

Recent Program Milestones



The Barakah Nuclear Power Plant

- Construction of the UAE's first nuclear energy plant is underway at Barakah, in the Western Region of Abu Dhabi.
- Barakah Nuclear Power Plant (Barakah NPP) will consist of four nuclear power generating units with a combined capacity of approximately 5,600 MW.



- As of August 2015, Barakah Unit 1 is 75% complete and all four units are more than 50% percent complete.
- In 2017, our first 1,400 MW Unit is scheduled for completion. Additional units will follow at 12 monthly intervals, with the fourth unit set to commence commercial operations in 2020 - pending regulatory approval.



Facts about ENEC

7500

dedicated safety trainings since the beginning of the program, attended by

250,000 attendees

+41,000

man-hours have been dedicated to performing rigorous quality audits

1,400,000

cubic yards of concrete have already been utilized in the construction of Barakah Units, which is more than three times the total value of concrete used in the Burj Khalifa

4 reactors

Barakah is the a leading global nuclear energy site and the only to develop four identical reactors simultaneously.



Industrial Development

- An important objective in establishing a nuclear energy program in the UAE was to support the growth of the UAE's economy, and specifically to support the development of a local nuclear energy industry supply chain.
- ENEC's dedicated Industrial Development Team has been working alongside UAE companies to ensure they meet the strict quality and technical standards required to tender for contracts for the country's nuclear energy program.
- As of August 2015, more than 1,100 local companies are involved in our program, with contracts totaling more than \$2.5 billion dollars.



Recent Milestones – Unit 4 Concrete Pouring

- In September 2015 ENEC commenced nuclear-related construction for Unit 4 - the UAE's fourth nuclear energy reactor.
- With the construction of four identical nuclear energy reactors now underway, Barakah becomes a world-leading nuclear construction site as the only site in the world to host the simultaneous construction of four identical nuclear energy reactors.



Recent Milestones – Second Simulator

- In July 2015, ENEC successfully installed its second full scope APR-1400 training simulator at the organization's Simulator Training Center (STC)
- The occasion also marked the successful completion of a major upgrade to ENEC's first full scope simulator, initially delivered in April 2014.
- ENEC's simulators are among the most advanced nuclear training devices in the world due to their complex core modeling and ultramodern Instrumentation and Control (I&C) systems.
- Simulation training is part of the essential safety culture of the organization and plays a critical role in ENEC's ongoing operational readiness preparations in the lead up to the completion of Unit 1 in 2017.



Recent Milestones – Unit 2 RV

- In June 2015 ENEC celebrated the **installation of its Unit 2 Reactor Vessel** at site.
- The installation is a critical milestone in the continued progress and delivery of the country's second nuclear energy unit and follows the successful completion of the Barakah Unit 1 RV in May 2014.



- The achievement was celebrated with an RV setting ceremony at Barakah where His Highness Sheikh Hamdan and ENEC's CEO signed the base of the RV before it was lifted inside the Unit 2 Reactor Containment Building (RCB).



Recent Milestones – Unit 1 & 2 OLA

- In March 2015, **ENEC** filed the **Operating License Application (OLA)** for **Barakah Units 1 & 2** with **FANR**.
- The submittal follows a five year-long process in which ENEC and the Korea Electric Power Corporation (KEPCO), the Prime Contractor of ENEC's program, documented the safety of the planned operations and maintenance of the Barakah plant and its adherence to the highest standards of safety, quality and security.
- The application has now been submitted for evaluation by FANR and its team of international nuclear energy experts who will commence an in-depth examination process.



