

Security Aspects of "Geoenergeia" and the Significance of Energy Resources Management in International Politics

Vidakis, Ioannis and Baltos, Georgios

Department of Shipping, Trade Transport, School of Business Studies, University of the Aegean, Greece

March 2015

Online at https://mpra.ub.uni-muenchen.de/85031/ MPRA Paper No. 85031, posted 10 Jun 2019 08:27 UTC

Security Aspects of "Geoenergeia" and the Significance of Energy Resources Management in International Politics

Ioannis Vidakis and Georgios Baltos

Abstract This paper builds on the tools of geopolitics and geo-economics for analyzing energy resource networks and energy security. To prioritize the role that energy resources play in the interpretation of and decision making in international politics, it proposes the introduction of the Greek language-inspired term "geoenergeia" and a derivative methodology.

Unprecedented fluctuations in fuel prices during recent decades and intensifying turmoil in the energy market are all indisputable phenomena that generate further questions. In the geoenergeia point of view, two criteria argue for the prioritization of energy over politics and economy: the appearance of new technologies and the scarcity of energy resources. Due to the high stakes of energy security, governments and businesses are required to cope with rivalries as well as partnerships on a national, multinational, and global scale.

Before highlighting the critical nature of energy security issues, this article will describe, through historical case studies, the general framework of energy logistics. Next, we will assess the interaction between strategic decisions and energy resources management, which are connected to numerable, public and private stakeholders' policy making.

Introduction It is impossible to dissociate the existence of life from energy. Every form of life evolves through continuous transformations that produce and consume energy in various forms. The hunt first for the "black gold" of crude oil and then for natural gas contributed to major historical phenomena, such as humanitarian crises, dictatorships, territorial disputes, alliances, and wars. This hunt continues to exact a high price in human lives and capital, usually creating islands of uneven development and underdevelopment as well as environmental issues such as stagnated areas and desertification. Switching to energy-secure and environmentally-friendly energy sources is perhaps a one-way road to the survival and safe development of humanity. Producing energy in economical, safe, and renewable ways is the new ecological challenge (Nelson, 2011). In other words, to fulfill essential human needs, energy management and use will be the focus of our attention in the next decades.

However, as marketing experts often claim, for every need discovered, a market response should follow to introduce new products and solutions. Analysts and researchers follow similar logic in response to the need to explain or improve political decision making, developing new concepts and methods that are usually represented by abstract terms and neologisms. One such phenomenon is the term "geoenergeia" – a Greek language-inspired term. To begin with, geoenergeia can be distinguished from "geoenergy." Geoenergy refers mainly to structures involved in energy production and geothermal applications, and the term is most often used in technical contexts, such as by engineers who focus on locating new oil reserves, mining, transportation, and new processing and exploitation techniques (Smith and Taylor, 2008). Geoenergeia, on the other hand, addresses the effects of energy resources in political and economic systems as well as with their impact on international relations.

It is remarkable that the engineering societies usually, as it is stated by Stieb (2011), relate engineering and professionalism with a commitment to pursue benefits for humanity. Such a provision may be observed at the documentation or the vision statements of institutions. However, many engineers consider these kinds of requirements irrelevant, even unnecessary and unfortunate, "add-ons". Any political interference applies pressure on the core elements of their performance, distracting their inquiries, the presentation, publication, and utilization of their research findings. Moreover, engineering's emphasis on political "neutrality" may explain why politicians, diplomats, and business administrators, instead of the "on the job experts" –

engineers – are dealing with the energy resources logistics and management issues, processing them through geopolitical and geo-economic tools and methods, although the energy-related power sources have such width and depth of application that they could epistemologically define their own distinct characteristics and behavioral patterns in plenty of decision making centers around the world.

By contrast, "Geoenergics," the package of research tools used under the umbrella of the geoenergeia theory, reflect a need to move beyond technical geoenergy issues and an attempt to surpass the well-known geopolitical and geo-economic analyses in research depth and intensity by emphasizing the energy management factor.

Material and Methods Geoenergeia can be defined as follows:

Geoenergeia is a new analytical method referring to political decision-making in both national and international affairs. The method's first step examines decision-making processes in political, economic, and even social fields in relation to geographic areas defined by energy resource information. The next step interprets the interaction between political decisions and actions and the existence of energy resources as well as the utilization of potential for energy resources. The study of energy interrelationships at the international, global or regional level:

- i) assesses the impact of the new technologies in the energy industry, mainly observing how these new technologies define levels of energy resource scarcity or how they change the geostrategic importance of global regions;
- *ii)* collects quantitative and qualitative data regarding energy resource scarcity, highlighting the causative connection between energy resources scarcity and certain political decisions; and
- *iii)* monitors the energy security aspects of relevant political decisions to create a classification of the world states according to the wealth of energy resources they control.

While introducing the concept of geoenergeia, this paper also recognizes a gap in political analysis and seeks to emphasize the crucial importance of such factors as the need, acquisition, and utilization of energy resources in the shaping and implementation of international policies. With this initial approach in mind, and recognizing potential long-term rewards from this research, this paper will develop the basic framework and set the research baseline for geoenergics. Future papers will describe geoenergics tools in detail.

