



Supplied Picture

Dr Maamar Bin Karouda (left), chair of the physics department at the UAE University and Dr Mofreh R. Zaghloul, professor of nuclear engineering.

## UAE's peaceful use of nuclear energy vital, say academics

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Abu Dhabi: The UAE's decision to develop a peaceful nuclear programme for power production, water desalination and other peaceful uses is vital to secure the future energy resources for an energy-demanding country, academics and environmentalists said.

"Developing a peaceful nuclear capability in the UAE is a right and inescapable decision which has come 20 to 30 years late," said Dr Mofreh R. Zaghloul, professor of nuclear engineering at the College of Science at the UAE University.

It will be very helpful taking into account the country's accelerating economic and industrial growth, he added.

He said that with financially and environmentally expensive prices of fossil fuels and limitations imposed on other renewable energy resources, the dependence on the nuclear alternative as a plentiful, environmentally-clean and economically-feasible source of energy remains the only reliable choice.

Even though, he cautioned, developing a nuclear programme is a major undertaking which requires careful planning.

"As guided by the IAEA [International Atomic Energy Agency] new countries considering developing nuclear programmes have to work to establish many infrastructure components including industrial, technological, legal and regulatory."

The Cabinet chaired by His Highness Shaikh Mohammad Bin Rashid Al Maktoum, Vice-President and Prime Minister of the UAE and Ruler of Dubai, recently approved a

policy statement submitted by Foreign Minister Shaikh Abdullah Bin Zayed Al Nahyan on the UAE's potential development of a peaceful nuclear energy programme.

Under the policy, the UAE plans to set up a Dh375 million Nuclear Energy Implementation Organisation as recommended by the IAEA and is proceeding to evaluate the establishment of a peaceful nuclear programme.

Dr Zaghloul said the UAE's plan to set up a Nuclear Energy Implementation Organisation (NEIO) is an important step to establish the necessary infrastructure for the nuclear project.

Warning against counting solely on foreign skills Dr Zaghloul called for the initiation of nuclear engineering undergraduate and graduate programmes in UAE universities.

Dr Mohammad Assad Abdul Raouf, professor of nuclear physics at the UAE University, agreed the UAE's decision to enter the peaceful nuclear club should provide the country with the electric power needed to fulfil her economic revolution.

"Obviously, this step will enhance enormously the scientific wonder seen everywhere in the country."

Dr Maamar Bin Karouda, chair of the physics department at the UAE University, said nuclear energy is a proven, viable, economical and environmentally sound solution to the UAE's energy needs "provided that safety factors are addressed effectively to eliminate any flaws."

Academics agreed that establishing an efficient nuclear programme was a big challenge, which requires the whole nation to stand up to make the UAE a country which effectively uses nuclear energy for the welfare of its people and its future generations.

### **Power supply 400 plants worldwide**

Nuclear power plants provide about 17 per cent of the world's electricity. Some countries depend more on nuclear power for electricity than others.

In France, for instance, about 75 per cent of electricity is generated from nuclear power, according to the International Atomic Energy Agency.

In the United States, nuclear power supplies about 15 per cent of the electricity overall, but some states get more power from nuclear plants than others.

There are more than 400 nuclear power plants around the world, with more than 100 in the United States.

Abu Dhabi Nuclear energy is a proven, safe, affordable, and environmentally-friendly source that can generate massive quantities of electricity with almost no atmospheric emissions and can fulfil the UAE's growing demand on energy, according to Majid Al Mansouri, secretary general of the Environment Agency-Abu Dhabi.

Refuting fears of nuclear waste storage and transportation, he said these concerns were raised by anti-nuclear activists.

"The UAE will, however, take into account all risk factors as the safety of any nuclear plants will be a top priority. Spent nuclear fuel can be removed from a reactor, reprocessed to separate unused fuel, and then used again. The remaining waste could then be placed in either interim or long-term storage."

Regarding nuclear radiation, he said nuclear power plants did emit some radiation, but the amounts are environmentally insignificant and pose no threat.

He also dispelled fears over transporting radioactive materials and said these materials have been transported on roads and railways worldwide for years without a major incident.