

SolarGrid Energy Solutions

Huawei Middle East Wind and Solar Energy Storage Project

215kWh

8,000+ Cycles Lifetime

IP54 Protection Degree



Overview

The project combines 400 MW of solar photovoltaic capacity with 1.3 GWh of energy storage, forming the world's largest 100% renewable PV-plus-ESS microgrid. Will Huawei fusion solar power Red Sea city's off-grid energy needs?

Huawei's FusionSolar Smart String Energy Storage Solution will power the Red Sea City's off-grid, clean energy needs. The Red Sea Project, a key part of Saudi Vision 2030, is now the world's largest microgrid with 1.3 GWh storage capacity.

What is Huawei doing in the world?

Notable projects include a 25.8 MW Distributed Program for Dubai Global Port Group and the world's first grid-forming battery energy storage system (BESS) in China. In Thailand, Huawei built the largest single-site C&I PV and ESS plant in the Asia-Pacific region at Mahidol University.

Will Huawei provide a 1300 MWh BESS to the Red Sea project?

The company will provide a 1,300 MWh BESS to the Red Sea Project, a huge resort under construction on the Saudi Arabian coast, Huawei said during its corporate Global Digital Power Summit 2021 held last week in Dubai, United Arab Emirates.

Why is Huawei involved in the Red Sea project?

Huawei's involvement in the Red Sea Project underscores its commitment to sustainability, technological expertise, and collaboration. "The Red Sea Project provides an unparalleled opportunity to demonstrate this commitment and showcase our industry-leading innovation and technology," said Xing. "It's a blueprint for sustainable cities."

What is Huawei FusionSolar Smart String Energy Storage Solution (ESS)?

Central to this vision is Huawei's FusionSolar Smart String Energy Storage Solution (ESS). This solution will enable the Red Sea Project to independently

meet its power needs. The microgrid solution addresses the intermittent and fluctuating nature of solar and wind power. It ensures the safe and stable operation of renewable energy systems.

Can Huawei help Saudi Arabia build a greener future?

“The destination is poised to be the world’s first fully clean energy-powered destination, and Huawei is honored to participate in this project and help Saudi Arabia build a greener and better future through technological innovation, ” said Xing, President of Huawei Digital Power for the Middle East and Central Asia.

Huawei Middle East Wind and Solar Energy Storage Project



Huawei wins major energy storage project ...

Oct 19, 2021 · Chinese tech giant Huawei Digital Power has signed a contract with China's SEPCOIII, a construction and engineering company and power ...

Huawei secures contract for 1300MWh Saudi battery storage project

Oct 20, 2021 · Huawei will be partnering with Chinese construction and engineering company SEPCO111 to deliver the energy storage system as part of the Red Sea Project. The project ...



Huawei to deliver FusionSolar solutions in Saudi Arabia for energy

Aug 21, 2024 · As of now, Saudi Arabia is partnering up with Huawei for its FusionSolar solutions. Inputs reveal the Red Sea Project will build a photovoltaic-energy storage microgrid. This ...



Huawei Shares How to Tackle Climate Change ...

Nov 3, 2021 · In smart PV, Huawei develops a clean power system that focuses on renewable energy technologies such as wind, solar, and energy storage. In ...



- ☒ IP65/IP55 OUTDOOR CABINET
- ☒ ALUMINUM
- ☒ OUTDOOR ENERGY STORAGE CABINET
- ☒ OUTDOOR MODULE CABINET

Construction of the Red Sea Project in Saudi ...

May 11, 2024 · As a cornerstone of SaudiVision2030, the Red Sea project stands as the world's largest microgrid energy storage project, with a storage capacity ...

Digital Power, Issue 04

Dec 25, 2024 · In the Middle East, the world's first city microgrid powered by 100% renewable energy was built by using cutting-edge technologies including utility-scale grid forming. The ...



Huawei, SEPCO III ink world's largest energy ...

Oct 19, 2021 · Huawei Digital Energy Technology and Shandong Electric Power Construction (SEPCO III) has successfully signed the Saudi Red Sea New ...



