Financial Times
Thai Press Reports

April 11, 2006 Tuesday

VIETNAM CALCULATING THE COSTS OF NUCLEAR ENERGY

Section: Regional News - Vietnam is planning to go nuclear by the year 2020. The effort will begin with the installation of two nuclear reactors, but this is likely to be just the start to an ambitious programme that could continue well into the future. John Loizou reports.

The building of only one major nuclear reactor in Vietnam would be uneconomical, argues Atomic Energy Commission chairman Dr Vuong Huu Tan, who believes that eventually 25 to 30 per cent of his country's power needs will be met by harnessing the atom.

And the chairman, who says a feasibility study for the building of a reactor at an estimated cost of US$3.4 billion on one of three possible sites - one in Phu Yen Province and two in Ninh Thuan Province, both in southern central Vietnam - is confident that the timetable to have it generating electricity within 15 years can be met.

Approval for the reactor is contained in Decision No 176/2004/QD-TG, signed by Prime Minister Phan Van Khai on October 5, 2004.

The International Atomic Energy Agency, or IAEA, is reported as having estimated that Vietnam will need between 3,500 and 4,500 qualified scientists and technicians for its proposed nuclear industry.

But Dr Tan says that figure seems to include the construction workers who will build the nuclear power stations.

"We have already prepared a programme for human resource development and presented it to our minister... the Minister for Industry, Hoang Trung Hai, who chairs the steering committee for the introduction of nuclear power to Vietnam," he says.

Vietnam has four tertiary institutions teaching nuclear physics: The Hanoi University of Technology from where Dr Tan graduated, the Hanoi and HCM City Universities of Natural Science and the Da Lat University that provides between 30 and 40 graduates each year.

The atomic energy commission chairman says that if a final decision to begin the commercial production of nuclear energy by about 2020 was signed by next year, this would allow sufficient time for construction of the reactor and the recruiting of skilled personnel while any final agreement with any of the several countries likely to supply its components would include provisions for training of operators.

Dr Tan says it is too early to say who the vendor will be but Vietnam has government-to-government co-operation agreements with Russia, China, India, South Korea and Argentina.

There is also an agreement between the atomic energy commissions of Vietnam and France and co-operation with similar organisations in Japan.

The supply of enriched uranium, or fuel rods, would also have to be arranged because although Vietnam has some uranium, especially near Da Nang, it does not have the capacity to process the nuclear fuel itself.

Dr Tan could not say when the building of the nuclear reactor would begin, but said a feasibility study of the prospective sites had been submitted to the Government for decision to be followed by a business study.

Nor would he say how many nuclear reactors would be needed to provide between 25 and 30 per cent of Vietnam's electricity, but he did say that each would be of about 1,000MW although the first plant could have two reactors providing capacity of between 2,000MW and 4,000MW.

Nuclear waste Dr Tan concedes that the public will require that any plan for the widespread use of nuclear energy will have to include "clarification" of the methods that will be used for the disposal of nuclear waste.

A research programme is currently underway.

When asked if disposal could prove a difficulty, he replies: "Not so difficult. I've had the chance to visit nuclear power stations in many countries and the technology for the treatment and storing of low-to-medium radioactive waste is highly developed.""The danger is high-level radioactive waste from spent fuel.

"Here we will have to follow a waiting policy of "wet" - where the waste is kept under water - then "dry" storage while the IAEA develops a central storage facility." Public acceptance The Vietnam Atomic Energy Commission is scheduled to hold an international display at the Exhibition Hall on Tran Hung Dao Street next month as part of its effort to foster public acceptance of nuclear energy.

"We do this every year," says its chairman Dr Vuong Huu Tan.

The commission also opens the site of Vietnam's only nuclear reactor at Da Lat to the public each year in its bid to have people understand nuclear energy and its uses.

The 500kW was renovated from the previous 250kW Triga-Mark 11 reactor with the help of scientists from the then Soviet Union 21 years ago for mostly medical use - especially in the treatment of some types of cancer.

Dr Tan says its draws about 3,000 visitors each time it is opened to public inspection.

Dr Tan concedes that there has not been a scientific study done of the public's attitude to nuclear power, but questionnaires answered at five exhibitions held so far in both Hanoi and HCM City showed more than 80 per cent support a nuclear-power programme.

What has to be done? The Vietnam Communist Party Central Committee's Science and Education Commission director, Dr Do Nguyen Phuong, explained to a gathering of about 200 Vietnamese and international scientists in Da Lat (the Tay Nguyen or Central Highlands) in October last year that to translate the Government's decision into action the industry will have to: - Train qualified staff; - Build the infrastructure necessary to the generation of atomic energy; - Intensify research; and - Apply the resulting nuclear technology.

The demand Vietnam's energy demand was estimated at 230 billion kWh in 2020, of which 165 billion kWh will be met by domestic primary sources like fossil fuel, about five billion kWh by renewable sources, 20 billion kilowatts by imports, and 40 billion kWh by nuclear energy and thermoelectricity generated from coal.

The electricity is also likely to be bought from Laos, China, Cambodia and perhaps Thailand. - The Southeast Asian Times/VNS