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Energy Economics

Articles on Oil & Gas in the English section, in cooperation with IranOilGas.com

The president said the price was politically motivated and that the move amounts to an economic blockade of Georgia, which now buys all its gas from Russian energy giant Gazprom.

Syria wants Iranian gas through turkish pipeline

Turkey's Energy Ministry has received a letter from Syria expressing interest in receiving natural gas from Iran through Turkish pipelines.

Syria aims to buy 2 billion to 3 billion cubic metres of Iranian gas annually, a senior ministry official told Reuters, adding that officials from the three countries may meet in the next few days to discuss the issue.

"When other energy projects are also taken into account, Turkey is growing stronger in the region (as a transit country)," the official said.

Turkey is examining with Russia, its main gas supplier, the possibility of extending the Blue Stream pipeline to Israel. Turkey is also central to a $5.8 billion pipeline that would pump Central Asian gas to Austria via the Balkans. Other pipelines across Turkish territory are planned.

An official from Botas, which runs Turkey's gas pipelines, said Syria could receive the gas via a planned pipeline that will link Nevsehir in central Turkey and Kilis, a town near the Turkish-Syrian border.

"In this situation, there would not be any need for the construction of a new and expensive pipeline... Syria's needs for 2-3 billion cubic metres could easily be met with this pipeline," the official said. The Botas official said Syria's integration into the pipeline system would boost Turkey's role in the region.

With this project Iran, Syria and Turkey will be working together in the energy field... This would also contribute to solution of problems we have faced until now with Iran over the quality and quantity of natural gas," he said.

"This is because Syria will move with and back up Turkey in talks with Iran."

Fresh oil/gas layers found in Ahwaz field: NIOC MD

Disclosing the discovery of new oil/ gas reserves in Khami structure of Ahwaz oil field, Gholam Hossein Nozari, managing director of NIOC elaborated: "The volume of the rich gas-in-place of Fahlian layer of the structure is estimated to be around 990 bcf, of which 700 bcf are recoverable. Also, the volume of condensate-in-place of the layer is estimated to total 308 Mln barrels, of which around 120 Mln barrels are recoverable".

As for the fresh oil reservoir, he went on to add: "The volume of oil-in-place of Darian layer of the structure is estimated to be around 350 Mln barrels, of which 54 Mln barrels are recoverable".

Putting the gas production capacity of the structure at over 150 mcf/d, Nozari stated: "The structure's oil/ condensate production capacity stands at over 37,000 bpd".

Explaining the economic value of the structure, Nozari said: "If the price of crude is taken to be $ 36 per barrel, that of condensate $ 40 p/b and that of gas 2.5 cents per every cubic meter, the reservoir will be worth a total of $ 7.3 Bln.

He also noted: "Part of the gases produced in this field can be used for injection into the neighboring oil fields".

NIGC needs over $ 22 bln for its projects of 4th plan

Based on the statistics released by the Corporate Planning Department of NIGC, over Rials 200,540 Bln ($ 22.407 Bln) will be needed for implementing various gas developmental projects foreseen in Iran's 4th Development Plan (Apr 2005-Apr 2010), reported Mehr news agency.

Out of the said needed credits, some Rials 30,368 Bln ($ 3.37 Bln) will be needed in the Distribution section, Rials 104,978 Bln ($11.66 Bln) will have to be allocated to the Transfer part, Rials 46,482 Bln ($ 5.2 Bln) to the Refining, Rials 7,342 Bln ($ 815 Mln) to the Administrative Plans and finally Rials 11,368 Bln ($ 1.26 Bln) to the Buy-Back contracts.

NIGC has planned to build three gas refineries during the 4th Plan, the first of which is the $ 2.177 Bln "2nd Bid Boland" gas refinery, which will be producing some 57 mcm/d of Natural Gas, around 1.48 mt/y of Ethane and 35.2 Mln t/y of LPG/Natural Gasoline.

"Parsian" gas refinery is another project underway by NIGC, which will be producing some 43 mcm/d of gas in its 1st phase and 37.5 mcm/d in its 2nd phase plus 30,000 bpd of condensate. Other yields of the refinery will be; 760,000 t/y of LPG, 850,000 t/y of Ethane, 450,000 t/y of Propane and 310,000 t/y of Butane.

Ilam gas refinery, the third refinery, will be producing some 6.8 mcm/d of Natural Gas, 515 t/d of Sulphur, 480 t/d of LPG and 5,500 bpd of Natural Gasoline.

Latest with development of phase 12 of S.P.

PetroPars and Fater Kosaran Jonoob signed the contract for preparing the site of the onshore facilities of development of Phase 12 of Iran's South Pars gas field.

The contract is worth Rials 230 Bln and will take eight months to complete.

Addressing the ceremony held for signing the said contract, Hamid Akbari, manager of the project with PetroPars, reported: "The basic engineering designs of the offshore and onshore sections of the project will be completed by the end of June 2007. The needed cartography and studies on the soil of the offshore section of the project have been concluded through a $ 4.5 Mln deal and the relevant report has been submitted to the consulting firm in charge of preparing the project's offshore basic engineering design".

Concerning the refinery of Phase 12, Akbari disclosed that three tenders would be held for construction of the refinery in May 2007.

Touching on the drilling section, he added: "The drilling tenders have already been held and the received commercial and technical proposals will be opened little later this December.

He also said the interpretation of the seismic data of the field was underway as well.

Addressing the same ceremony, Gholam Reza Manouchehri, managing director of PetroPars said: "A 12-month contract for installation of the jackets of Phase 12 will be signed with ISOICO. The drilling job of the project will start next year, once the jackets are installed".

As for the piping of the project, he stated: "The tender documents for three, 150 km long and 32" wide, sub-sea pipelines will be made available on Jan 5th 2007 and the ones for the last Topside late Jan 2007".

In related news, ILNA reported that MAPNA (a local power plant company) has been chosen to construct the 6 power generating units of Phase 12 by 2008.

The contract for the engineering design works of the project was signed with Worley Parsons in Nov 2005 and the Company was to complete its basic engineering design and FEED in 9 months' time and prepare the EPC tender documents for the project.

This company has now been asked to revise its design for the project. The new plan does not include LPG and Ethane production units.

The revised plan for Phase 12 seems to be aiming at providing the needed sweet gas for local consumption, and if need be, for LNG production too.

Latest statistics of products of S.P. phases 1-5

According to public relations office of Pars Oil & Gas Company (POGC), the latest export cargo of condensates (355,000 barrels), produced by phases 1,2 & 3 and 4 & 5 of South Pars, brings the total volume of condensates produced and exported to date, since the 5 phases were commissioned, to over 195.945 Mln barrels.

So far, some 119.742 bcm of natural gas has been produced by the five phases and loaded onto the national gas network.

Production of phase 6 of S.P., March 07: PetroPars MD

The platform of Phase 8 of Iran's South Pars gas field will be installed in the near future and will become operational three months later, says Gholam Reza Manouchehri, managing director of PetroPars.

Talking to the news agency of Iran's ministry of petroleum, the PetroPars chief put the overall progress in Phases 6, 7 & 8 of S.P at 95% and explained: "Phase 6 will be starting its production by the end of this Iranian year and Phases 7 & 8 will follow in the first half of next year".

He admitted: "The offshore section of the project is behind the initial schedule, but the platform under construction by SADRA, is ready and is being loaded out now".

Justifying some of the delays in the execution of the project, Manouchehri stated: "NIOC has agreed with a 6-month extension of the project period because its capacity was raised by 30%".

Referring to the credits allocated to SADRA for doing its part in the project, he explained: "SADRA received a total of $ 70 Mln at one stage and will be getting another sum of $ 25 Mln, of which $ 15 Mln has already been paid out".

Drilling of phases 9&10 May start end 2006

Concerning the drilling of phases 9&10 of South Pars gas field, Gholam Reza Monzavian, director of the project with NIDC: "Drilling of 22 'inclined' wells of these Phases will be staring late coming December or early January 2007, using two offshore drilling rigs".

Explaining the time needed to complete the drilling project, he said: "The task will take some 1,300 rig-days to complete; hence, the share of each drilling rig will be around 650 days".

He stated: "The contractors of different sections of the project have been selected and we are busy signing the relevant contracts", noting: "In general, NIDC is in charge of both managing and carrying out the drilling job".

The drilling works of Phases 9&10 was supposed to start in this November with the help of "SAGA 1" drilling rig.

Now, if the drilling job starts in January 2007 by using the two drilling rigs, the task will be completed no earlier than late 2008 or early 2009.

The 293 Mln deal for drilling of these phases is in EPD mode.

Pars LNG, Petrochina sign "Heads of Agreement"

'Heads of Agreement' of an eventual contract for sale of Iran's LNG to China was signed between PetroChina Company and Pars LNG Company.

Talks with PetroChina on the issue have been going on since mid 2005, based on which this company is to purchase around 3-4 mt/y of LNG from Pars LNG Company for a 25-year period.

PetroChina will also be entitled to single-digit share in this project, but no information is yet available about the exact price and percentage of the share.

The feed of the 10-Mln ton/year Pars LNG plant is to be supplied by the gas yields of phase 11 of South Pars.

Total has been holding tenders for different upstream and downstream sections of Phase 11 project in recent months. So far the consortium of Saipem/Snam/Hyundai has been selected as the contractor of the Liquefaction section. Bids for other sections of the plan are being submitted to Total as well.

Once all proposals are submitted and contracts for LNG sale are signed, the Final Investment Decision (FID) stage will follow. This stage was foreseen to start late 2006, but the delay in the tendering procedures has postponed it to March 2007.

Pars LNG project, the shareholders of which are NIOC, Total and Petronas, is dependent on the development of Phase 11 of South Pars gas field and building of an LNG terminal at Bandar Tombak, on the Persian Gulf coast.

Tender underway for expansion of Iran's lavan refinery

The tender documents for construction of 25,000-bpd Vacuum/ Atmospheric Distillation Units of Lavan refinery were made available to the qualified companies on 27.11.06.

The participants have been asked to submit their proposals to Lavan Refining Company.

Given the current trend of affairs in Iran's petroleum projects, the said deadline will most likely be extended.

Iranian companies of Nargan, Namvaran, EIED, Enerchimi, PIDEC, Jahanpars and Sazeh Khavar have taken part in the tender and Iran Itok has been selected as the MC of the project.

Namvaran carried out the basic engineering design of the project and prepared its tender documents.

The objective of the project is to increase the refining capacity of the plant first to 50,000 bpd.

The refinery's current crude intake capacity is 20,000 bpd and produces 3,500 bpd of gasoline.

Deadline set for Sarbandar 2D seismic

The participants in the tender for the 2D seismic data acquisition of Sarbandar region, near Abadan, have been given to submit their proposals to the Exploration Department of NIOC.

The tender documents of an area of 975 km of Sarbandar are the ones that were presented in the tender held by the Exploration Dept. in September this year for the 2D seismic data acquisition of phase 3 of Abadan Plain.

Apparently, the local Dana Energy; Green Refinement Company (GRC); the JVs of the Iranian Pars Kani/a Chinese company and Matrys/a Russian firm have participated in the tender.

Sarbandar tender is being held while phase 2 of the Abadan Plain project has not been concluded even after two years and it is not clear how long it would take to complete. Phase 2 has to cover an onshore section as well as a swampy part. The seismic of the onshore section has almost been completed, but the one for the swampy section has yet to start.

Some special seismic facilities and technical know-how have to be used for the seismic of the said swampy part, which has to cover around 130-140 km of land.

Even though Dana Geophysical Co., a subsidiary of Iran's Dana Energy Group, has provided the needed equipments for the task, the bureaucratic problems plus the geographical situation of the area have so far put off the executive works of the seismic project.

AMAK plan makes over 99% headway

Concerning Iran's Associated Gas Gathering Project (AMAK plan), Mohammad Bijanfar, executive manager of the project with PEDEC told Fars news agency: "The 'Maroun 3' unit of the plan has entered its commissioning stage and will be operational late this month", stressing: "Once this unit is on stream, gathering of some 25 mcf/d of the associated gases of the field will begin".

As for Koupal unit, he explained: "This unit, currently at the final stages of pre-commissioning, will be brought on stream by early Jan 07, leading to the gathering of over 40 mcf/d of the associated gases of Bangestan layer of the field".

Touching on Ab Teymour unit, he noted: "This unit is

foreseen to be commissioned in Feb 2007 and to start its production in the following March".

According to Bijanfar, AMAK plan has made an overall headway of 99.25% so far, with 'phase 1' at 99.4% and 'phase 2' at 97.21%.

He concluded: "By late past Nov, a total of 36 bcf of sour gas were gathered, which has resulted in production of around 2.68 Mln barrels of NGL, transferred to BIK Petrochemical Complex, and 28.7 bcf of light gas, supplied to NIGC".

Offshore facilities of Bahregansar being installed

The first stage of installation that had to follow the renovation works of the platforms of Bahregansar, Iran's oldest offshore oil field, has been completed, says Mohammad Reza Bahari, manager of installation plans of Iranian Offshore Engineering & Construction Company (IOEC), reported the Company's PR office.

Bahari has explained: "At this stage, 12 jackets and 10 topsides, constructed at IOEC's Khorramshahr fabrication yard, were installed using Abouzar 81 crane barge and another crane barge".

As for the second stage, he stated: "Installation of a Production Platform and a Living Quarter (LQ), weighing 2,300 and 1,400 tons respectively, is planned to be completed in five months' time".

Development of Bahregansar field entails construction of 12 topsides, 7 connective bridges and one flare, 34 modules in total, which are all planned to be installed by spring next year.

Renovation and restoration of the offshore/onshore facilities of Bahregansar oil field began in 1995, but works were halted for five years and then resumed.

Development of Bahregansar will raise the production capacity of the field to 60,000 bpd.

2nd Bid Boland deal May be inked

National Iranian Gas Company (NIGC) may close the 2nd Bid Boland gas refinery project deal with the UK Costain-led consortium before mid-December, a source said.

Costain officials were not available for comment.

The UK company and its foreign and local partners were asked by the National Iranian Gas Company (NIGC) in October to return for a final round of talks following approval of a $2.2 billion overall budget by the Supreme Economic Council.

The Costain-led group and another local group bidding for a second construction package were selected for the contract last year. However, their quotes were above NIGC's approved budget and the state gas company had to go back to the supreme council earlier this year for a new mandate.

Bid Boland 2 is to produce 2 billion cubic feet per day of gas, plus condensates and liquefied petroleum gas.

