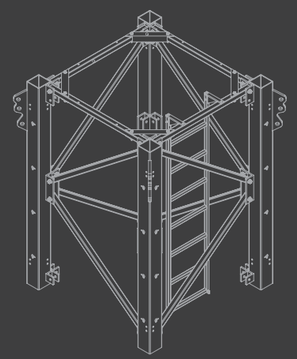
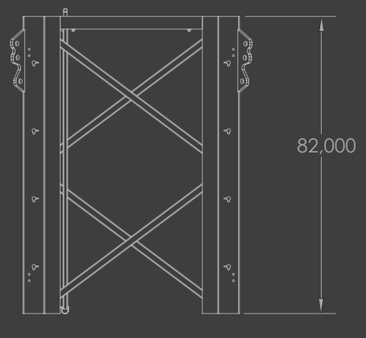
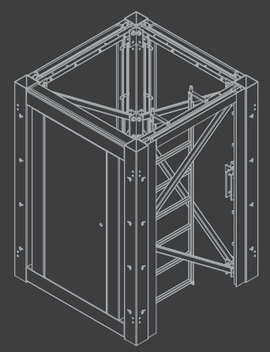
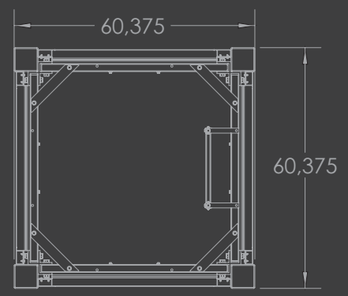
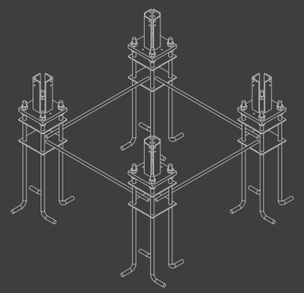
A solar tower with unparalleled energy efficiency.

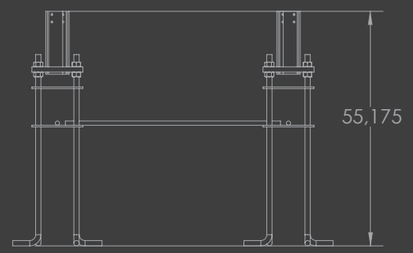












03

Serie **SPT**

SMART TOWER POWER

SPT44-S | SPT44-L | SPT77-S | SPT77-L

The SPT 3.1

A fully autonomous solar utility tower designed to offer countless possibilities of use.

The Smart Power Tower was developed to be a power source with unmatched performance specifically for areas where infrastructure is either insufficient or non-existent. Its multiple photovoltaic panels can support systems consuming up to 5 kW, offering exceptional performance even in adverse weather conditions.

Its vertical design provides a small footprint, high reliability and minimal maintenance. The tower's remote monitoring system also allows for reduced and coordinated maintenance, thus reducing frequency and costs. As for the batteries, electronic components and photovoltaic panels, they remain secured inside the structure, thus limiting the risks of theft and vandalism. Moreover, its battery bank allows it to perform at full capacity for up to 42 hours in absolute darkness.

Advantages

Smaller footprint

Unmatched energy efficiency on the market

PV energy accumulators and secure electronic components within the structure

Significant reduction in operations, infrastructure and maintenance costs

Strong resistance to wind and weather

Real-time remote access to performance data

Programmable email alarms

Uninterrupted power to critical equipment

The self-supporting SPT77-S for a traffic circle in Akwaba City, Africa.

The applications 3.2

The SPT is a unique, intelligent and sophisticated solar tower that meets multiple needs.

Its modular design and optional guy wine system allows it to adapt to the needs of a given territory. Whether it's for lighting, level crossing barriers, proximity sensors or satellite communication systems, the SPT can power all types of technologies without interruption.

The SPT77-L on a territory in Mali, Africa.

LIGHTING

Multiple anchor points for the installation of exterior lights such as street lights and directional lights with wide or narrow beam.

ELECTRIFICATION

Power for external electrical devices such as water pumps, crossing gates and motorized fences.

SECURITY

Secures sites with a multitude of device types such as cameras, proximity sensors, speaker systems and emergency phones.

TELECOMMUNICATION

Deploy 3G, 4G, 5G or LTE cellular networks and increase the communication range with satellite and microwave communication systems.

MULTI-TECHNOLOGY

The power, reliability and autonomy of the SPT series offer the possibility of combining all types of technologies in a single tower.

The characteristics 3.3

The SPT adapts to all natural environments and remains in perfect harmony with its surroundings.

Its entirely vertical design reduces the footprint by minimizing deforestation areas while protecting it from theft and vandalism. Its photovoltaic panels are mounted high and secured from the inside, and access to the batteries is locked.

