
Tinian (CNMI)	Port Condition X-Ray.	9:00 PM ChST, Aug. 14
Rota (CNMI)	Open	5:00 PM ChST, Aug. 8
Apra Harbor (Guam)	Open	5:00 PM ChST, Aug. 8

Source: U.S. Coast Guard, DOE Communications, Saipan Harbor Master's Office

- **Under current orders, Port Condition Yankee will take effect on August 15 at 9:00PM ChST (7:00AM EDT August 15) with gale force winds anticipated within 24 hours. The Ports of Saipan and Tinian will close on August 16 at 9:00PM (August 16 at 7:00AM EDT) when the Captain of the Port sets Port Condition Zulu with gale force winds anticipated within 12 hours. The status of both Ports is dependent upon inbound tropical storm activity.**
- Mobil's *Nord Sakura* tanker ship is due to port at 9:00PM ChST on Saturday August 15 (7:00AM EDT on Saturday August 15), **the same time that Port Condition Yankee is expected to be declared. Vessels at port must cease all operation as quickly as possible and depart upon declaration of Port Condition Yankee. If tropical storm conditions prevail, the Nord Sakura will have to drop anchor until Port Conditions Yankee or Zulu are rescinded.**

Petroleum Product Pipelines

- CNMI has no major petroleum transport pipelines. However, Mobil has a pipeline that connects its terminal to a CUC Power Plant. As of August 13, damage assessments concluded on the Mobil pipeline, containers were removed from on top of the pipeline and no damage was reported.



Natural Gas Pipelines

- CNMI has no natural gas pipelines.

Natural Gas Processing

- CNMI has no natural gas processing plants.

Natural Gas Storage

- CNMI has no natural gas storage facilities.

Territory Government Information:

- Northern Mariana Islands:
 - The Saipan EOC is fully activated (day shift), and the generator at the site has been repaired.
 - Major Disaster Declaration was issued August 5, for the incident period of August 1-3.
 - On August 2, Ralph DLG. Torres, Lieutenant to CNMI Governor, declared a State of Major Disaster and Significant Emergency for the entire Commonwealth.
- The Disaster Price Freeze Act, which currently allows the Governor of Saipan to issue a price freeze on commodities, is in effect **today, August 14**, until the governor rescinds the freeze or the declaration of emergency or disaster is terminated.
- The CNMI Emergency Operations Center is working with the National Weather Service on Guam to closely monitor the tropical disturbance forming over eastern Micronesia. The CNMI Governor's Office encourages residents to clear the debris around their homes as a safety measure, as well as prepare themselves with resources stocked up. CUC is also securing assets as a precaution.