Typhoon Soudelor (13W) Situation Report #7
August 9, 2015 (1:00 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.
- Isolated showers are possible each day through the upcoming week. No hazardous weather is forecast through this period. An active tropical pattern could return to the region late next weekend, but forecast confidence is very low at this time.
- All 13,800 electric customers on island Saipan remain without power as of August 9. Restoration estimates provided August 8,state that the situation will not improve until September according to the Commonwealth Utilities Corporation (CUC) with assistance by Guam Power Authority (GPA). Power will not be restored to all customers as some facilities were damaged beyond repair.
- Repair work is ongoing at Power House 4, the structure which houses Power Plant 4. CUC reported today, August 9, the company estimates one unit at Power Plant 4 will return to service August 14.
- Mobil reported that logistics issues at the terminal prevented the opening seven service stations on Sunday August 9. Later on Sunday the company indicated that fuel supplies at the Middle Road, Chalan Kiya, Susupe, and San Vicente were replenished and that stations were open to the public from 7:00PM-12:00AM ChST. It was not specified whether the BR Garapan terminal remained open to emergency responders.
- An Air Bridge has been established and is operating between Guam and CNMI and will continue the flow of generator sets and essential commodities through Wednesday August 12.
- On August 8, USCG Safety Zone Requirements in Tanapag Harbor in Saipan have been lifted. The port remains open for daytime operations only until lighting is installed or repaired.
- Potable water and power distribution remain the primary shortfalls on Saipan; CUC began restoring pressurized water to some of Saipan's villages today, August 9, allowing for limited water service.
- Approximately 600 Marines and sailors of the 31st Marine Expeditionary Unit (MEU) were aboard the USS Ashland and arrived on island Saipan August 9, to assist with FEMA recovery efforts.

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 9, 2015, two ESF-12 field responders are deployed with Regional IMATs on Saipan. A third DOE IMAT representative arrived on Guam and will relieve the first deployed IMAT representative. Additional DOE IMAT representatives are on standby and a long term staffing plan is in place.
- Effective August 9, 2015, two ESF-12 staff are covering 24 hour operations at the FEMA Region IX Response Coordination Center (RRCC) in Oakland, CA.

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.

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. All eight (8) feeders remain de-energized due to damage sustained by Typhoon Soudelor, as reported August 6.

Non-Nuclear Power Generation

- As of August 9, repair work is underway to the Power House 1 structure that houses Power Plant 1, damaged initially by Typhoon Soudelor and then impacted by later heavy rain. Salt water did not penetrate any power plant equipment; all damage is due to fresh water. A temporary cover over Power House 1 was partially completed for lower roof and control room protection from rain.
- Repair work is ongoing at Power House 4, the structure which houses Power Plant 4. CUC reported today, August 9, the company estimates one unit at Power Plant 4 will return to service August 14.
- USS Ashland arrived Saipan August 7, with 71 temporary power generators ranging from 11.5 kW to 500 kW (correction to the 29 generators as reported in Situation Report #6). An additional 26 generators ranging in size from 100 kW to 240 kW are scheduled to arrive Saipan from Hawaii August 10.

Saipan Power Plants & Electric Statistics

Location	Power Plant	Nameplate Capacity (MW)	Fuel	Peak Load (MW)	Number of Customers (April 2011)	Operating Status	Damage	Date
Tanapag, Saipan	Saipan Power Plants 1 & 2 (CUC)	69.9	Diesel	45	13,208	Inoperable	The structure housing Power Plant 1 was impacted by rain, adding one week to restoration. Plant 1 roof is damaged. Plant 2 requires a step up transformer.	Aug. 7
	Saipan Power Plant 4 (CUC)					Inoperable	Damage to all distribution lines, roof and generators. Repair work ongoing, estimated restoration of service August 14.	Aug. 9