The new budget of $2.2 billion is higher than the original costing, but only slightly above the bid prices submitted last year by the Costain-led group for the main package and by the local group for a smaller package for pipelines, storage and loading facilities.

Costain, joined by Dragados of Spain and Iranian companies Sazeh and Jahanpars, quoted $1.6 billion for the main contract, and a Tehran Jonoob-led group quoted $500 million for the smaller project.

The estimates were based on February 2005 prices. Sources said that NIGC has reduced the scope of work to account for cost increases over the past two years.

Details of NIGC's financing arrangements for the project are not known. Several years ago, Japan's Marubeni conglomerate was given a mandate for a $1.2 billion credit line, but last year the National Iranian Oil Company's financing arm NICO International intervened to claim a new mandate involving Banque Paribas and other French banks.

The front-end engineering and design for Bid Boland 2 was carried out by SNC-Lavalin of Canada. Bid Boland 2 is to be built next to an existing Bid Boland facility that processes 600 million cubic feet per day. The facilities lie near the Mahshahr petrochemicals centre on Iran's northern Persian Gulf coast.

FERF showed deficit of $ 3.5 bln in Oct: MP

During the first six months of this Iranian year (early Apr-late Sep 2006) Iran's present Administration withdrew around $ 10 Bln from Foreign Exchange Reserve Fund (FERF) for its current expenditures, a rise of 35% year-on-year, says Mohammad Shahi Arablou, head of Economic Commission of Iran's parliament, Majlis.

He stated: "FERE showed a deficit of $ 3.5 Bln late October this year because of the extensive use of the Fund by Iran's government. Another $ 1.5 Bln will be added to this figure when current year's ancillary budget bill is passed by Majlis".

He added: "Given that another $ 15 Bln will be gained via oil export in the remaining months of this (Iranian) year, FERE is expected to have $ 8-10 Bln at the end of the year. The point is that only 25% of the money taken from FERE has been allocated to Production and Infrastructural affairs and the rest has been spent on the current expenditures of the administration".

Details of Iran's petchem exports of last year

Most trading companies that buy Iran's petchem products are in need of polymers and next year will be a polymers export year for Iran, Mohammad Ali Zardbani, manager of Foreign Trade Affairs of Iran's Petrochemical Commercial Company (PCC).

As for the volume/value of products exported last year by different petchem plants of Iran, he gave following details:

Bandar Imam Petrochemical Complex (BIPC) with the export of 2,178 tons of products, worth $ 1,175 Mln, led the business followed by Kharg PC with the export of 1,053 tons of products, worth $ 268 Mln.

Fanavaran PC exported 524,000 tons, worth $ 136 Mln.

Bou Ali Sina PC exported 469,000 tons, worth $ 1287 Mln.

Razi PC exported 552,000 tons, worth $ 79 Mln.

Tabriz PC exported 82,000 tons, worth $ 77 Mln.

Arak PC exported 111,000 tons, worth $ 72 Mln.

Amir Kabir PC exported 41,000 tons, worth $ 42 Mln.

Tondgouyan PC exported 47,000 tons, worth $ 39 Mln.

Isfahan PC exported 24,000 tons, worth $ 17 Mln.

Concerning the export destinations of Iran's petchem products, he said: "Europe has taken 9% of Iran's exports, the Indian Subcontinent 12%, Far East 32%, Middle East 24% and China 15%".

Iran's petchem output will rise to 32 Mln t/y by Mar 2008: NPC Chief

Zagros Petrochemical Complex will be commissioned by the end of this Iranian year (late March 2007), says Gholam Hossein Nejabat, managing director of NPC, adding:"Borzouyeh Petrochemical Complex (Iran's largest Aromatics producing plant), Jam Petrochemical Complex (Iran's largest Olefins producing plant) and Ghadir Urea/Ammonia plant are foreseen to become operational by Oct 2007".

Talking to ISNA, he added: "Seven major petrochemical projects will be coming on stream during next Iranian year, one project every two months", adding: "The Acetic Acid unit of Fanavaran Petrochemical Complex has reached its production stage, but it will take another month for its final commissioning. The 9th Olefins unit (Arya Sasol) is expected to become operational by the end of next Iranian year".

Saying that commissioning of the said projects would raise Iran's petchem production capacity to 32 mt/y, he noted: "The value of Iran's petchem yields will reach a total of $ 6.1 Bln by the end of this Iranian year, which will be a dramatic rise compared to the $ 3.7 Bln of last year".

Importing Iran's gas for developing ras Al-Khaimah mulled

Since 2003, Sheikh Saud al-Qassimi the crown prince of Ras al-Khaimah has overseen a major overhaul of the Emirate's economy. But despite the achievements of the last three years, Sheikh Saud believes the Emirate is only at the beginning of a long process.

"We have just started. It's a long journey and we have achieved very little. We can achieve a lot more by developing different fields within the economy." MEED reported.

For developing Ras al-Khaimah, Sheikh believes that, importing gas from Iran is an option. The Royal Dutch/Shell Group together with Ras al-Khaimah-based RAK Petroleum recently began a feasibility study for piping gas into the Emirate from across the Persian Gulf.

"There is no gas deal with Iran so far," says Sheikh Saud. "We always look to Iran as a country we hope to develop our political relations with. RAK Petroleum has signed a deal with its counterparts in Iran to develop a petrochemicals plant. We shall see how it goes."

Construction of Gachsaran petchem in doubt

Talking about the plan to construct 'Gachsaran Petrochemical Plant', Ali Morad \Jaffari, an M.P from Gachsaran & Basht said: "The project was approved by the cabinet in 2001 and, to that end, Gachsaran Petrochemical Company was established in 2005".

He went on: "A tender was held for the project in August 2005, which led to a contract for its construction with the help of a Japanese company. The Japanese side, however, has yielded to pressure from the U.S and has failed to meet its contractual commitments".

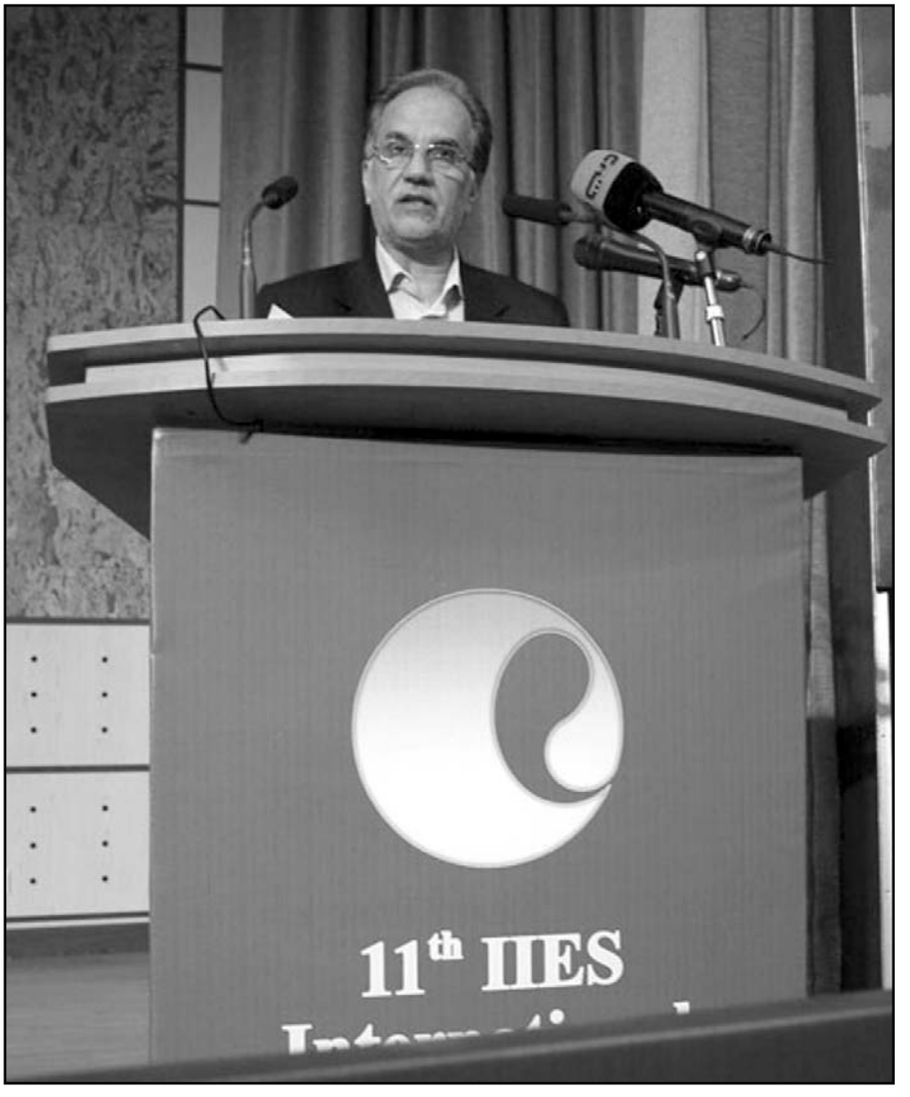
The Euro 263 Mln contract for the project was officially signed between NPC and the JV of the Japanese Mitsui Engineering & Shipbuilding Co. and Iran's PIDEC on Nov 12th 2005. The plant was supposed to use Shell's know-how.

The project was planned to be constructed in 42 months from the contract's effective date.

Construction of Gachsaran Petrochemical plant was aimed at the production of 500,000 t/y of Mono Ethylene Glycol (MEG), 53,000 t/y of Di & Tri Ethylene Glycol and 100,000 t/y of Ethylene Oxide (EO).

The plant's feed was planned to include 350,000 t/y of Ethylene, to be supplied by Iran's West Ethylene Pipeline (WEP), and 340,000 t/y of Oxygen, to be supplied by the utilities of the plant.

Global Security of "Supply, Demand, Know-how and Investment" is Needed for Energy



Iran's Minister of Petroleum Kazem Vaziri Hamaneh delivered the following speech at the 11th Annual Conference of Institute for International Energy studies entitled " New Developments in World Oil & Gas: Challenges & Opportunities" held in Tehran from 20-21 November 2006 in which energy officials and experts from different countries participated:

I am delighted to have an opportunity to give a speech in the IIES 11th Conference. At the outset, I would like to appreciate the diligence by Institute for International Energy Studies for organizing and planning annual conferences. I also take the opportunity to welcome all participants, particularly those honorable guests from other countries that have accepted our invitation to this conference. I hope this conference would achieve significant results that could cast light on the gray areas regarding oil and gas markets and prove to be helpful for the decision makers. Undoubtedly, the presence of government officials, academia, experts, advisors and executives provides us an ample opportunity to open up various topics relating to oil and gas regional and international developments where significant results are expected to be achieved.

For years, the process of economic development in oil and gas rich countries has been dependent on the oil and gas revenues while a secure and uninterrupted flow of energy were prerequisite to the sustainable economic development in major energy consuming countries.

Now, considering the fact that "the security of energy supply" is currently regarded as one of the main concerns of oil producing and consuming countries, I would like to touch upon some points regarding the concept.

The security of energy supply is translated into sustainable and reliable flow of energy where environmental standards are considered. The security of energy supply turned to a serious problem in the global economic development and growth in the past century since the concentration of energy resources, particularly oil and gas reserves, has occurred in some regions of the world while other regions are home to major energy consuming countries heavily dependent on energy for their economic activities. However, the first oil shock drew the security of energy supply to the attention of major energy consuming countries; therefore, highly industrialized countries developed and adopted such strategies as reducing their reliance on the Middle East oil, using more domestic energy resources, and enhancing energy efficiency.

Such a policy led to the decreased share of OPEC in the global oil markets. As a result, huge investments made in OPEC member countries with an initial aim of covering prospective growing demand fell into disuse and gave rise to the creation of excess oil production capacity. Experts believe that historic low oil prices of 1986-2002 was mainly caused by such an idle spare production capacity.

However, it is notable that despite numerous challenges faced by OPEC, the organization, far from all political tensions and crises, has concentrated all its efforts on meeting the needs of the global oil market. In last two years, for instance, the members' production always outstripped the demand for OPEC crude and in order to diminish the negative impacts of psychology factor on oil markets, the organization ignored market fundamentals to make decisions on quotas. Of course, it is admitted that, at times, OPEC cools down oil markets heated by the psychology and politics by means of assuring the consumers of a secure and uninterrupted flow of oil.

I would like to draw your kind attention to the fact that the security of supply generally defined by the consumers is only one side of the coin while this concept should be revised with the consideration of energy producers and exporters viewpoints.

The security of energy demand: The first and foremost point regrettably, the security of energy demand which is the other constituent dimension of the energy security has been ignored. While oil and gas consuming countries are anxious about reliable and uninterrupted access to energy resources, oil and exporting countries, on the other hand, are likewise faced with lingering worries on the security of demand which means a guarantee for real markets for their oil and gas. The economies of such countries as Iran are dependent on oil and gas revenues to realize a fast and sustainable growth. Although Iran managed to prevent oil market fluctuations from affecting its economy through establishing oil revenues fund in the past eight years, reduced oil revenues are to cause some difficulties for the economy in the long run. It is worth mentioning that energy consuming countries have jeopardized the security of demand for energy by adopting monetary and fiscal policies, levying considerable taxes on oil products and granting subsidies to coal and energy carriers other than oil and gas.

The Security of Investment: Another Crucial Point from the Producers' Viewpoint

It should be mentioned that major oil producers are in need of the security of investment and security of access to advanced technologies to materialize the security of energy supply. To this end, governments are advised to make energy policies irrespective of political tensions and alignments. As a matter of fact, uninterrupted flow of oil and gas to the global markets is subject to huge investments in these sectors and needless to say that the economies of major oil and gas exporting countries can not afford to provide all needed investments. Moreover, without active participation of energy consuming countries, the security of energy supply will be put in jeopardy.

To this end, cooperation between major energy producers and consumers on providing accessible advanced technologies is highly crucial.

Utilizing EOR technologies indisputably gives birth to the increased production capacity of such major oil producing countries as Iran. If major energy consuming countries with advanced technologies refrain from transferring the needed technologies to oil and gas rich countries, a proportion of non-renewable energy resources will be lost due to lack of safeguard policies for oil and gas production. This will surely affect the security of energy supply in the world.

