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Editorial:	Energy Saving and Economic Resurgence			
Views on News:	Continued Rise in Oil Prices; Wiping off Myth from Oil Market			
Energy Highlights				
Interview:	Promising Good Days			
Article:	Russia's Natural Gas Export Policy and its Implications for Europe	16		
Report :	Persian Gulf Oil Reserves Rise but Gas Declines IOEC, Pioneering Offshore Contractor for S. P Projects NIOC Challenged to Secure Financial Needs of Projects			



# **Energy Saving and Economic Resurgence**

he managing director of Iranian fuel conservation organization (IFCO) in an interview quoted by "SHANA" news agency on April 19, 2008 said that: "if a project on standardization of fuel consumption is implemented in the country's 15000 poultry farms, there will be a saving of 4 million liters per day in the gas-oil consumption".

Let's pay attention to the depth of this remark: The latest regional price of gas-oil in the Persian Gulf market at the time of writing this note on April 2008 was 87 cents per liter (US \$ 0.87/I). If this figure is multiplied by 4 million liter, the savings by poultry farms will amount to \$ 3.5 million provided that their fuel consumption is standardized. If under the most pessimistic condition, the activity of poultry farms is considered as 250 working days, the yearly savings for gas-oil will reach one billion liter with a value of US \$ 870 million. This figure is equivalent to 790 billion Tomans if each dollar is calculated as 910 Tomans. If this figure is divided to 15000 poultry farms, the average share of each unit will be about \$ 58000 (or 54 million Tomans). This means each farm wastes fuel equivalent to \$ 58000 every year which is easily avoidable.

Pay more careful attention to these figures (all are average figures). This question can be raised that whether the average cost of standardization of fuel consumption for each poultry farm will be more than \$ 58000 or 54 million Tomans? Even if this standardization requires a cost twice this figure, it means that by implementing the

project for improvement of fuel consumption in these centers, we have in fact made an investment that is returned after a maximum of two years as a result of saving in fuel (in other word from released gas-oil).

But the managing director of IFCO during his interview declared that the project for optimization or standardization of the poultry farms' fuel consumption requires a credit of 750 billion Tomans. In other word, it will be 60 billion Tomans less than what was calculated above as extra fuel consumption by the farms. Thus, this investment will in fact return the capital in less than a year. Which investment can really be less risky, clearer and with a faster capital return?

For a government importing gas oil, the figures mentioned are tangible and genuine figures. Even if the government stops importing it, the extra gas-oil can easily be sold in the Persian Gulf market. Wouldn't it be better that instead of paying these numbers each year, the government spend these sums of money in one or two years for improving poultry farms and benefiting many years from it?

We should not also be heedless of the fact that implementing such a project will also have many other side benefits. The heating system of poultry farms should be changed by implementing this project. Instead of old consuming heaters, radiation heating systems should be installed. By installing new systems proportionate to reduction of fuel consumption, the level of pollutants will also be reduced. This in return reduces the risk of chicken diseases. In

Eghtessad & Energy

addition, when this project is implemented at a national level, the reduction in the level of pollutants will be very considerable. The total reduction can be calculated in order to make use of international credits with respect to reduction in air pollutants (CDM projects). This can also help reduce part of the costs making the project's economy much more attractive. The managing director of IFCO has also pointed out that the poultry farms' fuel consumption will be reduced to 800 million liters per year by implementing this project. With the calculation made above, the meaning of this statement is that the poultry farms are currently consuming about 1.8 billion liters per year. In fact, 55 percent of the consumption will be reduced. Naturally, the fuel costs paid by the poultry frams will be reduced proportionate to this reduction and this can have an anti-inflationary effects. The imple-

June.2008 - 103

mentation of improvement project in the country's 15000 poultry farms will also create employment.

Poultry industry is only one example of the country's fuel consumption situation.

The condition of fuel consumption in all of the country's sectors and in all activities is not better (if not worse) than this industry. For example, the energy efficiency in energy producing companies themselves (like oil installations or the country's power plants) can be investigated and compared with world standards. What is the efficiency of our power plants and what is the average efficiency of power plants in other parts of the world? Certainly poultry centers are simple and good cases. They can perhaps serve as a model for energy saving projects. However in this case, there are many interest groups whereas there are many other cases that may be more complex technically but with a more limited number of beneficiaries. For example, optimizing energy consumption in a cement company may be a little more complex technically but its beneficiaries are a company's board of directors and not 15000 poultry farms.

The industrial countries which have begun energy conservation activities since 1970s have more than 30 years of documented experience in this field. Their pieces of information are available and can be used and adapted. It is the reason to claim that the issue is simple. With these descriptions, can we look for more important and urgent projects than fuel consumption optimization projects in the country? Is it right that as long as such projects exist and there are a great potential in the country for energy saving, we continuously install and construct more refineries and power plants with expenditures much more than the costs of fuel consumption optimization projects, thus, adding fuel to irregular consumption of energy?

Some people may conclude from this article that such projects would be implemented automatically due to increasing fuel prices and imposing international prices on the society (for example poultry



farms). But I believe that the inflation will be intensified in case of an increase in fuel cost under our country's circumstances, the available level of knowledge and outlook with respect to energy and especially inflation structure and hidden inflation due to wandering cash in the society. For example, these poultry farms add the extra cost on their total expenditures after a time lag. The chicken will become more expensive and people must pay the penalty. And it will ultimately have no effect on the fuel consumption. While by implementing energy saving projects, the consumption level by ultimate producers and consumers will be reduced enabling them to endure higher fuel costs.

The other point and perhaps the most important one is that who is going to implement these projects? Will it again be the government? No, it is necessary to create an encouragement plan for the private sector. How? The establishment of companies that invest in energy saving projects must be encouraged. The only thing the government needs to undertake is to buy the saved fuel at regional prices for several years in return for their investments. Or the government permits them to export the saved fuel. The national interest will profit as well as the investor will derive a benefit from something that is burnt and wasted if the government undertakes to buy that very same 4 million liters per day gas-oil saved at regional prices, for instance, for a period of two years or permits them to export the saved fuel in return for investment in modifying energy system of the poultry farms. Due to relatively lower risk of investment and relatively desirable and faster return of investment, the land and construction sectors, under conditions of crisis in other economic sectors, have currently absorbed most capitals becoming a factor of anxiety

for the country's economy. Which more attractive investments other than saving and fuel consumption optimization projects can change this trend to some extent dragging the capital to a sector guaranteeing national interests?

Under current circumstances, a set of instabilities and economic problems in the country along with irregular import has increased the risk of productive investments. As was mentioned, the end result is that the capital has flown to noncommercial (housing) sector with quick return and less risks. If the government undertakes to pay for the saved energies (at international prices) to investors in energy saving projects, such projects will have similar characteristics in terms of risk and speed of return and can absorb the investments. Also, these projects create considerable employment and can also assist the national economy.

The problem of inefficiency and low productivity rate of all production factors is considered as one of most important problems and perhaps (in a more precise term) the most important factor in the country's economic crisis. Confronting such problems require determination and national resolve. In comparison, the benefits derived from energy efficiency are definitely more tangible than any other factor. Therefore, in addition to benefits mentioned earlier, serious movement toward raising energy efficiency can be a preliminary step for developing the culture of efficiency, disclosing its benefits and extending it to other cases also.

Efficiency improvement implemented at national level will cause reduction of production costs. In the next phase, it will also encourage manufacturing investments.

The initial provision is the existence of the will and national commitment. And everyone should make a fair and just decision not to render this will and commitment futile.

**Director** 



## **Continued Rise in Oil Prices; Wiping** off Myth from Oil Market

he continuation of relative high world oil prices and its increasing trend is gradually opening the secret and wiping off the myth. Since about two years ago, Saudi Arabia realized that neither that country nor other OPEC members are capable of influencing the oil market physically due to lack of spare production capacity. Thus, Saudi Arabia preferred to change its role as well as that of OPEC in the direction of controlling psycho-

logical issues of the market. Many other **OPEC** officials accepted this Saudi policy as they also preferred not to reveal OPEC's weakness in raising oil production. In line with Saudi oil minister, they

constantly argued in their comments that the oil market's problem has nothing to do with supply-demand or the market's fundamental issues but is related to other factors such as stock exchange maneuvers.