Source: U.S. Department of Energy, Company communications, EIA

Electricity Distribution

- CUC performed its preliminary assessments of high voltage electrical equipment on Monday August 3. CUC suffered widespread damage to Saipan's power distribution system when Typhoon Soudelor made landfall the evening of Sunday, August 2.
- As of Saturday, August 8, results from recent damage assessment completed by CUC in conjunction with GPA indicate:
    - Lateral feeder line 3 assessment identified an additional 16 poles down. Six more lateral feeder lines need to be assessed, so it expected that additional downed poles will be identified.
    - Small spare supply of power poles are available on the island. GPA is working on transporting additional poles to Saipan, including approximately 150, 45-foot poles and 50, 55-foot concrete poles.
    - Efforts are underway to restore the Kiya 34.5/13kV substation. Asset testing will occur over the next several days. The 34.5 kW cables may have been damaged.
- As reported August 6, damage assessments account 48 percent of the Saipan power grid is inoperable due to loss of power poles and downed lines. Power restoration is estimated at four to six weeks according to both the Commonwealth Utilities Corporation (CUC) with assistance by Guam Power Authority (GPA).

Field Assessment of Damaged Power Poles and Distribution Transformers on Major Highways

Category	Total Count	Date
Damaged Power Pole	276	August 6
Damaged Distribution Transformer	152	August 6
Total Feeder Damages	428	August 6

Source: CUC Preliminary Distribution Circuit Reparation Report

CUC Preliminary Report on Power Pole Needs

Item	Stock Count	# of Damaged Poles	# of Poles Needed	Date
35 ft	28	4	None	August 6
40 ft	0	0	None	August 6
45 ft	64	213	149	August 6
50 ft	27	0	None	August 6
55 ft	8	59	51	August 6

Source: CUC Preliminary Distribution Circuit Reparation Report

CUC Preliminary Report on Distribution Transformer Needs

Item	Stock Count	# of Damaged Transformers	# of Transformers Needed	Date
10 kVA	23	26	3	August 6
15 kVA	0	27	27	August 6
25 kVA d/b	26	22	None	August 6
37.5 kVA	0	12	12	August 6
37 kVA	0	5	5	August 6
50	0	14	14	August 6
75	9	26	17	August 6
100	0	12	12	August 6

Source: CUC Preliminary Distribution Circuit Reparation Report

Restoration efforts underway

- As of today, August 9, CUC is without any spare power poles. All power poles in stock have been utilized in restoration efforts.
- Established August 6, the joint CUC & GPA plan has been developed:
  - Priority I: Rebuild line from hospital to Power Plant #4 (estimated completion date of August 13)
  - Priority II: Build out line to Power Plant #1
  - Priority III: Build out feeder line to the airport
- Yesterday, August 8, additional GPA personnel have arrived in Saipan, bringing the total to 23 GPA employees on Saipan. This number includes linemen crew, heavy equipment operators, transportation mechanics, safety officers, generation maintenance personnel, and engineers.
- As of August 6, four (4) CUC lineman from Rota have arrived on island Saipan and have been assisting in restoration efforts.
- CUC has mutual aid agreements in place with the Guam Power Authority (GPA).
- Additional supplies soon to arrive Saipan include: 4 bucket trucks, 1 auger truck, 2 pickups, and 1 E350 Van and possibly 45' power poles. Transport of these supplies from Guam to Saipan has not yet taken place, as of Sunday August 9.
- CUC can not yet set new distribution poles until historical preservation concerns on island Saipan have been resolved.
- Guam Power Authority (GPA) is transporting approximately 200 power poles from its stock. A lined storage location for damaged transformers needs to be identified. Transport of the power poles from Guam to Saipan has not yet taken place, as of August 9. .
- The California Utilities Emergency Association and Pacific Power Association are conducting outreach to members to determine supply availability to assist Saipan's restoration efforts. As of August 7, California Utilities Emergency Association and Pacific Power Association report that they are getting good responses from their members on supply availability and that they will compile the data into spreadsheets.

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.

