Gas management in future

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Abstract: Oil prepares industries fuel in centuries as a cheap energy resource. This great resource has been decreased today and has been created worrying results in economical development of industrial societies. This problem also threatens lesser developed societies that try to reach economical index growth like west developed countries. according to presented subjects about resources and raw oil political future and by surveying charts and predicting oil and gas consumption in future and decreasing in consumption predicts and considerable growth of gas and oil consumption productions in future and according to creating new polar in economic era and high consumption of energy in them and tangible changes in energy consumption procedure of oil to other byproducts and especially gas , it is clear that inclination to financing volume degree of oil to gas isn't out of expectation.
[Jaber Jamalsirat. **Gas management in future**. *Life Sci J* 2012;9(3):1604-1609] (ISSN:1097-8135). http://www.lifesciencesite.com.234

Keywords: Gas management, energy resource, oil political future

1. Introduction

Oil is black gold that has main role in world economic and may be all of commotions in world are because of oil and for oil. Oil prepares industries fuel as a cheap energy resource in centuries. This great energy resource has been decreased today and also has been created results in economical development background of industrial societies. This problem has been threatened even lesser developed societies that try to reach economical index growth like west developed countries. So, we should know that this oil will finish one day and we should think about cheap and suitable replacement for it.

This reality (sudden oil price growth) creates considerable barriers in preventing of equalizing economical development in lesser developed. Preparing needed resources of raw oil and trusted presentation of it in suitable prices, makes possible interactions between cultures and this affair can cause creating superpowers and new era of human culture. in this era , gas has important and redoubtable place and producers countries have more suitable conditions . Iran is second country that has gas resources in world after Russia (Ivanhoe. F. 1995).

Today , Producing full gas of gas resources in first years after Islamic revolution shows considerable increasing growth procedure , when we survey past , we see that cubic meter millions of oil wasted beside exerted oil from ground , because of correct and sympathetic non management and not being enough facilities . That in addition to wastes national asset threatens human being living and other micro organisms, but today, six hundred million cube meters is produced daily(Campbell, Colin.1997) . And in future producing national asset will have more suitable condition. And according to situation that Iran will have in energy consumption in world future, gas is the most important replacement for changing energy base and Iran is one of countries that have great steps in this subject.

1.1. Oil price frequencies changes because of not using of energies

We are in a considerable era of preparing oil resources and its prices. Mr. triner (1997) predicted continually oil increased oil price because of oil shortage after (2000) Gregorian year. in fact , in march (2008) Gregorian year oil price increased after psychological operations to (100) dollar border and then increased up to (140) dollar in June . as OPEC organization master alarmed probability of oil price increase up to (200) dollar . valley miller , huge energy company's master in world (proem gas) predicted that oil price will increase up to (250) dollar and reached up to (300) dollar and in longer duration , (380) dollar price was predicted . In predicted time, oil price reached from 147 dollar in 11 July to 115 dollar in august, it means that 22 percent price decline was one of main downfalls between (2000 to 2008) Gregorian years. Albeit according to that 10 to 31 percent downfall was predicted. This downfall wasn't unexpected, but most of expert's retreat of their positions and promised oil prices dickers decline. In table1, according to oil yearly divisions' tables, has been shown the highest and the lowest oil prices between 1984 to July 2008 Gregorian years. Oil suddenly price increase, in third millennium and from 2002 to July 2008 Gregorian years is seen with high increase to 539 percent in price (OPEC News Agency.2009).