The issue of the dollar downfall trend was a new topic for justifying oil price hikes as well as making the case that there is no need to increase oil output. Many claim that oil price increase in recent months is due to the decline in the dollar value. Interestingly, no one in the past could reasonably explain

the connection between these two factors. It is a fact that the real value of oil or its purchasing power is reduced by the fall in the dollar's value. However, sufficient justification and reasoning is needed to explain how a weak dollar brings about an increase in nominal oil prices. It may be supposed that the dollar's fall and rise of other currencies against dollar causes an increase in purchasing power for crude oil in non-dollar zones and thus increases oil demand and oil





OECD member countries have practically cut off relations between consumers and world oil prices. Secondly, it should be noted that in industrial countries and in other crude oil importing countries, the recent fall in the value of dollar has been accompanied with a sharp rise in world oil prices. The dollar's decline could have partly compensated the oil price increase. It is therefore unlikely that an additional demand has been created resulting from the fall in the dollar's value. Another claim is that the fall in the value of



dollar has caused the shift of funds and floating capitals from stock exchange market to crude oil transactions. This claim can be acceptable if backed by facts and figures. Otherwise, it is unacceptable because the weakness of dollar in a sense strengthens euro and other foreign currencies. principally, it is such fluctuations and changes which serve the interests of people engaged in stock exchange and there is no reason why they should abandon it when there are brisk foreign exchange markets. Currently it seems that any justification linking the oil market problems to factors other than supply insufficiency and lack of excess capacity is welcomed by OPEC.

In fact, the France's Total Chairman Christopher de Margerie, recently revealed the main problem of the oil market. A few weeks ago, he said" due to limited crude oil supply and shortage of OPEC spare production capacity, oil prices will probably continue to rise". De Margerie pointed out that OPEC member countries are currently producing at their maximum possible rates. He claimed that only Saudi Arabia has a limited excess capacity but is obliged to preserve it as the safety valve of the market. it is noteworthy that Saudi Arabia's limited spare capacity (or the safety valve as de Margarie put it) is one of the myths of the market. It is not clear whether a spare capacity actually exists or the Saudis have tried to keep alive this illusion of the market's safety valve. In case of continuation of the market's current trend, the reality of this spare capacity will be clarified sooner or later.

But it seems that Mr. Margarie is either heedless of the market physiological issues or, as a chairman of an oil company, is satisfied about the rise in the price of oil and welcomes further increases in oil prices. Many officials in the consumer countries have gradually understood the market's

realities and have become convinced that the Saudi logic is to their benefit. They have also realized that the physiological sensitivity of the market will be doubled by putting too much pressure on OPEC and urging OPEC to put its hands up, thus, revealing that OPEC is unable to take any effective action.

Unlike former International Energy Agency (IEA) chiefs who regularly put pressure on OPEC to raise its production, the agency's new chief, "Nobuo Tanaka", has taken more logical positions. During his recent visit to Saudi Arabia, the Saudis apparently briefed him on the realities of the market and he said later that: "If OPEC maintains its production at current levels, there will be more equilibrium between supply and demand and the situation will be better and more balanced in future". Later at an International Conference on Energy which was held late April in Rome, Tanaka said again that the level of output is sufficient at present. He also added that: "The representatives from producer and consumer countries did not reach the conclusion during the conference that oil prices at \$ 117 per barrel is high prices".

It seems that the western managers and authorities are more and more accepting the realities as their upgrade their knowledge and information about world energy situation and oil markets. They have realized that provoking the market and opposing OPEC is useless. While British Prime Minister Gordon Brown had recently called for an increase in OPEC output, the British Energy Minister Malcolm Wicks, confessed last week that there is no easy solution for increasing oil production. He said he does not believe that OPEC could send more oil into the market. Also, George Bush last week said that there is no magic wand for reducing high fuel prices. Once again he asked the US Congress to abandon sensitivities about the environment permitting drilling activities in



Alaska oil fields as well as construction of nuclear and coal power plants.

During the past two decades, energy analysts in the West especially within IEA and the US Energy Information Agency in their projections of long term oil and energy demand have mainly laid stress on the upward trend of world demand. After projection of world demand for oil and determining non-OPEC production share, they assumed, neglecting the fields' limitations and underground oil reserves, that OPEC members will meet the rest of the market's needs. Especially they set legendary figures for Saudi Arabia in the order of above 20 million barrels per day (bpd) or sometimes even up to 28 million bpd of oil production capacity. But with clarification of the realities and at the climax of the market's pressure, the Saudi Arabia's oil minister announced that the country's production capacity will not exceed 12.5 million bpd even up to the year 2020. Apparently the credibility of the claims made by Matthew Simmons (in his book titled "Twilight in the Desert" published in 2005) regarding problems and limitations of Saudi Arabia's production, has now been revealed.

Among the two US Democratic Party's rivals in the 2008 presidential election, "Barak Obama" demonstrated that he is more knowledgeble than "Hillary Clinton" about the oil market. While Hillary Clinton threatened OPEC that if elected, she would approve laws to confront OPEC as a cartel and to prevent it from imposing limitation on production ceiling, Obama requested Nigerian rebels to put an end to attacks on oil installations in order to increase the country's oil production. This request was to some extent welcomed by the rebels affiliated to Niger Delta's freedom movement.

Any way, it is a fact that technical and politico-physiological factors, downstream limitations and stock exchange markets have

influenced the oil market a great deal during the past two years. But it should not be forgotten that such factors have more or less always existed. As a senior official at US Department of Energy said: high oil prices are the consequence of the market's fundamental factors. Complete or almost complete lack of OPEC's excess capacity during the past two years has greatly increased the influence of other factors and has intensified the scope of fluctuations.

Recently, a number of US Congressmen have urged the government to tap strategic reserves or at least stop increasing stock levels in order to cool down the market. It seems the proponents of this proposal are among the people unaware about the oil market's sensitivities. During the past three decades, OPEC's excess capacities and strategic reserves in consuming countries have been two complementary safety valves in controlling the oil market. Under the condition that one has lost its significance, the sensitivity of the second one will be doubled. If the market conditions compel the major consuming countries to use these reserves, we must be prepared for much higher prices.

It seems that the reduction in world oil demand is the only thing capable of quenching the oil market's thirst under prevailing conditions. If the slowdown of the US economic growth is set to stay around leading to the economic stagnation of the world's biggest economy, other major economies of the world will experience simlilar conditions. In such a case, the world oil prices may go down. Certainly, the technological innovations are also factors affecting the sitatuation but have not been analyzed here due to their unexpected nature. This analysis is naturally based on the continuation of the current level of technical sophsitication in the world.

**Director** 



## Subsidized Prices Cause Delays in Privatization: Official

The shares of Isfahan oil refinery will be floated on Tehran Stock Exchange (Bourse) in 20 days, says head of Special Committee set up in NIORDC for the privatization of its subsidiary companies.

According to ISNA,
Mahrokh Zadeh added: "The
main dilemma in privatizing
Iran's refineries is the price of
their products. Besides
bitumen and Base Oil that are
being sold at Iran's Petroleum
Exchange (IPEX) and the
gasoline that is supplied to
the public vehicles at semi
subsidized price, other products of the refineries are still
subsidized. For the purpose
of privatization, those prices
have to be liberalized too".

The official also complained: "According to the law, 70% of the earnings generated by privatizing

the companies must be used for the expansion of their projects. But contrary to the law, last year it was announced that all their earnings should be sent to the Treasury. Besides, parts of those earnings have to be paid to the Social Security Org and the National Pension Fund, in lieu of the government debts to them. They will in turn pay for the government sponsored 'Justice Shares' for the

needy. These factors cause delays in projects".

