Tropical Cyclone Erin (AAL052025)

Final Event Briefing

The Anguilla Electricity Company Ltd. (ANGLEC)

Reportable Event

28 August 2025

1 SUMMARY

Tropical Cyclone Erin is the fifth named cyclone and the first hurricane of the 2025 Atlantic Hurricane Season. On August 16 and 17, 2025, Hurricane Erin crossed the Atlantic waters north of the Leeward Islands, passing at a minimum distance of approximately 100 mi (160 km) from Anguilla. Tropical-storm-force winds affected Anguilla for approximately 15 hours, between 16 August at 1200UTC and 17 August at 0300UTC.

This event briefing is designed to review the modelled losses due to wind and storm surge as a result of TC Erin, calculated by CCRIF's Public Utilities model. The CCRIF Public Utilities loss model reported wind speeds greater than 39 mph (62.7 km/h) for The Anguilla Electricity Company (ANGLEC) due to Erin.

The final run of the CCRIF Public Utilities loss model did not produce losses for ANGLEC greater than zero, therefore, no payout is due under the utility's policy.

2 INTRODUCTION

On 11 August 2025 at 1500 UTC, a tropical storm formed just west of the Cabo Verde Islands and was named Erin. Over the next four days, Tropical Storm Erin strengthened slowly as it moved westward across the central Atlantic Ocean, hindered by relatively cool sea surface temperatures.

On 15 August at 1500 UTC, it was upgraded to a hurricane while located approximately 460 miles (740 km) east of the northern Leeward Islands. From that point, Erin began to rapidly intensify due to warmer sea surface temperatures over the Atlantic waters east of the northern Caribbean Sea.

In just 18 hours, by 1000 UTC on 16 August, Erin became a Category 4 hurricane with sustained winds of 130 mph (215 km/h), as it approached the northern Leeward Islands. At that time, the hurricane's centre was located at latitude 19.6° North, longitude 61.5° West, approximately 150 miles (240 km) east of Anguilla. It was moving west-north-westward at 20 mph (31 km/h) (see Figure 1).
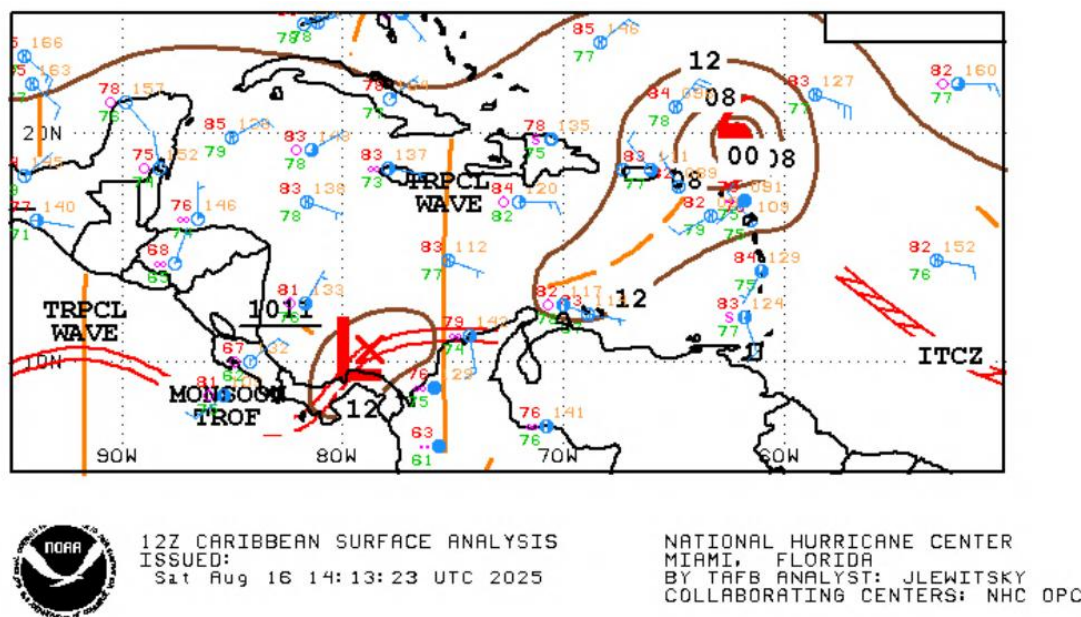
Figure 1 Surface analysis over the Caribbean area on 16 August at 1200UTC. Source: US National Hurricane centre[1]

Satellite imagery (Figure 2) showed a well-organized hurricane, characterized by a small eye, a compact and symmetric inner core, and a large area of deep convection southwest of the centre, which was beginning to affect the northern Leeward Islands.

