# IRAN MAY NEED NUCLEAR POWER TO IMPROVE ITS OIL OUTLOOK

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#### Overview

For a country with supposedly the third largest proven crude oil reserves in the world and the fifth largest oil exporter, the prospect of ceasing to be a major oil exporter by 2010 might seem like a nightmare scenario. Yet, already Iran is looking at the future of its oil industry with mounting trepidation. In the face of steadily declining production capabilities of its major onshore oilfields, deteriorating well reservoirs from past over-production, fast-rising domestic consumption and shortage of reserves and investment funds, Iran is under mounting pressure to remedy the situation if it is to avoid being relegated to the ranks of small oil exporters by 2010.

In the furore about Iran's nuclear programme, one important fact is being overlooked – Iran's oil resources may not be sufficient to supply its rapidly growing population without major cuts in oil exports. Iran's proven oil reserves have been greatly overstated to the extent that it may actually need nuclear power to fuel its economy and also to remain an oil exporter in coming years.

Iran's oil industry – hampered by years of mismanagement and US sanctions – is a mess; the country hasn't been able to make its OPEC quota since 2005, and its refineries are so inadequate that it has to import almost half the gasoline it uses. Plans to raise output are well behind schedule; and long-term plans for expanding production capacity may have to be scaled back as well because of insufficient reserves. Against this background, it is perhaps not so surprising that one of OPEC's leading members should want to develop nuclear energy.

The Iranian nuclear programme is under attack from the US and the European Union (EU), with Tehran being accused of using its nuclear programme as a smokescreen to conceal the development of nuclear weapons. The US government has argued strongly that a country so apparently well-endowed with oil and natural gas as Iran cannot have any legitimate need to develop nuclear energy.

Iran would doubtless not be averse to possessing nuclear weapons, but the United States is wrong to suggest that Iran does not need an alternative source of energy to oil. Iran's population is growing rapidly as are its energy needs. Domestic consumption of oil products is beginning to crowd out crude oil exports.

## Methods

The author will use his own research and collate it with research from other credible sources, if necessary, in order to present a well-balanced case for Iran's needs for nuclear energy.

## Results

The author will analyse Iran's oil fundamentals and argue that Iran may actually need nuclear power to improve its oil outlook. The paper will also argue that nuclear power may have an important role in restricting the consumption of hydrocarbons in Iran and thus enabling Iran to avoid being relegated to the ranks of small oil exporters by 2010.

## Conclusions

An analysis of Iran's oil fundamentals indicates that the country may actually need nuclear power to improve its oil outlook. Nuclear power may have an important role in restricting the consumption of hydrocarbons in Iran and allowing more oil and gas to be exported.

However, if Iran insists on extending its nuclear programme beyond the sphere of building power stations and into the full nuclear fuel cycle, many countries may draw the conclusion that Iran wishes to enrich uranium as a means to developing nuclear weapons. In that case, there would be a risk of trade and investment sanctions which might, in turn, have the effect of retarding the expansion of the oil and gas industries.

The nuclear issue thus has an important bearing on the future supply of oil from one of OPEC's key exporters. Without a settlement of the issue, Iran may find itself with falling production levels, rising domestic consumption, much lower oil exports and thus being relegated to the ranks of small oil producers as early as 2010.

## References

Mouawad, Jad. "An Excess of Problems for Iranian Energy", Herald Tribune Business, 12 February, 2007. McDonald, Paul. "Oil Production Outlook Means Iran May Need Nuclear Energy", Petroleum Review, April 2006.

Iranian ISNA News Agency report on 7 March 2007.

Middle East Economic Survey (MEES), 7 May 2007.

Salameh, Mamdouh G. "Over a Barrel" (Salameh, Haslemere, UK, 2004).

BP Statistical Review of World Energy, June 2006.

Campbell, Collin, ASPO Newsletter # 62, February 2006.

Leggett, Jeremy. "Half Gone: Oil & Gas Hot Air & the Global Energy Crisis" (Portobello Books Ltd, UK, 2005).

OPEC's Statistical Bulletins, 1988-2006.

Howard, Roger. "Iran & Sanctions", the World Today published by the Royal Institute of International Affairs, February 2006.

BusinessWeek online, 9 August, 2006.

Based on figures calculated by Mr David Wyss, chief economist at Standard & Poor's in New York, as published by BusinessWeek on line on 9 August 2006.

Newsweek, May 15/May 22, 2006.