On the other hand, Davoud Aghajani, head of Special Committee set up in NPC for the privatization of its subsidiary companies, said: "The Privatization Organization has redefined shares of some petchem companies as 'Justice Shares'. That means those shares will be sold at half price, resulting in financial problems for those companies".



## Polish PGNiG Poised to Invest in Iran

Polish state-owned company PGNiG says it plans to invest in Iran's oil and gas sector in the long-term, Thomson Financial has reported.

"We are linked to an Iranian partner by a letter of intent," PGNiG Deputy Chief Executive, Radoslaw Dudzinski, told a new conference.

"Working teams have

been set up and the issue of investment in upstream is being discussed, though these are long-term investments," he said.

Dudzinski added that PGNiG aims to begin its investments in Iran once the UN sanctions against Tehran over its nuclear program are lifted.

In February, PGNiG said it had signed a preliminary deal with the Iranian Offshore Oil Company to cooperate on managing already-discovered gas reserves.

The world's six major powers, the US, Russia, China, Britain, France and Germany, put together a new package of incentives on May 2 to in a bid to bring Iran's nuclear activities to a halt.

Tehran maintains that as a signatory to the Non-Proliferation Treaty (NPT) it is entitled to enrich uranium for civilian purposes.



### Petrobras hopes to find hydrocarbon in Tusan block

Brazilian Petrobras is making progress with a second shallow-water well in Iran's Tusan block, hoping for an upturn in its fortunes after a first probe turned out to be dry.

"We should finish the second and final commitment well in late July or early August and then we will put together the elements we have so far and decide what to do next," said Samir Awad,

Petrobras' executive manager for the Americas, Africa and Eurasia.

Petrobras signed a "buyback" service contract in 2004 with NIOC, committing to drill at least two wells on a block in very shallow waters in the Persian Gulf.

The area now being explored sits close to established producing areas and is seen as gas prospective, but was categorized by Petrobras as "high risk".

Awad stressed that it was too early to form any conclu-

sions about the area, but he acknowledged that results on the first well were "not good".

However, the second well is drilling an entirely different prospect to the unsuccessful first probe.

Petrobras discovered about 10 billion barrels of oil in Iran before the 1979 Islamic revolution ended foreign upstream investment in the country. The 2004 contract marked a first return to Iran for the company after a 20-year absence.

## Gas import from Iran not starting before 2nd half: Dana Gas

Dana Gas PJSC, a United Arab Emirates- based oil and natural-gas producer and distributor, said first- quarter profit rose 19 percent on higher energy prices.

"Net income rose mainly because of higher oil prices, which gave us a better realization from liquids production," Finance Director Neeraj Agrawal said in an interview from Dubai.

The earnings "appear considerably lower than we would have expected at this stage of the year," said Abid Riaz, an analyst at investment bank EFG-Hermes Holding SAE. EFG estimates Dana's 2008 net income will be 307 million dirhams.

We had assumed the company would receive gas from its key cornerstone

Iranian contract from the beginning of the year, which has not happened," Riaz said. EFG doesn't estimate quarterly earnings for Dana.

The company's gas imports from Iran across the Persian Gulf won't start until the second half, Agrawal said. The shipments, which were agreed on with Crescent Petroleum Co., were previously expected to start in the second quarter, following a delay of more than two years. Crescent holds 20.9 percent of Dana.

"It was announced publicly that the National Iranian Oil Co. has completed the topside installation and is now in the final commissioning phase" of the gas-shipping project, Agrawal said. "In the meantime, our partners Crescent are in regular discussions

with NIOC on prices and quantities."

Iran's Oil Minister Gholamhossein Nozari said last month the country is holding off supplies until Crescent agrees to pay a higher price.





### Prequal out for MC of ICOFC fields

Iranian Central Oil Fields
Company (ICOFC) has
invited interested companies to a prequalification
tender for selecting a
Management Contractor
(MC) for the complementary projects to develop
Tang-e-Bijar and Kaman
Kouh gas fields.

The work scope of the MC includes management and supervision over the design, procurement and execution of projects to construct wellhead facilities of phase 2, completion of wellhead facilities of phase 1, completion of surface facilities and flow pipelines.

The contract value is about \$ 3.5 Mln and the contractual period is fore-

seen to last for three years.

Phase 2 of the project to develop Tang-e-Bijar and Kaman Kouh gas fields entails installation of wellhead facilities, construction of pipelines and building a sludge catcher in the field and another in the llam refinery.

According to the latest studies, Tang-e-Bijar gas field has some 230 bcm of gas in place, 75% of which is recoverable.

Phase 2 of Tang-e-Bijar development will boost the field's output from the



current 6.8 mcm/d to 10 mcm/d. The gas yields of the field is being used as the feed of llam gas refinery.

### StatoilHydro sees South Pars start-up in mid-2008

Norwegian energy group StatoilHydro said that it aims to bring its part of the big South Pars gas project off Iran on stream in mid-2008 but said it has no current plans to invest more in the Persian Gulf country.

StatoilHydro is the offshore operator for development phases 6-8 of the South Pars gas and condensate field in the Iranian sector of the Persian Gulf.

"During the summer

months this will happen," Chief Executive Eldar Seatre told Reuters, referring to the schedule for the start-up. He said output this year would be below 10,000 barrels of oil equivalent per day.

"We haven't committed any (further) investment in Iran," he said on the sidelines of a presentation of the group's first-quarter results.

StatoilHydro has said its involvement in Iran, including its \$300 million South Pars investment, may trigger sanctions from Washington, which seeks to isolate

Tehran over its disputed nuclear ambitions.

"For us it's a delicate situation, obviously, and first we will have to look further into the opportunities and then at the context of the restrictions involved," Saetre said.

"We have an open dialogue with the U.S. authorities, so we know about their perspective and they know about ours," Saetre said.

StatoilHydro also has two oil service agreements in Iran, including exploration and drilling.



## Alborz semi-sub completes test drilling

According to the news agency of Iran's oil ministry, Seyfullah Jashnsaz, managing director of NIOC said Iran's semi-sub drilling platform 'Alborz' successfully completed its test drilling the 12th of this May and would soon be shipped to the marked exploratory targets in the Caspian Sea.

Alborz was supposed to be formally launched in early March and shipped to the intended location in the Caspian Sea for test drilling at the water depth of over 600 meters by late March 2008.

In late April, Asghar
Rafeyee, managing director
of Iran's North Drilling
Company (NDC), had said
that Alborz semi-sub
needed to have special
software enabling it to start
drilling and the specialists
were working to develop
that software. According to
a source close to the project
the issue of the software has
very recently been resolved.

Three tug boats are to be constructed to carry the semi-sub to the planned location in the sea for test drilling. It is said that two of them are already completed but not still operational and the third one will not be ready in the near future.

Iran-Alborz semi-submersible is capable of drilling at the water depth of up to 1,030 meters and the sea bed depth of up to 6,000 meters. Alborz weighs 14,000 tons and 120 people can work on it.

## Tehran to host first CNG conference early July

Iran's first 'CNG Conference and Exhibition of Related Industries' will be held in Tehran during 2-3 July, 2008.

The conference aims at enhancing the association between the client and producers/suppliers of equipments and services needed in CNG related industry.

The two-day gathering has been organized jointly by NIGC and NIORDC, in cooperation with Iran's Ministry of Mine & Industries, Ministry of Defense and Vehicle Industries.

The convention will be

mainly focusing on subjects such as; latest technological attainments in CNG related industry, promoting the domestic production of parts needed in the industry, enhancing capability of local companies involved in it and encouraging private sector investment in constructing CNG filling stations.

## Total says still interested in Iran's South Pars

French major oil company Total said it was still interested in Iran's South Pars gas field, despite a decision by Royal Dutch Shell to pull out of developing another phase of the project.

"It's a project which still

interests us," said a Total spokeswoman in Paris.

"We have not decided to drop our interest in the project," she added. Total has a memorandum of understanding with stateowned National Iranian Oil Company to develop Phase 11 of the giant South Pars field.