Table1: average of the highest and the lowest price in dollar unit in every year

year	1984	1988	1990	1994	1996	1998	2000	2002	2008	2008
prices	28	15	23	16	20	12	27	23	147	115
changes	---	-46	53	-30	25	-40	125	-15	539	22-

Also, oil price frequencies could predict according to hiraj viewpoint and last viewpoints in duration that world was reached to maximum oil production or near it. Anyway, these frequencies are because of oil resource declines.In this research, we survey causes and reasons of total increase in raw oil price, and also survey its influences on energy base changes and then procedure change of oil consumption to other energy resources (changing energy base) especially gas has been shown by presenting different predictions in production procedure and raw oil consumption to 2030 Gregorian year. More and cheap resources of oil has been the main agent in industrial wonderful production in Arab countries and America in last one hundred years, this is while oil abundant resources has short life. According to Herbert and bell chart, development of oil was in 1970 Gregorian year in United States of America. In November 1997, IEA hold a conference in Paris and presented a thesis that was about oil exhaustion. and result of this conference was a thesis for G8 masters meeting in Moscow in 1998 Gregorian year that IEA predicated oil sudden increase in future by accepting their viewpoints(MacKenzie, James J.2000) .

Decreasing oil production, increasing demand and rapid growth of economical development in lesser developed countries (like china and India) shows unfinished demand for oil and other energetic resources. The master of OPEC organization said demand for oil has been four folded from 1960 Gregorian year to now. Between 1995 to 2004 Gregorian year, daily consumption of oil in china was reached from 3.4 million barrel to 6.7 million barrel that this shows one hundred percent growth. China solely consumed thirteen percent of world oil production and also this procedure was hold for India. These two countries consumed eighteen percent of oil resource in world in 2004 Gregorian year.

2.1. Threatens and hindrances

Oil resources will finish and oil projects in huge volume of asset can be performed. Anyway, cheap oil period finished by decreasing oil production resources and refineries limitations that today work with full capacity and we will see incremental oil prices (Aziz Khan M.A. 2001). These are away from geopolitics problems that may happen in all around world. Today world will encounter with huge and great of volume of oil demand and this is when oil production level is decreased and 54 to 65 of oil production countries pass away from maximum and or a decade is passed. According to IEA report in 2007 Gregorian year and according to today consumption in world that is more than 80 million barrel in a day, we have oil only for 45 years in world (unless new resources will discover or considerable percents will add to usable resources amount). This is while if economical index growth rate will increase, this amount decrease to 25 years and today we see this decline. Also, unsuitable social and political and economical can be influential on these resources and all of these will finished. (Oil will finish). World economic is based on cheap and famous oil that excavate naturally or by low cost methods and this is while excavation cost and also reuse amount and needed technology is different from one resource to other. Totally, it isn't clear that how much unusual oil has been remained for discovering, discussed problems in this background consist of excavation probability, lesser heating value and need to novel technology. By considering that using such oils in future experimentally will not be irrational (oseph P. Riva Jr.1995). And maybe lasts 10 to 15 years. Universal need to oil will increase one to two percent annually. Today, one hundred oil barrels is excavated from ground in every second and universal growth percent will increase because of economical development in future. From decade 1960 to now very big squares or squares with high usable oil wasn't discovered and this is while predictions about discovering new squares is so challenging and is based on probabilities , most of oil resources that is declared and discovered in most of countries , is a kind of exaggerations . So, realities about oil include decreasing slope of oil universal production, universal increase in raw oil demand, universal increase in prices and untrusting to real volume of oil resources. In one hand, shortage in oil resources can cause economical sever challenges and most of refineries in world works with full capacity and this means world will have fragile position and with low resources, economical growth will have problems not only in developing countries, but also in industrial countries .It is clear that lesser developed countries and poor will have losses. Main problem is that finding a replacement for oil isn't simple work. Nuclear energy has its specific problems. And also will have more dangers in production, garbage ejection and illness prevalence and cancers and need to high technology and expensive and limitations in consumption. This energy isn't reusable and is expensive and also isn't available easily. And in fact, any of energies can't easily replace with cheap oil.

And all of energy application of other energies has less influence on decreasing procedure of oil resources. And also, none of energies has transposing ability and also heating energy in comparison with weight like oil. These cases can't be solvable solely, but shows great challenges in energy base changing (Laherrère 2001). So, there is a little need to universal cooperation for creating strong bases for changing and easiness in life style and energy base as there is little need to energy. anyway , world won't have enough oil energy for economical growth of countries in future . maximum usage of energy in world was begun about thirteen years ago and we see that energy production growth rate , hasn't emit past more power intonation , as has retardation against population rate .

