

Nice

High Efficiency Solar Operators

Choose Solar Operators when AC power is unavailable or uneconomical.

Hundreds of thousands of **Nice** solar Linear Actuators (formerly Apollo) populate sun belt residential applications for good reason. **Power efficient, easy to install, rugged and very reliable.**

HySecurity Smart DC pad-mounted slide, swing, and barrier operators cycle tens of thousands of residential and commercial gates nationwide. **These power efficient, rugged and very reliable operators are easy to install and program.**

Solar's Big Benefits

- Solar equipment saves time and money! No AC power line trenching and materials necessary
- Power efficient solar operators cycle even northern gates, where sunshine is less available*



Nice Solar Linear Actuators The Residential Choice

- Single family residential, ranch and rural gates
- Power efficient design - Low standby power draw
- Intelligent accessory power management turns off accessories between cycles, increasing gate cycle capacity
- High efficiency motors and drive systems reduce power consumption and generate more gate cycles

* Calculate battery and solar panel requirements based upon operator efficiency, gate resistance to travel (weight, length, hardware), peak gate cycle periods, accessory power draw, and sunlight duration and strength during lowest insolation seasons.

HySecurity Solar Solutions: Residential, Commercial and More

- Integrated charge controller with industry leading MPPT technology generates more gate cycles
- Battery protection software prevents over-discharge - lengthens battery life
- High speed charger maximizes battery charging during inclement weather when sunlight is scarce
- Intelligent accessory power management turns off accessories between cycles, increasing gate cycle capacity
- High efficiency motors and drive systems reduce power consumption and generate more gate cycle capacity

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Planning a Solar Gate System

Designing a solar gate system is not difficult. This overview will get you started.

For more information visit HySecurity.com/solar

First Step: Estimate Power Needs

Several factors affect the amount of solar power needed to automate a gate. The most important is the number of cycles per day. The size of the gate is also important, especially for sliding gates.

All systems draw power even when the gate is not moving. Include the idle current draw from your operator and accessories in the power budget. Make sure to select low power accessories. Some wireless accessories are battery powered and put no load on the solar system.

Second Step: Available Solar Power

Just because you do not live in Florida does not mean solar isn't possible. With the declining cost of solar panels, installations are cost effective in most of the lower 48 states. Plan your system to operate in December, when days are shortest and often cloudy. Maps like the one below depict

the power available in kW-h/day on a 1m by 1m solar panel in December.

Size your solar panels to provide a little more than daily power used during the worst month of the year.

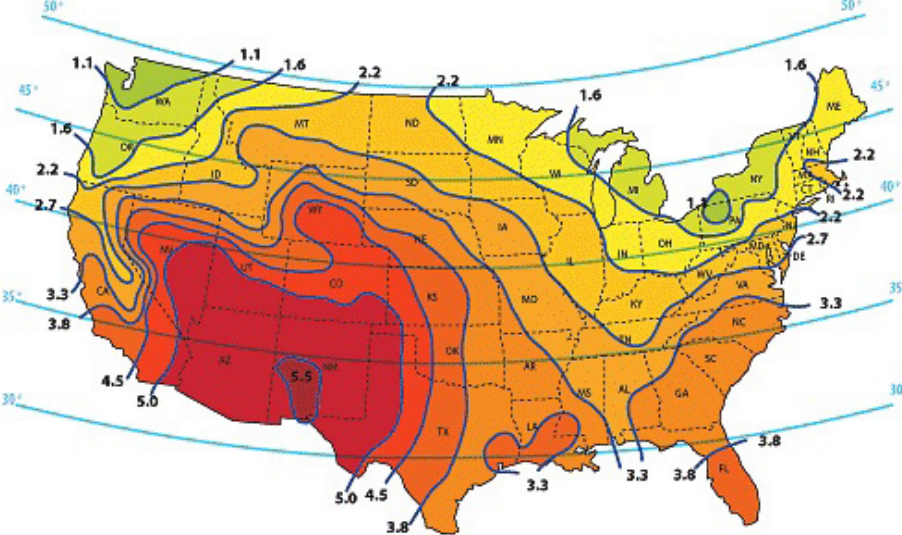
Third Step: Power Storage

The batteries need to power the system for extended times of cloudiness when there will be no solar charging. Take the daily power needed and multiply by the desired backup power duration. Size the batteries to have about twice the needed power. This prevents deep cycling the batteries, which reduces their life. For 24V systems, always use two batteries of the same capacity, wired in series.

Other Considerations

Simple things like selecting low power accessories and locating solar panels with an unobstructed view of the sun makes a huge difference in the reliability of your system. Use conservative assumptions for estimating power usage and always round up. An online calculator, additional detailed planning sheets, and other resources are available at HySecurity.com/solar.

USA Solar Insolation Map



Nice and HySecurity Smart DC Solar Operator models

1500	TITAN12L
1550	TITAN12L1
1551	SwingSmart CNX
3501	SwingSmart DC
7251/7351	SlideSmart DC
SlideSmart CNX	StrongArmPark DC

Simpler is better.
See how at hysecurity.com/solar



support.hysecurity.com

Nice/HySecurity is an industry leader of automated gate and perimeter security solutions.

The HySecurity brand provides high-quality, ultra-reliable industrial gate operators and crash-rated, Hostile Vehicle Mitigation (HVM) vehicle barriers designed to secure and protect critical infrastructure and facilities worldwide.

Nice

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