- **Mobil Oil:** The Saipan terminal resumed normal operations August 6, and fuel deliveries are ongoing to bring fuel to the airport and gas stations. The fuel tank that ruptured is no longer leaking fuel and has been temporarily sealed with a patch. Mobil completed the removal of gasoline and water in the secondary containment area. The facility is running on backup generation. Mobil reassured that it has sufficient fuel in its tanks at the terminal. Mobil reported that logistics issues at the terminal prevented the opening seven service stations on August 9.
- **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. Due to high sales volumes of gasoline, IP&E is requesting a waiver from Guam Environmental Protection Agency to land the internal floating roof of a gasoline tank for approximately 7 – 10 days. This will allow the company to provide more gasoline supply to customers. IP&E has also requested assistance in obtaining a USCG waiver to divert a tanker ship to resupply Saipan. If approved, the estimated time of arrival to Saipan is August 19 or 20.
- **Tanapag Harbor Spill:** USCG reports that a vessel broke free of its moorings and breached a 1,000-gallon diesel tank on Delta Wharf in the Port of Saipan, leading to the release of about 500 gallons into the water. A major pollution event was declared. 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

- As of Saturday August 8, 14 of 19 known retail service stations are open for business on Saipan. According to company communications, one (1) station is dedicated exclusively to servicing government official vehicles only, including responders. Motor gasoline supplies at retail service stations continue to be limited. Long waits have been reported at service stations. Many gas stations sustained damage from the storm, which is inhibiting refueling.
- CNMI government Press Secretary Blanco has received messages from both fuel companies assuring adequate fuel supply.
- Acting CNMI Governor Torres said August 5 that there is no fuel shortage and that long lines at gas stations are due to citizens seeking to refuel at the same time and ensure they have gas. The price freeze covering fuel, among other goods, is in effect until August 8.
- Mobil Oil opened a total of nine (9) service stations on Saturday August 8. Eight (8) service stations to the general public (Middle Road, Susupe, Koblerville, Tanapag, Chalan Kiya, CMG San Jose, San Vicente Mobil, and Sadog Tasi) were open from 12:00PM-6:00PM ChST. Service station BR Garapan will continue to stay open only for emergency respondents. The CMG San Jose and San Vicente service stations received tanker truck replenishment of fuel supplies on August 8 and were open to public for 6 hours after replenishment. Motorists can fully replenish their vehicle fuel tanks to reduce the need to return to the line at the station. With the unprecedented demand over the past

three days, Mobil is replenishing sites as fast as it can within operational and safety limits. On Saturday August 8, Mobil reported that the Middle Road and Chalan Kiya stations would open from 7:00AM-7:00PM ChST Sunday, while four others, including Sadog Tasi, would open from 12:00PM-7:00PM ChST, and the BR Garapan station would remain available to emergency responders. On Sunday August 9, the company said that seven (7) service stations did not resume operations as previously communicated due to a logistics issue at the terminal. Later on Sunday the company indicated that fuel supplies at the Middle Road, Chalan Kiya, Susupe, and San Vicente were replenished and that stations were open to the public from 7:00PM-12:00AM ChST. It was not specified whether the BR Garapan terminal remained open to emergency responders.

- IP&E (Shell) has opened five (5) of their eight (8) service stations (Puerto Rico, Gualo Rai, Highway Express, Shell Airport, and Susupe) from 8:00AM-5:00PM ChST as of August 7 with a sixth (6th) station (Koblerville) open to government official vehicles only. Gasoline and diesel were available at all stations except Shell Airport, which only listed gasoline. Fuel sales remain limited at $50 per transaction (approximately 12 gallons) for non-responders August 7, up from a limit of $20 on August 4. IP&E Shell said it was working with the Department of Public Works and the Office of Homeland Security to stabilize the island and return to normal operation as safely and quickly as possible.
- CNMI Emergency Management has on-island fuel vendor making fuel deliveries.