The Security of Energy Markets: Another Crucial Point for Oil and Gas Exporters Cooperation between major oil and gas consumers and producers, especially OPEC members, is materialized when the former admit to entrust the management of the supply side of oil markets to the latter, and OPEC in particular, if they demand a sustainable and reliable supply of oil and gas. Oil and gas prices are advised to be kept at reasonable levels so that revenues are safeguarded for major oil

and gas producers and sufficient surplus revenues are amassed to make needed investments to develop oil and gas upstream sector. OPEC, with considerable spare production capacity, plays an indisputable role in maintaining stability of the global oil markets. It should also be mentioned that since OPEC members incur costs of maintaining excess production capacity, there should be incentives for them in this respect by means of developing appropriate pricing mechanisms.

Surveys show that replacing oil and gas, in short to mid-term, comes with difficulty and heavy costs. Although considerable investments made in exploring and developing new oil and gas reserves in the Persian Gulf, the area deserves more attention from the world. More than half of the world's conventional oil reserves are located in five littoral states of the Persian Gulf who are all OPEC members. Moreover, Iran and Qatar are endowed with more than 30% of the world's discovered natural gas reserves.

In recent years, the world is facing the challenge of enhancing oil and gas production capacities. Certainly, concentration of investments in Persian Gulf, which means improved security of energy supply in the world, is subject to favorable rate of return on the capital employed on one hand, and a reasonable and reliable source of revenues for the countries holding the energy resources on the other hand.

Political interference in the Middle East region has given rise to instability in the region and mid to long-term security of energy supply in the world is threatened since economic and political sanctions have raised obstacles to the free flow of financial resources and technology to the region. It is understood that economic sanctions against Iran has caused restrictions for the participation of American companies in Trans oil and gas projects. This has led to the delays in the development projects of the country's oil and gas fields. Furthermore, the security of demand for Iranian oil and gas is in jeopardy due to the sanctions depriving Iran of having access to major oil markets. The US attempts to undermine the project of laying oil and gas pipelines through Iran and across the Persian Gulf has even deprived the world of an immediate and inexpensive access to the CIS oil and gas and is a good example of the US measures to impede the security of oil and gas supply in the world.

In recent years, I.R. Iran, which accountable for maintaining stability in the global oil markets as a key member of OPEC has implemented projects to compensate for the natural decline of its oil fields which has given rise to the country's enhanced oil production capacity. In the meantime, considering huge natural gas reserves, the development of natural gas fields is pursued by the government in line with the policy of the security of supply in the world. Exploration of new oil and gas reserves, investments to enhance oil production capacity, utilization of EOR technologies, collaborating with international oil companies and revision of the buy-back agreements are among the most noticeable actions mad by I.R. Iran in this regard. As a result, Iran's production capacity has been hiked to some 4.3 million barrels of crude oil per day and some 435.1 million cubic meters of rich gas per day. Such measures as the enforcement of the Act of Foreign Investment Attraction, improving efficiency, using advanced EOR techniques as well as more compatibility with environment regulations have been made in line with the country's principal energy policies.

Therefore, it can be concluded that Iran has accomplished its mission to maintain the security of energy supply despite numerous obstacles raised by the US government and irrespective of political and regional conflicts. The I.R.I Ministry of Petroleum has taken serious steps, in line with the objectives depicted by the country's 2030 Outlook, to reclaim its real position in the global oil and gas markets.

Once again, I would like to emphasize the fact that the security of energy supply can be materialized when:

1. The security of demand for energy is realized in the world so that producers are able to safeguard their sustainable economic growth.

2. The security of investments in energy sector, particularly oil and gas sector should be guaranteed because oil and gas production capacity should be increased in order to meet the energy needs of the world.

3. The security of access to advanced technologies should be realized to improve productivity and raise oil and gas production capacity.

4. In order to achieve the security of energy supply in the long run, the security of access to major markets should be realized.

As a concluding remark, the achievement of energy security requires ongoing cooperation and dialogue between the consumers and producers.

In this regard, it is advisable that nations of the world should collaborate on simultaneous materialization of the security of supply, security of demand, security of investment, security of access to advanced technologies and security of energy markets with the aim of preparing the ground for achieving the convergence of the consumers and producers interests.

This is the only way to expect justifiable and reasonable investments in oil and gas sector and safeguard the interests of both sides.

Iran For Win-Win Situation In Energy Supply And Security WorldWide

The following article was presented by deputy Oil minister in int'l affaires Seyyed Mohammad Hadi Nejat-Hosseinian in a conference entitled held on in Barcellona-Spain-29.30.sep.2006

It is a great honor and a pleasure to participate in this prestigious seminar and exchange views with so distinguished a group of people from the public policy and industry communities. I wish to thank Chairman Brufau and prof. Hogan for their visions and for having this timely seminar organized.

In the short time allocated to me I will talk briefly about the importance of the security of energy for all and especially the emerging developing countries as well as the advanced economies. Then I will touch on globalization and how it has increased the level of economic interdependence of states and as a result the security of energy has found new dimensions. At the end I will refer to the role of Iran in the energy markets security.

The economic welfare and prosperity of nations are very much dependent on their economic growth, and their sustainable economic growth will, in turn, depends on their energy security.

In the recent decades and especially during the past few years the world has witnessed substantial changes in its geopolitics and geo economic conditions. The issue of energy and its security has the highest priority and is among the most important challenges facing all countries especially big economies. Considering the fact that demand for fossil energy in these countries is increasing year by year.

Globalization has increased the level of economic

interdependence of states. This has led to energy security, finding a broader meaning and scope. Energy security is increasingly a function of the relations between states, especially major powers, and the manner in which they act.

The continued increase in the consumption of oil in the world gives rise to a concern about the adequacy of the existing energy resources to meet the increasing demands of the next decades. It is a crucial question that how long the balance of supply and demand for energy could possibly be maintained.

Global demand for oil has increased, largely because of high growth of the economies of China, India, and some other developing countries over an extended number of years. Consumption of oil in Asia exceeded that of North America for the first time in 2005. The world consumption of oil is seven million barrels more in 2006 as compared to its consumption in 2000.

With this trend of consumption, there may well exist a fear of shortages of supply for several reasons. They include:

1. Lack of information security is an important element. Lack of information transparency, adequacy and accuracy, as well as lack of timely information could negatively influence supply by misleading producing countries. This problem is further complicated because there are many players involved in the question of free flow of information.
2. insufficient investment because of limited financial resources,
3. economic sanctions over an extended number of years against several major oil producing countries,
4. political unrests and instabilities in some oil producing countries,
5. increasing domestic consumptions of the oil producing countries,
6. lack of security of investment,
7. lack of security of technology accessibility,
8. The capacity to refine oil could also be another limitation of oil supply.
9. Lack of security vis-à-vis terrorist attacks, especially in the Middle East.

And finally lack of security vis-à-vis natural disasters.

The location of energy resources in the world is a critically important issue. More than two thirds of oil reserves are in the Middle East which has accorded it a unique geo-strategic significance. The nature of control over and management of oil-rich regions, and who exercises those control and management may have the ultimate determining effect on energy security.

Estimates on the world energy demand indicate that in the next two decades, the demand should increase by an average of 1.7 percent per annum, of which the fossil fuel would account for over 82 percent of total energy demand. The countries of the Persian Gulf together own 64% of the total world's oil reserves.

By looking at these figures and considering the scarcity of fossil energy, one can easily realize the important role of the Middle East and particularly the Persian Gulf countries with oil reserves of 700 billion barrels in the supply of oil and gas in the future.

The limited sources of oil and gas are concentrated in the Middle East and especially in the Persian Gulf region. And the increasing demand for supply of oil and gas has resulted in a tight competition for gaining access to these resources. Energy security is, therefore, among the top priorities in the trade and foreign policy of big economies.

Currently, there are three major strategies, adopted by different countries to secure the supply of their future energy demand.

The Neo Conservatives paid close attention to this issue from the very beginning and put the security of energy supply on top of US foreign policy agenda. This policy evolved into greater use of unilateralism and even unsanctioned military invasion of Iraq to secure continued supply of energy for the increasing US demand as well as to gain control over supply of oil to US competitors in the future. The Neo Cons failed in their first adventure in Iraq.

The second strategy is multilateral cooperation that the majority of the states, including the European countries believe is the right solution. Establishment of international organizations such as Energy Charter Treaty (ECT) is the proper way of persuading the producing, consuming and transit countries to join together and cooperate in order to stabilize and secure the supply and transmission of energy in the future.

The third strategy is bilateral cooperation between producers and consumers. Big economies in Asia such as Japan, China and India are trying to secure their energy needs by signing long term bilateral agreements with oil and gas producers and by investing in their up-stream sector to gain more oil and gas equity share. These deals and contracts will lead to more economic and political cooperation in those regions where new political blocks may emerge.

In my view, the first strategy, which is based on unilateralism will not succeed. Faced with failure in their first experiment in Iraq, the practitioners of unilateralism put further emphasis on new approaches, so called democratization of the Middle East – an approach whose birth turned out to be its funeral as well. The second strategy which is pursued by Europe and many others, however, seem to be more

From Oil Geopolitics to Gas Geopolitics; Iran's Role

Introduction:

More than 20 years ago, about 1985 and 1986, when the Eastern superpower (i.e. former Soviet Union), intended for the first time to connect and export its gas to Europe via West Germany, this project was faced with strong opposition by the Western superpower. The Americans claimed that dependence on gas import from Soviet Union would cause Western Europe to become vulnerable in the long term to the Soviet influence, resulting in dependency in other economic and political aspects. Such opposition was not limited to verbal opposition. The Americans imposed sanctions on the said project, denying it from usage of equipment and goods manufactured under US license in order to either halt the project or at least, slow down its progress. In the later case, they were more or less successful. With the start of the disintegration of political system in the Soviet Union in those years, which disintegrated ultimately in 1989, the Soviets were never provided with the opportunity to take advantage of the gas pipeline as a pressure tool.

In the early years following Soviet Union's disintegration, the theorists of the Western superpower, now being alone and with no rival, considered the Russia (i.e. the main remainder of Soviet system), as the sleeping giant or polar bear gone under winter sleep of its problems. And if Russia can wake up from sleep, it may revive its past political relations in another way, recovering its instruments and power tools. Based on this analysis, the theorists considered it as an opportune time to take maximum advantage of this sleep, removing those instruments and tools from the heavy weight of the slept bear's body and denying it from future opportunity of using them. The extent of American success in this regard is yet to be assessed. Now the question is: Is the bear's winter going to the end and he is waking up?

Last winter's gas shock

Last winter (in the year 2006), a development occurred at the peak of Europe's cold weather, which initially seemed unimportant. However, it quickly became clear that it involves significant and important repercussions. Apparently, the Russians cut off their gas flow to Europe for a few days to pressurize Ukraine. Even though many years have passed since Soviet Union's disintegration and Ukraine's dependence, Ukraine is still not prepared to give up some of its habits particularly its profitable! one. At the era of former Soviet Union, the Ukrainians used to take their required gas from the Russian gas pipeline passing through Ukraine to Europe. There were no regular bookkeeping or even exact measurement of the gas taken by Ukraine. Ukraine's desire for continuation of this trend has always been a factor of tension and conflict in relations between Russia and Ukraine after disintegration period. In particular, because of a sharp rise in the world oil and gas prices in recent years, Russia's revision of its gas trade prices with Ukraine has added to the tension. Beside the issue of relations between Ukraine and Russia, cutting off of European gas supply especially during cold winter days, caused a great shock to all. Now it seems that as a result of this shock, a new chapter has been opened in the energy geopolitics.

Upheaval in Russian Energy Policies

Subsequent attitudes adopted by Russian government officials vis-à-vis this phenomenon followed by relatively fast

transparent, logical, workable, enduring, and to the greater satisfaction of all parties, i.e., producers, consumers, and transit countries.

The third strategy can potentially be applicable in the short and mid terms, but it is likely to encounter unpredictable problems in the long run.

In addition to the more tangible factors influencing energy markets I referred to above, there are other less tangible, and possibly more consequential at times, constraints for the energy market. The first is the undue influence of political considerations over economic issues of energy. There are many examples of political rivalries about and non-economic considerations of energy projects in our part of the world.

Political developments, particularly those in oil-rich regions like the Middle East have significant influence on oil market and prices.

In this context, many instances can be cited. The widespread strike in Venezuela's oil industry which stopped the export of oil from this country for the first time when President Chavez came to power there had a severe psychological impact on the oil market and prices. The invasion of Iraq and running of this country and its oil industry by the Americans not only failed to increase production but Three years into American occupation, oil production in Iraq is still less than that before the war. The study of the oil market in the last few years illustrates that because of the near balance that exists between the supply and demand for oil in the global market, political developments, terrorist threats and natural disasters could have considerable effect on the oil market.

Concern about energy security is not limited to oil. Increased demand for gas in United States and Asia and the inadequate resources of gas in these two regions tend to lead them to compete with one another over access to gas resources in the Middle East. Each is pursuing, with its particular policy, to ensure the supply of gas she needs in the next decades. Today, United States' share of the LNG in its energy market is less than 3%, and that in China is nearly zero. These shares are estimated to reach around 25% in 2020. The competition of East and West gradually helps to develop a new pricing system for gas at the global level. The differential pricing system for gas which was determined on the basis of the regional prices of other energy carriers is gradually losing credibility.

Energy is a global subject affecting even the remotest corners of our world. And naturally, there are wide-ranging related issues that need to be addressed and tackled in a global context. Global problems need global solutions and I believe these can only come about through regional and international cooperation.