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[1] National Oceanic and Atmospheric Administration - FTP, National Hurricane centre, review date: 16 August 2025, available at: *https://www.nhc.noaa.gov/tafb /CAR 12 Z.gif*
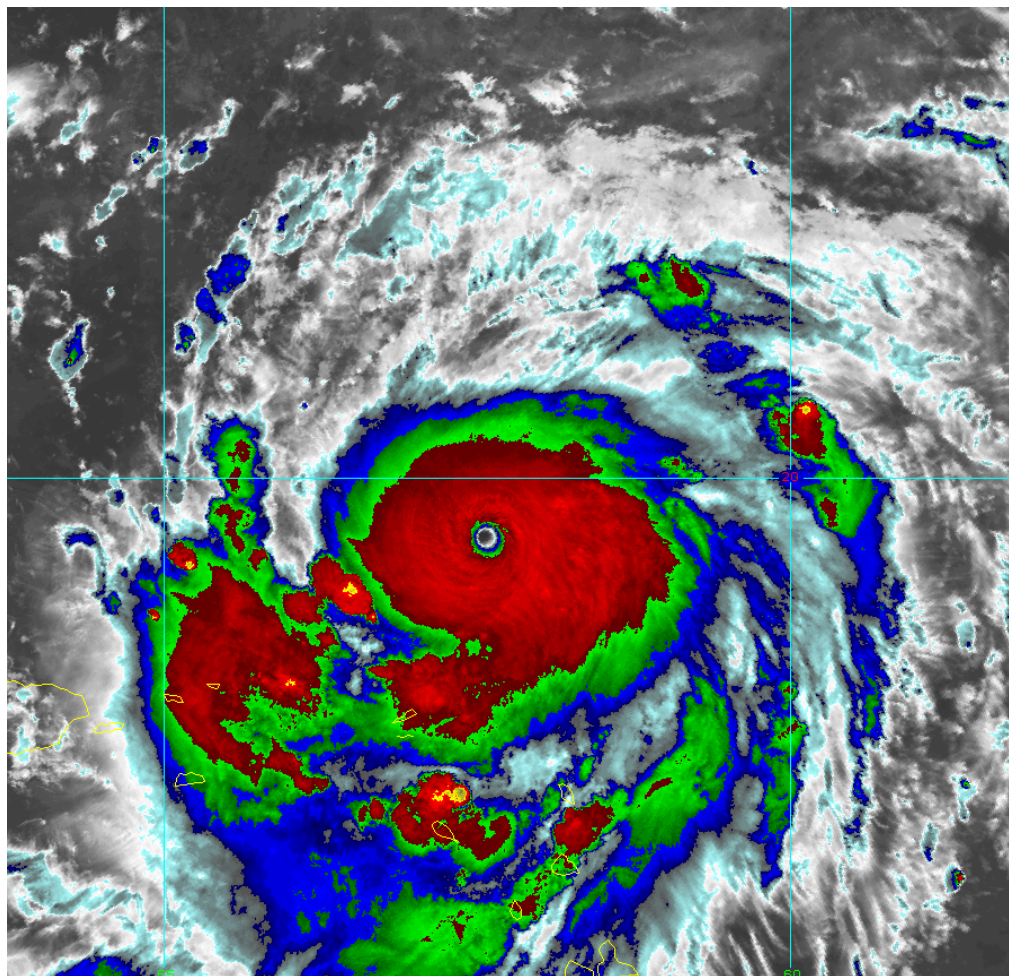
Figure 2 Satellite imagery on 16 August, 2025 at 1336 UTC from the thermal infrared channel enhanced with colour. Blue/green colours represent high altitude clouds (top cloud temperature between -50°C and -70°C), while the red/yellow colours represent very high altitude clouds (top cloud lower than -70°C). High altitude clouds indicate strong convection associated with intense precipitation. Source: NOAA, National Environmental Satellite, Data and Information Service[2].

