

Kuwait committee quietly formulating nuclear plans

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Adnan Shihab-Eldin favours nuclear energy over other renewable sources such as solar power.
Gustavo Ferrari / The National

KUWAIT CITY // While the UAE has charged ahead with its nuclear energy programme and Egypt and Jordan are not far behind, another Arab country is quietly putting in place the framework to make it the region's fourth nuclear-powered state.

"We are taking concrete action," said Adnan Shihab-Eldin, a member of the Kuwait National Nuclear Energy Committee (KNNEC). "I would say Kuwait may be the second country to introduce nuclear power plants in the Gulf countries, based on current information.

"The frontrunner in the Arab countries is definitely the UAE, followed by Egypt and Jordan at the same level more or less," said Mr Shihab-Eldin, at the committee's headquarters in the Kuwait Institute for Scientific Research (KISR) this month. He said Kuwait's nuclear programme is "in the same league" as those of the two non-Gulf Arab states "but it is not there yet".

Certainly, this nation of 2.8 million people is far from breaking ground on a nuclear power plant. It has not even decided whether to do so. Then there is Kuwait's influential but raucous parliament, which must give its approval to any nuclear programme.

The "concrete action" Mr Shihab-Eldin referred to is the establishment of the KNNEC, which met for the first time in July 2009 and is conducting a range of economic, geographical and legal studies to determine if nuclear energy is the best option.

The committee's formation comes at a time when power stations are struggling to meet domestic demand after years of low investment.

"We have still not made a decision yet," said KNNEC's secretary general, Ahmad Bishara. "Hopefully all these studies will converge by the year's end," and then the committee, which is headed by the prime minister, Sheikh Nasser Mohammed al Sabah, will decide if Kuwait is to become a nuclear-powered state.

Mr Bishara expects a decision by February, and if the committee decides to proceed a reactor could be built in "seven or eight years".

In the meantime, the ministry of higher education is giving scholarships to students who are interested in the field. Five students began courses related to nuclear energy in western universities last year and 15 more will join them when the new term begins.

Taha Ali, a student who is about to begin a degree in nuclear energy at Purdue University in Indiana, believes he will have no problem finding a job when he returns.

"This is important for Kuwait; nuclear energy is not something new and now we are catching up," Mr Ali said. "It will reduce global warming – that's why we have to do it."

But a pool of graduates will be of little use without cutting-edge technology and training. To ensure that expertise is available, the government has signed co-operation agreements with France and the United States, and their consultants are already pitching in. Similar deals will soon be reached with Russia and Japan.

The agreements will secure a stable supply of enriched uranium and collection of the spent fuel for reprocessing.

"Whoever is going to provide you with the technology, you also have to agree with them about how you're going to get your fuel supply ... it's not something you cook in your back yard," Mr Bishara said.

KNNEC's economists are considering if nuclear power makes sense in a country with such vast energy reserves. Kuwait had around 7.7 per cent of the world's proven crude oil reserves in 2009, making it the world's fifth most oil-endowed nation, behind Saudi Arabia, Canada, Iran and Iraq, according to the US government's Energy Information Administration.

Kuwait currently burns 12 per cent of its oil to meet local electricity needs, but with demand growing at around seven per cent annually, that figure is set to surge. Mr Bishara estimates that power stations will need 20 per cent of the country's oil production for fuel in 20 years.

“That's a huge amount. Every barrel you can save is a barrel you can export,” he said.

Gas could be an alternative fuel for power generation, but most of Kuwait's gas is produced in association with oil, not independently. The country's oilfields would have to churn out high volumes to keep a steady supply of associated gas, and Kuwait's production is limited by international quotas.

Khalid al Hajri, the chairman of the environmental group Green Line, believes that accidents like Chernobyl have proved the dangers of nuclear power, and instead the country should take advantage of its sunny location.

“Solar energy is the best alternative,” Mr al Hajri said. “We are located in the ‘heat-belt’, so we are in a perfect place for this. Solar power is enough; actually it's more than enough.”

Mr Shihab-Eldin, the KNNEC member, argued that, even in the Gulf, renewable energies such as solar have “problems with intermittency and variability – you cannot rely on them without expensive storage”.

The committee members declined to specify what locations they are considering for a nuclear power plant.

Sorour al Otaibi, a specialist in energy and power plants at Kuwait University's college of engineering, said: “We don't have the land to build normal power plants, never mind nuclear power plants, which are worse.

“Nuclear power stations need to be close to the sea, and most residential areas in Kuwait are within 10 kilometres of the sea shore. The small size of the country is an issue,” he said.

Mr al Otaibi said a hybrid system of power generation that incorporates oil- and gas-fuelled stations and renewable energies is preferable to nuclear. He said if the government implemented an energy conservation programme it could reduce consumption by up to 25 per cent.

“We have many easier options, economically and for safety. We don't have the manpower and the technology for nuclear – we are lacking many things,” he said.

Mr Bishara argues that “the new technology is, as far as the experts are concerned, quite safe”.

“Most of the accidents are blackouts, leaks here and there. They're not to be sniffed at, but they're not that serious,” he said.

If the government gives nuclear power the green light, a raft of new legislation will have to pass through parliament, a body that has blocked major development projects in the past.

But Mr Shihab-Eldin is optimistic. He said: “If we bring the best experience of the world, sanctioned by the IAEA, and in co-operation with the friendly countries such as the US, France, Japan, then I don’t see a problem with the parliament agreeing to the legal framework.”