

Commercial Operations

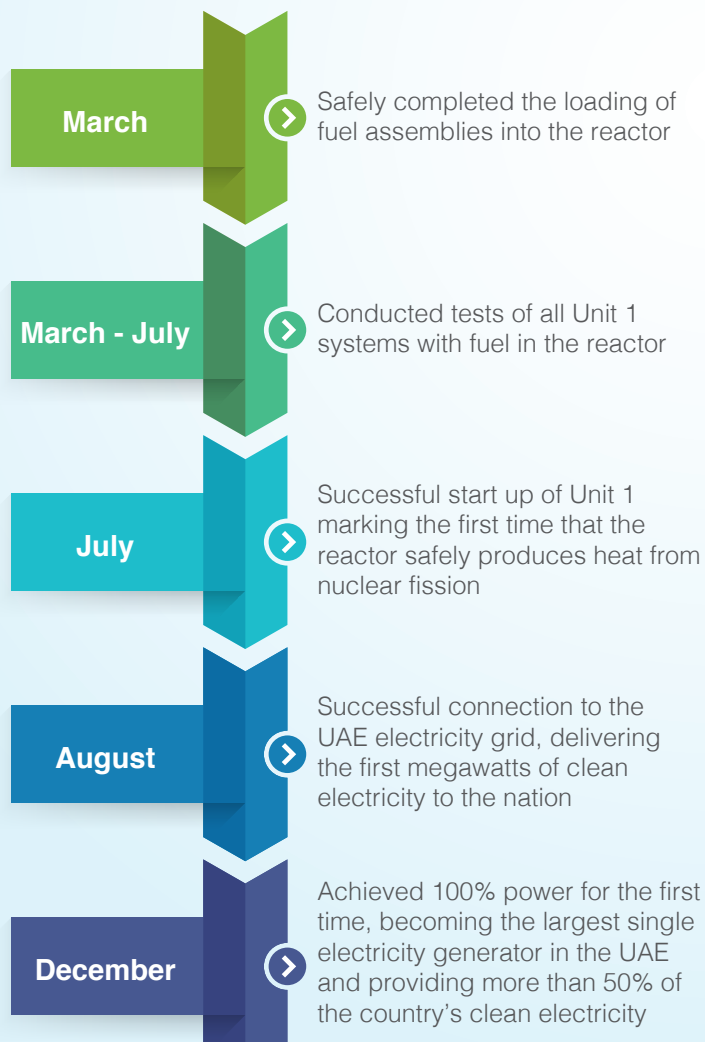
مؤسسة الإمارات للطاقة النووية
Emirates Nuclear Energy Corporation

شركة بركة الأولى ش.م.ع
Barakah One Company P.JSC

شركة نواح للطاقة
Nawah Energy Company

The Emirates Nuclear Energy Corporation (ENEC) is developing the Barakah Nuclear Energy Plant as the first peaceful nuclear plant in the UAE and the Arab World. It consists of four nuclear units of the APR1400 design each one capable of producing up to 1,400 megawatts (MW) of electricity. Once all four Units are fully operational, the Barakah plant will generate up to 25% of the UAE's electricity with zero emissions, preventing the release of 21 million tons of carbon dioxide into the atmosphere.

In 2020, Nawah Energy Company, the operating subsidiary in charge of operations and maintenance for the Barakah plant, achieved a series of historic milestones for Barakah Unit 1:



From July 2020 to January 2021, Nawah conducted numerous tests on Unit 1 as required by the procedures and processes to ensure that the plant and people are ready to operate the UAE's first nuclear plant safely and commercially. At the end of the testing period, Nawah's operators shut down Unit 1 for maintenance and inspections prior to the commencement of commercial operations.

This process will take place for all of the four units at the Barakah plant as each one receives regulatory approval to commence operations.

What is Commercial Operations?

The commissioning, start up and testing of any nuclear reactor follow tried, tested and robust procedures and processes to ensure that all activities are conducted in a safe manner. Nawah has to successfully complete the steps in these procedures and analyze the results of all tests to determine that the plant meets all requirements, in accordance with national regulations and the highest international safety standards.

After the completion of the maintenance and inspections process, Nawah starts up the reactor to complete final testing. Nawah's operators then operate the plant at 100% power for a pre-determined period. At the end of this period, Nawah declares the Unit commercially operational, delivering low carbon electricity to the UAE electricity grid 24/7.

Why is this important?

Commercial Operations marks the end of testing for a nuclear reactor, declaring it fully operational and meeting all national requirements and international standards. From this moment on, the Unit will deliver vast amounts of clean and reliable electricity, 24 hours a day, seven days a week, for the next 60 years, only stopping to refuel every 12 to 18 months.