

The New York Times

Green Inc.

Energy, the Environment and the Bottom Line

JANUARY 13, 2009, 12:14 PM

Persian Gulf Country Seeks Energy Independence From the Persian Gulf

By [MATTHEW L. WALD](#)

The United Arab Emirates wants to diversify its energy portfolio and develop nuclear power. Everybody wants energy independence, especially if they are importing from unstable regions like the Persian Gulf.

It turns out that this is true even for countries *in* the Persian Gulf.

The United Arab Emirates sits on nearly 100 years' worth of oil, at current rates of production. But to make electricity and drinking water, it burns natural gas — most of it imported from Qatar, a Persian Gulf neighbor. So the Emirates want a nuclear reactor.

In the next few days, the U.A.E. expects to sign a nuclear cooperation agreement with the United States, which would help pave the way to ordering a reactor later this year. The plan is to begin site preparation next year, pour concrete in 2012, and finish by 2017.

In some ways, it is an odd choice; all of the specialized technical help would have to be imported, along with the reactor components and the fuel. And buying a reactor means building a lot of new transmission towers to toughen up the local grid, lest a simple reactor shutdown lead to a widespread blackout.

But the alternative, said David Scott, executive director of economic affairs at the Emirates' Executive Affairs Authority, a government agency, is to burn oil. OPEC, of which the Emirates are a member, sets production quotas, not export quotas, so the more the U.A.E. burns for power, the less it can export.

"We need to develop a more diversified portfolio of power," Mr. Scott said.

Using what might be a slightly dated set of estimates, his agency calculated that at \$100 a barrel of oil (and \$10 per million B.T.U.'s of natural gas) a reactor would save \$2.8 million a year. At \$200 a barrel, and \$20 per million B.T.U.'s, it would save \$5.6 billion, Mr. Scott said.

The plan is not to build a uranium enrichment plant, as Iran is doing (which can give a country the ability to build nuclear weapons), but to buy the fuel abroad. The country will also promise not to reprocess the used fuel, a step that separates plutonium for re-use, possibly in weapons. And it is looking for a partnership agreement for a company to not only build the reactor, but run it.

There is no model around the world for exactly what the Emirates want to do.

But the country does face growing energy demands. [Projections](#) are for demand growth of 7 to 13 percent a year, from 15,000 megawatts of demand now to more than 40,000 megawatts by 2020 — owing to expanding industry, housing and commercial development.

Thirty years ago, faced with similarly strong growth projections, American utilities embarked on a vast construction program, but the demand never materialized and the costs got out of hand. The Emirates, however, have grand ambitions.

“We want long-term sustainability,” said Ambassador Hamad al Kaabi, the permanent representative to the International Atomic Energy Agency for the U.A.E. The country will need a technical infrastructure to support nuclear power, and a first-class regulator, Mr. al Kaabi said. Such investments will “not make sense” for a single reactor, he added. The solution is to build several.