3.1. OPEC predictions, IEA, EIA about resources and energy consumption in future:

According to EIA (American energy information office) all of energy resources will increase in 2009 Gregorian year. it is expected that oil universal price in periods between 2006 to 2030 Gregorian year was partly high and fluid fuels has the lowest growth in universal consuming resources . Fluid fuels consumption in 2006 to 2030 Gregorian year will have annual growth average about 9 percent. It is expected that fluid fuels had the most share in energy resources. Their share in universal energy consumption market decreased from 36 percent from 32 percent in 2006 to 32 percent in 2030.

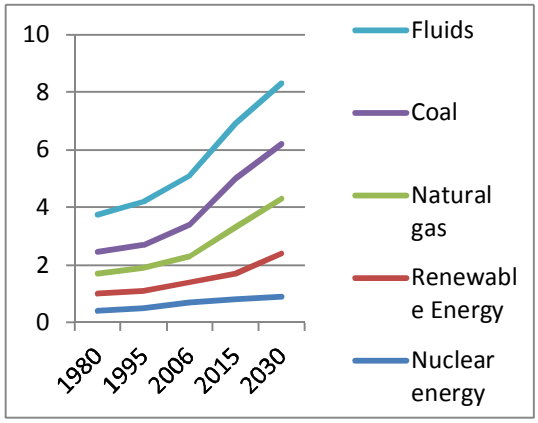

Fig1: universal energy consumption market

So, it is predicted that, oil universal price because converting industrial and electric parts of fluid fuel. According to OPEC organizations predictions , need to raw oil from 85 million barrel in a day in 2008 Gregorian year will reached to 105.6 million barrel daily in 2030 that shows 24 percent growth . This is while about 80 percent of this growth is related to china, south Asia and east south Asia or in other words Asian developing countries. Oil consumption level in North America and west Europe is negative. surveying oil consumptions growth level in world countries and especially (OECD) economical development cooperation organization was reached to maximum usage in 2005 Gregorian year , that will have negative growth 2030 in oil consumption Gregorian year , shows procedure consumption change from oil to other energies. The comparison present and previous predictions of three related organizations with statistics and related information to energy (OPEC , EIA , IEA) shows decline procedure of these raw oil in future and reaching these predictions together. Below table shows the comparison between OPEC organizations predictions and international agency and energy studies center in America of raw oil consumption in 2015 and 2030 Gregorian year . Also, according to EIA predictions (2008) producing world electricity 31.8 trillion kilowatt in hour in 2030 Gregorian year , is 77 percent more than 2006 Gregorian year that was about 18 trillion kilowatt . the most growth in producing electricity in non – OECD with 3.5 percent annual increase for increasing life standards and increasing demand in home consumption and extending commercial services includes hospitals , offices and buying markets . In OECD countries that foundations developed and population growth is partly smooth, it is expected that annual average increase about 1.2 percent between 2006 to 2030 Gregorian years. now , coal and natural gas have the most share in producing electricity in world (preparing more than 60 percent of world electric energy) and remain the most important energy preparing resources with 64 percent of total production in 2030 Gregorian year .

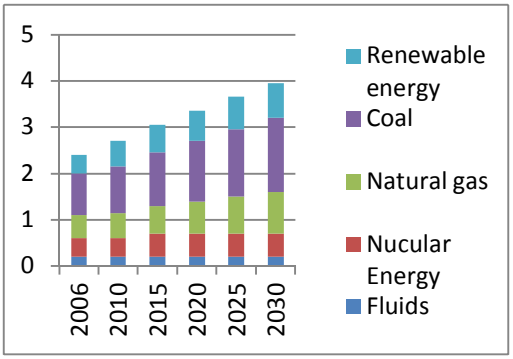

Fig2: OECD countries energy consumption market

According to OPEC predictions, oil share has been decreased between 1990 to 2006 Gregorian year . oil consumption predictions is negative for producing electricity in 22 years .