Wind analysis maps (Figure 3a) indicated that hurricane-force winds extended outward up to 30 miles (45 km) from the centre, while tropical-storm-force winds extended outward up to 125 miles (205 km), primarily to the north of the centre.

Over the next six hours, Erin continued to rapidly strengthen, and at 1520 UTC it became a Category 5 hurricane, with maximum sustained winds near 160 mph (255 km/h) and a minimum central pressure of 917 mb. The hurricane's centre was located at latitude 19.7° North, longitude 62.8° West, approximately 105 miles (170 km) north of Anguilla. Hurricane-force winds extended

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[2] RAMSDIS Online Archive, NOAA Satellite and Information Service, available at: https://rammb-data.cira.colostate.edu/tc_realtime/storm.asp?storm_identifier=al052025

outward up to 30 miles (45 km) from the centre, while tropical-storm-force winds extended outward up to 140 miles (220 km), mainly to the north of the centre (Figure 3b).

The Category 5 hurricane continued moving westward at approximately 16 mph (26 km/h) with no change in intensity until the end of the day.

Up to this point, the hurricane's wind field was intense but compact, with the most dangerous hurricane-force winds confined to a relatively small area. As a result, tropical-storm-force winds began affecting Anguilla at 1200 UTC, despite the hurricane's close proximity to the island.

On 17 August, Erin underwent a structural change that occurs in the most powerful hurricanes - resulting in a weakening of intensity but an expansion in size. At 0600 UTC, Erin was downgraded to a Category 3 hurricane, with maximum sustained winds reduced to 125 mph (205 km/h), but with a significantly larger wind field: tropical-storm-force winds extended outward up to 205 miles (335 km) (Figure 3c). At that time, Erin was located at latitude 20.4° North, longitude 66.1° West, approximately 245 miles (395 km) northwest of Anguilla. Tropical-storm-force winds had just ceased over Anguilla.

