Oil, Geopolitics and War

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Slide 1: Start

- **Oil, geopolitics and war:**

- **Slide 2: Caspian littoral States.**

And;

Introduction:

Thank you Mr. Chairman, within the short period of 5 to 7 minutes I will try to share with you some thoughts about the I.R. of Iran Ministry of Petroleum programs with regard to the major oil and gas projects in the Central Asia, Caucuses and Caspian Sea region. In this area apart from its unique environment Littoral States and their neighbors in the wake of current world uncertainties and the crisis that has spread through out the Middle East face tremendous challenges in securing the supply of energy for consumers and demand for producers.

Slide 3:

CASPIAN SEA FEATURES

Geographic Attributes:

Characterized as the World's Largest Lake

- **Length: 1030 KM**
- **Width: 435 KM, Max. To 196 KM, Min.**
- **Latitude range: 36.33 North to 47.07 North**
- **Longitude range: 45.43 East to 54.20 East**
- **Coast line length: 7000 KM**
- **Surface area: 386400 KM2**
- **Water volume: 78700 KM3**

- **Surface level: (-) 26.5 meters below MSL**
- **Salinity: Approximately 1/3 of seawater**
- **Max. water depth: 1025 meters.**

Slide 4 & 5:

Oceanographic Attributers:

Diverse Met-Ocean + Littoral conditions:

- **High & complex wind, wave, current**
- **Desert, Mountains, Marsh, Lagoons, Ice**
- **Limited number of natural ports.**
- **North Caspian water predominately shallow.**
- **Middle Caspian Derbent Depression near 800 meters.**
- **South Caspian Depression exceeds 1000 meters.**
- **Approximately 130 rivers feed the Caspian Sea.**
- **90% of feed water is from the 5 largest rivers.**
- **No out flow from the Caspian Sea.**
- **Significant features: Volga Delta + Kara-Bogaz Gol lagoon.**

Slide6:

Major influences on the energy sector like any other hydrocarbon region in today's world are present such as:

- **Political conflict. The links between geography and the politics and strategies of nations - "Geopolitics".**
- **Competition for export markets: Oil and Gas pipeline issues.**
- **New oil fields, Investment in infrastructure,**
- **International financial liquidity and Competition for capital and equipment**

Slide 7:

Global Energy Economics: China and India are driving global energy demand:

- **Average annual growth rate for over the period 1990-2002 was 6%**

- **Forecast demand growth ranges from 3%-5% per annum, to 2020**
- **In 2004, China accounted for one-third of total global incremental demand growth of 2.5m barrels per day:**

Slide 8:

- **Current production of crude oil in the Caspian Sea region is roughly 1.8 million barrels per day.**
- **Kazakhstan production accounts for two-third of this figure.**
- **The Caspian Sea is important to world energy market because of its potential to become a major Oil + Natural Gas producer and exporter over the next decade.**
- **Production levels are expected to reach 4 million barrels per day by 2015.**

Slide 9:

According to IEA (2005 statement)
the world will require 60% more energy by 2030 than it used in 2004 if energy policies remain the same.

World Reserves:	**Total**
Oil Reserves (BTns)	**161.9**
Gas Reserves (TCM)	**179.53**

Caspian Sea:	**Onshore**	**Offshore**	**Total**
Oil Res. (BTns)	**1.861**	**3.826**	**5.687**
Gas Res. (TCM)	**6.848**	**2.382**	**9.23**

Slide 10:

Iran's energy potential:

- Let me proceed to an assessment of Iran's future energy potential.
- Iran houses the second largest pool of untapped petroleum in the world, an estimated 130 billion barrels. Only Saudi Arabia with an estimated 260 billion barrels possesses more. Iraq, the third in line, has an estimated 115 billion barrels. Therefore, Iran stands in a position to play a key role in the global energy security equation.

- Saudi Arabia is now producing oil at close to its maximum sustainable rate and it will probably be unable to raise its output significantly over the next 20 years, while global demand is expected to rise by 50 percent.

- Iran on the other hand, has considerable growth potential. It is now producing about 4 million barrels per day, but it is capable of boosting its out put by another 3 million barrels per day.

- And, it is not just oil, but also natural gas. Iran has an estimated 940 trillion cubic feet (about 27 trillion cubic meters) of gas, or approximately 16 percent of total world reserves after Russia. Thus, as it take approximately 170 cubic meters of gas to equal the energy content of one barrel of oil, and then Iran's gas reserves represent the equivalent of about 155 billion barrels of oil. This means that Iran's combined hydrocarbon reserves are the equivalent of some 280 billion barrels of oil.

- To day Iran is producing about 110 billion cubic meters of gas per year. This means with new investments Iran will be capable of supplying very large amount of natural gas to world market in the future.

Slide 11:

Iran's peaceful nuclear program:

- Much of the argument over the Iran's peaceful nuclear program revolves around the issue that as Iran has huge oil and gas reserves, it has no need for nuclear power for domestic energy security needs and thus its nuclear program will be used for nuclear weapons.

- This is highly misleading and debatable. As recently the US government announced an agreement with India to strengthen the utilization of nuclear energy in its energy mix.
- It is important to consider the fact that Iran's energy situation today is quite different from the late 1970s.

