

# UAE Nuclear Power Sector Opportunity Analysis

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## Abstracts

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As UAE is embarking upon clean energy sources for power generation – a major shift from its predominantly natural gas based power sector, nuclear power is slated to form one of the building blocks of the new energy policy. The new energy policy of focusing on nuclear and renewable energy sources is intended to address the issues of threatened energy security and rising environmental concerns due to 100% dependence on fossil fuels for power generation. Setting up nuclear and renewable energy based power plants is the part of new energy policy adopted by the UAE government.

UAE's decisive steps for starting nuclear energy programme, as the first country in the GCC region marks a transition in the energy sector as well as the whole economy. This transition is likely to lead the way of sustainable growth and likely to surge economic growth manifold. The plan for embarking on nuclear energy for power generation was discussed in more than 5 petroleum rich countries in the GCC region but the UAE has come as the pioneer in it and going fast to start electricity generation from the first nuclear power generation unit in 2017. As of now, four nuclear power plants with capacity 1400 MW each are being constructed and expected to be operational between 2017 and 2020. In 2012, UAE started the construction of Unit 1 of its first nuclear power plants becoming the first country in 27 years to start a new nuclear reactor.

The approach taken by the UAE to build its first nuclear power plants is based on international best practices, along with the most advanced infrastructure available with necessary modifications to adapt to the conditions in the UAE. The reasons for its smooth and fast progress in planning and construction of the first nuclear power plants in the UAE lie in its strong government commitment, well-organized regulatory bodies including the legal framework and nodal agency to develop, operate and maintain the

plants, choosing the right and experiences contractor, international cooperation and efficient management of the national stakeholders.

This report also highlights how the UAE has been successful to offset its lack of technology or expertise in nuclear sector by signing bilateral agreement with several countries and partnering with various international institutions. It is to be noted that the UAE has signed total 27 bilateral agreements for cooperation in planning, setting regulatory framework, in setting safety standards and supply of materials of various kind. The nuclear energy programme strictly adheres to the safety requirements set by the IAEA or other renowned institutions. The progress in nuclear energy programme is being closely monitored and consulted with the IAEA in every step to ensure 100% safety. In order to manage and regulate the entire process, the institutions like Federal Agency of Nuclear Regulations (FANR) and Emirates Nuclear Energy Corporation (ENEC) have been established. Another striking feature of the policy is extensively promoting the educational course curriculums in some top ranked educational institutions in various levels.

“UAE Nuclear Power Sector Opportunity Analysis” Report Highlight:

UAE Energy Policy beyond Oil & Gas

UAE Nuclear Power Sector Overview

UAE Nuclear Power Sector Dynamics

Nuclear Power Sector Management & Regulatory Framework

Nuclear Power Sector Regulations

Details of Nuclear Power Plants in UAE

UAE Nuclear Power Sector Future Outlook

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