

# Uruguayan Solar Container for Wastewater Treatment Plant 100kW





## Overview

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This article offers a trend of inventions and implementations of photocatalysis process, desalination technologies and solar disinfection techniques adapted particularly for treatment of industrial and domestic.

What is the difference between solar energy and wastewater treatment plant?

The solar Energy faces the drawback to treat wastewater only during day time, whereas wastewater treatment plants are underperformed during night. Need for energy storage systems increases the overall cost of the WWT plant.

Are solar photocatalytic wastewater treatment plants environmentally friendly?

There do exist very few medium scale solar photocatalytic wastewater treatment plants which are environment friendly compared to the existing conventional systems. Treatment of wastewater using solar energy reduces the use of conventional power thereby reduces emission of GHG.

How much energy does a wastewater treatment plant use?

The study conducted by (Guernanou, 2019) evaluated an energy consumption of 0.6 kWh/m<sup>3</sup> which emitted 185.61 g of equivalent CO<sub>2</sub> /kWh for wastewater treatment. The direct and indirect ways of GHG emission from a WWT are highlighted in Table 2.

Can solar-driven water treatment be used in rural areas?

The technical and economic potential assessment for using solar-driven water treatment sets the course for further research and development projects in the most significant industrial sectors and municipal wastewater treatment, but also for use in rural areas (e.g., Africa) for applications like drinking water production.



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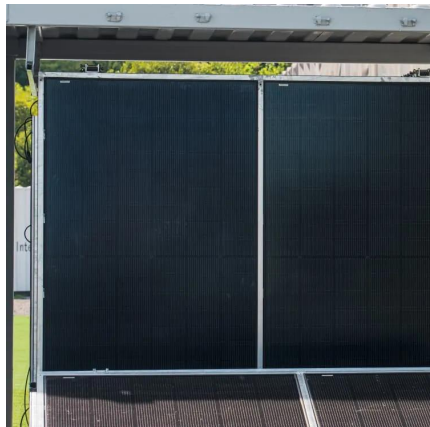
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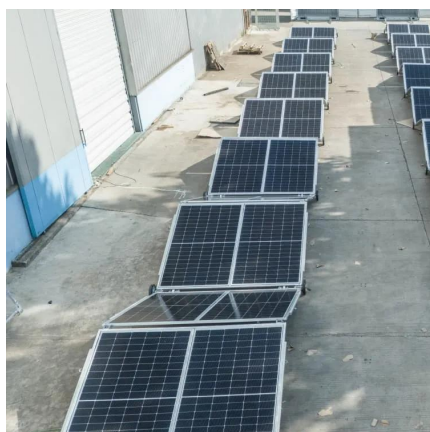
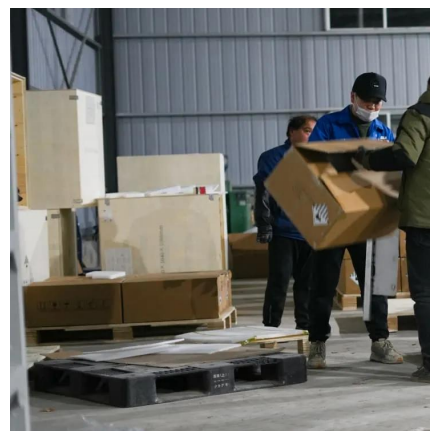
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