

Press Release

DEWA's 250MW Hatta hydroelectric power plant is 44% complete

Dubai, UAE, 6 June 2022: HE Saeed Mohammed Al Tayer, MD & CEO of Dubai Electricity and Water Authority (DEWA), visited the pumped-storage hydroelectric power station being built by DEWA in Hatta, to review its progress. The station is 44% complete. It will have a production capacity of 250 megawatts (MW), a storage capacity of 1,500 megawatt-hours and a life span of up to 80 years. This is the first station of its kind in the GCC, with investments up to AED 1.421 billion.

The pumped-storage hydroelectric power plant in Hatta is part of DEWA's efforts to achieve the vision and directives of His Highness Sheikh Mohammed bin Rashid Al Maktoum, Vice President and Prime Minister of the UAE and Ruler of Dubai. It also supports the Hatta Development Plan launched by His Highness.

The Plan includes the establishment of 5.4km-long cable car route and the Dubai Mountain Peak at an altitude of 1,300 metres (the summit of Jebel Umm Al Nisour), Hatta Sustainable Waterfalls to contribute to the overall development in the Hatta region and provide innovative job opportunities for citizens in Hatta. DEWA's projects will provide around 200 technical, administrative and operational jobs in Hatta. Another 300 jobs are expected to be created by the Visitor Centre, and other outdoor activities and tourist facilities associated with the project.

Nasser Lootah, Executive Vice President of Generation at DEWA; Mansoor Alsuwaidi, Vice President Projects & Engineering (Generation); Khalifa Albedwawi, the Project Manager, and the project's team accompanied Al Tayer.

Al Tayer inspected the construction site of the hydroelectric power station and was briefed on the project's progress. Al Tayer inspected the construction of the power generators and the upper dam. The first 37-metre-high Roller Compacted Concrete (RCC) wall has been completed at the project's upper dam. Work is currently underway on the 70-metre main dam wall. The station will use water in the Hatta Dam and an upper dam being built in the mountain. During the visit, Al Tayer also reviewed the work progress of the 1.2 kilometre subterranean tunnel, which connects the two dams.

The Hydroelectric power plant is an energy storage that utilises potential energy of the water stored in the upper dam which is converted to kinetic energy during the flow of water through the 1.2 kilometer subterranean tunnel and this kinetic energy rotates the turbines and converts mechanical energy to electrical energy which is sent to DEWA grid. Then to store energy again, clean energy generated at the Mohammed bin Rashid Al Maktoum Solar Park is used to pump the water through this tunnel back from Hatta dam to the upper dam by

converting the electrical energy to kinetic energy and then finally storing it as a potential energy in the upper dam. The power plant will have turnaround efficiency of 78.9% and response to demand for energy within 90 seconds.

Al Tayer noted that the hydroelectric power plant in Hatta is part of DEWA's efforts to achieve the vision and directives of His Highness Sheikh Mohammed bin Rashid Al Maktoum, Vice President and Prime Minister of the UAE and Ruler of Dubai, to achieve a comprehensive and sustainable development and diversify the clean and renewable energy sources in Dubai to achieve Dubai Clean Energy Strategy 2050 and Net Zero Carbon Emissions Strategy 2050 to provide 100% of Dubai's total power capacity from clean energy sources by 2050. This includes all available technologies such as photovoltaic solar panels, Concentrated Solar Power (CSP), and green hydrogen production using renewable energy. The construction of the hydroelectric power plant uses the latest and safest drilling technologies suited to Hatta's geological features. It adheres to the strictest international environmental standards to protect the Hatta Natural Reserve.

During the visit, **Al Tayer** was briefed by the project manager on the latest developments related to the 'Dubai Mountain Peak' and the 'Hatta Sustainable Waterfalls' project, which DEWA has tendered. He reviewed the timelines and the challenges at the site and how to overcome them. Specialised international consultants have been appointed to ensure the project is implemented according to the highest international quality, safety, and security standards. Leveraging state-of-the-art technology and taking into account the unique geology of the Hatta region, DEWA is implementing the Dubai Mountain Peak and Hatta Sustainable Waterfalls projects according to the highest international environmental standards. The aim is to protect the Hatta Mountain Reserve and harmonise both projects with their surroundings in the Hatta region. The projects will offer a unique experience for UAE tourists and showcase the beauty of the mountainous areas of the UAE.

The projects will contribute to an overall development in the Hatta region, especially the Dubai Mountain Peak, which includes the construction of a 5.4-kilometre cable car to transport tourists to the summit of Um Al Nesoor. At 1,300 metres above sea level, it is the highest natural summit in Dubai. The cable car route passes over the Hatta Dam lake and the upper dam lake, which are parts of the Hatta pumped-storage hydroelectricity plant currently under construction, as well as over the mountains. The route ends at the summit of the Um Al Nesoor mountain.

Al Tayer also reviewed the progress of the Hatta Sustainable Waterfalls project. The project will use the slope of Hatta dam to create a natural waterfall. A waterway will be built along the parking area below the dam. The water used in the waterfall will be collected at the end of the stream, recycled, and pumped back to the top of the dam. The area will be developed to create recreational spaces and restaurants.

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