Iran has said it wants the

French company to commit to the deal by the middle of this year, while the French government, which is concerned about Iran's nuclear programme, has urged Total not to invest.

The U.S. and European nations fear Iran's nuclear progamme is aimed at developing weapons, a claim Tehran denies.



## OMV under Jewish pressure to suspend Iran deals

The World Jewish Congress asked shareholders of Austrian oil and gas giant OMV to pressure the group to suspend planned deals with Iran until it cooperates

with the UN over its nuclear programme.

WJC President Ronald S. Lauder, a former US ambassador to Austria called on the Austrian government, which holds a 30-percent stake in OMV, to put pressure on the group.

OMV has been exploring oil fields in southwest Iran since 2001 and last year signed a letter of intent with Iranian companies to develop one in the Persian Gulf and to produce liquefied natural gas.

### Repsol, Shell renegotiating Iran gas deal: Repsol

Spain's biggest oil group, Repsol, and British-Dutch peer Royal Dutch Shell are renegotiating their participation in a multi-billion dollar natural gas project in Iran but still want to take part, a Repsol internal source said.

"Repsol and Shell are currently negotiating with the government a change" in their participation in the development of the project at Iran's huge South Pars gas field, she told AFP.

The two firms want to exchange their participation in bloc 13 for a role in bloc 20 or 21 due to rising development costs, she added.

Repsol spokeswoman said US pressure played no role in the decision to renegotiate.

"If this was the case we would not be in talks to exchange one Iranian bloc for another," she said.



### Three firms shortlisted for Oman gas blocks

US company Occidental, India's Reliance Industries and Malaysia's Petronas have been shortlisted by the Oman's Ministry of Oil and Gas to develop the new gas blocks on offer, and a further two or three companies may be added to the shortlist, MEES learns. In total, five new gas blocks and five new oil blocks are up for tender as the Omani government attempts to book new reserves in order to meet its growing gas needs and declining oil production.

The gas blocks result from a re-fencing of parts of Petroleum Development Oman's (PDO) massive Block 6. Occidental is Oman's second largest crude producer, and operates the Mukaizna heavy oil development and other concessions, which are forecast to produce 150,000 b/d by 2010. Reliance already operates the Batinah Coast Offshore Block 18, while Petronas would be a newcomer to the 20-plus companies operating in Oman.



## In an interview, the Managing Director of Tabriz Oil Refining Co. talks about privatization prospective:

### **Promising Good Days**

Mostafa jalali

ohammad-Bagher Dakhili was born in Tabriz in 1952. He joined Iranian oil industry in 1975. Following gaining experience at the Tehran and Tabriz refineries, he was appointed as the managing director of Abadan Refinery in 2000. Afterwards, he became in charge of the development project at Tabriz refinery from the Oil Industries & Engineering Construction Co. (OIEC) for a period of 18 months. Since April 2007, he was appointed as the Tabriz Oil Refining Co.'s managing director serving the people in that region. In a visit to this refinery, the following interview was conducted with the official:

Energy economics: It is known that the design and establishment of the Tabriz Refinery dates back to the year 1974. Since then, however, tangible modifications have been implemented in the refining capacity and other areas. Could you elaborate on the trends in which such changes have been done?

The design and construction of Tabriz refinery began in 1974. It was finalized and became operational in 1977 with an initial capacity of 80,000 barrels per day (bpd). The Tabriz refinery was attacked 19 times by the Iraqi Baath regime sustaining heavy damages. After the end of sacred defense, the steps were taken to renovate the damaged units implementing projects for capacity increase during period of time in accordance with the needs. In the past few months, the production and refining capacity of this refinery has reached 115,000 bpd. Of

course, this is related to the main unit (distillation unit). There is a need to remove existing bottlenecks in the downstream units.

Energy economics: Who contributed in making modifications to raise the capacity of the main unit?

Initial modifications up to 90,000 bpd were completely designed, implemented and supervised by domestic engineers and experts of the refinery. In the later stages, (OIEC) had the responsibility to implement the project which was carried out with a joint cooperation of Chinese and domestic companies.

Energy economics: As it is understood from the present management policies, a special emphasis is put on operational research projects. Is it correct?

Yes. For example, "gasoline-making complex" is a new project under implementation in the Tabriz refinery.

Its basic design was carried out by "Eksens" and it is currently under execution in the form of an EPC contract by three companies (one Chinese and two local companies).

Energy economics: How long is the duration of the contract?

It is expected the contract will terminate within thirty months of which four months has already passed.

Energy economics: What agreement have you reached on its capacity and the level of technology employed?

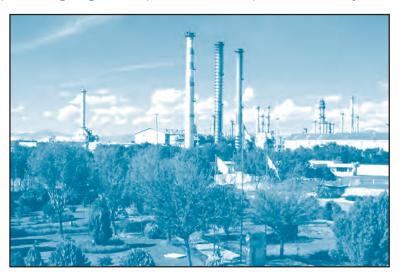
The unit's capacity is 20,000 bpd and the technology employed is more advanced than the current levels existing in the other refineries. The Tabriz Oil Refining Co. is the executor of this important economic project.



## Energy economics: In view of the antiquity of the facilities in the Tabriz refinery, has any work been done to repair or change the parts?

One of the most important projects is the control site projects. Since the parts have been used for 30 years and are worn out, they should be changed or replaced. We are also occupied designing and imple-

menting this project thanks to the efforts of our local experts. By updating these sites and reaching the highest production capacity an important step will be taken.



Energy economics: We were informed "Crude Oil Lightening" project has been approved by the Tabriz refinery's Board of Directors. What will be the eventual result of this project?

I dare to say that such a project has not still reached an industrial stage mechanically any where in the world. We have completed the laboratory stages hoping to be the first center among other refining centers to present the report of its practical outcomes. If we get a positive response, we will witness a great achievement in the economy of the refineries.

Energy economics: There is a project on your table titled "Ways to reduce energy consumption in atmospheric distillation tower of the Tabriz refinery". What are the solutions for reduction and control of energy consumption?

The regulation of operational conditions plays the most important role in this regard. Controlling the operational parameters like (temperature, pressure and rate) can be a starting point in the case. We have a responsible person for controlling energy consumption who is

regularly surveying the situation. However, the place and time of controlling energy consumption are important factors which are observed here. For instance, if fuel consumption in the furnaces can be controlled, it is far more important than controlling a few ordinary lamps. It will be very effective to reduce

energy consumption in distillation furnace or boilers by 2 to 3 percent.

Energy economics: How much crude oil is consumed in the Tabriz refinery for commissioning internal facilities?

You mentioned a good

point completing my reply to the previous question. The volume of crude oil used for internal facilities of the refinery is about 6.5 percent. This is a very large amount.

Energy economics: Nearly 7,000 bpd?

Exactly. Energy saving is important on the economy of the refinery and consequently the country.

Energy economics: What you pointed out is the theory of the work. What have you done in practice?

We have achieved 60 percent saving in the return of distilled water from the boilers. The possibility for changing the locality of heat exchangers has been created by proper and suitable maintenance of insulation system especially during intolerable cold weather in winter in Tabriz .Sometimes; we have implemented projects specifically for reducing energy consumption.

**Energy economics:Could you give an example?** 

Any volume of hot burnt gases liberated to the atmosphere from the boilers is considered as wastage of energy. We

have recovered a significant amount of energy by installing an "Economizer" inside "Stokings". Another project carried out for the purpose of energy saving is the change in the equipment of the revolving machines designed thirty years ago for an anticipated efficiency in view of uneconomic structure in the government sector. But in view of the government's new policies, after ceding to the private sector, the refinery companies as an economic institution will not tolerate the old equipment

## Energy economics: On your activities regarding Article 44 and the Tabriz refinery's going to bourse?

As you are well aware, among refinery companies, the Tabriz and Isfahan have the first priority in ceding and entering the bourse. It is nearly two months since our activity started by forming working groups to investigate the technical, financial and the bourse requirements. Nearly 80 percent of the work has been finalized.

