



GETON CONTAINERS

# Collaboration with an oil refinery using 30kWh off-grid solar container





## Overview

---

The purpose of this study is to investigate the potential use of solar energy within an oil refinery to reduce its fossil fuel consumption and greenhouse gas emissions. A validated ASPEN HYSYS model w.

Can solar energy drive crude oil refineries?

Employing solar energy to drive crude oil refineries is one of the investigated pathways for using renewable energy sources to support lowering the carbon emissions and environmental impact of operating the processing of fossil-based fuels.

Can solar energy systems decarbonize oil refineries?

Other studies in the literature considered coupling solar energy systems to oil refineries to decarbonize their operation. The applicability and feasibility of introducing a concentrated solar power (CSP) system to reduce partial reliance on process heaters of a crude oil refinery was studied by Danish et al.

Why should oil refinery plants use hybrid energy systems?

This significantly enhances the economic viability and environmental sustainability of the oil refinery plant, contributing valuable insights into the optimal configuration of hybrid energy systems for large-scale industrial applications and addressing the challenges of energy security, cost-effectiveness, and environmental impact. 1. Introduction.

What is a feasibility study of energy integration in grid-connected oil and gas industries?

Feasibility study of energy integration in grid-connected oil and gas industries. Considering a hybrid model of renewable energies including solar, wind, and biomass alongside a combined cycle gas power plant and grid. Examining the impact of reduced grid capacity to purchase energy from grid. Analyzing sensitivity to economic instabilities.



## Collaboration with an oil refinery using 30kWh off-grid solar container



### [Powering an oil refinery with solar energy](#)

In an unusual merger of renewable energy and fossil fuels, solar energy is being tapped to power an existing oil refinery. The Rodeo, California, facility operated by Phillips 66 will soon include a 30.2 MW ...

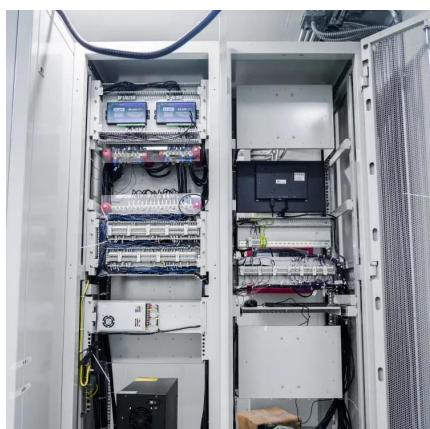
[Free Quote](#)



### [Analysis of a Solar-Assisted Crude Oil Refinery System](#)

With the growing urge to decarbonize the energy sector, actions toward reducing emissions of the oil and gas sector can contribute to bringing large cuts to carbon emissions. ...

[Free Quote](#)



### **(PDF) Integration of Solar Cells in Selected Petroleum Refinery ...**

The goal of this research is to study the technical and economic feasibility of the integration of photovoltaic solar power systems in two of the biggest Iraqi oil refineries: ...

[Free Quote](#)

### [From challenge to opportunity: Enhancing oil refinery plants ...](#)

The research conducted a comprehensive techno-economic analysis and optimal design of a hybrid renewable energy system (HRES) integrated with grid connection, utilizing a ...



[Free Quote](#)

Page 4/6



### [Texas oil refinery powers third of operations with solar energy](#)

The project is believed to be the second-largest utility scale solar complex in the Corpus Christi area and the first solar project in Texas to provide onsite, self-generated ...

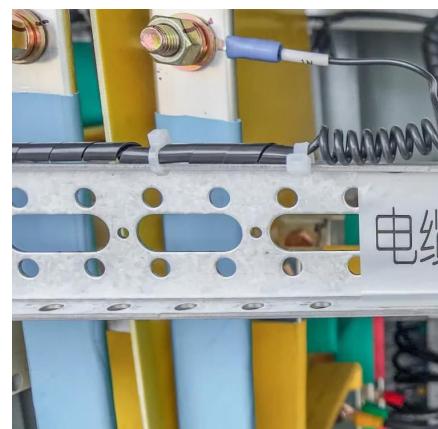
[Free Quote](#)



### [Solar-assisted hybrid oil heating system for heavy refinery ...](#)

The purpose of this study is to investigate the potential use of solar energy within an oil refinery to reduce its fossil fuel consumption and greenhouse gas emissions. A validated ...

[Free Quote](#)



### [Phillips 66 to power oil refinery with solar ...](#)

Phillips 66, a global oil refiner, announced it has partnered with NextEra Energy to construct a solar facility to power its Rodeo, California refinery. The solar facility is designed to provide 30.2 MW of power ...

[Free Quote](#)



## [Powering an oil refinery with solar energy , GlobalSpec](#)

In an unusual merger of renewable energy and fossil fuels, solar energy is being tapped to power an existing oil refinery. The Rodeo, California, facility operated by Phillips 66 ...

[Free Quote](#)



## [Phillips 66 to power oil refinery with solar - pv magazine USA](#)

Phillips 66, a global oil refiner, announced it has partnered with NextEra Energy to construct a solar facility to power its Rodeo, California refinery. The solar facility is designed to ...

[Free Quote](#)

## **Contact Us**

---

For catalog requests, pricing, or partnerships, please visit:  
<https://getonco.co.za>

**[Scan QR Code for More Information](#)**



<https://getonco.co.za>