

20MWh Solar Container for Wastewater Treatment Plants





Overview

Is solar PV a suitable source of energy for small wastewater treatment plants?

Solar PV represents a suitable source of energy for small wastewater treatment plants for two main reasons: lack of biogas recovery opportunity and land availability. The EPA (2007) noted that for wastewater treatment plants with less than 5 MGD flow, it is not cost effective to recover biogas for energy applications.

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.

Which solar installation size is most used in wastewater treatment plants?

Across all the plants analysed, 1 MW was the most adopted solar installation size and solar PV installations were mostly found in wastewater treatment plants in rural settings.

Can solar PV be used in the wastewater sector?

This work informs the broader community on the status of adoption of solar PV in the wastewater sector. Energy utilities could benefit from knowing how the energy demand and consumption of the wastewater sector as a whole is changing as a result of the adoption of this renewable energy technology.



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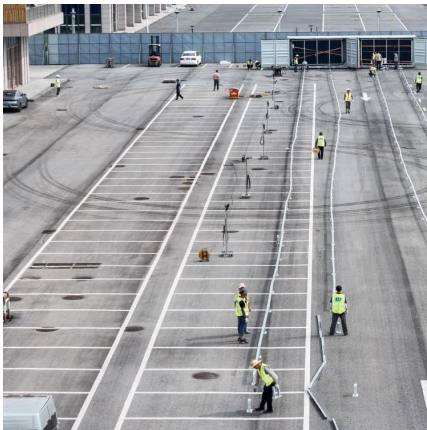
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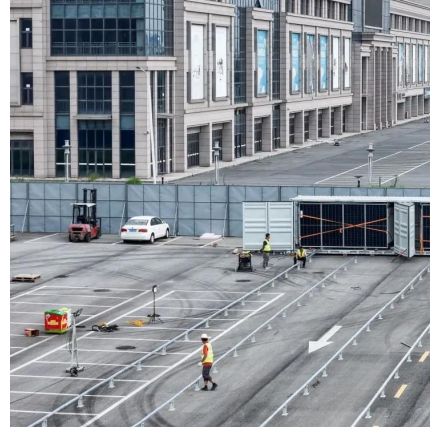
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