

Press Release

DEWA showcases its key projects and innovative initiatives at the World Future Energy Summit 2023, part of Abu Dhabi Sustainability Week

Abu Dhabi, UAE, 16 January 2023: Dubai Electricity and Water Authority (DEWA) is showcasing its key projects and innovative initiatives in sustainability and clean and renewable energy, at the 15th World Future Energy Summit (WFES), which is held from 16 to 18 January 2023. This is part of the Abu Dhabi Sustainability Week (ADSW) hosted by the Abu Dhabi Future Energy Company (Masdar). DEWA is the Opening Ceremony Associate Partner of ADSW.

DEWA invites the public to visit its stand in Hall number 5 (Energy Hall) at the Abu Dhabi National Exhibition Centre (ADNEC) to learn about its key projects in the renewable and clean energy sector and its smart initiatives, as well as its efforts to advance the sustainable development and shift towards a sustainable green economy.

The Mohammed bin Rashid Al Maktoum Solar Park

Through its stand at WFES, DEWA highlights the latest developments in the Mohammed bin Rashid Al Maktoum Solar Park, the largest single-site solar park in the world using the Independent Power Producer (IPP) model. It contributes to achieving the Dubai Clean Energy Strategy 2050 and Dubai Net Zero Carbon Emissions Strategy 2050 to provide 100% of Dubai's total power capacity from clean energy sources by 2050. The current production capacity of the solar park is 2,027 megawatts (MW) using solar photovoltaic and concentrated solar power (CSP) technologies. This is about 14% of Dubai's energy mix, which has reached 14,517MW.

Visitors to the DEWA stand can learn about the latest CSP technologies that DEWA uses in the 950MW 4th phase of the solar park. This is the largest single-site solar CSP plant in the world. It combines CSP and solar photovoltaic technologies. This phase uses three hybrid technologies: 600MW from a parabolic basin complex (three units of 200MW each), 100MW from the world's tallest solar power tower at 262.44 metres (based on Molten Salt technology), and 250MW from photovoltaic solar panels. On its completion, the project will have the largest thermal storage capacity in the world of 15 hours, allowing for energy availability around the clock. The 4th phase will provide clean energy for around 320,000 residences and reduce 1.6 million tonnes of carbon emissions yearly.

The Green Hydrogen project

DEWA's stand at WFES displays the Green Hydrogen project, which DEWA implemented in cooperation with Expo 2020 Dubai and Siemens Energy at the Mohammed bin Rashid Al Maktoum Solar Park. It is the first of its kind in the Middle East and North Africa to produce hydrogen using solar energy. The pilot project, which

covers an area of about 10,000 square metres, has been designed and built to be able to accommodate future applications and test platforms for various uses of hydrogen, including energy production and transportation.

The hydroelectric power plant in Hatta

DEWA's stand also displays the pumped-storage hydroelectric power plant that DEWA is building in Hatta. It will have a production capacity of 250 MW, a storage capacity of 1,500 megawatt-hours. This is the first station of its kind in the Arabian Gulf region. The Hydroelectric power plant will be an energy storage facility with a turnaround efficiency of 78.9% that utilises the water stored in the upper dam, which is converted to kinetic energy during the flow of water through the 1.2-kilometre subterranean tunnel. This kinetic energy rotates the turbines and converts mechanical energy to electrical energy which is sent to DEWA's grid within 90 seconds in response to demand. To store energy, clean energy generated at the Mohammed bin Rashid Al Maktoum Solar Park will be used to pump the water through this tunnel back to the upper dam by converting the electrical power to kinetic energy making the whole project 100% renewable.

The Innovation Centre

Visitors to the stand will also learn about DEWA's Innovation Centre at the Solar Park in Dubai. It aims to spread a culture of innovation among organisations and individuals. It also highlights the sectors that will lead the innovation process in the future, as well as develop the capabilities of the next generation of innovators. The Innovation Centre offers visitors the opportunity to watch innovative shows using drones and hologram technology, and try the autonomous bus ride. Using metaverse technology, the Innovation Centre offers its visitors a unique experience that takes them on a virtual tour of the Mohammed bin Rashid Al Maktoum Solar Park.

The Green Charger

DEWA's stand highlights the Green Charger for electric vehicles. DEWA has installed about 350 charging stations across Dubai to support green mobility in the Emirate and the UAE as well as encourage individuals and organisations to buy environmentally friendly electric vehicles.

Digital DEWA

DEWA's stand also includes several subsidiaries of Digital DEWA, the digital arm of the DEWA, which aims to redefine the concept of a utility and build a new digital future for Dubai. Digital DEWA focuses on four pillars: launching advanced solar energy technologies in Dubai, operating a renewable energy network that uses innovative energy storage technologies, integrating clean energy and storage, and expanding the use of integrated solutions for artificial intelligence. This is achieved through the subsidiaries of Digital DEWA: Data Hub Integrated Solutions (Moro), InfraX, and DigitalX.

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 <https://www.youtube.com/dewaofficial>

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