



MODERNIZATION SOLAR

# 5MWh Solar Container for Wastewater Treatment Plants





## Overview

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Why do wastewater treatment plants use solar PV?

In wastewater treatment plants with a flow rate below 5 MGD, the absence of energy generation from biogas could have led the adoption of solar PV. In these plants, solar PV often represented the only source of renewable energy, producing between 30% and 100% of the energy demand of these plants.

How much energy does a wastewater treatment plant use?

In these plants, biogas contributed 25–65% to the overall energy demand, while solar provided 8–30%. In wastewater treatment plants with a flow rates below 5 MGD, solar PV often represented the only source of renewable energy, producing 30–100% of the energy demand of these plants.

Is solar energy economically viable in a wastewater treatment plant?

Foley (2010) analysed the economic feasibility of solar in a wastewater treatment plant in Singapore to meet the plant's energy requirement. He concluded that solar energy was economically viable only with a rebate of at least 63%.

Which wastewater treatment plant has a solar PV installation?

The wastewater treatment plant treating 165 MGD with a 4.2 MW solar system installed was the biggest plant with a solar PV installation. However, this plant presented unique conditions, which made it non-representative of global practices.



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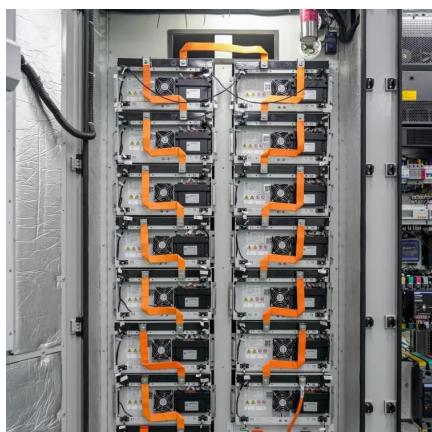
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## Harnessing Renewable Energy in Wastewater Treatment Plants

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