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PROJECT REPORT

REFLECTIVE MARKING SOLUTION & SOLAR LED WIND CONE FOR 24/7 OPERATIONS



LOCATION Nassau, Bahamas

DATE 2020

CLIENT Lynden Pindling International Airport

EQUIPMENT iSeries 600-2T Taxiway Marker, Solar Series S3612 Airfield LED Windcone

APPLICATION Reflective Marking Solution & Solar LED Wind Cone for 24/7 Operations

SYNOPSIS

Aviation Renewables supplied Lynden Pindling International Airport in Nassau, Bahamas with its iSeries retro reflective taxiway edge markers and Solar Series LED windcones for day and nighttime airfield operations. The ICAO compliant retro reflective taxiway markers complement existing LED airfield lighting as a redundant taxiway back up marking system in the event of electrical failures with the Solar Series LED Windcones replacing existing electrically powered windcones. The iSeries and Solar Series LED airfield lighting and taxiway marking solutions help meet LPIA's energy, maintenance, emergency preparedness and carbon reduction targets.



CHALLENGE

As the Caribbean's busiest airport, Lynden Pindling International Airport faces increasing operating challenges including storm surge salt water flooding, salt corrosion, high temperatures and major hurricanes. As part of their adaptation and mitigation strategies, LPIA identified a need for a simple, ICAO compliant taxiway marking and LED windcone solution that would enable the airport to remain operational in the event of a loss of an LED airfield lighting circuit. As part of the airport's multi-year runway resurfacing project, LPIA received a mandate to minimize electrical use, reduce energy consumption and lower carbon emissions with ICAO-compliant LED airfield lighting and taxiway marking products.

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SOLUTION

The taxiways now feature redundant, passive retroreflective markers at each taxiway light position. These markers are highly visible at night, with reflected light visible from 1km or more. The markers allow the airport to continue using the taxiways in the event of a circuit failure. They also add extra visibility to the lights for airside vehicle traffic, preventing vehicles from damaging lights that are not illuminated.

The Solar Series S3612 LED windcone is an ICAO compliant Wind Direction Indicator with no electrical input. The 100W solar panel and self-contained battery are mounted directly to the base of the pole, acting as unique counter weight to the tilt-pole design and keeping all electrical components above ground. With all equipment located above ground, any chance of water intrusion during heavy tropical downpours or flooding is reduced, which further enhances the reliability and durability of the Solar Series LED Windcone.

The Bahamas' electricity is generated by diesel fuel, so having solar LED airfield lighting and reflective taxiway systems will help mitigate the carbon impact of the airport's electricity use.



"We're extremely satisfied with the equipment and service we've received from Aviation Renewables. We're constantly seeking to increase our operational capacity while reducing our climate impact and operational cost; Aviation Renewables has been helpful in achieving both goals simultaneously."

Director Airside Operations and Public Safety, LPIA.