### **Energy economics:On ceding procedures?**

Some shares are offered every year. The trend of projects in the government sector does not go ahead with the desired speed due to existing regulations and criteria. But reforms in the private sector are implemented faster. On the other hand, the existing mechanism in the government regulations is in the form of compensating the duty. Therefore, it is contrary to the mentality in the private institutions and free market. I believe, ceding refineries to the private sector will be a turning point in the economic conditions of these oil units.

### Energy economics: Under this circumstance, what will be the fate of employed manpower?

The efficient manpower not only should have any particular concerns, but I must say that this affair will also be very promising.

### Energy economics: Why?

In economic establishments, the payments and remuneration change in accordance

with the personnel's efficiency. And impeding limitations in government structures is non-existent in the private sectors.

## Energy economics: In your view, should not this institution be transmitted as a culture to the employees?

It is exactly right. We have made a lot of efforts in our own refinery for establishing this culture and preparing the personnel. We have assured our colleagues that the main condition for ceding process would be observance of their rights and current benefits in the oil industry. This trend is to be continued as long as the current employees do not reach a new agreement with the privatized company with respect to the manner of continuation of their cooperation.

### Energy economics: Who will be the authority to supervise this?

As the shares will not be transferred to the private sector in a lump sum, there is no cause for concern and apprehension.

# Energy economics: How does the Tabriz Refinery Co. act with regard to the development of internal technology and usage of contractors' services?

In the general activities, we mostly make use of the contractors' services. Regarding development of internal technology, a committee for domestic manufacture has become active from several years ago. More than 80 percent of our mechanical needs are provided domestically.

# Energy economics: Are you satisfied with respect to cooperation of domestic manufacturing companies? Do they provide suitable support for their products?

Yes. For instance, during the basic maintenance work carried out in May, we found that the upper trays of the distillation tower had been damaged requiring replacement. A domestic company manufactured these parts within one week and delivered them to us (such a work required a period of nearly two years to be done by foreign companies). On the whole, they provide a relatively good support for their products.



# Russia's Natural Gas Export Policy and its Implications for Europe

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### **ABSTRACT:**

he objective of this paper is to examine Russia's natural gas export policy towards Europe and discern whether there will be an expansion of natural gas trade and interdependence between Russia and Europe or will each attempt to diminish the extent of the existing interdependence and seek diversification through Europe locating other sources of natural gas supply and Russia finding alternative export markets. It appears that Russia is much more heavily dependent on Europe for its exports and has much fewer viable alternative export markets. Hence, the Kremlin has assumed a number of measures to ensure the continuity of its access to the European gas market. Through Gazprom, the Kremlin is attempting to consolidate its control over the Russian gas industry and to prevent rival Central Asian gas producers from direct access to the European market. Additionally, Gazprom is trying to penetrate the downstream sector of the European gas market, while concurrently endeavouring to bypass its traditional transit countries, namely Ukraine and Belarus. Nonetheless, Europe, highly concerned about Russia's reliability and capability to successfully supply ever increasing quantities of natural gas, will venture to limit its dependence on imports of Russian gas via expanding imports from alternative sources.

### 1. Introduction

The continued growth of natural gas consumption of Europe in conjunction with the expected dwindling Europe's indigenous gas production, have drawn considerable attention to the implications of rising European dependence on the import of Russian natural gas. Though Russia is the largest exporter of natural gas to Europe, serious





questions have been raised regarding Russia's reliability and capability to successfully supply ever increasing quantities of natural gas to its European customers. Perceived lack of sufficient investment in Russian gas industry and mounting political interference in operations and policies of the Gazprom are frequently cited as reasons for Europe to diversify its imports away from Russia. In response, Gazprom has expressed its commitment to establishing export links to China and East Asia in an attempt to lessen its dependence on the European market. However, the dilemma that Russia and Europe are confronted with in their diversification options is that in contrast to oil, transportation costs comprise a substantial part of natural gas projects, which render proximity of production regions to consuming markets an essential condition for ensuring the economic feasibility of projects. Given that most of Russian gas fields and existing transmission networks are located in the western parts of the country, in purely economic terms, Europe appears to be the natural export destination for Russian gas. However, this paper demonstrates that Europe, threatened by Gazprom's politicisation and monopolistic behaviour, has the thrust and resources to curb the growth of gas imports from Russia by expanding alternative sources of supply from North Africa, Norway, and numerous LNG suppliers. Conversely, the Kremlin is well aware of both the significance of the European market to Gazprom's financial strength as well as the lack of viable alternative markets for Russian exports, relative to the monetary rewards and growth potential offered by the European market. It appears that Russia is determined to apply all of its vigour in order to preserve its share of the European gas market, notwithstanding rhetorical public statements to the contrary.

The objective of this paper is to examine

Russia's natural gas export policy towards Europe and discern whether there will be an expansion of natural gas trade and interdependence between the two entities or will each attempt to reduce the extent of the existing interdependence and seek diversification through Europe locating other sources of natural gas supply and Russia finding alternative export markets. This paper is divided into five sections. First section presents an assessment of the extent and features of interdependence between Russia and Europe in the domain of natural gas trade. Second section discusses the politicization of Gazprom's activities and its potential consequences. Third section briefly covers Russia's struggle to contain competing gas producing nations of Central Asia from direct access to the European market. Fourth section succinctly assesses Russia's predicaments in dealing with transit countries. Fifth section evaluates the viability of diversification options from both Russian and European perspectives.

## 2. Extent and Features of Interdependence between Russia and Europe

### 2.1. The outlook from Europe

In 2006, Europe imported more than 161 bcm of natural gas from Russia, which comprised more than 30% of the European consumption and half of the total imports.1 However, not all European Countries are equally dependent on supplies of Russian gas (Table 1). While reliance on Russian imports is quite significant in most of Eastern, Central, and North-Western Europe, "Iberian Peninsula imports no Russian gas and the UK has so far only imported relatively small quantities."<sup>2</sup> This disparity has added a new dimension to the challenging task faced by the European policy makers in dealing with complexities of planning for a secure and reliable supply of imports. Notwithstanding



Table 1

Major European Recipients of Russian Gas Exports, Year 2004
(In billion cubic meters per year)

Country	Gas Consumption	Total imports	Imports from Russia	Imports from Russia as percentage of Consumption	Imports from Russia as Percentage of Imports
Germany	100.2	90.8	39.1	39%	43%
Italy	79.7	67.9	23.9	30%	35%
France	44.7	37	11.5	26%	31%
Austria	9	8.4	6.7	74%	80%
Slovakia	6.7	6.9	6.9	103%	103%
Finland	4.9	4.9	4.9	100%	100%
Bulgaria	3.1	2.9	2.9	94%	94%
Lithuania	3.1	2.6	2.6	84%	84%
Greece	2.7	2.6	2.2	81%	80%

Source: Where Europe gets its gas from (4 January 2006)

< http://news.bbc.co.uk/2/hi/europe/4578350.stm> (last visited on 1 July 2007)

considerable attempts at the EU level to face Russia with a unified European position, there has always been a tendency on the part of one or more major European importers to opt for bilateral negotiations with Gazprom. Germany and Italy have historically been more inclined to take an upbeat approach towards partnership with Russia and pursue bilateral deals. In contrast, France, the third largest importer of Russian gas, is the leading advocate of a unified European approach in dealing with Gazprom.

Most Eastern and Central European countries, with Soviet era memories still fresh in their minds, have a great desire to lessen their dependence on Russian imports. But given their severe financial constraints and lack of immediate alternative sources of supply, the most realistic approach for these

countries is to count on the EU's clout to offer them an institutional support in the face of any undue Russian pressure.

Moving from Southern to South-Western Europe the presence and potency of imports from North Africa increases and gives this region more options in determining the mix of imports by playing Russia against North African producers. The U.K., as Europe's largest gas market, has decided to rely on Norwegian supplies to supplant its dwindling domestic production, which will keep it independent of the need for any significant quantities of Russian imports for the foreseeable future.