STRUCTURE

Made of strong, durable aluminum alloy, the SPT performs well in harsh weather, salty environments and time. This material is 100 % recyclable and its light weight makes it easy to transport and assemble.

AUTONOMY

Accommodates a variety of battery technologies and configurations. The SPT can also be extended at the base to accommodate battery banks of several thousand ampere hours.

MODULAR

The modular design allows the height to be increased or decreased depending on the desired photovoltaic performance of the tower.

LARGE HEIGHT

The bracing system allows the structure to reach up to 200 ft (61 m) in height while maintaining excellent deflection properties.

URBANISM

Esthetic and solid, the freestanding SPT integrates and harmonizes perfectly with urban environments. Several colors available according to the customer's needs.

HYBRID

Although designed as a completely autonomous device, it can be combined with an electrical network or a generator to make it a hybrid solution.

INSTALLATION

The simple and fast assembly structure can be erected with or without a crane.

ADAPTABILITY

With its innovative design, the SPT can be adapted to countless needs.

On the left, the SPT77-L in the Bras-du-Nord Valley in Quebec, Canada.
On the right, the SPT44-L.

The specifications 3.4

STRUCTURE	SPT44-S	SPT44-L	SPT77-S	SPT77-L
Width	4 ft 11 in 11/16 (1516 mm)		7 ft 11 in 11/16 (2429 mm)	
Depth	4 ft 11 in 11/16 (1516 mm)		7 ft 11 in 11/16 (2429 mm)	
*Usable height (A)	99 ft 8 in (30.18 m)	156 ft 8 in (47.74 m)	102 ft (31.09 m)	160 ft 3 in (48.86 m)
*Total height (B)	106 ft 2 in (32.31 m)	163 ft 1 in (49.71 m)	108 ft 6 in (32.92 m)	166 ft 9 in (50.83 m)
Type of support	Self-supporting	Rigging struts	Self-supporting	Rigging struts
Number of supports	0	16 (4 per side)	0	16 (4 per side)

* The height is adaptable to the customer's needs due to the modular design of the device.

SOLAR	SPT44-S	SPT44-L	SPT77-S	SPT77-L
PV panels Monocrystalline	14.24 kW	28.48 kW	28.48 kW	56.96 kW
Estimed production	3.75 kW	7.5 kW		15 kW
Power supply (max 24 h)	1.25 kW	2.5 kW		5 kW

BATTERIES	SPT44-S	SPT44-L	SPT77-S	SPT77-L
Technology	Advanced nano-carbon lead acid with valve control			
Capacity	1000 Ah à 48 Vdc	3000 Ah à 48 Vdc		6000 Ah à 48 Vdc
*Lifetime-70%DOD	5000 cycles			
*Lifetime-30%DOD	10000 cycles			

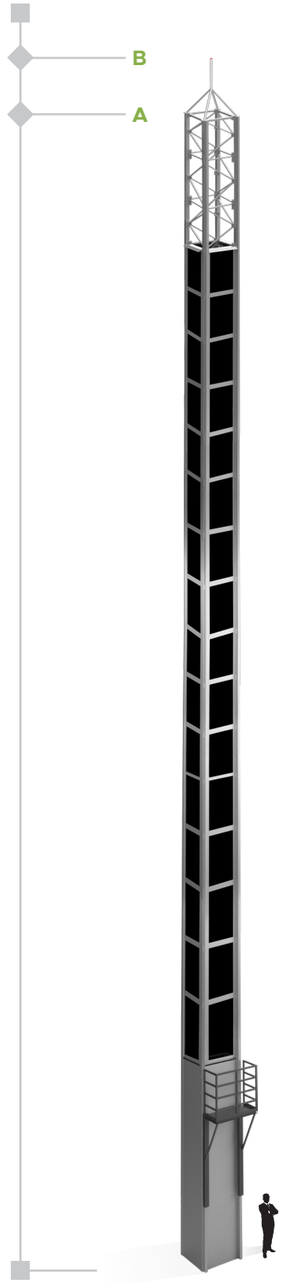
*DOD = Depth of discharge, expected daily DOD of 23.5% (71.5% when reaching its autonomy) and estimated lifetime of over 25 years.

WIND RESISTANCE	SPT44-S	SPT44-L	SPT77-S	SPT77-L

*Laboratory tests exceed Canadian (CSA-S37-18), American (ASCE-7 + AINSI/TIA-222) and Eurocode (EN 1991-1) standards by considering equipment with a total weight of 1100 lbs (500 kg) and with a surface area equivalent to the PV panels. Engineering specific to each project.

AVAILABLE OPTIONS

1. LiFePO4 battery
2. Additional structural sections to extend the tower to a maximum height of 203 ft (62 m)
3. Hybrid systems (grid or generator)
4. Service elevator



Because the future is bright.