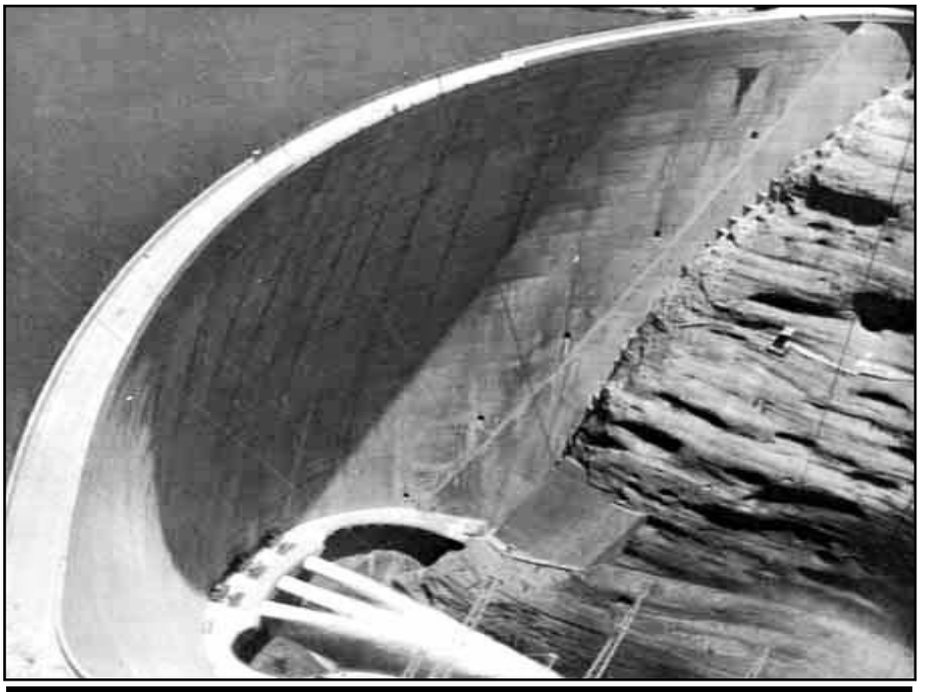
Allow me to say a few words about the approach of the Islamic Republic of Iran to the issue of energy security in the context of regional efforts. We believe that regional energy cooperation will promote regional economic cooperation. It will strengthen political, cultural and security ties between the regional countries, and promotes regional convergence. And finally, regional convergence will lead to more regional economic prosperity and international stability. The national interests of the Persian Gulf countries would be better served if we all try to promote this regional approach. This kind of cooperation will not only help us to live in peace, but also will allow us to play our deserved role in contributing to international stability and security. It also will secure the free flow of oil and gas to the industrialized countries and generates more revenue for producers.

Iran is not only a resource holder in the Middle East, but a unique connector and land bridge between East and West, Caspian and Central Asia to the Persian Gulf and the international waters. Despite a wide range of foreign pressures, Iran bears huge potential for easing the growing energy concerns and requirements both in Asia, especially East Asia, and the entire Europe. Iran is also the biggest regional market for energy, investment, technologies and products.

Currently, we consume about half of our oil production inside Iran. The increasing domestic consumption of oil in Iran is alarming, particularly at the prices oil and its products are offered domestically. That is why there is a well-researched plan to seek for alternative sources of energy, which would free half of our oil production for saving or exporting at a much higher price.

The gas export projects consist of various LNG and pipeline projects. LNG projects shall export LNG to China, India and about one third of it to Europe. Pipeline projects are mainly to the neighboring countries.

To sum up, interdependence of countries and their economies have further increased in our globalized world. Therefore, the present model of energy security no longer has the requisite utility and efficiency. Producers and consumers are dependent on one another. However, it is important to note that different countries have different conception of energy security. For the producing countries "demand security" is important. It is important to them to know with some certainty that there are buyers for the oil they produce. For major oil consuming developing countries, oil prices, and for industrialized countries, market stability has priority. In order to attend to all parties concerns, the underpinning principles of energy market orientation ought to be shaped in an all-inclusive and multilateral process leading relatively win – win situation and energy security for all. We, in Iran are committed to such process.



During first 15 months of the Fourth Development Plan:

Boosting Country's Hydro-Power Capacity by 1250 MW

Iran, as a country with a dry climate, is amongst countries which need more serious and practical policies for controlling and exploiting surface waters. While the country's total renewable water resources stand at about 130 billion cubic meters (bcm), only about 93 bcm is used and will be increased to 96 bcm by the end of the Fourth Development Plan (FDP).

It is planned to consume 88.1 bcm of used water in the agricultural sector by the end of the Fourth Plan, while, the power consumption in the country is growing by 8 percent per year. To study different aspects of this issue, Head of Board of Directors & General Manager of Iran Water and Power Resources Development Company, Dr. Abbas Ali-Abadi expounded on the issue in the following interview:.

• Why existing capacities for hydro-power production are not used properly and where is this sector's place in the development plans?

Based on the goals set in the FDP, 6386 MW will be added to the country's hydro-power capacity during a period of five years. This will raise the hydro-power energy capacity from 4783 MW to 11169 MW. With 4845 MW, Iran Power and Water Resources Development Company, will contribute the highest share in this increase.

• Considering that Iran Water and Power Resources Development Company enjoys a share of 75.8 percent, what has been the company's performance since the beginning of the Plan?

Iran Water and Power Resources Development Company is the main executive organization responsible for realization of the 57 percent growth. Since the start of the FDP (15 months), 1250 MW has been added to the country's hydro-power. This growth has been achieved due to the commissioning of new phases of Karun-3 power plant.

• How will be the trend of establishing new hydro-power capacities during the Fourth Plan?

Based on the plan, by the end of the current year, 1385 (2006), four projects including two remaining units of Karun-3 power plant, one unit of Lavarak power plant, chained units of Yasuj project and two units of Monj power plant with a total capacity of 550 MW will come on-stream. In 1386 (2007), two projects namely Shahid Rajaie in Sari and Masjid-e-Soleiman with a capacity of 1013.5 MW will also be commissioned. If needed credits are provided, all three projects of Gatvand, Karun-4 and Seymareh having a total capacity of 2480 MW will become operational by the end of the Fourth Plan. In addition, Siah-Bisheh project with capacity of 1000 MW will be completed in the year 1387 (2008).

• Are the goals of water and power resources development of Iran limited to the framework of such figures and statistics?

These qualitative goals will be pursued simultaneously with quantitative goals. Qualitative goals in the FDP have been documented under ten major headlines, including:

- process improvement;
- Optimized resource allocation;
- Industrial investment;

• Developmental attention to all locations;
• Creation of transparency in the contracts;
• Planning for domesticating technical knowledge; and
• Conducting corporate studies.

Thus, during FDP, implementing these qualitative goals alongside the process of realization of quantitative goals are intended to be realized.

• Dam construction projects are costly projects, which will naturally result in the high cost of the hydro-power plants. Are such investments in these areas justifiable?

In fact, currently a large portion of electrical energy requirements of the country are produced in power plants consuming valuable fossil fuels. In the Water and Power Resources Development Co., we consider each dam as an oil well with the difference that an oil well is not renewable while dams have the advantage of producing renewable energy.

At present, almost 25000 MW hydro-power capacities are under study, execution or production. Projects underway by our company will increase capacity by 8830 MW, with an estimated yearly benefit of 5030 billion rials (at world prices).

• Financial resources can have a determining role in the execution of master projects. In the first year of FDP, what conditions were you facing in this respect?

In 1385 (2006), financial requirements of the projects will be met by five different resources, 2901 billion rials come from public incomes and 1100 billion rials is provided through selling shares.

Domestic resources resulting from incomes generated through selling electricity as well as budget supplement prediction are among other financial resources of the company's projects. During the past year, 5772 billion rials has been absorbed indicating 84.5 percent of the approved financial resources.

• Is it possible for the country to further develop the hydro-power capacity?

Based on the plan, the capacity of the country's energy production by hydro-power is expected to reach 18300 giga watt-hours (GWh) by the end of the FDP. The goal of the FDP is "achievement of 29000 GWh newly installed capacity" reaching up to 54000 GWh in the year 1400.

Iran has the potential capability of producing 60000 GWh of energy, if the required resources for implementing the large projects will be provided.

This potential capability shows the exising capacity for absorbing significant financial resources.

• Under this situation, why are dam construction projects taking a long time and some projects take three times the normal time to be built?

Let me put it this way. The International Conference on large dams was convened in Spain this year. Spain's slogan in this year's conference was "water is vital for living and there will not be enough water in Spain without dams". Currently, more than 1300 large dams have been built in Spain claiming that they will be exploiting all their water capacities until the end of 2010.

This country is in many ways similar to Iran geographically. The difference is that in Iran, the issue of dam construction and surface water control is not taken very seriously. On the other hand, there are many difficulties and obstacles facing establishment of hydro-power capacity and dam construction projects in the country. Of these obstacles, non-uniformity of executive management, official problems and limitations, problem of providing construction materials, existing obstacles for cooperation among organizations and local institutions on huge developmental projects and non-existence of suitable executive capacity can be mentioned. Beside these issues, the current shortcoming of coordination with executive organizations such as the organization of Environment, municipalities and natural resources organization have become restraining factors.

A considerable loss of time and energy is the result of such definciencies. As a matter of fact, financial resources, technical know-how and regulations can individually act as an obstacle , just to mention a few among other factors.

In our view, the whole country must be mobilized in order to make preparations for constructing dams and hydro-power capacities. If this sector is practically ignored, the country will face fundamental problems in the future.

• Among projects under consideration, we come across a case such as Karun-4 as a special national project committing all institutions to prepare all necessary facilities for expedition of the project. Can this case set example for other projects?

Yes, but it is believed that all dam construction projects should be considered as national projects and can not rely on only one or two dams.

• As a national project, at what stage of construction is Karun-4 ?

Karun-4 dam with a height of 230 meters is the highest dam under construction in the country. Up to now, 36.8 percent of the physical work of the dam has been completed.

If the suitable funds would be allocated, this dam and its power plant with four 250 MW units will come on stream by the end of 1388 (2009).

• Won't the Karun-4 project have the same fate as Karun-3? Currently, the commissioning of some units of Karun-3 hydro-power plant has faced some delays. What are the reasons for such delays?

During months of khordad, Tir, Bahman and Esfand of the year 1384 (2005), four units of Karun-3 power plant weree commissioned. Taking into account the units commissioned in 1383, the energy generation of this power plant in 1384 reached two billion and 870 million KWh. During the first three months of the current Iranian year, the power production of this plant has been recorded at one billion and 800 million KWh. In 1384, due to the fact that all the units of the power plant were not ready, only 60 percent of the dam's potential was used. However, the dam will be commissioned by 100 percent in 1385.The delays in construction of the power plants are due to the above mentioned factors which affect all dam construction projects.

• Under this situation, what will be the fate of Bakhtiari dam and power plant?

At a time when enough financial resources are not available for completion of under construction dams, starting another dam project such as Bakhtiari with a capacity of 1500 MW does not seem logical, considering that this dam with a height of 315 meter will the highest concrete dam in the world.

It is hoped that by the end of 1386, the studies for the construction of this dam and power plant will come to an end, provided that financial resources or other credits such as BOO and BOT will be available. Otherwise, we are not keen to start a new project.

Persian Gulf Oil and Gas Investment Competition

For a New Pricing Regime: Who Will Win?

Presentation by: Dr. Dalton H. Garis

We are in a new oil price regime, with a higher price floor. Oil and gas are thus more valuable to producers.

• In the long run this higher sustained price floor might lead to disinvestment as alternatives hold out better quality long-term revenue possibilities. The race is on to land investment agreements while oil and as investments are still perceived as the first-best use of energy investment capital.

• In the short run, the higher price floor induces increased upstream and downstream investments in the oil and gas sector, an occurrence not seen for some time.

• This is evidenced by the current lack of refining capacity in Europe and North America.

• And by the large figures given out by researchers for upstream investments required just to keep up with current and expected demand growth.

States offering the most transparency in investment relationships and political liberalism are usually seen as ahead in attracting most classes of international investments, especially FDI. Qatar and the UAE are clear regional examples.

However, it is not certain that states with large and centralized economic control will always lose out in the search for lucrative and reliable oil and gas investments, especially in the Persian Gulf, where production costs for oil are the lowest in the world, and as presently the case, when the world is so thirsty for crude.

Some of the largest recent investors into Iran oil and gas projects are characterized by coming from states having large and powerful public sectors. These partners do not necessarily demand openness and transparency in investment contractual agreements, and seek like-minded

regimes to invest in. Thus, investments in Iran by some of the world's largest and emerging investors are not discouraged by its ideology of maintaining a dominating public sector, though a counter factual is not available for a precise comparison. We discuss these points now.

• First, we look at the new oil pricing regime

• Then, the general situation for international investments in the Persian Gulf region' oil and gas sector with respect to state economic control variations.

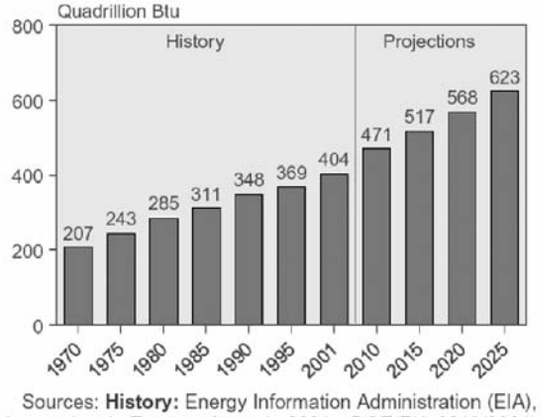
• The situation for investment in Iran's oil and gas sector is specifically analyzed.

• Finally, some observations on the economic growth potential for state controlled market sectors.

Part I: New price floor and alternative energy system investment: What is the outlook?

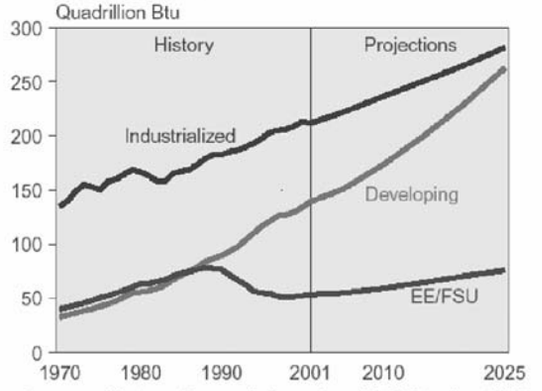
Demand has increased because the number of demanders has increased, and this trend shows no sign of leveling off .(Figure 12-13)

Figure 12. World Primary Energy Consumption, 1970-2025



Sources: **History:** Energy Information Administration (EIA), *International Energy Annual 2001*, DOE/EIA-0219(2001) (Washington, DC, February 2003), web site www.eia.doe.gov/iea/. **Projections:** EIA, System for the Analysis of Global Energy Markets (2004).

