



# NEMO

# NER300

## The project

Technology category: Ocean energy  
Location: Martinique, France  
Max. NER 300 funding: EUR 72.1 million  
Final investment decision: June 2018 (estimated)  
Entry into operation: June 2020

## State of advancement

In 2016, Akuo followed-up the permitting process; DCNS performed geophysical and specific on site measurements and moved significantly forward on the technology validation.

## Outlook for coming year

Administrative authorizations should be obtained. Negotiations on the EPC (Engineering, Procurement, and Construction) contract will start. The preparation of project finance process should be launched by September.

## Outlook for coming 5 years

2017: Administrative authorization obtention, engineering, contracting and financing; 2018: Components fabrication; 2019: Construction; 2020: Commissioning and entry in operation

## Project sponsor

New Energy for Martinique and Overseas

## Project website

[www.akuoenergy.com/nemo](http://www.akuoenergy.com/nemo)

## Project summary

The NEMO project will be the first Ocean Thermal Energy Conversion (OTEC) Platform operating in the world. The technology uses the temperature difference between surface warm water and deep cold water encountered in tropical oceans as the source of thermal energy. The platform will be located on Martinique Island, 5 km far from Bellefontaine city's coastline where the sea-bed reaches approximately a 1300 m depth.

Eleven intake and discharge sea water pipes will be built in vertically from the platform to reach different depths: a cold water pipe will pump water at 1100 m depth. The same cold water will be discharged through 2 pipes at a 150 m depth (under the photic zone) after passing by the condenser. Four hot water pipes will pump water at 9 m and four others will reject it at 16 m depth. The water drawn from the sea will be used respectively as hot and cold source for the OTEC plant located on the barge.

Four process units, using Rankine cycle, will be located in platform's hull. Each one consists of a pair of exchangers (evaporator and condenser) in which circulate ammonia (the working fluid) and a turbo generator.

Power will be exported from the platform to the shore via a submarine export cable. Onshore, a substation will recover the electricity and ensure connection to the grid.

[setis.ec.europa.eu/ner300](http://setis.ec.europa.eu/ner300)