#### 2.2. The outlook from Russia

Gazprom, the state-controlled gas company, is the exclusive exporter of Russian



natural gas to foreign markets. Gazprom's operations generate "more than 8% of Russia's GDP"<sup>3</sup>, which partly explains its significant strategic importance to the Russian government. Gazprom is by law the owner of Single Gas Supply System (SGSS), which "is the centralized center for natural gas production, transportation, storage and supply throughout Russia."4 Independent producers must adhere to terms and conditions set by Gazprom in order to have access to SGSS. This asymmetric competitive structure which has placed all other producers under the sway of the dominant producer (i.e. Gazprom) has serious consequences for expansion of production. Denied from access to lucrative export markets, faced with the highly regulated domestic market, and operating under the threat of being taken over by Gazprom in case of a noteworthy success, independent producers simply lack sufficient incentives to invest in developing additional resources. This, combined with Gazprom's own failure to adequately invest in expanding gas production, have cast a shadow of doubt over the prospect of sufficient resources being developed, in a timely manner, if Russia is to meet its growing domestic demand as well as expanding export volumes.

Europe and the CIS are Gazprom's main export markets. While European importers pay with hard currency at world prices, CIS countries, due to Soviet era relations and their economic weaknesses, often negotiate to receive their gas on special terms and below world prices. The importance of the European market can be seen from the fact that it currently accounts "for 60% of Gazprom's export revenue (corresponding to only) 30% of sales volume."<sup>5</sup>

## 3. Politicisation of Gazprom's Operations

The increasing inclination of the Kremlin

to use Gazprom as an instrument in service of government's political agenda has engendered widespread apprehension among European importers of Russian gas. Politicisation of Gazprom's operations has been manifested in two main forms. On the one hand, Russian government is drawing on Gazprom to advance its domestic and foreign policy objectives. On the other hand, Gazprom is employed as a vehicle to take over existing Western interests in major Russian gas projects, in an endeavour to consolidate Kremlin's grip on the entirety of its domestic gas industry.

### 3.1. Gazprom as a political instrument

The perception that Gazprom would make decisions based on policy lines dictated by the Kremlin, rather than primarily economic incentives, generates strong reservations among Europeans pertaining to the issue of gas supply security. The conflict between Gazprom and Ukraine that led to the cutting off of the Ukrainian gas supply by Gazprom in January 2006 provoked strong criticisms of Gazprom's reliability by many observers. Moreover, suspension of the Ukrainian gas supply came shortly after an election which brought to power a government with open aspirations of closer relations with the West. This was interpreted to the effect that Gazprom would be willing to actually cut off a customer's gas supply in the middle of winter, for the price increase or for its political doctrines. The generated insecurity has lent justification to European attempts to secure alternative sources of supply.

### 3.2. Taking over Western interests

Recently, the Kremlin, through the confidence and power that it has gained from a few years of high oil and gas prices, has commenced a precarious move to take charge of majority of gas projects, which are



or were in control of Western companies. Through a combination of political pressures and legal impediments, Western companies have been forced to give up majority control of their gas projects to Gazprom. The cases of Sakhalin-2 and Kovykta present two clear examples of this new strategy. In 2006, Gazprom forced Royal Dutch Shell and its Japanese partners to give up majority control of Sakhalin-2 project for a price which many commentators believed to be below the market value. What is more troubling is the tactics that the Kremlin employed during the negotiations which made the outcome of the negotiations much more dependent on political factors than commercial criteria. "As part of its negotiating strategy, Russia had claimed environmental problems, withdrew an environmental permit, threatened to stop work and even publicly threatened criminal charges."6 It is quite interesting to observe how quickly these charges and concerns were resolved as soon as Gazprom took control of the project. In a similar move, in 2007, Gazprom forced TNK-BP to sell its majority interest in the Kovykta field for an amount which was deemed to be "a fraction of what TNK-BP stake [was] worth, and ... the latest example of the Kremlin forcing out western energy firms."7 This policy has shattered international confidence in Russia's legal system regarding protection of foreign investment and would very likely lead to severe curtailment of further foreign investment in development of the Russian gas industry. Quite contrary to the Kremlin's perception, political leverage gained from full control over the Russian gas industry does not compensate for the loss of expertise and capital brought to projects by Western corporations.

### 3.3. Consequences of Gazprom's politicisation

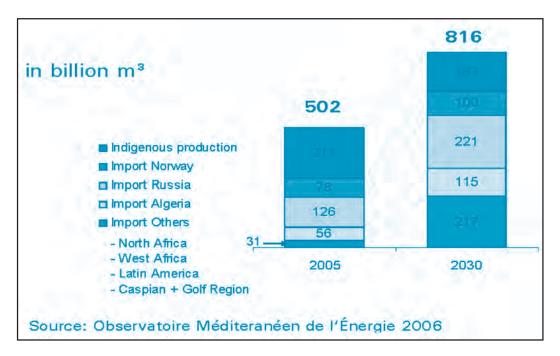
Politicisation of Gazprom's operations

gives rise to two main consequences that may prove too significant for the Kremlin to ignore. Without the technical knowledge and capital contribution of foreign companies, Gazprom would not be able to achieve a significant increase in its production levels in a timely manner. Additionally, Gazprom would not be able to further penetrate the European market without partnership with established Western energy companies and offering reciprocal investment opportunities in the Russian gas industry.

Gazprom lacks the required financial resources to independently effectuate a substantial increase in its production. "Despite its enormous size and significance, Gazprom is seriously encumbered by domestic regulation. By law, Gazprom must supply the natural gas used to heat and power Russia's vast domestic market at government regulated prices, regardless of profitability."8 Therefore, a visible part of Gazprom's profits from exports to the European market is offset by the cost of subsidizing the Russian domestic gas market. Taking into account the estimated investment requirements of \$35 billion and \$25 billion for Yamal and Shtokman fields respectively, Gazprom's only option is to attract foreign capital if these developments are to be implemented. Furthermore, refurbishing the gas export infrastructure and constructing new pipelines are another area that require vast amounts of new investment, which Gazprom must come up with. Hence, the Kremlin's recent hostile approach towards Western companies is not a sustainable policy and soon the marketing, technical, and capital necessities of expanding Russia's gas production will force Gazprom to acknowledge its limitations by calling for foreign partners' participation. For instance in October 2006, Gazprom terminated negotiations with a number of Western companies regarding the development of



figure 1
Forecast of gas supply Europe



the Shtokman field and announced its intention to develop this field without any foreign partners. However, eight month later, in an abrupt turnaround, Gazprom signed a contract with the French company Total for joint development of the Stockman field. Observers argue "that the complexities of the project – including Gazprom's lack of experience with LNG, harsh weather conditions and lack of infrastructure to transport the gas to market – had led to Gazprom's Uturn."9

Additionally, the ongoing liberalization of the European gas market, the started demise of long term take or pay contracts, and the subsequent uncertainty of demand security pose a unique challenge to Gazprom's monopolistic aspirations. A liberalized European gas market with active gas to gas competition makes it imperative for Gazprom to form alliances with Western energy firms in order to secure markets for Russian exports in an increasingly competi-

tive and uncertain environment.

Considering the gas demand of Europe, increasing from 502 billion cubic meters in 2005 to 816 billion cubic meters in 2030, figure 1 indicates that the rate of increase in supply from other importers is considerable and that indicates the diversification policy of Europe with this respect.