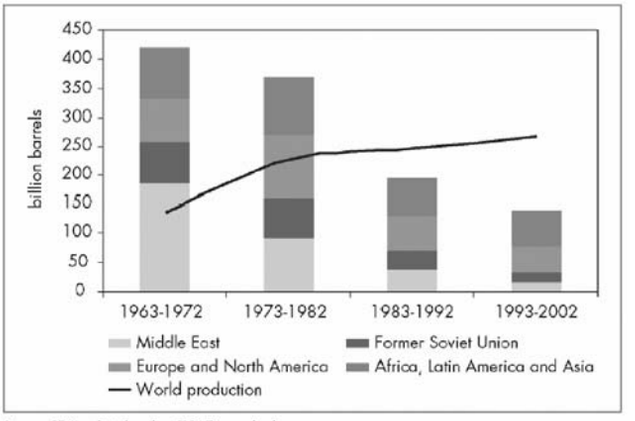
Figure 13. World Energy Consumption by Region, 1970-2025



Sources: **History:** Energy Information Administration (EIA), *International Energy Annual 2001*, DOE/EIA-0219(2001) (Washington, DC, February 2003), web site www.eia.doe.gov/iea/. **Projections:** EIA, System for the Analysis of Global Energy Markets (2004).

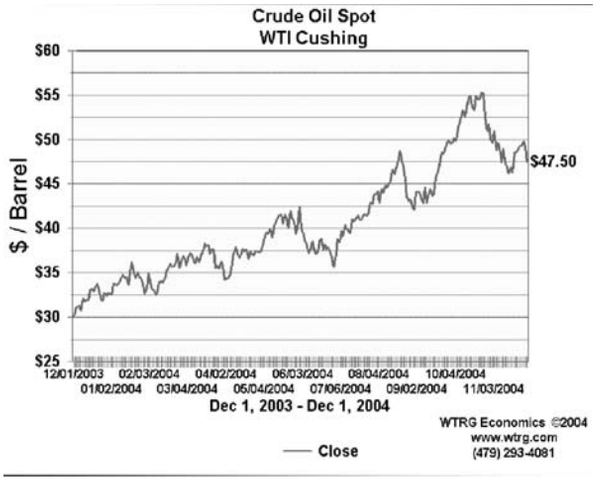
At the same time, supply increases have been almost totally due to increases in established reserves due to improved extraction technology).(Figure 14)

Figure 3.14: **Additions to World Proven Oil Reserves from the Discovery of New Fields and Production**



Source : IEA analysis based on IHS Energy database.

The result is seen by this recent price increase time line, of WTI benchmark light sweet.(Figure 15)



New energy system investments may be perceived as being more stable by the investment market.

Then, long run oil and gas investments may be perceived as having truncated returns

• Not a difficulty for first 5 years;

• But after that, returns might offer less competitive payout streams

Investments needed have economic life generally greater than 5 years.

• Most investments in oil and gas are for longer than five years— timeline for newer consumer-producer agreements—such as with China—are for 30 years. And this is typical for gas investments due to their large processing and transportation capital costs.

• Price volatility is key: High average prices but with large variances scare away investments in energy alternatives.

Energy alternatives have huge startup costs to recover. Investors need to be confident of a price floor lasting perhaps 24-48 months that allows them a calculated risk-management assurance that these costs will clear, so that a break-even point can be reached as soon as possible.

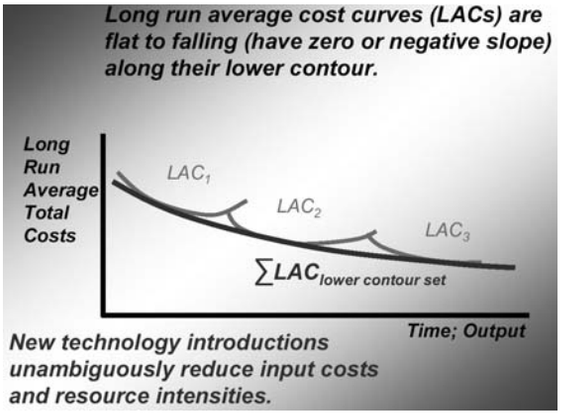
How oil and gas prices affect investments in the long-run.

High prices will ultimately induce alternative system development and commercialization.

• Energy is income-elastic in demand, meaning that as world income increases the demand for energy increases even more.

• Price-income-response mechanism becomes self- sustaining.

• Contrary to what is usually shown in economics textbooks, a survey of many industry LAC curves carried out in the 1980s showed that over time they are flat to falling. (Figure 16)



• As soon as LAC rise they induce entry by alternatives, which can now cover startup costs.

• Once this happens, LAC schedule falls swiftly to a new level, due to technological input commercialization, the ascent of the learning curve, and scale economies.

• Technological inputs unambiguously reduce resource input demands, resulting in lowered costs.

• This is also supported by the extensive empirical work of Baumol at NYU. His findings explaining why certain costs have not fallen over time is called Baumol's effect.

This is seen by the lower envelope of all points of LACs over time:

They have a negative slope that is only u-shaped in the short run.

Too High for too long and a "tipping point" is reached; investments might be cut off. Alternative energy developments may then seem a better bet.

• First in the area of unconventional crude sources, some already commercially viable; Orinoco heavy oil fields.

• From coal gasification and liquefaction.

• Tar shales in US.

• Oil sands—Alberta now on line for 100,000bpd, and continuing to scale up.

• An effective price floor of $40.00 per barrel for benchmark WTI crude sustained for 18-24 months would allow covering extensive commercialization start-up costs for energy alternative system development—and how much more is this true for Western-located non-conventional crudes?

• With the political will to incur large start-up costs for non-conventional crudes and other energy systems, there are now many other places for these birds to feed in relative safety.

• Non-conventional crude and alternative energy system development and commercialization offer large revenue stream returns unperturbed by changes in crude oil price volatility.

• Experience curve gains begin to accelerate revenue returns on investments.

• Scale economies from large-scale commercialization begin to be realized and to cement relative gains.

• A new standard emerges, possibly in transport energy, which is currently dominated to petroleum energy sourced energy, and a historical page is turned.

Even if prices of crudes fall back after fundamental change takes place in the structure of energy technology the world will not go back to the status quo ante position.

• Too much infrastructural investment will have taken place, which creates a barrier to exit.

• Disinvestment in the old system could be swift, once the outlines of a future system are discerned and its possibilities begin to be commercialized.

Thus, the long-run investment outlook for the oil and gas sector is unclear, but becomes clearer as crude prices rise and stay high: Alternatives will soon be commercially popular.

While the developing economies, such as China and India, will demand oil and gas—favoring gas as time goes on, the largest current consumers, the Europe and North America, may decide that investments in alternatives may finally be more promising.

But even for China and India, which have large coal reserves, if new technology becomes available

at commercially viable prices for coal liquefaction and gasification, they may be disinclined to invest further in at least the crude oil sector abroad, unless new and cleaner uses can be found for it. Already China is spending large sums on alternative energy development, nuclear, hydro, etc. New technology that can utilize its vast coal reserves as supplying clean energy are not far behind.

• One reason for this is that such alternative technologies offer the promise of developing new market sectors and thus growing their economies: Instead of importing foreign oil, they would spend on domestic production, growing their GDPs.

• Both China and India face enormous demographic pressures to increase employment opportunities at home, pressures that will threaten existing political structures and social stability if not addressed immediately with bold and viable employment growth. They are therefore in favor of anything that can relieve such pressures, and domestic energy alternative investments certainly aid this effort by generating numerous skilled and semi-skilled jobs

• This also relieves the pressure on India's, and China's overextended health delivery infrastructure. Pollution-generating health problems are increasing rapidly. His is a health time bomb that threatens the productivity of its workforce and the solvency of its healthcare systems. Clean alternatives are seen as a solution to this growing problem.

Within the world's largest energy demand market, the US, another driving force to energy alternative development is the geopolitical situation vis-à-vis the Middle East and South Asia. All that is needed is any price for benchmark crudes high enough to encourage alternatives will be fully exploited.

• We may see an isolationist reaction by the West to the current situation, where the US and its allies seek to disengage from Middle East as much as possible and as soon as possible

• Such phases can last a decade or more.

• This is speculative, but is reasonable and cannot be dismissed in the absence of counter arguments.

• Energy alternatives, born of high average prices for crude, make such a hoped-for disengagement possible

• Whenever the US feels challenged it usually seeks some kind of technological solution to free it from having to make hard political decisions.

• Examples include:

• Its approach to waging war and defending itself— replacing people with expensive hardware— a willingness to use dollars rather than humans.

• Its approach to health care, environment, public goods supply and the adjudication of market externalities.

• America is at its weakest in solving problems having no technological solution, such as in public goods and externality issues.

• Only when strong vested interests with monopoly rents to protect is this not generally true.

There is now a populist desire—by the US, at least—to solve the oil demand political exposure problem by finding an alternative via a new technology. It has the capital to pull it off; it just needs the national will. Once such technologies are available commercially, the investment picture for oil and gas changes permanently, no matter what crude prices do thereafter.

• Non-conventional crude sources, exploited with Western technology, are seen as politically popular to Western consumers, so the political will to develop and bear the high start-up costs exists, as now discussed, e.g., oil sands crude from Alberta exported to the US.

• Even now over 1.3 billion persons have no access to energy. When they do get it, how will it be met, and what will this do to crude prices?

• India and China, now two of the largest investors in Middle East oil and gas, are not reconciled to having to pay a large percentage of their GDP to be supplied with needed energy. Domestic solutions would be better, if possible, as further explained below.

• Witness China's Three Gorges Dam project to increase hydro

• China energy supply chronically short of demand

• Lights are off or dimmed in most cities, even Shanghai.

• Consumer demand requirements are further hampered by growing industrial demand

• India behind China in energy development.

• Both nations face huge present and future demographic pressures.

• Sub-Saharan Africa will begin to develop, possibly within the decade finally, and this will only exacerbate crude pricing problems, pushing the price even higher.

• Estimates of the elasticity of substitution for

price increases of gasoline in the US 3 years ago, where 87% of persons use private transport, showed it to be about -.314 (Amy Cline; The Park Place Economist, Vol. X), far higher than what might have been expected. And that was when prices were much lower than now. And substitution elasticities increase rise for rises in the ruling price.

Where is the "tipping point"?—where the floor price of benchmark crudes drives investors onto a path which many see as inevitable in any case. In the next 12 months we will see if it has not been reached already. This reality injects some urgency into countries being able to land essential investment capital as soon as possible. The race is on.

If prices recommence their climb, or if $40.00/bl becomes new ruling price floor, alternatives may be forthcoming; and if prices can stay there for some time, alternatives will become commercially vested and economical.

Part II: The General Situation for Investment in Persian Gulf oil & gas.

The new price regime, with $40.00-$43.00 emerging as a possible effective price floor, increases the opportunity cost for Middle East oil and gas provinces and is inducing capital investments in the region.

• Much of this tied to long-term customer supply contracts.

• Estimated amounts needed for world energy development:

- Dr Fatih Birol's (IEA) numbers given at the ECSSR conference in Abu Dhabi on 27 September 2004, of $560 billion! year, just to keep up with demand:

• 19%foroil

• 19%forgas.

• More will be needed to expand surplus capabilities.

• Much of the investment in oil and gas sectors is expected to be channeled into OPEC suppliers and away from non-OPEC suppliers, according to Dr. Adnan Shihab-Eldin, Director, Research Division of OPEC stated at September ECSSR conference in Abu Dhabi). But this is not obvious:

• The nominal reason for this is that non-OPEC oil provinces—except for Russia and South Asia, are fast becoming depleted; so, the investment payback outlook is not favorable, especially in the long run.

• Largest oil consumers are presently in North America and Europe

• Most of the cheap and proven reserves are in the Middle East.

• However: Western dealings in the Middle East carry high legacy costs—historic and recent ideological and geopolitical divergences.

• Libya aggressively competing for FDI and inviting new bids to develop its oil and gas sector.

• Russia—despite perceptions of political risk to FDI, is still attracting new investment streams into its energy sector. Due to Russia's old field technology, relatively small investments from Western firms are resulting in big productivity gain payoffs, e.g., ConocoPhillips in Siberia fields. This and other corporations have over the years become skilled in dealing with the Russian regime and enjoy some degree of favoritistic shelter from worst bureaucratic excesses.

• China is aggressively investing in Siberian pipeline projects.

• New developments in West Africa are attracting investment capital.

Thus, there could be a capital crunch for oil and gas investments. NOCs and lOCs are committed, of course, but much of the investment capital is coming increasingly from stock value appreciation—the stock market, in other words.

• As long as energy stocks continue to outperform other sectors, the capital for investments would seem to be there.

• If other market sectors—tech stocks, retail, begin to shine again, hedge funds and other large institutional investors would disinvest in energy stocks in a search for better returns.

• These are not stake-holders, with dedicated resources in the oil and gas industry, but rather pure cash, that can run away at a second's impulse. This makes a large source of oil and gas investment capital fairly unreliable.

Part III: The Situation for Investment in Iranian 0 & G.

Iran investment opportunities would seem to find themselves in stiff competition for the available 0 & G investment capital. The argument is made that states must be prepared to offer western-style market experiences.

• Does Iran offer competitively supportive business and legal environment for FDI?

• GCC states making swift and demonstrable

progress in reforming the legal environment to attract more FDI.

• UAE has passed package of new laws reducing required UAE share of business ventures, down from 51% to 30%.

• KSA is on track to privatize its entire electrical energy and water sector within two years or less. Has taken note of international investor reaction to its seeming reneging on large gas project last year.

But having an economy dominated by the public sector is not necessarily a fatal flaw to many important investors.

• Some of the largest potential investors are national energy companies, who share the ideology of state control of resources and a managed economic climate.

• These and other potential investors may feel more comfortable dealing with like-minded partners.

• Oil and gas sector agreements are complex and take a long time to be finalized; too much transparency can militate against timely finalization.

With respect to the largest investors in oil and gas, their access to decision-making authorities is very good; that is, they create their own business environment. But with respect to second, or third-tier investors accessibility to government actors with decision-making power affecting their interests is of concern.

For these investors, who are not large enough to expect a special relationship with the government apparatus, transparency, consistency and an open and flexible business environment are paramount.

According to a recent survey on the foreign direct investment climate in the UAE by Dr. Sophia Qasrawi, what are favored by general commercial businesses is stability in relationships, and fair and consistent accessibility to the bureaucratic apparatus.

Also, in a recent article by Reuters, "Deep-pocketed foreign investors were enticed by Qatar's progressive, stable government, corporate transparency and huge North Gas Field. [Abdul Al-] Attiyah (Qatar Energy Minister) proudly acknowledges that recipe of success, and credits Qatar's Emir Sheikh Hamad bin Khalifa al-Thani for his modernist vision that has opened the door to firms such as U.S. ExxonMobil and ConocoPhillips, France's Total and Anglo-Dutch major Shell."

