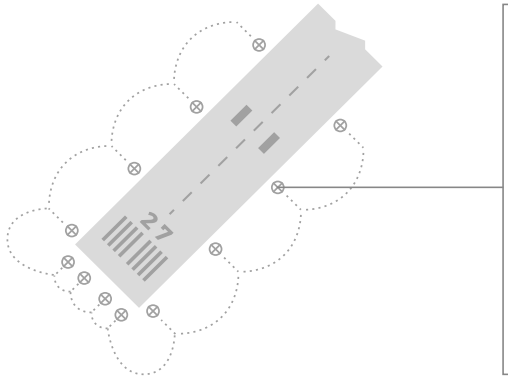
HOW CAN AIRPORT OPERATE 365 DAYS ON SOLAR?

1 SP-401 LIGHT OPERATES 365 DAYS ON SOLAR

SP-401 solar lighting unit is designed to generate more power than in consumes



SP-401 lighting unit is equipped with LED optics which consumes energy when turned on.

SP-401 lighting unit uses 20W solar panel to generate electrical energy. It is stored in built-in power bank

2 POWER CONSUMPTION

Airfield lighting is used to support airport night operations. Depending on flight schedule, airport requires x hours of illuminated runway monthly.

10

Airport runs
10 flight operations daily

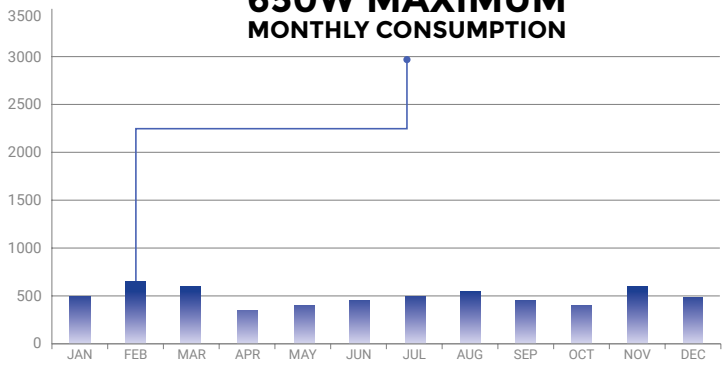
5h

Each operation requires 30 min.
In total - 5 hours daily

30

We calculate power consumption on monthly basis

650W MAXIMUM
MONTHLY CONSUMPTION



3 POWER GENERATION

Airfield lighting is powered by solar panels. Solar panels can generate energy depending on solar activity in a particular region - geographical location of the airport.

