

## **Prospect of Natural Gas Industry in Iran**

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### **Abstract**

Iran holds the second largest gas reserves in the world with over 27.5 trillion cubic meters (TCM) of natural gas. Due to lack of geological surveys in certain geographical regions in Iran. It is likely to explore further reserves in the future. Hence, for utilizing this energy carrier, it is essential to have comprehensive and explicit planning knowledge. The study of gas industry development policies is indicative of certain barriers in utilizing prospective opportunities. Iran is one of the largest gas rich countries in the world that production capacity exceeds domestic consumption and gas injection requirements. Gas can be utilized as feed stock in petrochemical plants and refineries or exported through pipeline or LNG. Through re-injection of gas to oil reservoirs, while increasing the oil recovery ratios, the produced gases from fields shared with other countries could be stored into domestic gas fields.

Gas consumption in domestic markets and its substitution with oil products, in addition to providing environmental benefits, will also result in optimum consumption of these products and relieving the government from the heavy burden of existing and heavy expenditures of importing these products from foreign countries.

The need for energy sources in the world along with the enormous natural gas reserves in the country opens broad economical/political dialogue scene towards us and contributes an outstanding strategic significance to our gas resources. Supplying gas requirements, proper and timely production and operation of joint reservoirs such as the south pars with the intention of supplying gas requirements and providing balance of supply and demand as well as maximum utilization of our share in these fields are other development requirements of this significant industry.

For planning and policy making regarding the development of gas industry, it is essential to manage all aspects of gas from exploration and production to consumption, injection and exports and etc. through a sole administrative institution so that prearranged plans could be implemented without becoming subjected to such problems as lack of coordination parallel activities and organizational problems. Gas fuels consumption occupies one half of Iran's energy consumption, and to increment this share, the government should increase investment in the gas sector.

Natural gas while being utilized as a clean fuel in domestic markets can become a device to implement gas injection to oil production from the countries reserves as well as gas exports towards presence in international venues and commercializing gas globally.

Prediction indicates that natural gas being the favorable fuel of the present century, will enjoy the largest growth among items within the energy basket and during the next twenty years as well, the growth of natural gas demand in the world will exceed other conventional energy sources. In the future, due to various factors such as vaster accessible sources and reserves, developed technologies which in effect

reduce project expenditure and construction periods and consequently improve the economy of developing gas transmission projects, as well as global endeavors to curtail emission of green house gases, are the major reasons for gas consumption growth.

Iran, in respect to her geographical and political strategic situation, can play a leading role in global gas supply and act in Europe and Asia. Natural gas still maintains the fastest consumption growth rate among the world's primary energies and is realized to have the highest consumption growth among the developing countries.

Gas has been recognizing as the fuel for the future. This is entirely evident as a result of decreasing global resources due to environmental considerations. According to IEA estimates, in year 2015, oil demand will reach 93 million barrels and natural gas demand will reach 64 million barrels of oil equivalent. This in effect is a 20% increase for oil and 45% for gas in regard to current figures in conclusion. It could be stated that more than ever before, gas has gained significance and is the leading basis for modern services in energy, and in the long term is considered a bridge towards a hydrogen resource based economy.

Gas as a new fuel, provides the modern technology of fuel cell construction for vehicles possible. To portray the enormity of Iran gas reserves it is enough to consider that Iran's natural gas reserves alone exceeds the total volume of natural gas reserves in USA, Canada, Europe and the entire Asia pacific.