But it is not obvious that states with large centralized economic control environments are incapable of providing this; indeed, the like-minded philosophies of governance and bureaucratic experience enable states like India and China to accommodate economic centralization, and to share the state operational goals of the IRI, at least, with respect to their overall approach to governance.

Some of this also applied to large international oil companies, which, being corporations, are not democracies in structure, conduct nor performance. While their existential philosophy will always be at odds with those of state-owned entities, they collaborate regularly in technology, investment and access to resources.

As long as consistent application of financial and legal arrangement criteria is forthcoming there is no nominal hindrance to attracting investment capital in competition with other Gulf States.

• Evidence is given by the large and long-term gas and oil contracts agreed to between Iran and China and India, with China taking the lead, a $70b gas and oil agreement with China state oil company Sinopec most recently, which could reach $200b over time, in complete disregard for the stated ILSA foreign investment limits

• What is probably true is that smaller firms may have been discouraged, but data for this are difficult to assess because of the lack of a true counterfactual. No doubt statistical techniques will shed light on this question; and hopefully the models can actually reflect enough of the reality to make their findings useful.

Part IV: Some thoughts on public/private resource development frameworks, with respect to economic activity and employment potential.

In a certain context, there exist three different models of national resource exploitation:

• One model is of national oil and gas companies' controlling all aspects of the enterprise, including all resources and downstream developments

• Advantages include NOC being able to fully operationalize national goals with respect to employment and infrastructural enhancement.

• Enables maintaining a clear voice with respect to ideological and societal commitments.

• Disadvantages include nondevelopment of private sector service and support markets as these are co-opted by the public sector.

• Total employment may not be therefore enhanced in the absence of private sector development.

• Operational inefficiencies—some mandated by employment goals—reduce resource rent extraction, leaving less available for meeting national goals in diverse areas.

• Another choice is international oil company exploitation through concessionary agreements

• Advantages include fast exploitation of the resource base.

• Operational costs are minimized, yielding higher profits from which to extract rents.

• Disadvantages include the loss of control over many social matters, including technology transfer and employment development.

• Also, corporations are not democratic institutions and have autocratic, nontransparent managerial style, where decisions and consultations are not open to scrutiny.

• Finally, their resource exploitation schedule will only accord with the best long-run interests of the nation by shear chance—especially now in crude as prices hit ever- higher levels, when there is a natural desire to exploit the resource before it is possibly replaced as the first-best fuel source.

• A third possibility is an NOC/IOC partnership, where societal goals of the nation are not sacrificed, where resource extraction and exploitation is geared to the best long term interests of the nation, and a thriving private service and support market sector is developed, which increases total employment and fosters fuller technology transfer. This is the one that must be carefully considered because it has many of the advantages of the above two frameworks while minimizing their disadvantages

• Recent agreements between Iranian national energy sector companies and Chinese and Indian national energy companies are examples.

• Saudi Aramco is another example. There, SA has foregone maximizing sector employment to increasing operational efficiencies in order to maximize rent collections. These returns are then dedicated to general state revenues.

• This approach increases the size of rents

• Increases economic development possible through transfer seed investments in other market sectors, and thus overall employment; at least, that is the goal.

In this framework, the size of the public sector is kept small, but the size of the private service and support sector is therefore encouraged to grow, increasing total employment.

• Operational efficiencies from a small public sector involvement yield higher operating profits for rent extraction.

• The higher rent extraction is then used for the full benefit of national goals.

• Saudi Arabia, which faces demographic pressures similar to Iran's, has learned this lesson, and is privatizing its power and water sector aggressively.

• As this is done, the emergence of a thriving service and support sector is expected.

Conclusion

With the prospect of higher sustained oil and gas prices becoming more certain, there is a danger in waiting too long in securing significant oil and gas investment capital, that energy system alternatives may finally be in a position to compete large-scale as investment vehicles and successfully bid away some of this capital, especially if these are seen as a way to free the West from increased exposure and involvement in the Middle East.

But contrary to conventional wisdom, it is not certain that allowing state control of large parts of the economy, as is the situation in Iran, will severely restrict FDI and other types of investments, in the Iranian oil and gas sectors in particular, and in service and support for that sector in general. The reasons are straightforward:

• Many large agreement structures are conducted on an ad hoc basis, with many side agreements covering certain essential factors not nominally addressed under prevailing laws.

• Two of the largest potential and current investors are China and India; also, Russia and Japan are active investors. These and other trading and investment partners to some degree subscribe to a set of legal and governmental standards quite similar to those of the IRI. All of these nations have large public sectors and share an ideology of strong centralized national economic control. Consequently, increasing transparency may act as a disincentive for these investors.

That said, if the goal of state control, besides enhancing the long term value of resources, is to grow the economy and increase employment opportunities especially for skilled and semi-skilled positions in the value-added production sector, state control has not shown that it is superior in this regard than what is possible from private initiatives.

changes occurred in the Russia's oil and gas strategies raises doubt that whether everything really originated from that simple skirmish having background with Ukraine or whether the conflict was a product of changes made in the guidelines of Russian energy policies? And whether the Russians possibly intended to test one of their power levers through their action?

Only after few months since gas supply was cut off, Russian government's action plan with respect to privatization of the country's oil and gas companies was more seriously revised, halting the privatization trend especially in relation to the giant company "Gazprom". This company was considered by Russian authorities as being their strategic tool. This viewpoint about "Gazprom" also existed more or less in the past but it has now gained wider dimensions. With the privatization process envisaged for the Russia's energy sector, the US and European governments hoped to maintain their presence and influence in that country's energy sector by investing in Russia's energy sector as well as purchasing shares of important Russian oil companies. By doing so, they intended to reduce risks of dependency to Russian gas. The Western governments also called for possibility of having access to Russian Federation's natural gas distribution pipelines. However, the privatization drive has now slowed down and put under strict control of the Russian government. Russia's attitude towards the privatized oil company "Yukus, was considered as a turning point of Putin government from its previous privatization drive of the country's energy industry.

Repetition of History

The history has been repeated considering what has already occurred. A short while before Gerhard Schruder's resignation, Germany's former Chancellor, a new contract was signed between Russian and German governments for construction of a new 1200-km pipeline. This pipeline would pass through Baltic Seabed and will transfer more Russian gas to Germany. The US authorities are now expressing their severe concern over the construction of the 4.3 billion Euro pipeline believing that it will lead to Europe's greater dependency on Russian gas and will also be a challenge to Europe's energy diversification policy. By constructing this pipeline planned to be commissioned in 2010 for transferring 55 billion cubic meter of gas per year to Europe, the Russians intend to raise their energy supply to Europe as well as increasing their influence. By doing so, the Russians also intend to turn away from bad-habited former Republics of the Soviet Union showing that they are prepared to invest heavily for such a purpose.

The Americans predict that Russia will raise its share of European gas market from 25 percent to 33 percent during the next decade. Although the Americans are worried about such a development, but the European position is perhaps somewhat different from that of the Americans. The Americans want to put under their control all the energy sources and routes of their main economic rivals particularly the European Union. On the contrary, the Europeans interest is best served by not putting all its energy eggs into the US basket, and at least creating a balance between American and Russian influence at a time when dependence on imported energy is unavoidable.

Oil Geopolitics

Geopolitics is an art of exploiting realities and geographical phenomenon to gain political supremacy in order to exercise power. In the oil geopolitics, it should be known that more than 60 percent of world oil reserve is located in the Middle East and the rest are spread in other parts of the world. In this arena, the Russian Federation possessing a little more than 6 percent of the world recoverable oil reserve will not be an influential player in the long term. Of course, by using its high oil production capacity and making efforts to reach production records achieved before Soviet Union's disintegration, the Russians are currently contributing more than 12 percent of world oil production. In the last few years, the Russians for the first time in history exported their crude oil to the US market. In other words, they have tried to maintain a large share in the world oil production to play a higher role in the oil market in spite of their reserve share. However, considering their reserve to production ratio of about 21 years (i.e. the maximum time that current production rate could be maintained), as mentioned earlier, the Russians will not be considered as an influential player in this regard in the long term.

Gas Geopolitics

But the issue is different with respect to gas geopolitics. In this arena, the Russian Federation possessing about 27 percent of world gas reserve enjoys the highest intensive share in this respect. While Russia's oil production share from total world crude oil production is much higher than its reserve share from total world oil reserves (about twice) , (perhaps due to this reason its current oil production rate can not be continued), the country's gas production share from total world natural gas production stands at less than 22 percent. The share of Russian gas production is still far less than its share in the world natural gas reserves. Therefore, great potential still exists for increasing production capacity and development of Russia's gas markets.

In the oil geopolitics, the Americans have always tried to impose their superiority and domination on the world through consolidation of their control on the Persian Gulf region, the main holder of world oil reserves, as well as on the routes transporting the region's oil to the consumers. In other words, controlling Persian Gulf oil reserves as well as its transportation routes has been one of the most important levers and tools used by the US for domination and superiority over its main economic rivals. However, the energy community have named the 21st Century as the Gas Century. Based on available predictions made by different sources regarding the growth in the share of different energy sources in the coming decades, natural gas will enjoy the highest growth. Also, because of increasing importance of environmental issues, among the three fossil fuels, i.e. coal, crude oil and natural gas which currently meet more than 90 percent of the world's energy requirements, natural gas is more compatible with the environment. In addition, the world's oil reserve to production ratio, considering the current oil production rate, is about 28

Regulations on Exports, Imports and Customs Affairs in Free Trade Industrial Zones

Chapter One: Definitions

Article 1

In these Regulations, the following terms are used in lieu of the respective phrases:

Zone: Each of the Free Trade-Industrial Zones as established by law.

The Law: The Law on Administration of Free Trade-Industrial Zones of the Islamic Republic of Iran, enacted in 1373, and other laws to be enacted in this respect in the future.

Customs Territory: The state of the Islamic Republic of Iran, its territorial waters and air space where the customs and export and import laws of the country are fully enforced.

High Council: The High Council of Free Trade-Industrial Zones of the Islamic Republic of Iran.

Authority: The organization of each Free Trade-Industrial Zone.

Port and Airport Charges: The amount which an Authority collects from owners of goods and or air freight forwarders for the provision of port and airport facilities for the purpose of maritime and air transport and aircraft traffic.

Service Charges: The amounts which the Authority of each Zone collect for operations, extraordinary testing and tariff classification, issuance of the certificate of origin and other services rendered at the time of provisional exportation or importation, transit, transshipment and returning the goods abroad.

Value Added: The difference between the price of the goods and the value of the material used in their production.

Value: With respect to the goods imported to Free Zones, it is the C.I.F. price of the goods.

Regulations on Exports, Imports and Customs Affairs of the Free Zones: Regulation enforced within the framework of the Law on Administration of Free Zones by an Authority, upon approval by High Council.

Authority Customs: A division of the organization of the Zone Authority which is responsible for enforcement of Export - Import Regulation in each Zone.

Customs office stationed in a Zone: A division of the organization of the Iranian customs which is responsible for enforcement of the export-import regulations.

Chapter two : Authorized Customs Activities and Operations in a Zone and Regulations thereof

A. The importation of goods into Free Trade-Industrial Zones of the Islamic Republic of Iran.

Article 2

The importation of any kind of goods to each of Zones is permitted with the exception of the goods which are prohibited in accordance to Islamic laws or the laws of the country in which the Zones names are stipulated or are unauthorized in accordance with special regulations of a Zone.

Note

The importation of goods originally produced in Israel is prohibited.

Article 3

The Authority is required to communicate to the Ministry of Commerce and Iranian Customs

monthly statistics of all the goods imported into the Zone for keeping customs statistics records.

Article 4

The procedure for the importation of goods into a Zone, entailing minimum formalities shall be drawn up by the Authority of a Zone, but in all cases observance of the rules and regulations pertaining to hygiene, security, culture and standards, in accordance with the prevailing norms in the Zone, shall be mandatory.

Note

Human hygiene standards shall be set by the Authority in coordination with the Ministry of Health, Treatment and Medical Education.

Article 5

Importation of goods into a Zone is authorized in the following manners and shall be governed by these

Regulations (1) Goods such as construction materials, tools and construction implements for building, manufacturing, commercial services, housing and infra-structural purposes (excluding decorative items and furniture) that enter a Zone from abroad or other parts of the country are, at the discretion of the Zone Authority and in quantities needed, exempt from payment of port and airport changes but are subject to service charges.

(2) Machinery, raw materials, components, and parts required for production, productive equipment and implements, spare parts for producing machinery for capital transportation vehicles (excluding passenger cars and leisure boats) are exempt from payment of port and import changes but are subject to service charges.

(3) Goods that enter Zone from abroad or from other Free Zones (excluding goods specified in paragraph (1) and (2) of this Article) and are conclusively cleared from customs shall be subject to the payment of port and airport charge, in the event that the said good are re-exported solely the port and airport changes shall be reimbursed.

(4) Entry of goods for safekeeping in bonded warehouses for specified period is authorized.

The transfer of such goods to the said warehouses is subject to internal transit formalities of the

Zone concerned and the use and transport of goods from the said warehouses without the

knowledge and authorization of procedures of the Authority shall be considered a violation of the

Regulations.

(5) Excepting the cases where the Authority of a Zone may decide other arrangements, temporary importation of goods from abroad, other Free Zones of the country or from the customs territory, for display at fairs and exhibitions, re-export, re-packaging, separating, grading and sorting, clearing, mixing and similar purposes is authorized, subject to the payment of service charges, under the supervision of the Authority of each Zone. The use or sale of such goods in the Zone which is imported from abroad, shall he subject to port and airport charges, based on the value of the goods at the value date of their entry into the Zones, and the customs formalities are finalizes.

Note

The goods that enter a Zone from abroad or from other Free Zones or from other parts of the country for the purpose of finishing or repair are authorized imports on a temporary basis and in accordance with the rules of tile Zone and upon payment of service charges but are exempt from Port and airport charges. The time limit for keeping such goods in a Zone on a temporary basis shall be a maximum of two years.

(6) The entry and unloading of goods in Zone ports as designated by the Authority for the purpose of transshipment and external transit are permitted, subject to the payment of service charges and the completion of required formalities.

(7) All the goods transported from abroad destined for the Free Zones or from Free Zones destined for abroad passing through the mainland are subject to the regulations and procedures of foreign transit subject of Article (7) of the Regulations on Customs Affairs Law which shall be implemented with utmost simplicity and minimum formalities.