### 4. Central Asian Producers

Disintegration of the Soviet Union and the ensuing independence of the Central Asian republics added a new source of competitive pressure on Gazprom's agenda. During the Soviet era, Central Asia's gas production was under Russian control and a unified plan guided the gas strategy of the whole region. Now, independent Central Asian countries pursue their own interests and are reckoned by Russia as serious contenders for a share of the European gas market. However, lack of an existing infrastructure, independent of Russia, to transmit



Central Asia's gas production to the European market, serves as Russia's key competitive advantage over these rival producers. Nevertheless, mere presence of these competing producers sets an upper limit to how far Russia can pressure its European customers to accept its terms and conditions. Beyond a certain point, especially by taking the security of supply premiums into account, European investment in construction of transmission networks, independent of Russia, to transport Central Asia's production to the European market would become feasible. The existence of this viable threat has prompted Gazprom to devise a plan to contain these sources of competitive pressure by locking up the production of Central Asian producers via long term contracts. However, experience has shown that the Central Asian republics are quite ambivalent in their positions and could be fairly opportunistic in their demands depending on the circumstances, which should serve as serious caution for Gazrpom against any over reliance on these producers.

### 4.1. Gazprom's strategy in Central Asia

Gazprom follows two objectives in its attempt to lock up the exportable volumes of Central Asian gas producers. Firstly, it prevents these volumes from competing against Gazprom's interests. Subsequently, it allows Gazprom to use these cheaper<sup>10</sup> supplies in meeting its obligations to Russia's domestic market while freeing up gas for export to the lucrative European market. For the time being, it appears that the Kremlin has succeeded in bringing the Central Asia's gas production into its orbit of control which was manifested in the agreement signed in May 2007 between Russia, Turkmenistan, and Kazakhstan. This agreement laid the framework to ensure that "exports from Central Asia [would] travel north, through Russia, and not directly west, across the

Caspian Sea and onwards to Europe."11 Additionally, the control of Russia over Uzbekistan's export volumes seems to be quite solid and "the republic is boosting exports to Russia to 9bn cm/y and is negotiating a production-sharing agreement that would allow Gazprom to tap huge gas reserves in the republic."12 Hence, the prospects for a direct link from central Asia to the European market seem rather more difficult in the near term.

### **4.2.** Consequences of Gazprom's strategy in Central Asia

Gazprom's strategy to contain Central Asian gas producers raises two main consequences. Purchase of gas from Central Asia offers Gazprom the occasion to delay investment in its own resource development. Postponing these necessary investments could multiply the eventual costs of new developments since costs of projects tend to increase as time passes on. Delayed investment also offers those producers that are actively adding capacity (i.e. Qatar) to pick up incremental shares of the European market at the expense of Gazprom. Also, increased reliance on supplies from Central Asian countries, gives these producers the leverage to bargain ever harder for more attractive terms and prices. In the medium term, due to tough bargaining, the price of central Asian gas would most likely become uneconomical for Gazprom and Gazprom's consequent retreat from this region would pave the way for establishment of direct links from Central Asia to Europe.

## 5. Russia's Predicaments in Dealing with Transit Countries

Managing the relations with transit countries is one of the most challenging aspects of the Russian gas policy. Around 80% of Russian gas exports to Europe traverse Ukraine with the balance passing



through Belarus. These countries are no longer under the sway of Russia as they once were during the Soviet era, which makes the management of gas transportation a much more dynamic and uncertain task. Ongoing disagreements over the price of gas, transit fees, and theft of gas have convinced Gazprom to devise a plan to gradually bypass these traditional transit countries through the construction of new pipeline links to Europe. An evidence of this approach is Gazprom's withdrawal from investing in refurbishment of the transit pipelines of Ukraine.

Through bypassing Ukraine and Belarus, Gazprom would release itself from selling gas to these countries at reduced prices and would also save the amounts paid for transit fees. One example of Gazprom's advancement in bypassing Ukraine and Belarus is the construction of the Nord Stream line connecting Russia directly to Germany via the Baltic Sea. However, the process of building new pipelines is an extremely capital and time intensive matter, which implies that Russia would have to deal with Ukraine and Belarus for the foreseeable future. One appealing mechanism that could ameliorate the security and reliability of Russian gas transit through Eastern Europe is ratification of the Energy Charter Treaty, which offers a multilateral framework to manage the energy transit issues. Nonetheless, "Gazprom and Russia are not in a good situation against the European Energy Charter and its Transit Protocol, because it will reduce Gazprom's monopoly powers. In this regard, Gazprom and the European Union have contradictory interests."13 Thus, Gazprom's pursuit of monopolistic strategies and Kremlin's inclination to resolve energy disputes through power politics rather than legal instruments could eventually backfire and render a major disservice to Russia's plans for greater access to the European gas

market.

### 6. Prospects for Diversification

#### 6.1. Russia

For the foreseeable future Russia would have no other viable export markets for its gas except that of the European market. The rigidity inherent in the export of gas via pipelines, flow of almost all Russian gas pipelines towards Europe, presence of most of Russia's current and future (i.e. Yamal and Shtokman) sources of production in the western parts of the country, long leadtimes, and financial commitments associated with development of new pipelines and export markets, explain Russia's utter dependence on the European market. "Russia's current decision to build a new Baltic Sea pipeline to Germany ... recent purchase of gas storage facilities in Hungary from Germany and its continuing interest in the British energy market all confirm"14

Russia's interest in preserving and expanding its role in the European market.

### 6.2. The 'China Card'

There have been suggestions that China's gas consumption is set to grow exponentially over the next decade and as a result China would be competing with Europe for access to Russian gas supplies. This proposition has become one of Russia's key bargaining chips vis-à-vis Europe. For instance, "Gazprom's chief executive, apparently linked a punitive thwarting of his company's European expansion with a hint that exports could be redirected ... to China."15 However, closer examination reveals that the 'China Card' is an empty threat since gas would meet "only 5% of Chinese energy needs by 2030, up from 3% today."16 China's gas market is in its infancy and a proper expansion of the Chinese gas market requires massive amounts of investment in infrastructure with long lead times, which is not expected to take place in



the foreseeable future. In addition, with the obstacles China is facing in securing access to global oil supplies to satisfy its growing oil consumption, there would be little inclination on behalf of the Chinese government to introduce a new source of dependency in the form of gas imports while it can instead continue to use its abundant indigenous coal reserves.

#### 6.3. Europe

The steady growth of the European gas consumption in addition to Europe's ability to pay for its gas at world prices makes it an exceptionally attractive market for gas exporters. Aware of this fact, the EU has plans to upgrade and diversify its gas-import infrastructure, which "could cost as much as 28 billion euros ...during 2007-13." Moreover, wary of over reliance on Gazprom, the EU's draft energy policy is expected to limit "the region's level of Russian gas imports at 25% of total consumption." <sup>18</sup>

Over the next decade, Europe will witness an expansion of imports from North African producers including Algeria, Libya, and Egypt. Norway is continuing to invest in expansion of its gas supplies and will remain a reliable supplier of gas to the European market.19 The construction of LNG terminals in an increasing number of European countries will augment the imports of LNG, where Oatar is expected to emerge as an important supplier.20 Over the longer term, Europe maintains the financial capacity to construct the necessary transmission networks for transporting Central Asian and Middle Eastern supplies to the European market, if the circumstances require.

#### 7. Conclusion

Monopolistic approach of Gazprom is the most significant obstacle in expansion of its role in the European gas market. If Russia plans to expand its presence in the European

gas market, it must commence to gradually liberalize its gas industry and ratify the ECT, which would foster foreign investment and ameliorate transit conflicts. However, not only Russia is not attempting to implement the abovementioned solutions, but it is demonstrating an even greater resolve in preserving Gazprom's monopoly and employing it as a political leverage. This would strengthen the position of those European policy makers opposed to over reliance on a monopolistic Gazprom and would intensify the implementation of plans for diversification of gas-import networks, in order to safeguard Europe's gas supply security.

Most of the policies of Gazprom are due to its financial gains during the last few years of high energy prices. Considering the fall of oil prices in the 1980's and the subsequent collapse of the Soviet Union, it seems that a desirable policy for gas exporting countries is the pursuit of long term contracts with the customers as well as corroboration of technical and financial ties with international partners.

Considering that FSU and the Middle East account for 73% of proven natural gas reserves, with Russia, Iran, and Oatar have the highest shares, expansion of cooperation among these countries is highly recommended.

