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Smart street lighting project to cut the glow and help protect turtle hatchlings

Smart street lighting has been installed in Zilzie Queensland by Livingstone Shire Council and Ergon Energy, with LoRaWAN network connectivity provided by NNNCo, in a bid to help protect turtle hatchlings from being disorientated by artificial lights - proof that the Internet of Things has the potential to create a more sustainable world.

As part of a Council trial with Ergon Energy and with assistance from Queensland Marine Parks and Wildlife Service and Fitzroy Basin Association volunteers, four street lights along the Zilzie Esplanade have been replaced with connected Flashnet IntelliLight Nema controllers, enabling remote dimming and amber-coloured lighting.

In Livingstone Shire Council, sea turtles create nesting areas on urban coastal esplanades close to the water, such as the Zilzie Esplanade. Every year turtle hatchlings make their way from the land to the sea, however artificial lighting on streets can interfere with the turtles' ability to see the natural horizon and cause hatchlings to veer from their path.

The Council worked with Queensland power utility Ergon Energy to have the coloured street lighting installed along the Esplanade. NNNCo provided the carrier-grade LoRaWAN connectivity and N2N-DL data platform.

Portfolio holder for Water, Waste Management and the Environment, Cr Andrea Friend, said some hatchlings that have made it out to sea can also be lured back to the land by strong coastal lights.

"Hatchlings have a low chance of survival with only about 1 in 1,000 reaching maturity, so it's vital Council helps to maximise nesting success and hatchling survival," Cr Friend said.

"Zilzie is a well-known nesting area for sea turtles and it's important that Council acts to protect the species with this trial. Council has contacted nearby residents to explain the changes to the street lighting which will remain in place throughout the 2021 turtle hatchling season."

LoRaWAN network infrastructure was deployed by NNNCo in 2019 in Livingstone Shire Council, enabling the Council to roll out new use cases such as this one with relative ease.

NNNCo CEO Rob Zagarella said, "This is a fantastic example of the good that IoT can do in the world. Smart street lighting can provide cities and communities with significant energy and cost savings, but now we're also seeing life-giving benefits like this one."

"We're very proud to be working with a forward-thinking Council like Livingstone Shire Council and Ergon Energy to bring this project to life."

Press contact:
NNNCo
Fiona Day
fiona.day@nnnco.com.au
+61 (0)411 849 380

About NNNCo
NNNCo is a leading Australian IoT Enterprise provider and LoRaWAN network operator. The company provides the network layer and technology-agnostic data platform that makes IoT accessible across any industry to enable enterprise-grade solutions for business and government. NNNCo's Enterprise IoT service is deployed using LoRaWAN technology, the globally-adopted open standard for secure, carrier-grade IoT connectivity. For more information, visit www.nnnco.com.au