Note

External transit of legally prohibited goods requires the authorization of the High Council of Free Zones B. Exportation and Exit of Goods from the Free Trade-Industrial Zones of the Islamic Republic of Iran.

Article 6

Upon observance or respective Regulations, the Authority is authorized to issue certificates of origin for goods which leave the Zone. The respective official authorities within the Iranian territory are obliged to accept such certificate of origin.

Article 7

The exportation of goods from the Free Zones are subject to the guidelines determined by the Authority within the framework of these Regulations which shall be implemented with utmost simplicity and minimum formalities.

Note

The manifest of vehicles leaving a Zone for the destination of foreign countries other Free Zones and or other parts of the country is valid, upon confirmation by the Authority.

Article 8

The Authority is required to report to the Ministry of Commerce and Iranian customs monthly statistical recordings.

Article 9

The exportation or exit of goods from a Zone is authorized in accordance with regulations and the following manner:

(1) The exportation of goods manufactured in the Zone to foreign countries or other Free Zones of the country, regardless of whether the raw materials used in their production are originated from inside the country, foreign countries or other Free Trade Zones of the country, is authorized but requires submission of export declaration form for statistical records keeping.

(2) The importation of goods manufactured in the Zone into other parts of the country is exempt from customs duties and commercial benefit tax to the extent of their value added plus the value of the raw materials used therein, customs duties and commercial benefit tax shall be levied only on imported raw materials and parts used in such goods.

(3) The importation of foreign good (including consumer goods, raw materials, machinery and other goods) which are

shipped intact from a Zone to other parts of the country is permitted, hut their clearance from customs is subject to observance of the general Export - Import Regulations and customs regulations of the country.

(4) The exportation of domestic goods, if intact, from a Zone to foreign countries is subject to compliance with the general Export - import Regulations of the country;

(5) The temporary entry of goods to a Zone from other parts of the country for the purpose of repairs or finishing which are returned to the country after finishing or repairs, is authorized and is subject to the procedures set forth in the Customs Law, they are exempt from customs duties and commercial benefit tax with respect to the amount of the wages paid for such repairs and finishing, but replace or added parts and components and prices of foreign origin shall he subject to customs duties and commercial benefit tax on the basis of the general Export-Import Regulations of the country;

(6) The temporary exit of goods from a Zone to foreign destination or other parts of the country (excluding the goods that have entered into a Zone from other parts of the country) is permitted upon obtaining prior authorization from the authority, such goods are exempt from port and airport charges when returned to the Zone.

Article 10

The exportation or exit of goods from the premises of a Zone in any one of the manners mentioned in paragraphs of Article (9) is subject to the payment of service charges to a Zone, if services and facilities of the respective Zone are utilized.

C. Regulations on Goods Accompanying Passengers

Article 11

Travelers, whether Iranian or foreigners, who directly enter a Zone through authorized airports or ports are allowed to bring along into a Zone goods (excluding the goods prohibited by religion or law) to the extent that they are not of commercial nature and clear them without payment of port and airport changes.

Note

Natural or legal persons intending to reside in a Zone for more than one year and whose residence is approved by the Authority are allowed to import into a Zone only once their household appliances and office equipment in reasonable quantities without payment of port and airport charges.

Article 12

Travelers who depart directly to foreign destination from a Zone are allowed to take along all goods (excluding the goods prohibited by religion or Law) without obtaining authorization, provided that the goods are not of commercial nature.

Note

Sending out antiques, handwritten books, original cultural objects and various coins is not permitted.

Article 13

Goods accompanying travelers who intend to leave a Zone for other parts of the country shall be subject to the general Export-Import Regulations of the country.

D. Regulations on violations

Article 14

The Authority is required to refrain from clearance from customs the goods whose importation is prohibited or can not be cleared from customs in accordance with the Zone's regulations, excluding the religiously or legally prohibited goods, in which the names of the Free Zones are stipulated if such goods are declared with full name and complete particulars and specifications for the purpose of final importation, and must notify in writing owner of the goods or his representative that he must send the goods out of the Zone within a maximum period of time determined by the Authority. Goods prohibited by religion or law shall in which the names of the Free Zones are stipulated be governed by relevant regulations.

E. Miscellaneous Regulations

Article 15

Wherever, it turns out after customs clearance of goods, that the funds whose collection is a duty of the Authority were received in excess of or less than the required amount, the Authority and the owner of the goods can claim and receive, as the case may be, the respective differential within four months from the date of signing the clearance document of the goods concerned.

Article 16

Air and maritime freight forwarding agencies and owners or users of transport vehicles are required to submit, at the time of the entry of the transport vehicles into the authorized airport, port and or land terminals, to the Authority one photocopy or copy of the bill of lading relating to each item of the goods attached to the list of the whole cargo.

Article 17

Control of and supervision over the importation and exportation of goods from Free Zone to the

other parts of the country shall be the function of Customs Office of the Islamic Republic of Iran.

The head of customs office stationed in a Zone shall be appointed by the director of Customs

Office, upon the proposal by the Authority.

Note

The control of and supervision over the importation and exportation of goods from Free Zone to other countries shall be the function of the Authority Customs Office, in accordance with these regulations and the relevant legal guidelines.

years. This ratio for gas stands at 65 years. Also, in the last decade, the chances of success in the exploratory activities have been higher with respect to independent gas fields compared to oil fields. It can therefore be concluded that the world's aim to increase natural gas share in its energy consumption basket will be unavoidable.

As the world changes direction from crude oil to natural gas, the oil geopolitics will be weakened while the gas geopolitics will be strengthened in proportion to the changes. It can perhaps be concluded that the lever of US domination will become less active while Russia's influence will be expected to be more active. It seems that Russian government officials are well aware of the importance of this issue. But as it was mentioned, the incidence occurred last winter (cutting off of gas to Ukraine and Europe) involves ambiguities considering the above - mentioned developments and is an important subject yet to be investigated.

In the gas geopolitics, in addition to the volume of reserves and gas production rate, the Russian Federation enjoys another advantage. That advantage is the famous geographical trait of the former Soviet Union:" when there is a sunset in a part of it, the sun is rising in another part". Such an advantage still exists more or less in the Russian Federation. Russia is also located at the crossing of Europe and Asia. Europe is a potential market for a large volume of Russian gas. At present, European Union imports 25 percent of its gas requirements from Russia. East Asian countries especially China and India have the biggest potentials for energy demand including natural gas. There are republics separated from the former Soviet Union in central Asia which are landlocked and can not get direct access to world markets. Those republics possessing gas reserves are still obliged to export their gas to Europe via Russia in spite of the fact that more than fifteen (15) years has passed since Soviet Union's disintegration. This matter has further increased Russia's influence.

Contrast in US Strategic politics

US policies and especially its energy strategic policies have faced serious contrasts due to Russian Federation's superiority with respect to gas geopolitics. As an example, diversification of energy supply and reduction of US and other industrial countries' dependency on imported crude oil have been one of US and International Energy Agency's strategic energy policies since the outbreak of oil price shocks during 1970s. Under this situation, natural gas has had a specific place. A part of industrial countries' economy and especially the US economy having the highest dependency on oil products is the transportation sector. Currently, the transportation sector is consuming about seventy (70) percent of the world's crude oil. Industrial countries have made great efforts to use substitute fuel in this sector in line with their strategic energy policies.

Products obtained from Gas To Liquid (GTL) technology is considered as the most suitable for substitution of fuel used in road transportation. This technology can be used to obtain middle - distillate products from natural gas. The high quality of these products and their compatibility with all the available transportation infrastructures has created the highest chance for such products to be used in the roads and cities around the world. Such products are also compatible with the environment. Therefore, on one hand, the development of GTL technology is in line with the US strategic policies. But, from another point of view, the development of this technology which in fact replaces crude oil with natural gas would create a more superior position for natural gas, consequently consolidating Russia's position.

It is perhaps for this reason that the Americans have set up joint ventures between US oil companies and almost all non-US oil companies for development of GTL technology. The US aim is to put this technology's development under its full control. The planning made by Qatar for the future indicates that this country has been selected as a focus and pioneer of GTL technology. However, whenever a new technology is developed and reproduced, it will become commercial and accessible to all sooner or later.

Iran and Gas Geopolitics

In the gas geopolitics, Iran can play a determining and key role. Iran possesses the second largest gas reserves after Russia in the world. Our country has seventeen (17) percent of the world gas reserve enjoying a special geopolitical position which could provide routes to transport central Asia's gas sources to the world markets. In this respect, Iran can act as a replacement to Russia. The strategic unison between Iran and Russia with respect to policies related to gas, an unrivaled power would be created increasing the US passivity in the scene of gas geopolitics. Perhaps it is due to this fact that the Russian officials have lately been interested to cooperate with Iran regarding investments in the area of natural gas as well as participate in the project to export Iranian gas to India and Pakistan. On the contrary, if the US manages to coordinate Iranian gas policies with itself, the Russian influence in the gas geopolitics will significantly be reduced. Such a policy is also in contradiction with the US strategic energy policies as well as its stances vis-à-vis Iran. At present, the Americans have relied on weak loops in this regard. Due to insecurity and lack of national infrastructures, Afghanistan could not be a suitable passage to transport gas from Central Asia to consuming markets in the near future. Turkey has made major investments for this purpose. However, Turkey lacks natural gas resources and currently receives eighty (80) percent of its gas requirements from Iran and Russia. Turkey has concluded long term contracts to buy gas more than its own requirements. Turkey's intention is to transfer part of the gas to Europe. However, more than eighty (80) percent of the gas delivered to turkey will come from the three (3) countries, Russia, Iran and Turkmenistan. The Turkmenistan gas route is also dependent on the other two (2) countries.

In conclusion, upheaval in energy geopolitics from oil to gas is speedily occurring and it is incumbent on Iran to understand such a development well and in time to find its desirable and proper place.

New Developments in Latin American Oil and Gas Industry

Developments in oil and gas industries in Latin America during 2005 have gained fresh momentum in the current year.

By September 1, 2005, widespread revolts swept Ecuador for 6 days. The opposition groups attacked oil fields, inflicting damage to oil installations. A large number of people were arrested by the government. The protesters wanted International Oil Companies (IOC's) to make domestic investments in Ecuador and raise local employment. After Venezuela, Ecuador is the second biggest oil exporter to the United States in Latin America. Prior to these developments, Ecuador used to export almost 300,000 barrels per day (bpd) of crude oil to the USA. Following these clashes, the country's authorities announced that production of 144,000 bpd of crude oil had come to a halt and restoring previous production level might not be possible until next November.

By the end of February, 2006 the market focused on political tensions between the USA and Venezuela. On February 3, 2006, the USA expelled a high-ranking Venezuelan diplomat from its soil in response to the expulsion of a USA military attache from Venezuela. Also, in a street demonstration, Venezuelan President, Hugo Chavez, labeled President Bush as worse than Hitler. He warned that Venezuelan refineries in the USA may be closed, transferring crude oil already exported to the USA to other regions. However, the Venezuelan Ambassador in the USA said that despite political tensions, the export of oil would continue to the USA as usual. But, on the whole, political tensions between those two countries had a psychological impact on the market. After Canada, Mexico and Saudi Arabia, Venezuela is the fourth largest crude oil exporter to the USA, exporting about 1.2 million bpd of crude oil.

By March 23, 2006, due to the public demonstrations, the Ecuadorian government was forced to impose emergency measures in the country's five provinces. The demonstrators in those cities had demanded cutting off negotiations on free trade with the USA. Prior to that, strikes by oil workers of "Petroecuador" company had caused a reduction in that country's oil output.

By May 6, 2006, Bolivian President, Eiomorales, following nationalization of the country's gas industries, issued an order to the army to take control of the gas fields. Bolivia's gas production stands at 1.421 billion cubic feet per day. The Bolivian President called on the oil and gas companies operating in that country to sign new contracts in 180 days or leave the country. Such an action affected the market significantly. Analysts believed that such a move may spread to other Latin American countries.

By May 12, 2006, oil industry developments in Latin America once again attracted the attention of oil circles. A week after Bolivian president declared gas industry nationalized, Venezuela also announced its intention of raising concession right and revenue tax for four heavy oil projects. These four projects, located in the "Orinoco Belt", are producing about 600,000 barrels per day of crude oil. Based on new financial regulations, concession right of the said four projects will be hiked from 16.6 percent to 33.3 percent. Tax revenues of these projects will also be increased from 34 to 50 percent. Production capacity of these projects would reach to about 578,000 barrels per day. According to Venezuela's oil minister, such moves will raise government's revenues by 2 billion US dollars. In addition, Venezuela announced its resolve to study reforms intended to gain control of a large share of these projects.

The oil industry experts in Venezuela believe that "Hugo Chavez" intends to revise oil contracts concluded before his presidency in 1998. In Chavez's opinion those contracts were awarded under unequal terms and, consequently, international oil companies have stolen people's wealth. Based on 2001 Oil Act, approved by Hugo Chavez, the Venezuelan state oil company should have held and controlled at least 51 percent of upstream projects. Analysts believed that the attitude adopted by Venezuela towards international oil companies has set an example for new generations of leftist leaders in Latin America. Bolivian president, Eiomorales, has admitted that he gets advices from Venezuelan state oil company's

experts. The presidential candidate of "Peru", Olanta Humala" has also put forward the issue of nationalization of oil resources.

Analysts believe that any move intended for greater control of the government on "Orinoco Belt" projects, would result harsher challenges with Chevron, Exxon Mobil, TOTAL, Statoil, BP and ConoccoPhilips companies operating in that country.

Venezuelan government intends to change Operating Contracts to new Joint Venture Contracts. Last month, Venezuela state oil company gained control of the operation of two oil fields because TOTAL and ENI companies were unsuccessful in changing their operating contracts to new joint venture contracts. Exxon Mobil Company also sold one of its oil fields shares in order to avoid such consequences. New developments occurring in Latin America created new waves of concerns in the oil market.

