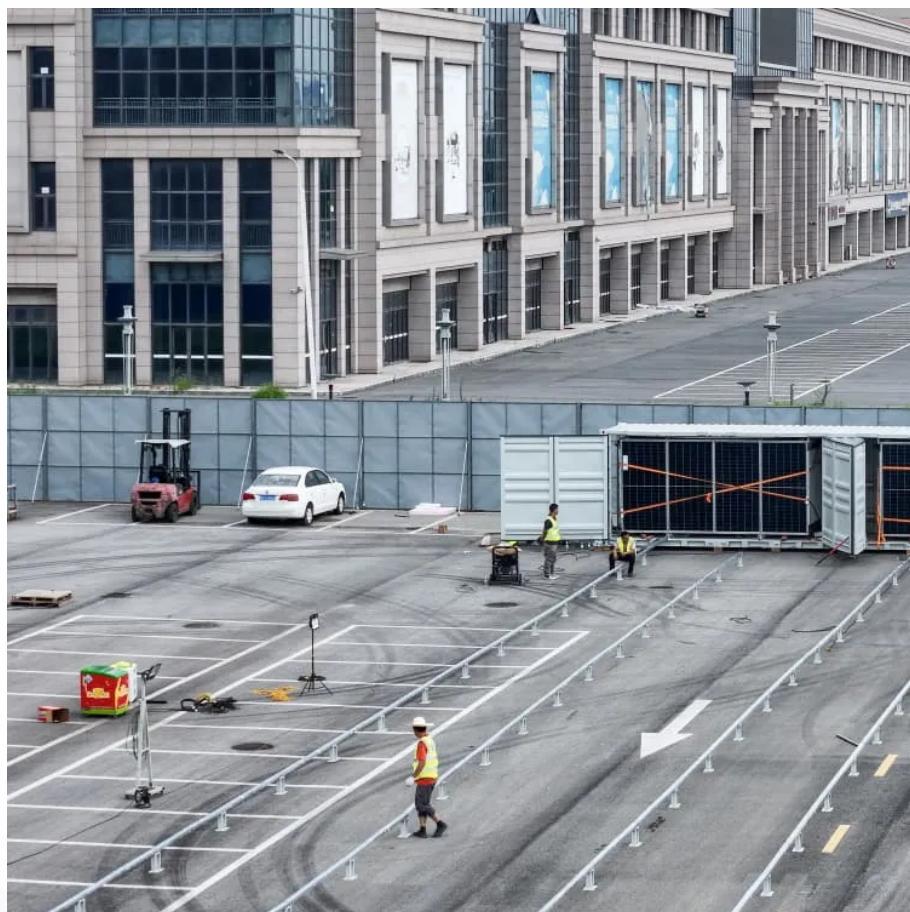




WALMER ENERGY

# 1MW Solar Containerized Cement Plant





## Overview

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This work describes the implementation of concentrated solar energy for the calcination process in cement production. Approach used for providing solar energy includes the utilisation of a solar tower sy.

Can solar clinker be used for cement production?

For the first time ever, CEMEX and Synhelion successfully connected the clinker production process with the Synhelion solar receiver, producing solar clinker. This revolutionary innovation is an initial step to develop fully solar-driven cement plants.

What is a solar clinker?

This revolutionary innovation is an initial step to develop fully solar-driven cement plants. CEMEX, S.A.B. de C.V. ("CEMEX") and Synhelion announced today the successful production of the world's first solar clinker, the key component of cement, a significant step towards developing fully solar-driven cement plants.

How clinker can be produced from concentrated solar radiation?

The Synhelion and CEMEX R&D teams set up a pilot batch production unit to produce clinker from concentrated solar radiation by connecting the clinker production process with the Synhelion solar receiver. The pilot was installed at the Very High Concentration Solar Tower of IMDEA Energy, located in Spain.

Will Cemex deliver net-zero CO2 concrete by 2050?

It is proof of our commitment to deliver tangible outcomes through innovation to achieve our goal of delivering only net-zero CO 2 concrete by 2050," said Fernando A. Gonzalez, CEO of CEMEX. "CEMEX is building a better future, and that future must be sustainable."



## 1MW Solar Containerized Cement Plant

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Cemex and Synhelion Move Closer to Solar-Powered Cement Plant

Aug 4, 2023 · Cemex and Synhelion are on their way toward achieving a fully solar-powered cement production with the latest scaling of their technology to industrially-viable levels.

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Synhelion and CEMEX make further progress toward the ...

Synhelion and Cemex announced today a significant milestone in their joint effort to develop fully solar-driven cement production: the scaling of their technology to industrially-viable levels.

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Technology verification of Portland cement clinker ...

Oct 1, 2024 · In this study, a technology that uses concentrated solar energy to directly drive solar cement clinker production is proposed and its feasibility is experimental demonstrated. The ...

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Design of solar cement plant for supplying thermal energy in cement

Nov 10, 2023 · Solar cement plant was designed based on cement production and the Direct Normal Irradiation (DNI) data available at plant location. Total thermal energy and the amount ...

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CEMEX and Synhelion achieve breakthrough in cement ...

Feb 2, 2022 · CEMEX and Synhelion announced today the successful production of the world's first solar clinker, the key component of cement, a significant step towards developing fully ...

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Synhelion and CEMEX make further progress ...

Aug 4, 2023 · Synhelion and Cemex announced today a significant milestone in their joint effort to develop fully solar-driven cement production: the ...

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Producing cement with solar energy

Mar 2, 2022 · In the CemSol research project, a team of scientists is developing and demonstrating a solar-heated calcination plant to produce cement. This process produces ...

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Cement Industry Solar Update - Cement Optimized

Oct 25, 2023 · This marks a significant milestone in the companies' journey toward the world's first fully solar-powered cement plant. An early 2022 energy lab demonstration in Spain saw ...

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China's largest standalone battery storage project powers up

4 days ago · A 500 MW / 2,000 MWh standalone BESS in Tongliao, Inner Mongolia, has begun commercial operation following a five-month construction period, reflecting China's ...

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Solar kiln scaled to industrially-viable levels

Aug 7, 2023 · CEMEX and Synhelion have announced a significant milestone to develop fully solar-driven cement production by scaling their technology to industrially-viable levels. This ...

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CEMEX and Synhelion achieve breakthrough ...

Feb 2, 2022 · CEMEX and Synhelion announced today the successful production of the world's first solar clinker, the key component of cement, ...

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Synhelion and CEMEX make further progress toward the ...

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