

10 Recent Milestones of the UAE Peaceful Nuclear Energy Program

مؤسسة الإمارات للطاقة النووية
Emirates Nuclear Energy Corporation

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Nawah Energy Company

September 2021: Barakah Unit 2 Successfully Connects to UAE's Transmission Grid for the First Time

Unit 2 of the Barakah Nuclear Energy Plant has safely and successfully connected to the UAE grid, delivering the first megawatts of carbon-free electricity from the second of four units at the Barakah plant. The Barakah Plant continues to set new benchmarks for new build nuclear programs. Grid connection of Unit 2 was achieved less than three weeks after start up of the Unit at the end of August, utilizing the lessons learned from the start up and connection process from Unit 1, to reduce connection time while ensuring the highest standards of nuclear safety and operational excellence.

August 2021: Barakah Unit 2 Successfully Started-up

The Barakah Plant continues to make tremendous progress as part of the region's largest decarbonization effort with the successful start-up of Unit 2. With a second unit started-up, the Barakah plant has moved to multi-unit operations, supporting the UAE in swiftly decarbonizing its electricity sector.

Unit 2 will now conduct testing while increasing power in stages in preparation for commercial operations.

June 2021: ENEC Achieves 100 Million Safe Work Hours at the Barakah Plant

ENEC and all contractors involved in the Barakah Nuclear Energy Plant project achieved four years and more than 100 million safe man-hours without a Lost Time Injury (LTI), highlighting ENEC's success in implementing the highest standards of safety, security, and quality.

ENEC and its Prime Contractor and Joint Venture partner the Korea Electric Power Corporation (KEPCO) have worked closely together for more than a decade on implementing the highest safety and quality standards and ensuring an exceptional safety culture. Dedication to continuous improvement of everyday work behaviors, accountability, and employee empowerment to ensure their own safety and that of their colleagues has been delivered through a range of safety-related practices and tools including continuous training programs. This has resulted in their shared achievement of what is a significant industrial safety accomplishment.

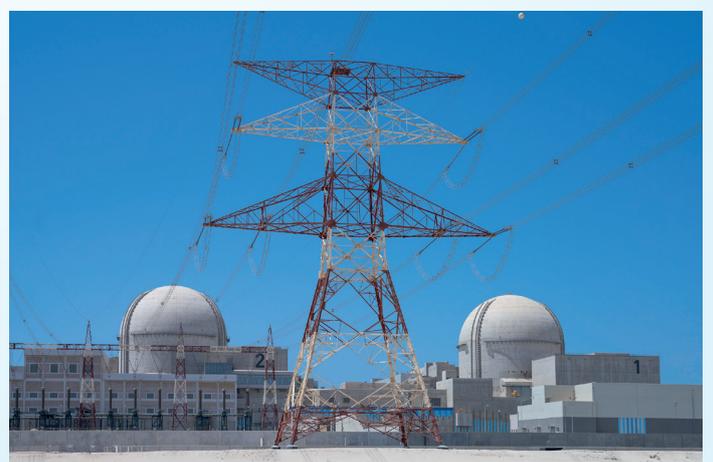
April 2021: Barakah Unit 1 Declared Commercially Operational, Delivers Clean Electricity to UAE

The UAE entered a historic new era of clean electricity production as Unit 1 of the Barakah Nuclear Energy Plant in Abu Dhabi officially began commercial operations. The game changing moment means that Unit 1 of the Barakah Plant will now commercially deliver emissions free electricity 24 hours a day, seven days a week, for more than 60 years.

The start of commercial operations signifies a major advancement in the UAE's commitment to decarbonization and its efforts to combat global climate change. The UAE Peaceful Nuclear Energy Program today plays a significant role in the diversification of the Nation's energy portfolio and serves as a bridge to other clean energy technologies.

March 2021: FANR Issues Barakah Unit 2 Operating License, Nawah begins Fuel Load

Nawah Energy Company (Nawah), the operator of the Barakah Nuclear Energy Plant, received the Operating License for Barakah Unit 2 from the Federal Authority for Nuclear Regulation (FANR). The Operating License gave permission for Nawah's highly skilled and qualified team of UAE Nationals and international experts to commence loading the first nuclear fuel assemblies into the reactor of Unit 2, the first step towards gradually beginning operations and the generation of clean electricity.



January 2021: Barakah Unit 2 Confirmed Ready for Start-up Following WANO Independent Assessment

An international team of nuclear energy experts from the World Association of Nuclear Operators (WANO) has concluded that Unit 2 of the Barakah Nuclear Energy Plant in Abu Dhabi is ready to start-up, following an extensive operational readiness assessment.

The WANO team reviewed and examined numerous functional and cross-functional areas that are essential for the safe start-up and operation of Unit 2 during the Pre-start Up Review (PSUR) process.

December 2020: Unit 1 Achieves 100% Power

Barakah Unit 1 successfully achieved 100% of the rated reactor power capacity. This made the Barakah Plant the largest source of clean baseload electricity in the country, capable of providing constant and reliable power in a sustainable manner around the clock. This significant achievement accelerates the decarbonization of the UAE power sector, while also supporting the diversification of the Nation's energy portfolio as it transitions to cleaner electricity sources.

August 2020: Barakah Unit 1 Connected to the UAE Grid, Delivering Clean Electricity for the First Time

The Emirates Nuclear Energy Corporation (ENEC) and its operating and maintenance subsidiary, Nawah Energy Company (Nawah), in partnership with the Abu Dhabi Transmission and Dispatch Company (TRANSCO), has safely and successfully completed the integration and connection of Unit 1 of the Barakah Nuclear Energy Plant to the UAE's national electricity transmission grid. The connection of Unit 1, also referred to as grid synchronization, marks the first time that the electricity produced at the plant is delivered to the UAE's national grid. With the first megawatts of clean electricity from peaceful nuclear energy now being delivered to homes and business across the UAE, this milestone is a significant moment in the continued safe, secure, and quality-led delivery of the UAE Peaceful Nuclear Energy Program.

July 2020: Successful Start Up of Barakah Unit 1 - First Nuclear Energy Reactor in the Arab World

Nawah Energy Company (Nawah), the subsidiary of ENEC and KEPCO in charge of operating the Barakah Nuclear Energy Plant, officially started up the first Unit at Barakah. The successful reactor startup process, also known as 'first criticality' marks the first time that the reactor maintains a self-sustaining nuclear chain reaction and generates heat. With this milestone, the UAE becomes the first nation in the Arab World to produce clean electricity using peaceful nuclear energy technology.

July 2020: Unit 2 Construction Completed

The Emirates Nuclear Energy Corporation (ENEC) successfully completed the construction of Unit 2 of the Barakah Nuclear Energy Plant, the Arab World's first nuclear energy plant located in the Al Dhafra region of Abu Dhabi. The unit was officially handed to Nawah Energy Company (Nawah), ENEC's operating and maintenance subsidiary. With this achievement, focus now shifts to completing the operational readiness preparations, testing, regulatory inspections, and international assessments required for Nawah to obtain the Operating License for Unit 2 from the UAE's independent nuclear regulator, the Federal Authority for Nuclear Regulation (FANR).