4.1. Declined dependency to oil (changing energy base from oil to gas)

More decreasing in resources level, decreasing validity and at last decreasing oil production security, force some of countries and oil companies to find replaced cases. Also, with improving universal economic and demand growth for raw oil, it is expected that this production will reach from 68 dollar in present to 110 dollar in every barrel in 2015 Gregorian year. and present consumption will reach from 85 million barrel in a day to 91 million barrel in 2015 Gregorian year that OPEC prepare about forty percent of this(Exxon. 2002). Oil company's managers accept this political reality that creating free market for financing in oil resources isn't in conversations list. About 80 percent of resources of universal resources aren't available for technology and specialist work force that oil companies can prepare part of this. Most of oil companies encounter with recession in production. But merging other companies isn't a way for increasing production. this is while despite of decreasing in consumption level prediction in 2030 Gregorian year (about 105 million barrel in a day) , producing oil should be 30 million barrel in a day , it means that about three times present Arabia production and this is difficult problem . Some of managers in companies accept governmental actions for limiting oil consumption as a way for improving presentation security and confronting with weather changes. Despite of oil, big companies that act in gas background confront with little limitations. Recession has been caused oil demand decline, while increasing in LNG and gas production in unusual methods, increase gas price about 25 dollars in a barrel of oil. Increasing gas production from unusual resources in America shows that how can a market react to price incentives when isn't encounter with financing limitations. Most of oil companies want governments to consider directing role for decreasing dioxide carbon pollutions. It is expected that natural gas demand growth level will be two times more than oil demand level to 2030 Gregorian year. And governments can persuade this procedure. Gas is burning material that has the most potential in decreasing pollution with the lowest cost. Electricity industry in America and china base fuel is coal, for replacing gas they can have big steps. Natural gas is the most important fuel for producing electricity in world because of more power and producing lower dioxide than other fossil fuels. According to EIA, natural gas total consumption is increased average 1.6 percent annually in 2007 Gregorian year. and predicted that natural gas total consumption will reach form 104 trillion cube foot in 2006 Gregorian year (114.5 trillion cube foot in 2010 Gregorian year) to 153 trillion cube foot in 2030 Gregorian year and its consumption will increase 1.2 percent in a year in electricity production part . Today, Member countries in Economical development and cooperation organization (OECD) have 38 percent of universal production and 50 percent of its consumption that shows 25 percent need these countries to foreign countries for import this production (Moreby, R, (2009)).also, to two next decade 40 percent of natural gas in world will be used in industrial parts and 35 percent of it will be used for producing electricity . according to IEA prediction , gas consumptions in next year's will have increasing growth and gas consumption will be about 5 percent for OECD , about 4.2 percent for developing countries in every year and Russia and for economic countries that change their fuel will be about one percent to 2030 Gregorian year . It is appeared that for answering to increasing demand growth for natural gas, produced countries of this product should increase their annual production to 48 trillion cube feet in a year. With short looking, we can know that most of suppliers of this increasing need in future will be countries such as Iran, Qatar and Russia.

2. Discussions

Oil is black gold that has main role in world economic and while mot of challenge sin world is oil and because of oil. Oil prepares industries fuels in centuries as a cheap energy resource. This huge energy resource decrease today and has been created worrying results for economical development in industrial societies. Also this problem, threaten even lesser developed countries that tries to reach economical index growth like west developed countries. according to what said about resources and political future of raw oil and by surveying gas and oil consumption predictions in future and decrease in consumption predictions and considerable growth of gas consumption productions and according to new created pollards in economic era and high energy consumption and tangible change in energy consumption procedure form oil to other productions and especially gas , it is appeared that tendency to financing volume level form oil to gas isn't out of expectation

Acknowledgements:

Author is grateful to persons for support to carry out this work.

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7/30/2012