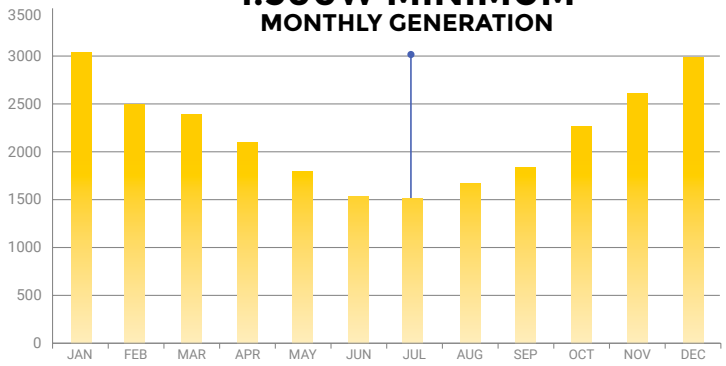
OWERRI AIRPORT NIGERIA

We select Airport location
35°2'21"N by 106°36'38"W

European Commission

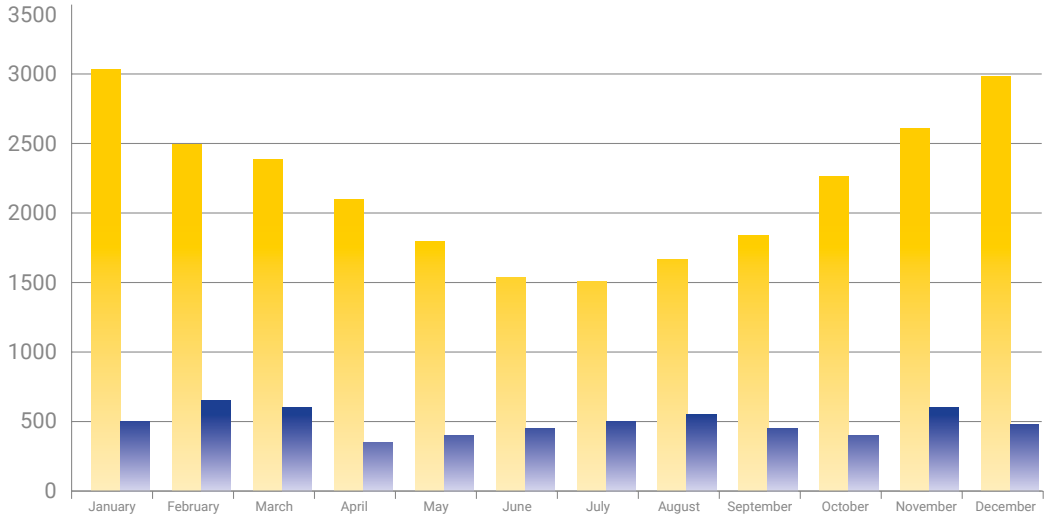
We use Photovoltaic Geographical Information System
to simulate monthly power output for selected location

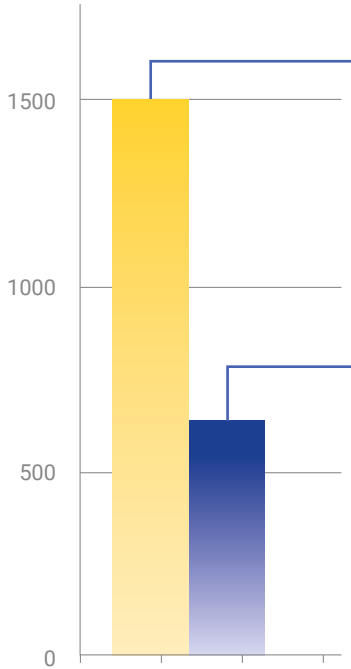
1.500W MINIMUM
MONTHLY GENERATION



HOW CAN AIRPORT OPERATE 365 DAYS ON SOLAR?

4 COMPARISON BETWEEN ENERGY GENERATED AND CONSUMED



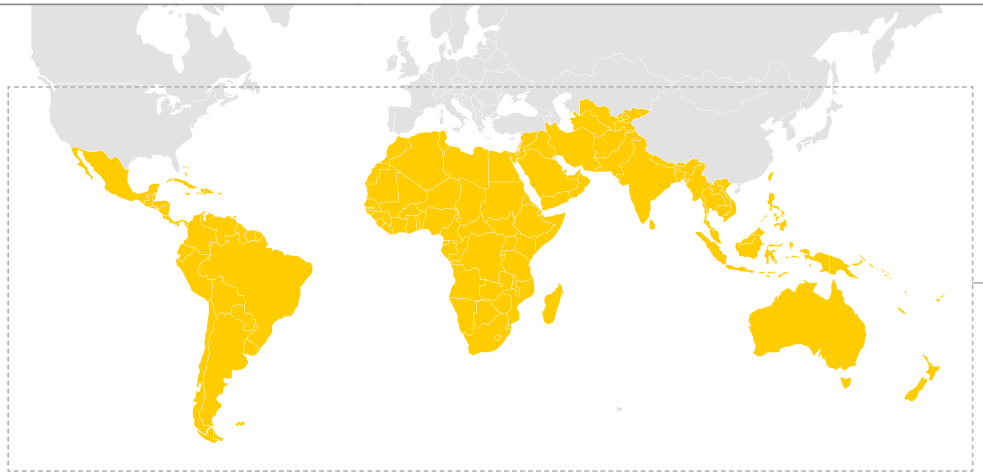


1.500W
MINIMUM MONTHLY POWER GENERATION

650W
MAXIMUM MONTHLY POWER COMSUMPTION

IF ENERGY GENERATED IS MORE THAN ENERGY CONSUMED, AIRPORT WILL OPERATE 365 DAYS ON SOLAR ENERGY

5 REGIONS WHERE AIRPORTS WILL OPERATE 365 DAYS ON SOLAR



AT AIRPORTS LOCATED IN REGIONS WITH HIGH PHOTOVOLTAIC POTENTIAL (MARKED YELLOW), S4GA AIRFIELD LIGHTING SYSTEM WILL OPERATE 365 DAYS USING SOLAR ENERGY