The World's Largest Solar Microgrid To Power Saudi Arabia's Red Sea Project

Aug 22, 2024 · Central to the project's success is Huawei's FusionSolar Smart String Energy Storage Solution (ESS), which will enable the Red Sea Project to meet its energy demands ...



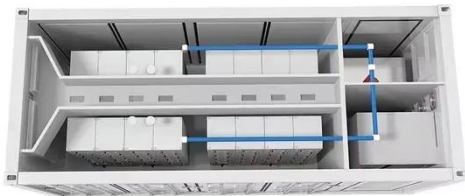
A Milestone in Grid-Forming ESS: First Projects ...

Jul 22, 2024 · The world's first batch of grid-forming energy storage plants has passed grid-connection tests in China, a crucial step in integrating renewables ...

Saudi Arabia's Red Sea Project Leads World With ...

Aug 20, 2024 · Saudi Arabia's ambitious Red Sea Project has captured global attention by constructing the world's

largest photovoltaic-energy storage ...



The Ultimate Guide to Battery Energy Storage ...

Apr 6, 2024 · Maximize your energy potential with advanced battery energy storage systems. Elevate operational efficiency, reduce expenses, and amplify ...

Huawei Digital Power's All-Scenario Grid ...

[Munich, Germany, May 6, 2025] At Intersolar Europe 2025, Huawei Digital Power hosted the FusionSolar Strategy & New Product Launch under the theme ...



Saudi Arabia is building world's largest solar ...

Aug 21, 2024 · "The destination is poised to be the world's first fully clean energy-powered destination, and Huawei is honored to participate in this project and



...

MENA Solar and Renewable Energy Report

Sep 5, 2024 · In collaboration with: The Middle East and North Africa saw 2019 again confirm the growth and importance of commissioning large projects and launching additional phases of ...



Huawei Strengthens Global Push in Grid-Forming Energy Storage ...

Jul 8, 2025 · One of Huawei's most prominent successes in this space is its grid-forming ESS deployment in the Middle East, specifically at the ambitious Red Sea development site. The ...

Saudi: Huawei to power 'world's 1st fully clean ...

Aug 19, 2024 · Saudi Arabia's Red Sea Project is making headlines with the construction of the world's largest

photovoltaic-energy storage microgrid.

...



Smart Renewable Energy Generator: Writing a ...

Jun 13, 2024 · By integrating digital, power electronics, thermal management, and energy storage management technologies (collectively known as 4T: bit, watt, ...

Huawei Unveils New All-Scenario Smart PV and ...

[Munich, Germany, May 10, 2022]
Huawei today announced all-new smart photovoltaic (PV) and energy storage solutions at Intersolar Europe 2022. The

...



The MENA region - the next hot market for ...

Nov 28, 2024 · The rapid growth rate of energy storage in the MENA region, led by the GCC, is surprising many analysts. Saudi Arabia, in particular, is set to ...



World's largest solar microgrid rises along ...

Aug 18, 2024 · Featuring a 400MW solar PV system coupled with a 1.3GWh energy storage system, the world's largest photovoltaic-energy storage ...



FusionSolar Energy Storage Summit Europe 2023 ...

FusionSolar Energy Storage Summit Europe 2023 will be held on 17th - 18th October in Copenhagen, Denmark. This summit is aimed to create a platform ...

Huawei completes construction of microgrid ...

Sep 11, 2024 · According to Yougi, the microgrid power station can provide 400MW of photovoltaic power and 1.3 gigawatt-hours of energy storage. ...



Why battery storage investment is vital to the ...

Sep 28, 2023 · This makes it possible to maintain a stable volume and high quality of electricity, allowing continuous operation, which is essential in ...

City of Tomorrow: Huawei FusionSolar ...

Jul 16, 2025 · The Red Sea destination is set to become the world's first to be entirely powered by clean energy! Huawei has played a pivotal role in this ...



Making the Most of Every Ray

Oct 31, 2023 · The 8th International Energy Storage Technology, Equipment and Application Exhibition of 2023 was officially opened in Shanghai.