The Barakah Nuclear Power Plant Today

مؤسسة الإمارات للطاقة النووية
Emirates Nuclear Energy Corporation



Units 1 & 2



Units 1 & 2



Units 1-3



Unit 4



Units 1-4



Unit 2 Dome



Construction progress of UAE Nuclear Power Plant

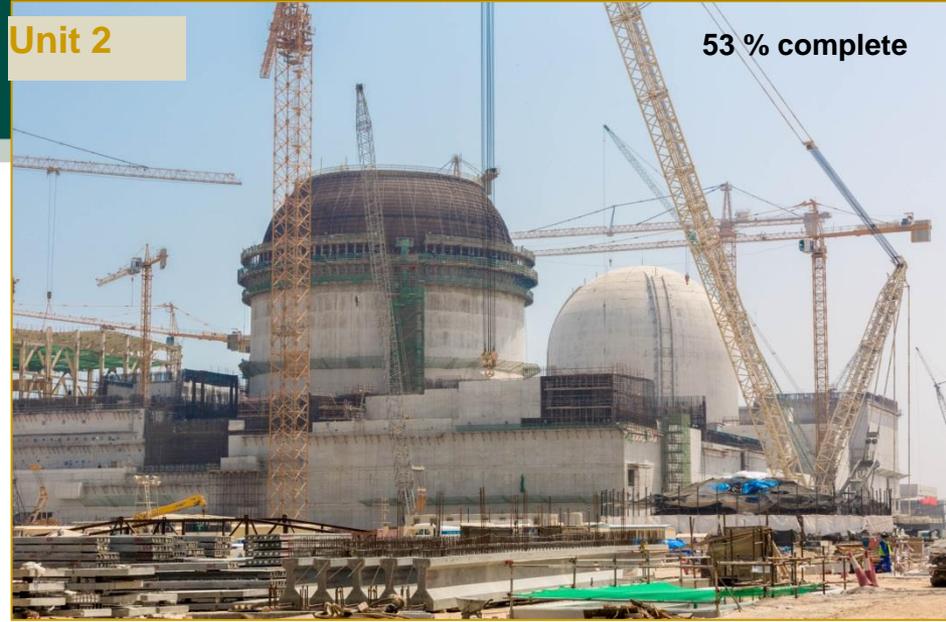
Unit 1

more than **75% complete**



Unit 2

53 % complete

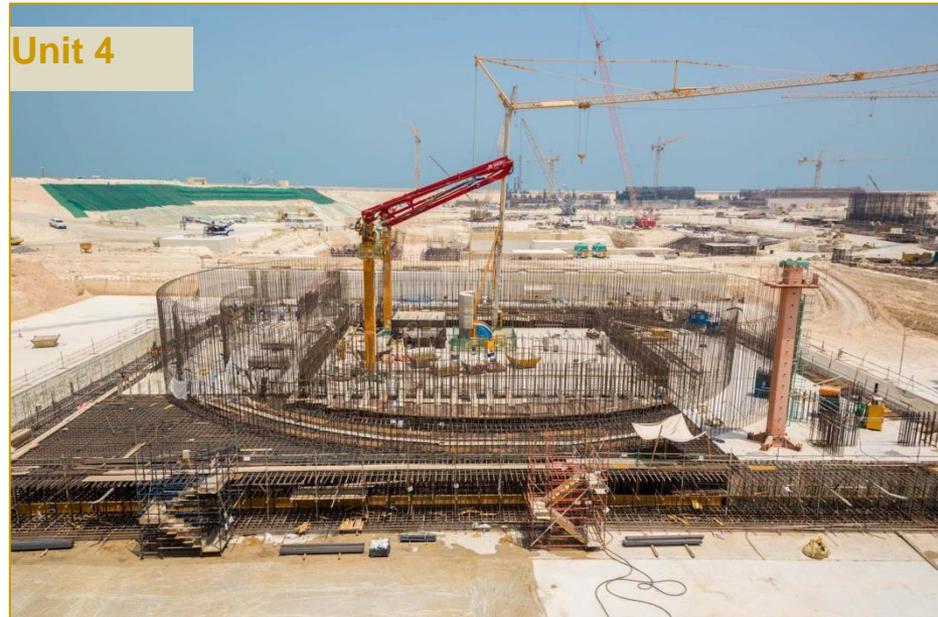


Unit 3

27% complete



Unit 4



Overall the Barakah Nuclear Power Plant construction completion rate for **Units 1-4** is at **50%** .



مؤسسة الإمارات للطاقة النووية
Emirates Nuclear Energy Corporation