Fuel for Power Generation

- CNMI has the capability to refuel generator service tanks. The CNMI EOC has two tankers standing by, and any critical facilities that are low on fuel only need to contact the EOC to get replenished. A regularly scheduled fuel delivery is scheduled to arrive August 10.
- The addition of 13+ generators already planned for operation is expected to put an additional load on the fuel distribution system.
- Due to an island-wide power outage, the Saipan Hospital is operating on backup generators. The hospital was receiving regular generator fuel refills as of August 5.
- STAR Water and Saipan Water and Ice Co. (drinking water distributors) noted low supplies of diesel fuel to run their generators are hindering their ability to deliver water as of August 6.
- Ten (10) generators, ranging from 11.5 – 25 kW were delivered on a commercial carrier to Saipan on August 8. Seventy-one (71) generators from the USS Ashland, ranging from 11.5 – 500 kW, arrived on August 8 and are being moved to the Federal Staging Area (FSA) at the Saipan Army Reserve Base for configuration and then to priority locations for operation. An additional twenty-six (26) generators, ranging from 100 – 240 kW, are scheduled to be delivered from Hawaii on August 10.
- USACE fulfilling generator requests for 44 facilities and 15 water wells requiring generator support.
- An Air Bridge has been established and is operating between Guam and CNMI and will continue the flow of generator sets and essential commodities through Wednesday August 12.
- Across Saipan, facilities are on generator power and fuel re-supply plans have been established.

Ports

- USCG Safety Zone Requirements in Tanapag Harbor in Saipan have been lifted. The Port of Saipan remains open for daytime operations only until lighting is installed or repair.
- All CNMI ports are open to commercial vessel traffic and cargo operations. The Port of Saipan continues daylight operations only due to lack of power to run undamaged lights overnight, August

6 in to August 7. FEMA plans to deliver four light towers designated for port operations on the USS Ashland.

Status of Ports		
Port Sector	**Status**	**Date Stamp**
Saipan (CNMI)	Open for daytime operations until lighting is installed or repair. USCG Safety Zone Requirements in Tanapag Harbor have been lifted.	5:00 PM ChST, Aug. 8
Tinian (CNMI)	Open	5:00 PM ChST, Aug. 8
Rota (CNMI)	Open	5:00 PM ChST, Aug. 8
Apra Harbor (Guam)	Open	5:00 PM ChST, Aug. 8

Source: U.S. Coast Guard

- According to the Port Authority of Guam, the tanker *Barents Sea* is due into Apra Harbor (Guam) Thursday August 13. According to shipping data from Reuters, the tanker's last charter carried clean products. Port records also indicate that the tanker SLNC Pax is due into Apra Harbor on Friday August 14, but data from Reuters could not clarify any additional details.
- USCG is working to clear an iso-tainer in the port for use at the hospital. The iso-tainer will hold fuel for the hospital's generator. The iso-tainer is being transported on the USS Ashland, which is scheduled to arrive August 8.
- Regularly scheduled fuel delivery is expected to arrive on Monday August 10, but recipient information was not specified. Due to shortage of stevedores (personnel trained to work at docks to load and unload cargo from ships) on island, CNMI is unable to conduct both seaport recovery and off-loading operations. Saipan Stevedores reports a shortage of 17 personnel who are survivors and have lost homes. USCG is scheduling a meeting with Saipan Stevedores and the Seaport Harbor Master to determine resource requirements.

Petroleum Product Pipelines

- CNMI has no major petroleum transport pipelines.

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 CNMI Governor also declared a price freeze for the Commonwealth as of August 3, 2015. Pursuant to the Commonwealth Disaster Price Freeze Act, this price freeze shall apply to the following items:
  - Gasoline, kerosene, diesel fuel, natural gas, and all other chemical fuels, whether in gaseous, liquid, or solid form;
  - Generators, cables, wires, electrical batteries of every sort, and similar equipment for the generation or transmission of electrical power.