Huawei Advances Grid-Forming Energy Storage ...

Jul 8, 2025 · With the rising penetration of solar and wind energy, grid-forming technologies are emerging as a critical and inevitable pathway for the long ...



Huawei secures contract for 1300MWh Saudi ...

Oct 19, 2021 · The Dubai Electricity and Water Authority (DEWA) is another example of a utility based in the Middle East that is leveraging energy storage ...

About Us , Vision , Huawei Digital Power

About Us Huawei Digital Power is committed to integrating digital and power electronics technologies, developing clean power, and enabling

energy digitalization to drive energy ...



Huawei unveils world's largest microgrid

Sep 18, 2024 · Huawei Digital Power has built a solar-storage microgrid project in Saudi Arabia's Red Sea New City. It said that the plant has been operating ...

Huawei Advances Grid-Forming Energy Storage ...

Jul 8, 2025 · Huawei FusionSolar's Grid-Forming ESS solution--previously launched and deployed at the Red Sea destination in the Middle ...



Huawei signs 1,300MWh solar-charged battery

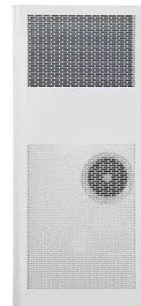
Oct 19, 2021 · During the event, Huawei Digital Power signed a "key contract" with engineering, procurement and construction (EPC) company SEPCO III for

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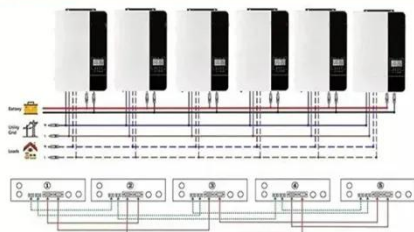


Sungrow awarded 600MWh BESS contract for ...

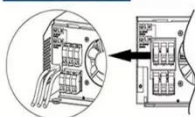
Dec 15, 2022 · The project aims to transform stretches of desert near the Red Sea coast into a sustainable business, tourism and residential development. ...



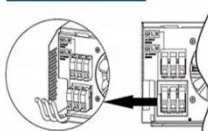
Parallel (Parallel operation up to 6 unit (only with battery connected))



AC input wires



AC output wires



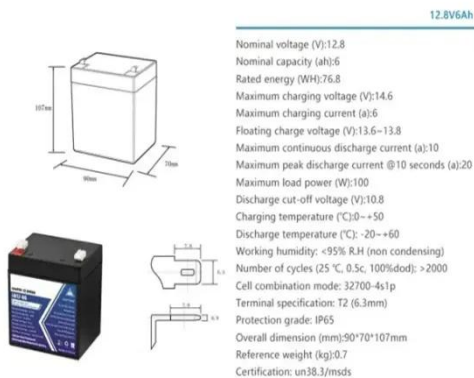
Huawei FusionSolar builds Red Sea Project, ...

Jun 13, 2024 · Saudi Arabia's Red Sea Project is poised to be the world's first fully clean energy-powered destination! Huawei has been instrumental in this ...

Huawei Digital Power's All-Scenario Grid Forming ESS ...

[Munich, Germany, May 6, 2025] At Intersolar Europe 2025, Huawei Digital Power hosted the FusionSolar Strategy & New Product Launch under the theme

"Smart PV & ESS: Powering a ...



The Cutting-edge technology behind the world's ...

Jul 16, 2025 · The world's first city fully powered by 100% renewable energy is emerging along the Red Sea coast in Saudi Arabia. As a cornerstone of ...

Huawei Strengthens Global Push in Grid-Forming Energy Storage ...

Jul 8, 2025 · A Landmark Project in the Middle East One of Huawei's most prominent successes in this space is its grid-forming ESS deployment in the Middle East, specifically at the ...



Saudi Arabia Red Sea Project

As a cornerstone of SaudiVision2030, the Red Sea Project now stands as the world's largest microgrid energy storage project, with a storage capacity of ...



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