



Typhoon Soudelor (13W) Situation Report #13

August 15, 2015 (12:00 PM EDT)

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 15, Tropical Storm Goni (16W), formerly Tropical Depression Sixteen, is located 50 miles south of Saipan and is moving northwest at 14 mph. Maximum sustained winds are 50 mph, with higher gusts. Goni is expected to continue moving in this direction with little change in forward speed through Sunday night (EDT), August 16. Goni is due to pass between Rota and Tinian early Sunday morning, August 16 (EDT).
 - Tropical Storm Warning in effect for Guam, Rota, Saipan and Tinian.
 - Flash Flood Watch in effect for Guam, Rota, Saipan and Tinian.
 - Typhoon Watch remains in effect for Tinian and Saipan.
- Saipan is under Conditions of Readiness Level I (COR 1), meaning the public and all operations are sheltering in place in anticipation of Tropical Storm Goni.
- All 14,662 electric customers on island Saipan remain without power, except for the hospital, as of August 15.
- The CUC's core restoration strategy is the placement of wind resistant concrete poles on the primary lines and installation of wooden power poles on secondary laterals.
- Effective 10:00PM ChST August 15(8:00AM EDT August 15), the Ports of Saipan, Tinian, Rota, and Guam are closed under Port Condition Zulu.

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 15, two ESF-12 field responders are deployed with Regional IMATs on Saipan. An additional responder is on Guam in anticipation of potential impacts from Tropical Storm Goni. All DOE representative are currently sheltered in place as the islands are in Condition of Readiness 1 for safety.
- Effective August 15, two ESF #12 field responders are covering the ESF-12 desk at the FEMA Region IX Response Coordination Center (RRCC) in Oakland, CA as the location transitions to 24/7 operations.

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 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, **which typically produces 30% of the islands power**, is currently energized and has a capacity of 3.8MW. Power Plant 4 is providing service to the hospital through feeder #1.
- With exception of the hospital, Saipan remains almost entirely dependent on temporary power generation for critical facilities. Power Plant 1, which produces as much as 70 percent of the island's power, remains offline.**
- As of August 11, CUC completed testing on the Power Plant 1 station service 1 and 2, and found no issues. CUC continues to assess and test the control equipment that became wet from the failed roof/siding. Repairs have begun and 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 August 13, the hospital is receiving power from Power Plant #4.

- As of 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:

- As of August 14, the CUC's core restoration strategy is the placement of wind resistant concrete poles on the primary lines and installation of wooden power poles on secondary laterals. The CUC is acquiring concrete poles from Guam and purchasing directly for transformers, conductors and other equipment.
- The FEMA Power Task Force is providing assistance to the CUC. As of August 14, the Power Task Force is coordinating airlift of 150 Class One 45 foot poles. Equal amounts of 35 foot poles and 40 foot poles also will be airlifted soon as logistics are determined. It will acquire and deliver an additional 800 wooden poles via barge. As of yesterday, August 14, the pole supply on island remains depleted.
- As of August 14, the Power Task Force is looking to acquire and deliver an additional fourteen (14) 80kW generators.
- Restoration of the water distribution system by placing generators at critical water system locations remains a top priority of the Task Force. Generator installation at pumps and booster stations must be balanced with generator installations at sewage lift stations.
- The joint CUC/GPA restoration work plan for line crews remains current as of 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.
- 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.
 - **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.
 - **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

- **COR Level I is in effect August 15 for Saipan, as a result, all retail service stations are closed during the shelter in place timeframe.** As of August 14, sixteen (16) of nineteen (19) known retail service stations in Saipan have returned to normal operations following impacts from Typhoon Soudelor. According to company communications, one (1) station is dedicated exclusively to servicing government official vehicles only, including responders.

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
- Across Saipan, facilities are on generator power and fuel re-supply plans have been established.

Ports

- **The Captain of the Port for Port Sector Guam has set Port Condition Zulu for the Ports of Saipan, Tinian, Rota, and Guam by at 10:00PM ChST August 15 (8:00AM EDT August 15) with gale force winds anticipated within 12 hours.**

Status of Ports		
Port Sector	Status	Date Stamp
Saipan (CNMI)	Closed. Port Condition Zulu	10:00 PM ChST, Aug. 15
Tinian (CNMI)	Closed. Port Condition Zulu	10:00 PM ChST, Aug. 15
Rota (CNMI)	Closed. Port Condition Zulu	10:00 PM ChST, Aug. 15
Apra Harbor (Guam)	Closed. Port Condition Zulu	10:00 PM ChST, Aug. 15

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

- **According to the Saipan Harbor Master's Office, Mobil's *Nord Sakura* tanker ship was due to port at 9:00PM ChST on Saturday August 15 (7:00AM EDT on Saturday August 15). Vessel tracking sources confirm that the tanker is underway and using engines in route to Saipan.**

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:
 - Condition of Readiness (COR) Level 1 is in effect for the islands of Saipan, Tinian and Rota as of 8:30PM ChST on August 15, meaning the public and all operations are sheltering in place in anticipation of Tropical Storm Goni.
 - 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 until the governor rescinds the freeze or the declaration of emergency or disaster is terminated.

Situation Report #14 will be issued on Monday, August 17.
No Situation Report will be released tomorrow, Sunday August 16, as a result of Tropical Storm Goni passing over CNMI on Sunday.