By May 19, 2006, a wave of protests against the presence of foreign companies as well as trend of nationalizations in the Latin American oil and gas industries had attracted attention of oil circles. On Tuesday May 16th, Ecuador announced that they had taken over operations of USA Occidental Company. This action is considered as the biggest move against American companies in Latin America following nationalization in Bolivia. Ecuador cancelled its contract with Occidental, blaming the company it had breached its contract. Ecuador authorities claimed that Occidental had transferred part of one of its oil block to another company without seeking prior consent. However, Occidental company rejected such a claim hoping to be able to obtain the contract once again. One day after cancellation of the said contract, the value of the company's share dropped by 2.35 percent. Occidental was the biggest investor in Ecuador's oil industry. USA also announced that Ecuador had missed its opportunity to reach an agreement on free trade. Occidental company produced 100,000 barrels of crude oil daily, comprising 20 percent of Ecuador's daily oil production. During first quarter of 2006, Ecuador's oil export to the USA averaged 287,000 barrels per day, equivalent to 3 percent of USA crude oil import.

"The possibility of establishment of participation with other Latin American oil producers is under investigation to manage oil fields operated by Occidental", Ecuador energy minister, Ivan Rodriguez, said. He added that: "the cancellation of the Occidental contract worth 100 million dollars per year will favor Ecuador. The activities of the US company will be transferred to Ecuador in less than 60 days."

By May 26, 2006, the Venezuelan state oil company announced its desire to acquire 60 percent of shares related to heavy oil recovery projects in the "Orinoco Belt" region. The value of four active projects in this region is 33 billion US dollars. Chevron, Exxon Mobil, Conocco Philips and TOTAL are operating in that region. In May 2006, the Venezuelan Parliament recommended to the government to increase its ownership of oil projects. This recommendation was in line with Hugo Chavez's decree issued in the year 2001. The publication of this news indicating a new wave of nationalization in the Latin American oil and gas industries caused mounting concerns in the market.

On the same week, Hugo Chavez declared that he would support Ecuador in case that country wishes to rejoin OPEC. Ecuador joined OPEC in 1973 but left the organization in 1995. Hugo Chavez also indicated that Venezuela could allocate to Ecuador some 40,000-50,000 barrels per day capacity of "Isla" refinery in Caracas. The refining capacity of this refinery is 320,000 barrels per day, out of which, only 220,000 barrels per day is used. Based on Chavez, Ecuador could earn more revenues (i.e. 24 dollars per barrel) by exporting oil products instead of crude oil. Ecuador's energy minister also stated that he had held negotiations with Venezuelan energy minister regarding refining its country's crude oil in Venezuela. Oil circles were carefully monitoring such developments and were concerned about spreading waves of opposition towards presence of foreign companies in Latin America.

By June 30, 2006, developments of oil and gas market in Latin America entered a new stage. Bolivia, which has recently nationalized its gas industries, requested Argentina to increase gas price imported from Bolivia by 50 percent. Argentina had no choice but to accept this demand. Thus, the era of selling natural gas to Bolivia's neighbors at prices lower than international prices came to an end. Such an action also impacted crude oil prices.

Many analysts consider Venezuela as the forefront of this move in Latin America. Other regional oil and gas producers also moved in the direction of this development. Under Such a situation, some oil markets analysts started to speak about new wave of nationalization and resistance against domination of USA and multi-national companies over region's oil and gas industries. History shows that the wave of nationalization of oil industry first started in Latin America, reaching to other oil-producing regions in the world including the Middle East.

In 1937, the shaky military government in Bolivia, in order to attract people's support, convicted the local subsidiary of "Standard Oil" of tax cheating and penalized it by confiscating its properties. Such an action was praised by the people, attracting a lot of attention throughout Latin America.

Among the greatest achievements of Mexico's

revolution, was nationalization of its oil industry in 1938. Mexico full control of its oil industry and "Petroleus Mexicanos" or "PEMEX" was established as the first and most important state oil company in the world. In fact, Mexico became an example and symbol for other oil producers in the future.

On March 1943, international oil companies and Venezuelan government concluded an agreement based on a new 50-50 system. This was also a great event in the history of oil industry. According to this agreement, different types of royalties and taxes would be increased to such an extent that government's oil incomes would be almost equal to the companies' net profit. As a matter of fact, both parties would become partners having equal shares in oil profits.

The events occurring in those times were not limited to Latin America, spreading to other oil producing regions in the world. This became a source of fear for both international oil companies and politicians in the industrial countries.

On December 30, 1950, following one month of complicated negotiations, "ARAMCO" and Saudi Arabia signed a new contract. The most important point in that contract was acceptance of 50-50 Venezuelan principle. The deal between Saudi Arabia and "ARAMCO" had a quick impact on neighboring countries. The Kuwaitis insisted on obtaining similar arrangements. The Iranian oil industry was nationalized in 1951. In neighboring Iraq, the method of 50-50 came into effect in early 1952.

The recent history shows that for more than a decade, the main consuming countries as well as international economic institutions such as International Monetary Fund and the World Bank have been emphasizing on liberalization of energy markets especially oil and gas markets. With such recommendations, public properties have been transferred to the private sector and government companies have been obliged to entrust their market share to new companies. Recommendations by those institutions were always meant for developing countries in Asia, Africa and Latin America. Therefore, new developments in the oil and gas sector in Latin America, considering historical background of oil industry in this region, has attracted attention of oil consumers especially American consumers. This has caused some insecurity among consumers. In February 2006, Director of US Council for Information and National Security declared:" The oil price increase causes an increase in the power of US enemies such as Iran, Venezuela, Syria and Sudan. In a market faced with supply shortage, the international influence of oil producers will be enhanced." He said that: "high economic growth in the world has caused an increase in the world demand for oil.

In addition, instability in several oil producing regions has enhanced the geopolitical impact of the main producers such as Iran, Saudi Arabia, Russia and Venezuela." He added that the struggle by Chinese and Indian companies to have access to oil resources, concluding contracts for development of new oil fields and purchasing shares from oil and gas companies will be to the detriment of US foreign policy with regard to security of energy supply. He continued by saying that, even though, such activities may result in more supply and increased investment in oil production, but , on the other hand, could strengthen countries such as Iran, Syria and Sudan. This will cause a threat to US national security and could be a challenge to America's foreign policy, he said.

He added that the shortage of oil has encouraged Iran to insist on its nuclear activities. This has also encouraged populist policies of Venezuela in such a way that Venezuela intends to diversify its crude oil exports markets, he concluded.

Now before considering this viewpoint that whether the waves starting from Latin America is a vanguard of new nationalization movement and revival of state oil companies, it seems more appropriate to search for the roots of these developments.

There seems to be a number of fundamental factors causing such new movements in Latin America. These factors are as follows:

- **Additional oil revenues**

Since 2001, particularly during the past two years, oil prices have increased significantly. Incomes gained from oil and gas exports by producing countries have been more than double the previous figures. As a result, these groups of countries feel that they need less foreign investments, and consequently, tend to set harder conditions for the presence of international companies on their lands.

- **New importing rival**

In recent years, China is enjoying high economic growth rates reaching 10.3 percent in the current year. China is feeling an insatiable thirst for energy, especially oil and gas. This country is prepared to make investments with very competitive terms and in unstable areas such as Africa and Latin America.

By the end of 2004, China signed an agreement with Venezuela on expansion of activities of Chinese companies in Venezuela, including development of natural gas for domestic consumption.

China has also lately signed a contract with Nigeria worth 4 billion US dollars for investment in infrastructure plans such as refinery, hydro-power plant, and communications. In return, China will be provided exclusive right to obtain four exploration blocks. In Angola, Chinese company, "Sinopec", has proposed making investments worth 2.4 billion dollars in return

for obtaining exploration right on two oil blocks. The proposal by "Sinopec" included investing 200 million dollars in Angola's infrastructure.

China's struggle to acquire new energy sources has prompted some oil producing countries to replace American companies with China, thus, diversifying their oil export destinations.

- **New domestic policies**

In recent years, in many oil producing countries, people have not felt the positive impact of higher oil revenues in their daily life. They have witnessed that oil companies are exploiting oil resources and in return pay the governments' tax and royalties. But, such incomes have not changed their lives. This is the reason why in some countries such as Nigeria and Ecuador, people have shown their dissatisfaction with resort to rioting. In other countries, people have voted in democratic conditions to candidates promising to bring oil revenues to their homes. Such conditions have resulted in formation of governments that are openly opposed to presence of international oil companies, introducing the companies to their people as plunderers of oil resources.

Despite the reasons that can be cited for developments in Latin America, what has occurred there can not still be described as a new nationalization movement, although the potential of such attitude exists in those developments. Similar movements have also occurred in other parts of the world. Russia's ministry of natural resources recently announced that only companies can invest in development of Russia's strategic oil fields that 51 percent of their shares belong to Russia. In addition, the differences between "Gazprom" company and Ukraine over Russian gas export price, part of which is being transited to Europe, caused a one-day cut off of gas export to Europe. Of course, other reasons such as opposition to gaining power in Ukraine by a government friendly to the USA have been mentioned as a factor affecting Russia's action.

But if imposition of higher taxes on the activities of foreign oil companies in this country is added to the list, the undeclared desire of Russian government to exercise more control on its oil and gas will be figured out.

It seems that all events are taking place in an atmosphere that the oil market has been changed to a seller's market. Under such a condition and contrary to the buyer's market that the buyers enjoy a high bargaining power, at present the oil sellers have an upper hand. What has brought about this situation can be listed as follows:

- Absence of surplusapacities in the upstream and downstream sectors,
- High economic growth,
- Increasing demand for energy and geo-political crisis in the oil- producing regions of the world.

Therefore, the basis for national movements in the oil industry has been prepared.

Currently, major oil companies and governments in consuming countries can speed up or slow down such a movement. Companies and governments are rationally expected to seriously consider the following points to prevent strengthening of this new movement which could bring about unpredictable consequences.

1. Reduction of domestic taxes on oil products by governments in consuming countries and allowing crude oil prices to increase to higher levels. It is worth mentioning that incomes resulting from oil products in many consuming countries are more than the total revenues from oil exports by oil exporting countries.
2. Preventing geo-political crises in oil-producing regions by major oil consuming countries.
3. Safeguarding security of demand by governments in major oil consuming countries and creating confidence that demand for oil will exist in the future.
4. Willingness of oil companies to receive less from investments in countries having undeveloped oil resources. It should be mentioned that the profits gained by only seven major oil companies reached 33 billion US dollars in the second quarter of 2006.
5. Contribution of major oil companies to domestic economies of host countries to increase employment and improve public welfare.

Conclusion:

During the past two years, a new movement toward nationalization of oil sector has occurred in Latin America and other parts of the world. With prevailing conditions in the oil market, this wave has the potential of conversion into a general and all-out movement. In case this wave is spread to other regions in the world, unpredictable consequences may occur. Under such a situation, governments in major oil consuming countries as well as international oil companies, by adopting rational policies, could prevent a new crisis in the vulnerable oil industry.

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Iran, Algeria to cooperate on gas and LNG: Hamaneh

Kazem Vaziri Hamaneh, Iran's oil minister met with Shakib Khalil, his Algerian counterpart, to discuss bilateral ties in Gas and LNG sections.

After the meeting, Hamaneh said: "A delegation from Iran will visit Algeria to follow up talks on cooperation in LNG production", stressing: "Algeria is an experienced country in gas export and LNG production and the two have agreed to collaborate in these sections".

He stated: "Signing any deal or MoU on the issue would require further negotiations". Shakib Khalil has also taken on a tour of Iran's South Pars region.

Iran turns into China's top crude supplier in Oct

Iran became China's largest crude supplier in October with 1.79 million mt, snatching the top slot from Saudi Arabia, according to the latest figures released by the Chinese General Administration of Customs.

The Iranian supplies represented a 11.22% increase over 1.61 million mt in September and was 7.09% higher on the year.

The October volume accounted for 16.54% of China's total crude imports of 10.82 million mt for the month. Iran was last seen ranked as China's top supplier in January this year.

Barrels from Saudi Arabia--China's number one crude supplier in September--plunged sharply in October to 1.33 million mt, down 43% from 2.35 million the previous month. The drop in supplies sent Saudi's ranking down three notches to fourth place. Year-on-year comparison however still posted a 8.75% growth.

In the second place was Oman with 1.38 million mt to China, up 37% from September's 1 million mt and was 72% more than a year earlier.

Angola, which held the top supplier title from April to July this year, saw its barrels to China slip further to 1.36 million mt, 12.7% less than the September but 11.22% higher than the same 2005 month. Angola was China's third largest crude supplier in the month.

Chinese purchase of Angolan barrels has been on a downtrend after reaching a high of 3.18 million mt in May this year.

Kazakhstan for the first time made it to China's top ten crude suppliers list with 382,558 mt last month. The volume represented a whopping 262% spike over just 105,650 mt in October 2005.

JAN-NOV imports look set to exceed 2005 total

Meanwhile, China's crude imports look set to exceed last year's total of 127 million mt by the end of this month. In the first ten months of 2006, China already imported 120 million mt of crude, just 7 million mt less than the 2005 total.

Between January and October this year, West African shipments rose 31.55% to 22.45 million mt. In contrast, China's crude imports during the comparison period only gained 13.8%. Meanwhile, West African crudes accounted for 24.6% of the Chinese crude import market in January-October, up from 21.3% a year earlier.

Producers in the Middle East supplied 54.46 million mt of crude to China in the 10-month period. The volume was only less than 7% higher from 51 million mt supplied in the same 2005 period, a much slower growth rate than the one scored by West African producers.

Georgia to buy Iran's natural gas: Georgian PM

Georgia intends to buy natural gas from Iran, the South Caucasus country's prime minister.

Tbilisi previously bought gas from the Islamic republic under a temporary agreement following explosions in January 2006 on trunk pipelines in Georgia, which caused a suspension in gas supplies from the country's sole supplier, Russia.

Prime Minister Zurab Nogaideli, responding to a journalist's question on the United States' opposition to Georgian-Iranian energy cooperation, said: "We will buy gas from Iran, there is no other option. Moreover, we will exchange Iranian gas for our electricity."

The U.S. ambassador to Georgia, John Tefft, said his country is against long-term strategic cooperation between Georgia and Iran in natural gas deliveries.

Potential Georgian dependence on Iranian gas is a source of concern for the United States, a close ally of Georgia but a strong opponent of the Iranian regime, which is, along with many other countries, accuses of pursuing a covert nuclear weapons program under the guise of civilian nuclear power development.

Georgian energy security was dealt a further blow when Russia said it may cut off gas supplies its South Caucasus neighbor if it fails to agree to a substantial price rise for 2007.

Georgian President Mikheil Saakashvili said in mid-November that his country will not buy Russian natural gas at $230 per 1,000 cubic meters because it is not a fair market price at a time when some of Georgia's neighbors are paying $65 and $110 in real terms.