



Article Type: Research paper

## Geopolitics of Liquefied Natural Gas Energy in the 21st Century, with an Emphasis on Iran's LNG Geoenergies

Gholamreza Shafiei<sup>1</sup>, \* Hojjat Mahkoui<sup>2</sup>, Amir Gandomkar<sup>3</sup>, Reza Simbar<sup>4</sup>

1. PhD student in Political Geography, Department of Geography, Najaf-Abad Branch, Islamic Azad University, Najaf-Abad, Iran.
2. Associate Professor of Political Geography, Department of Geography, Najafabad Branch, Islamic Azad University, Najafabad, Iran.
3. Associate Professor of Geography Department, Najafabad Branch, Islamic Azad University, Najafabad, Iran.
4. Professor of Political Geography, Department of Political Science, Gilan University, Rasht, Iran.

### Article Info.

Received: 31/08/2023

Accepted: 02/11/2023

Available Online: 9/06/2024

### Abstract

Despite having the second place in the world in terms of natural gas reserves, Iran has practically not played an active and influential role in world trade and the export of natural gas and liquefied gas, and despite its privileged geo-economic and geo-energetic position, it has reached a position that is commensurate with the capacities and potentials of its geographic economy. It has not been found. The main problem of the research is, how is the role and importance of liquefied gas in the global gas trade and geopolitics of energy, during the next decades at the regional and global levels? The main goal of this research is to analyze

**Hojjat Mahkoui, Ph.D.**

**Address:** Islamic Azad University, Najafabad, Iran.

**E-mail:** [hojat\\_59\\_m@yahoo.com](mailto:hojat_59_m@yahoo.com)

### How to Site:

Shafiei, Gholamreza and Mahkoui, Hojjat and Gandhamkar, Amir and Simbar, Reza (2024). Geopolitics of liquefied gas energy in the 21st century with an emphasis on Iran's liquefied gas geoenergetics. *Fundamental and Applied Studies of the Islamic World*, 6(1), 21-24.



Authors retain the copyright and full publishing rights.

Published by Iranian Association of Geopolitics. This article is an open access article licensed under the Creative Commons Attribution 4.0 International (CC BY 4.0)

the increasing role and importance of liquefied gas in the global gas trade. and the geopolitics of energy, at the regional and global levels, in the coming decades.

The research method is a cross-sectional survey method, which is based on the objective of the applied type and based on the nature of the descriptive and analytical type. The studied community, professors and experts in the subject field The study has a sample size of 34 people and a questionnaire has been used to measure the formation of research variables.

Library findings and the results of the research questionnaire, using the software Spsand the test and multivariate regression has been analyzed. The results and inferential findings of the research show that due to the advantages, increasing demand and consumption of liquefied gas in the transition period on the one hand, and the geographical location and unique capacities of Iran for the production and export of liquefied gas on the other hand, the development of production infrastructures And the export of liquefied gas can compensate for the decrease in Iran's oil exports and revenues during the period of transition from fossil fuels to renewable energies.

Although oil and gas will not completely disappear in the coming decades, hydrocarbons will gradually and increasingly give way to renewable energies. This transfer of energy from fossil energy to renewable energy can turn the rich oil and gas reserves of countries like Iran into stray capitals in the not too distant future. Among fossil fuels, liquefied gas or LNG has characteristics that can play an important and effective role in meeting the needs of human societies during the transition from fossil fuels to clean and renewable energy sources. The capabilities of storage, long-haul transportation by ship, re-export and re-gasification make LPG a flexible and attractive resource in the energy transfer process. The results and inferential findings show that due to the advan-

tages, increasing demand and consumption of LNG in the transition period on the one hand, and the geographical location and unique capacities of Iran for the production and export of liquefied gas on the other hand, the development of infrastructures The production and export of LNG can compensate for the decrease in Iran's oil exports and revenues during the period of transition from fossil fuels to renewable energies.

In short, production and export liquid gas In the process of transition from fossil fuels to clean and renewable energy sources and in the transition period, it has valuable results, the most important of which are:

1. The current situation of the world trade in liquefied natural gas does not correspond with Iran's share of the world's gas reserves. A look at the global LNG trade shows that Iran practically has no place in the regional and global trade of liquefied gas. Iran, as the second country in the world in terms of huge reserves of natural gas, especially in the oil and gas fields of the Persian Gulf, If properly planned and appropriate economic diplomacy is adopted, it can well become one of the most important countries in the world in the world trade of liquefied gas.

2. Contrary to geopolitical restrictions and issues related to natural gas export pipelines, Iran's possession of long coastlines in the Persian Gulf and the Sea of Oman on the one hand, and the ability of LNG to be transported through large ocean-going ships, can make Iran in line with To connect the export of liquefied gas to all world markets.

3. The advantages of liquid gas as a relatively "flexible" fuel, with the ability to store, regasify, load and re-export, and the possibility of using LNG terminals to store, transfer and export liquid hydrogen, ammonia, etc. The future makes LNG a superior "transition" fuel.

4. The capabilities of LNG as a relatively "flexible" fuel with less emissions can reduce energy transmission costs and energy security risks in many countries of the world, especially less developed countries, in the process of transitioning from fossil fuels to clean energies. and renewables, and help boost the liquefied gas business globally.

Production and export planning liquid gas, Parallel Applying an active and intelligent economic diplomacy at the regional and global levels will

bring very valuable results in the direction of securing national interests, attracting foreign exchange resources, increasing government revenues and economic development of the country along with will have.

**Key words:** Geopolitics of Energy, Liquefied Natural Gas, Geo-Economics, Geoenergies, LNG.