Afterwards, the hurricane continued moving west-northwestward at 14 mph (22 km/h), crossing the Atlantic waters north of Puerto Rico and moving away from the Leeward Islands (Figure 3d), and heading toward the Turks and Caicos Islands and The Bahamas.
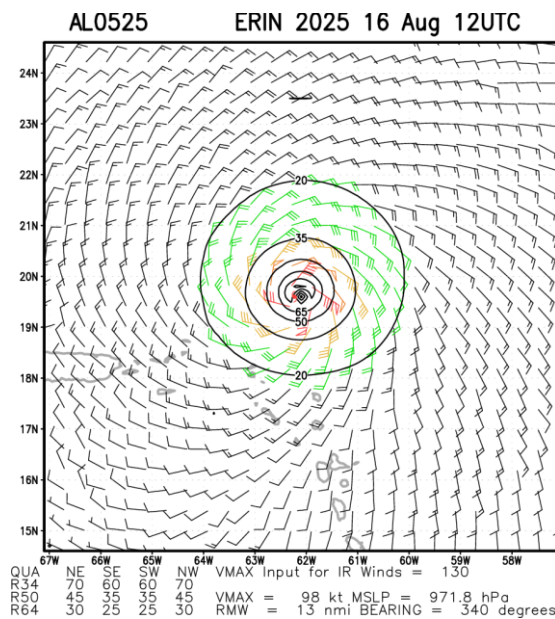
a) 16 August at 1200UTC   b) 16 August at 1800UTC
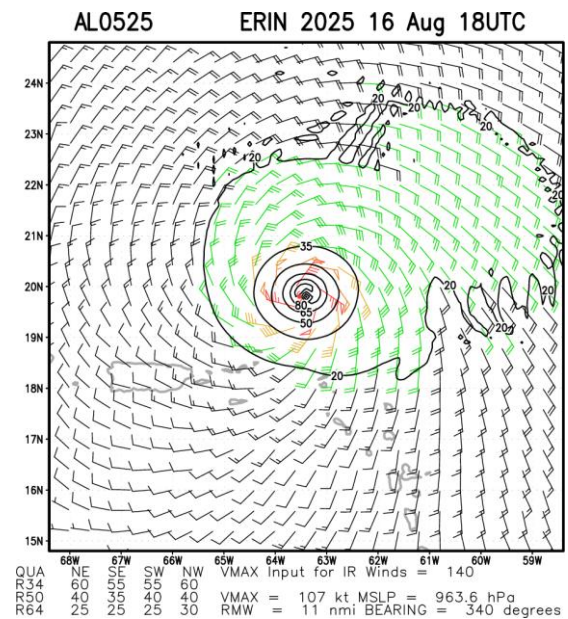
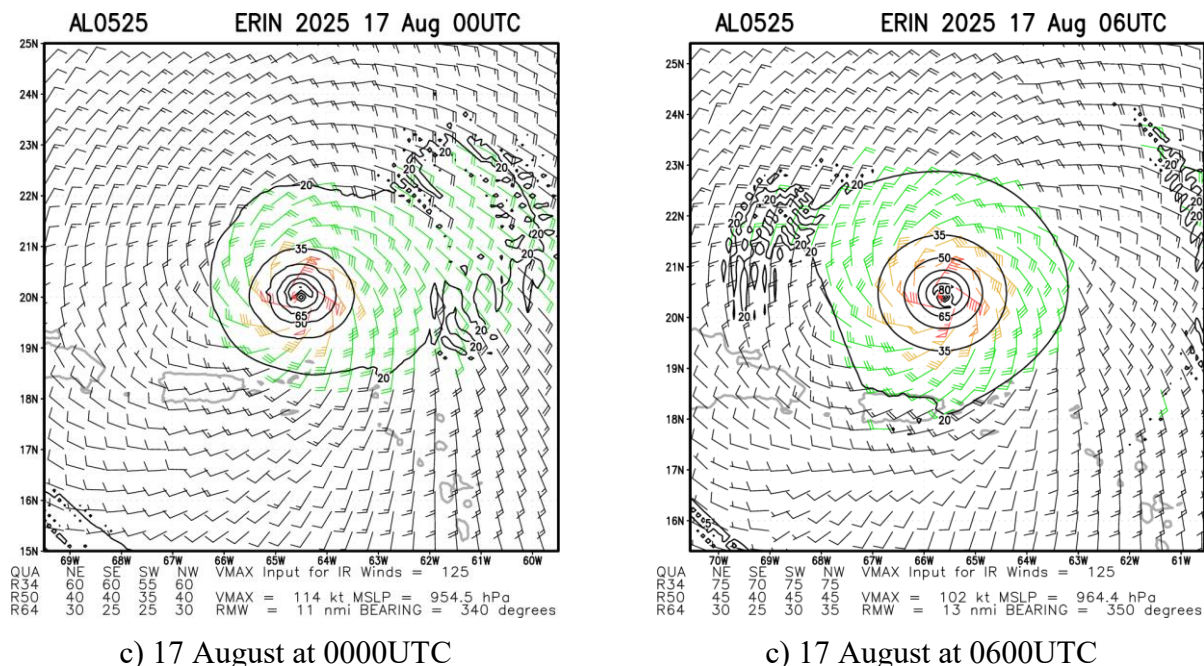c) 17 August at 0000UTC   c) 17 August at 0600UTC

Figure 3 Multi-platform satellite based tropical cyclone surface wind analysis estimated on 16 and 17 August, 2025 at different times as indicated by the labels. Contouring indicates wind intensity at 20 kn (23 mph, 37 km/h), at 35 kn (40 mph, 65 km/h), 50 kn (57mph, 93 km/h), 65 kn (74mph, 120km/h) and 80 kn (92mph, 148km/h). Source: NOAA, National Environmental Satellite, Data and Information Service[3]

3   CCRIF SPC MODEL OUTPUTS

Under CCRIF's loss calculation protocol, a CCRIF System for Probabilistic Hazard Evaluation and Risk Assessment (SPHERA) report is required for any tropical cyclone affecting at least one member country with winds greater than 39 mph (62.7 km/h). A Caribbean Public Utilities (CPU) report is required for any CCRIF member country whose electric utility company has a Public Utilities policy, which meets this criterion.

