

BusinessWeek

EUROPE January 14, 2009, 1:15PM EST

Abu Dhabi Probes Nuclear Power

The oil-rich Arab emirate and the rest of the UAE would eventually like to get 25% of their energy from nuclear sources

By [Stanley Reed](#)

Abu Dhabi may be one of the world's richest and most important oil producers, but that isn't stopping the emirate—the linchpin of the United Arab Emirates—from plunging into other energy sources. The sheikdom, which has several hundred billion dollars in financial reserves, already has committed to spending \$15 billion on [green energy](#) technologies, including a [model low-carbon-emission city called Masdar](#).

Now it is taking a serious look at nuclear energy. David Scott, an Abu Dhabi official, says that the UAE would eventually like to get some 25% of its power from [nuclear power](#). That might mean six or more nuclear plants, which cost \$5 billion or more each today. The prospect of orders on that scale could trigger fierce competition among nuclear plant builders such as [Westinghouse](#) in the U.S. and Areva ([CEPFI.PA](#)) in France. UAE officials expect to sign a civilian nuclear cooperation agreement with the U.S. soon.

Why is a country with the world's fifth-largest proven oil reserves interested in nuclear energy? Like most of the Gulf states, the UAE has seen surging domestic demand for electricity in recent years thanks to fast-growing, energy-intensive industries such as aluminum smelting—not to mention living with low energy prices that encourage consumption.

SHORT ON NATURAL GAS

Like most of the Gulf countries, Abu Dhabi didn't foresee the rapid growth in electricity use and is now running short of natural gas, the preferred fuel for power generation. Moreover, Abu Dhabi has big ambitions to turn itself into a global energy center that would create high-quality jobs even after its oil runs out. "The desire for nuclear power transcends pure economics," says Leila Benali, director of Middle East and Africa at [Cambridge Energy Research Associates](#) in Paris. "It is driven by more strategic and geopolitical factors."

The UAE already depends on gas imports from Qatar for 60% of its electricity generation, but there is no assurance that Qatar can accommodate the UAE's expected 9% annual growth in power consumption. What's more, tight gas supplies are forcing other countries such as Saudi Arabia, Kuwait, and Dubai—the second-largest of the United Arab Emirates—to burn oil and other liquids to produce power, cutting into supplies available for export. "It is growing alarmingly clear that the Middle East is short, make that very short, of energy, in particular natural gas," says Neil McMahon, a London-based analyst at [Bernstein Research](#) in a recent report.

Given these challenges, the UAE has been pondering for some time how to meet an expected near-doubling of its need for electricity by 2020. Analysts calculated that even if the country went all-out installing [solar and wind energy sources](#), these would provide only a maximum of 4% to 5% of expected peak production capacity of more than 40,000 megawatts. The country's planners thus came to the conclusion that for both environmental and economic reasons, "the option of nuclear power was too great to ignore," says Scott, who is executive director for economic affairs at Abu Dhabi's Executive Affairs Authority.

LOOMING CONTROVERSY OVER PROLIFERATION

Of course, getting even one plant up and running by 2020 will be a huge challenge given the hurdles that have to be cleared. For one thing, even though the UAE is a military lightweight and an ally of the West, the country's leaders know from the bruising political fight over [Dubai Ports World's](#) attempt to acquire U.S. ports that any foray into the nuclear arena by an Arab country is likely to be controversial. No matter how different the countries are from one another, the UAE's nuclear ambitions likely will be complicated by the effort to stop Iran—located just across the Persian Gulf—from developing atomic weaponry.

To head off worries, the UAE has pledged to adhere to a series of safeguards and principles, including "the highest standards of nonproliferation," it says in a statement. Hamad al Kaabi, the country's permanent representative to the International Atomic Energy Agency in Vienna, says the pending agreement with the U.S. "does not allow any transfer of sensitive technology" or "materials that are highly enriched," of the sort that potentially could be used in weapons.

Still, Kaabi, who is a U.S.-trained nuclear engineer, indicates his country is determined to add nuclear to its growing energy bag of tricks. "There is a clear need for such a program," he says. "The need and rationale will not change."

[Reed](#) is London bureau chief for BusinessWeek.

Xerox Color. It makes business sense.

Copyright 2000-2009 by The McGraw-Hill Companies Inc. All rights reserved.

The McGraw-Hill Companies