- In fact the first nuclear reactor given to Iran was given by the United States government in 1967 – a five- megawatt trigger reactor, research reactor, under the Eisenhower Atoms for Peace Program which is still operated.
- In 1974 the Iranian government announced its program of 23000 megawatt of nuclear energy. At that time no one said why would Iran want to do that when it was flaring gas and had immense oil reserves?
- But, at that time US government reaction was that it is very interesting policy and it is an example of how the Iranian economy is moving and becoming modern. They also made sure that two US constructors, General Electric and Westinghouse, had preferred position in selling those needed reactors to Iran.

- In 1976 President Gerald Ford signed a directive offering Iran the chance to buy and operate a US-built reprocessing facility for extracting plutonium from nuclear reactor fuel. The deal was for a complete nuclear fuel cycle. Therefore, the construction of nuclear power plants in Iran has been contemplated for more than 35 years.

- After the eight years of imposed war at the end of 1980s, the need for electricity generation for reconstruction of the war-damaged economy was evident and as the maximum export of hydrocarbon resources was to be achieved for foreign exchange requirements, the attention was focused on rebuilding the Bushehr nuclear power plant.

- Today, Iran has a population of more than 70 million. The country produces some 4.2 million barrels of oil a day of which about 1.6 million barrels are consumed domestically. Natural gas production has

significantly increased (about 370 million cubic meters per day), but almost all of it currently is consumed domestically a very significant portion of that is used to generate power.

- Iran's energy needs are rising faster than its ability to meet them. Driven by a young population and high oil revenues, Iran's power as well as petroleum product consumption is growing. Its power consumption is growing around 7 percent annually. Thus, Iran's generating capacity during next 15 years must nearly triple to meet projected power consumption demand. Where will the electricity come from?

Slide 12 & 13:

Energy for peace and supply of Iran natural gas to R. of Armenia and R. of Azerbaijan.

Slide 14:

Iran and EU MOU on Energy Cooperation.

Slide 15:

Iran is entitled to make its own sovereign decisions:

- As a sovereign nation Iran is entitled to make its own sovereign decisions as to how to provide for its own energy needs. And, under Article IV of the nuclear Non-Proliferation Treaty, member states are assured access to the benefits of civilian nuclear energy.

- Iran is a resource rich country and has all the rights to use its resources as it sees fit. Among these resources there are several, uranium mines whose energy contents cannot be overlooked.

- Hence, helping Iran to extract, process and use this resource could help resolve many regional political as well as financial problems.

- The large oil and gas reserves that Iran possesses do not mean that Iran can use oil and gas at no cost.
- In fact the oil and gas that Iran has are almost as expensive as the oil and gas that other countries don't have. To be able to use oil or gas as a feed for an industry such as power generation, Iran has to develop the resources.

Slide 16:

- Taking into account the fact that the majority of Iran's oil and gas reserves are in the south and country's population centers are in the north, it makes more sense to export the oil and gas in the south rather than pump it to the north and translate it into eclectic power.

- Therefore, it makes economic sense for producers of oil and gas in the Caspian Sea region to look into Iran as a reliable end user market and for Iran to buy oil and gas from the region.
- Of course it may be also argued that Iran has secured domestic supplies as compared to other countries that are importer of oil and gas. And, in case Iran as a country manages to secure its own indigenous supply of nuclear fuel, then its energy equation changes and it becomes more of an economic evaluation.

- Iran's natural gas is vitally needed for re-injection into existing oil reserves for repressurizing. It is also needed for growing domestic use, such as cooking fuel and domestic heating, where it can free up oil for export. New uses such as powering bus and taxi fleet in Iran's smoggy urban areas are also essential for development. Therefore, with generating power from nuclear fuel, Iran will be in a position to free up more gas for export too.

Slides 17, 18, 19, 20, 21, 22.23.24and 25 are about Neka, cross Caspian pipeline, KTIOP, KTIGP and ….:

Conclusions:

- Let me emphasize that energy demand in Iran between now and 2030 is projected to increase at an average annual rate of about 3 to 5 percent. Of curse in case there are drastic policy change in removal of energy subsidies in the country, which currently is around 10% of GDP, this estimated rate of demand may change and will be lower.

- To increase Iran oil production from 4.2 million barrels per day in 2004 to 4.5 million barrels per day in 2010 and to around 7 million barrels per day in 2030, the estimated investment need is more than 80 billion US dollars in 2006-2030.

- To increase Iran's natural gas production to 570 bcm by 2030, the country needs for cumulative investment of around 100+ billion US dollars over the same period.

- Iran has already managed to attract noticeable amount of investment for its oil and gas industry development and in particular is ready to enter joint ventures for developing the Caspian Sea hydrocarbon resources.
- US political pressure on Iran is fundamentally driven by its desire to control hydrocarbon resources of the Middle East and Caspian Sea region, as it was proved by the 2003 invasion of Iraq.
- So, while publicly focusing and putting pressure on Iran's peace full nuclear program key US administration figures are thinking in geopolitical terms about Iran's role in the global energy equation and its vast hydrocarbon resources. As it was the case with Iraq and its current objective in the Caspian region.
- In this regard let us emphasize that the New Name of the Great Game is cooperation in all energy fields and on a fair basis.

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Thank you for your patience and kind attention