Anguilla was affected by Tropical Cyclone Erin, which qualified as a Reportable Event[4] for ANGLEC. Figure 4 shows the wind footprint for the regions affected by Tropical Cyclone Erin.

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[3] RAMSDIS Online Archive, NOAA Satellite and Information Service, available at: https://rammb-data.cira.colostate.edu/tc_realtime/storm.asp?storm_identifier=al052025

[4] Any named Tropical Cyclone event (i.e. one that reaches Tropical Storm status or higher) within a box bounded by the following – Latitude 4° and 34°N, Longitude 95° and 53°W – which produces modelled winds of at least 39 mph in one or more exposure grid cells of at least one CCRIF policyholder's electric energy provider but does not generate a modelled loss greater than zero
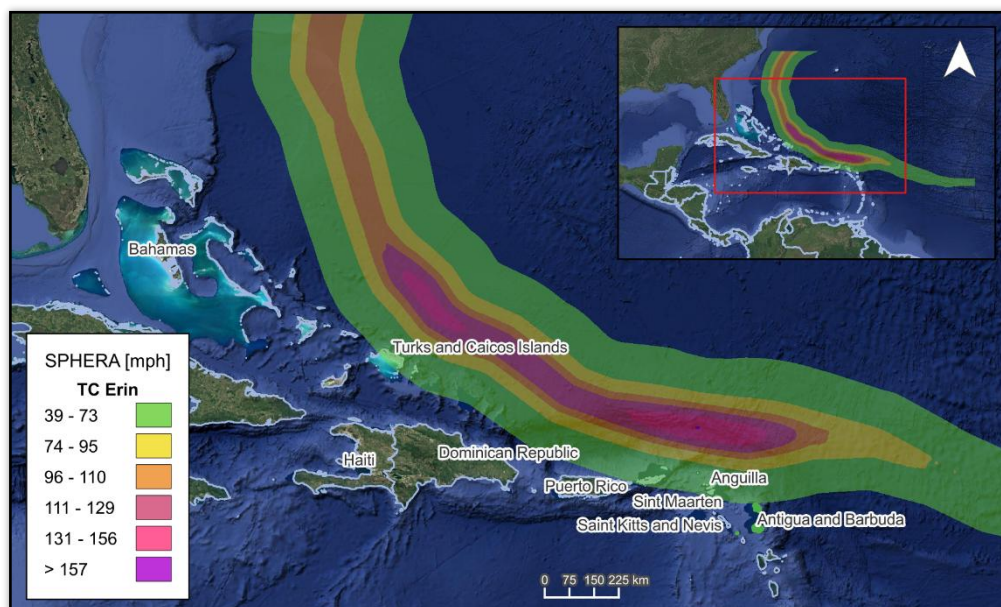
Figure 4 Map showing the wind field associated with Tropical Cyclone Erin around Anguilla
Source: NHC & CCRIF/SPHERA

4   REPORTED IMPACTS

At the time of writing this report, the available information on damage to the electric utilities sector of Anguilla due to Hurricane Erin was limited.

Hurricane Erin impacted ANGLEC by causing power outages affecting areas on the Central and West Feeder, damage to infrastructure such as poles and transmition lines, also a transformer on North Hill was blown up and the replaced.

ANGLEC is actively working to restore power and is addressing issues in various areas of the island, such as Tackling, East End, The Quarter, South Hill, and West End.

ANGLEC has provided updates on recovery progress via their Facebook page[5], advising customers to stay connected for further information and to call their helpline to report outages if their area is not listed.

5   TRIGGER POTENTIAL

The final runs of the CCRIF Public Utilities loss model did not produce any modelled losses for ANGLEC; therefore, no payout under the utility's policy is due.

For additional information, please contact CCRIF SPC at: pr@ccrif.org

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[5] ANGLEC Facebook - Anguilla Electricity Company Limited