

## **PROSPECTS FOR THE DEVELOPMENT OF SOLAR STREET LIGHTS.**

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**-Anification:** Solar street lights have the advantages of energy saving, environmental protection, safety, non-electrical, easy installation and automatic control. Clean energy has been developed as a long-term strategy in the world, so the demand for solar panels in the future is huge. Nowadays, more and more people are aware of sunny street lights because they can often be seen on the outside streets. Solar street lights are installed even in rural areas. Therefore, solar street lights are inevitable for the construction of urban and rural lighting. Solar street lights are becoming a new development trend and leading the new development of the lighting industry.

**-Introduction:** A hundred years ago, the use of electric lights was still a luxury. Today, we consider the use of electric lights to be the norm, but at that time only the rich could afford it. After the 19th century, most households used candle or oil lamps, but as industrialization deepened, people needed better and more powerful light sources to light their workshops, so steam lamps became increasingly popular. Although it emits some unpleasant odors and is often at risk of fire and explosion, it will soon be used to illuminate streets, city squares and theaters. got rid of the traditional street lights and replaced them with solar street lights. As a new green energy product, solar street lights have many advantages such as simple installation, environmental protection and energy saving and so on. The history of the development of street lights is a history of entrepreneurship striving for light. Street lights appeared in the 15th century. The purpose of the street lights was to illuminate London's dark nights in the winter. The London market has ordered the suspension of street lights outdoors. In 1417, the mayor of London ordered all families to hang street lights outside at night in the winter. Although the lighting is dim, this is the first step to connecting the lights to the street. These are our first kerosene street lights. (Figure 1)



Our kerosene street lights: (Figure 1)

The invention of the generator opened up new prospects for the future. People have finally learned how to convert electricity into light energy. The advent of electric lights has also contributed to the all-round and widespread use of electricity.

The arc lamp was first widely used in 1843. At that time, every spring generator needed a generator, so the cost was relatively high. After the invention of the differential arc lamp, street lights gradually gained popularity in cities. Differential arc lamp was first applied to the street of the Kaiser Gallery in Berlin, later it became Linden Road, which started to illuminate the arc lights in Germany. Soon, railway stations, commercial establishments, factories, and seaports also began to use arc lamps. In 1888, Berlin's famous "Linden Quote Street" was also illuminated by 108 electric lights. Because the arc lamp was so large and bright, it was unsuitable for home use, so many inventors used incandescent lamps to make it easier to control themselves. incandescent lamps. There is no air in an incandescent lamp and it emits light as current flows through the filament. The first incandescent lamp that could be used was created in 1854 by a German expat in New York, but it was not promoted. Incandescent lamps were widely introduced to the market only after Thomas Alva Edison used carbonized bamboo fibers to make

yarn. At the Paris Exhibition in 1881, the Edison lighting system caused a great deal of controversy. With the development of time, city roads became interconnected and if street lights are installed on both sides of the road, it can affect the standing of telephone poles and the beauty of the city. This comes. That's why Beijing was the first to start using high-rise street lights.

With the advent of the 21st century, people began to pay attention to global environmental problems, and the production of eco-friendly and energy-saving products was relevant, so new light sources were born. LED is one of them. Its longevity, energy saving and sustainable advantages have led to its widespread use in the street lighting industry. The application, in addition to generating solar energy, street lights can generate electricity directly from natural light sources, as well as in combination with new light sources such as LED, it is more powerful. In terms of street lighting development, the street lights currently in use are brighter, more beautiful and more environmentally friendly. It is inseparable from the wisdom and skin of the former. I think that in the future, street lights will also take a new step and develop towards common sense. We, NOMO, are able to produce as high quality sunlight as possible.

**-Conclusions and Recommendations:** Solar street lights have the advantages of energy saving, environmental protection, safety, non-electrical, easy installation and automatic control. The main types of solar street lights are: solar garden lights, solar street lights, solar lawn lights, solar landscape lights, and solar signal lights.

As land resources dwindle, basic energy prices are rising, there is a risk of security and pollution in various places, international traditional energy prices continue to rise, domestic energy supply is tight and energy replacement is the most important part of the national energy strategy. Security has risen to a higher level. As an infinitely renewable energy source, it is a common trend for the city to produce and gradually replace traditional energy sources for daily life. Solar lighting should emerge as a popularization of solar water heaters. Now it has become one of the most important ways to use solar energy and is attracting more and more attention from the energy and lighting industry.



(Figure 2)

Solar street lights use solar energy as energy, use battery panels to charge solar energy during the day, and to charge a light source at night. Safe, energy-saving and pollution-free, energy-saving and maintenance-intensive, promising, green and environmental protection, whether it is a small courtyard, a noble residence, or a farm, construction playgrounds, villas, gardens, roads and farms all have broad market prospects.

Therefore, the development of solar street lights is optimistic, and the market prospects are very broad. And it is getting better and better with the development of the times. The growth potential of solar street lights is endless.

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