**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 it 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.
   - Airport runs 10 flight operations daily.
   - Each operation requires 30 min. In total - 5 hours daily.
   - We calculate power consumption on a monthly basis.

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.
   - We select Airport location 35°2'21"N by 106°36'38"W.
   - We use Photovoltaic Geographical Information System to simulate monthly power output for selected location.

- **650W MAXIMUM MONTHLY CONSUMPTION**
- **1.500W MINIMUM MONTHLY GENERATION**
HOW CAN AIRPORT OPERATE 365 DAYS ON SOLAR?

COMPARISON BETWEEN ENERGY GENERATED AND CONSUMED

1.500W
MINIMUM MONTHLY POWER GENERATION

650W
MAXIMUM MONTHLY POWER CONSUMPTION

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

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