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# Persian Gulf Oil Reserves Rise but Gas Declines

### Source: Emirates Business 24/7



From around 739.2 billion barrels at the start of 2007, the proven oil resources of the Middle East swelled to a record 748.2 billion barrels at the beginning of 2008, showed the figures by the Oil and Gas journal, Pennwell Corporation and the Energy Information Administration of the US Department of Energy. The increase was mainly due to a growth in the crude wealth of Saudi Arabia, Kuwait and Iran, while the UAE's proven oil reserves remained unchanged.

Saudi Arabia's recoverable oil deposits increased from around 262.3 billion barrels at the start of 2007 to 266.7 billion barrels at the start of 2008, maintaining its position as the world's oil superpower, which controls nearly a quarter of the total global proven crude reserves.

Iran's oil reserves rose from 136.2 billion to 138.4 billion barrels, the second largest in the world.

Iraq's reserves, the third largest, remained unchanged at around 115 billion barrels while Kuwait's oil wealth grew from nearly 101.5 billion to 104 billion barrels.

The UAE's oil resources, the fifth largest, remained unchanged at around 97.8 billion barrels.

The region's combined oil wealth has recorded a steady rise over the past two decades to peak at 748.2 billion barrels at the start of 2008 despite a sharp increase it its crude production. According to official figures, those five Persian Gulf oil giants have pumped in excess of 70 billion barrels over

the last 10 years.

Experts said the increase in deposits was a result of new discoveries in most regional producers and the introduction of sophisticated exploration and production techniques that boosted recovery rates at their oilfields.

At the beginning of 2008, the Middle East accounted for nearly 56 per cent of the world's total proven oil reserves of 1.33 trillion barrels, almost unchanged from last year's ratio despite an increase in global resources.

In contrast, the region's gas wealth recorded a decline for the first time in many years and the figures showed it was caused by a drop in the gas resources of Iran and Qatar, the second and third largest gas powers after Russia. From around 2,566 trillion cubic feet at the start of 2007, the Middle East's gas deposits declined to 2,548 trillion cubic feet at the start of this year.

Iran's reserves dropped from 974 trillion cubic feet to around 948 trillion cubic feet, while Qatar's fell from 910.5 trillion to 905.3 trillion cubic feet.

The report gave no reason for the decline but Iran and Qatar have largely boosted their gas production over the last 10 years.

At the start of this year, the Middle East's gas resources accounted for around 41 per cent of the world's total gas wealth of nearly 6,185 trillion cubic feet.

Other key gas producers in the Middle East included Saudi Arabia, whose reserves surged from 240 trillion to 253 trillion cubic feet. The UAE's gas wealth remained at around 214 trillion cubic feet while there was a slight drop in Iraq's resources from 112 trillion to 111.9 trillion cubic feet.

In Kuwait, recent discoveries boosted its gas potential to around 56 trillion from 55 trillion cubic feet in the same period.



# IOEC, Pioneering Offshore Contractor for S. P Projects

#### Source: IranOilGas.com



trial Development & Renovation Org (IDRO) are its two major shareholders.

IOEC has so far proved to be pioneering the local contractors in the offshore projects of Iran's South Pars gas fields.

Apart from building all offshore structures of phases 9&10 of South Pars last (Iranian) year, IOEC is currently busy fabricating the platform topsides of phase 12 of the gas field and laying its subsea pipeline.

Besides, IOEC has undertaken to build all offshore facilities of phases 17&18 (platforms and subsea pipelines) and is also the Management Contractor (MC) of the offshore structures of phases 15&16 of South Pars and will be laying their subsea pipelines as well.

According to Masoud Soltanpour, managing director of IOEC, a total of 950 km of sub-sea pipelines will be constructed for phases 12, 15&16 and 17&18 of Iran's South Pars gas field, the pipes for which have all been purchased and mostly delivered as well.

The sub-sea piping of Iran's Salman oil/ gas field is another project undertaken by IOEC. Although all 270 km of the gas pipelines of Salman have been constructed, since all platforms of the field are not as yet in place, the final pipeline-platform connections are left to be done.

Referring to the Salman pipeline project, Soltanpour explained: "Some 70 km of that line is its inner-field segment and the remaining 200 km is the Salman-Sirri-Mubarak part. And, if SADRA completes fabricating the remaining platform topsides in time, the field's piping works will be concluded by the end of coming summer".

In March 2005, the project to develop Iran's Persian Gulf fields of Forouzan and Esfandiar was awarded to the JV of IOEC and a British firm. Later, however, the project was stopped for a variety of reasons.

Explaining the latest with that halted project, the IOEC chief said: "We are talking with the client (Petrolran) to amend some articles of the contract signed for the development of Forouzan and Esfandiar. In the amended contract the British partner of IOEC, which was the JV's leader, is eliminated and the project prices are adjusted in line with the prevailing market conditions. Hopefully, this new contract will be signed in the next two weeks".

Talking about the latest with the subsea piping of the project to develop Reshadat field in the Persian Gulf, Soltanpour said: "The preliminary actions have been taken for the purchase of the needed pipes and the client (IOOC) is expected to open the relevant Letter of Credit (LC) in a month's time".

Apart from offshore structures, IOEC has also been getting involved in drilling projects in the past couple of years. IOEC has supplied offshore and onshore drilling rigs to companies through its subsidiaries, particularly Global PetroTech (former Oriental), for Iran's upstream oil/gas projects.

Concerning the issue, the IOEC boss elaborated: "So far IOEC has rented out three offshore (jack-up) drilling rigs to IOOC and other two jack-up rigs to POGC. Besides, two onshore rigs have been leased out to ICOFC and another onshore type to NIDC".



# NIOC Challenged to Secure Financial Needs of Projects

#### Source: IranOilGas.com

ecuring the financial needs of Iran's petroleum projects and enticing foreign investments in them, have proved to be quite challenging in recent years.

The managers of high echelon in the petroleum industry are not losing a single opportunity to call for foreign investments in the country's projects, which they insist would be quite rewarding.

A number of agreements, accords and MoUs have been signed with foreign companies on Iran's petroleum projects, and widely reported by the local and foreign media. In practice, however, only few have actually been turning into real projects.

In line with the said policy, in the ongoing 'Iran Petrochemical Forum' in Tehran, the top managers of the oil industry, particularly the NPC chief, have been calling again and again for foreign investment in their projects. In the same gathering, Tahmasb Mazaheri, President of the Central Bank of Iran (CBI), reassured potential foreign investors in Iran's petroleum projects and offered them guaranties to safeguard their investments (Ref News of 18/05/08).

Despite the said incentives and assurances, the adverse political atmosphere created in the world by the Western powers about investment in Iran's petroleum plans, plus the restrictions imposed by them on banking transactions with the country, have made the impasse of foreign investment in Iran's petroleum projects almost irresolvable.

To counter that problem, Iran's oilmen have decided to find replacements for the not forthcoming foreign investments. To that end, 3% of the country's oil revenues of this (Iranian) year have been allocated to the South Pars projects and serious ideas have been contemplated for the creation of some

sort of a fund to back up petroleum projects.

The former POGC boss had raised the idea of establishment of a 'South Pars Investment Fund' to provide for the South Pars projects. The idea has now been expanded to an 'Oil Development Bank' or 'Oil Industry Development Fund', with the latter being more popular.

Recently, Iran's oil minister had told the Fars news agency that Majid Hedayat Zadeh, former head of Naftiran Intertrade Company (NICO), which has been providing the financial needs of many petroleum industry projects in Iran, was interested in pursuing the idea of the foundation of an 'Oil Industry Development Fund'.

Hedayat Zadeh is quite knowledgeable about project financing schemes and has scores of contacts in the global financing markets. Putting a character like him for the establishment of that 'Fund' shows how determined the oil minister is in countering the reluctance of foreign investors.

Nozary has said the oil industry is in need of about \$ 5 Bln of foreign investment in this (Iranian) year.