As a first epistemological approach, our priority was to search for a set of scientific criteria to be met by the geoenergeia studies (Bock and Scheibe, 2001). A series of international events that combine political decision making with geographical mapping of global energy resources established the context of what we originally defined as "geoenergics" research. This chain of related facts/events that have as a common element the critical importance of the geographical positioning of global energy sources was observed and tested against the geoenergeia explanatory models.

The explanatory models must be developed through technocratic experimentation, assessing when, where, and to what extent the notions under discussion drive real life and international affairs. Finally, towards this objective, geoenergeia attempts to introduce an analytically efficient and politically effective set of original terms to describe the energy-related facts/events that have been observed, tested, and explained. This theoretical schema is strictly linked to the shaping of national and international policies. Basically, through its energy management focus, the schema complements geopolitics and geo-economics; it operates as an alternative methodology towards a more accurate and realistic representation of the ways geopolitics and geo-economics interact with geoenergics.

Energy issues may prevail over politics and economics in international decision making.

In light of the multiple and multifaceted appearances of geoenergics in modern history, it can be said that such events are of critical importance, to the extent that they may dominate geopolitical and geo-economic decision making. There is, for example, the famous use of oilpowered engines during World War I that was a crucial factor in determining the winners and losers of that conflict.

Indeed, Great Britain modified the engines of its warships in 1912 to consume oil instead of coal (Weissenbacher, 2009). The alteration gave the British naval fleet a great advantage in speed and fuel autonomy. This was the first decision that confirmed the strategic importance of the new fuel. Confident in the internal combustion engine and oil fuel, allied forces in World War I managed to defeat the massive coal-powered German vehicles. Only ten days after the capitulation of Germany in November 1919, the British politician Lord George Nathaniel Curzon attributed the triumph of the alliance to oil, saying that the victory was caused by a "wave of oil" (Shah, 2004).

By the end of World War I, when armies, air forces and navies were fully mechanized, oil became of central significance to any world power with hegemonic designs or ambition. As a backdrop to naval geostrategy prerequisites, was the famous "Struggle over Oil", which marked even the antagonistic British-American relationship at the dawn of the 20th century – initially in Mexico by the late 1920s, when the British Admiralty failed to take up a contract with Mexican Eagle, as long as the United States were regarding the Caribbean Sea as an "American lake", then in Mesopotamia where Britain acquired a mandate according to the 1919 Treaty of Versailles. Given that Germany had previously acquired a ninety-nine year lease of mineral rights around the Berlin-to-Baghdad Railway from Turkey, Britain and France took it as a war prize at Versailles. Later on, the two victorious nations split the estimated oil revenues of Mesopotamia in the San Remo Agreement of 1920, keeping the Americans' hands off the spoils of war.

The US soon enough realized it had lost control of global oil resources due to the effectiveness of British private companies. Eventually, the US met that challenge successfully, becoming one of the great global players in the ongoing struggle for control over hydrocarbon resources.

Many international political decisions spring from energy-related matters.

The lines of our definition that state that geoenergeia *"examines and interprets decision-making processes in political, economic and even social levels in reference to geographic areas defined by energy resources information"* may be considered a driver for researching the present worldwide political, economic, and social reality.

Decision makers are motivated toward specific objectives by certain information. The geoenergic analytical approach suggests that it is possible to identify energy-related factors among the decision-making triggers or the decision makers' intentions. Therefore, researchers should be aware of the energy-related background issues that affect political decisions over territorial, state, or regional policies.

A typical example for the application of such an analytical approach in contemporary international politics could be the recent worldwide maritime security breaches, particularly the piracy incidents near the coast of Somalia. Such incidents are usually considered a serious security problem for the international community, but it is not simply a regional legal issue. A geoenergic analysis of maritime piracy would have raised concerns principally about the

burdens piracy placed upon the oil-shipping industry and the inability to secure oil tankers' routes through the Suez Canal and the Strait of Hormuz. According to a recent study by the US-based One Earth Future Foundation,¹ pirates have hijacked hundreds of vessels and demanded average ransoms of \$5.4M in 2010, up from \$3.4M in 2009. These high losses are translated directly into disruptions of the international energy and trade flow.²

In other words, Somali piracy is having an impact on the oil-shipping industry, which affects oil transportation and consequently increases oil prices and causes turmoil at local markets around the world. Fighting Somali pirates is not only an international political issue but also an oil-resources management decision on behalf of international stakeholders.

Energy factors are of critical importance for the configuration of the contemporary Western world.

The portion of our definition that notes that geoenergeia *"interprets the interaction between political decisions and actions and the existence of energy resources as well as their utilization potential"* may be perceived as an analytical direction towards historical events. Geoenergic explanatory methodology implies that various national and international events were subject to and driven by energy flow issues. It is advisable to think of these single events as trees that belong to a forest; geoenergeia refers not only to a small group of events, but to long chains of events that can be perceived as the blood in the veins of contemporary Western civilization.

In this context, developed economies that are no longer limited to the Western hemisphere exist because countries, companies, and individuals produce, process, and consume energy. This is a social structure that underlies the developments in industrial sectors and relations among the political foundations of our current globalized world. When a citizen goes shopping, he/she requests the activation of energy producing-processing paths that ensure the delivery of demanded products to the marketplace. Every item in the market represents a transformation of a fossil fuel from its raw or processed form. Therefore, business and political activities mainly administer the supply flows and demand balances of the known and geographically-defined energy resources.

Despite these observations, we realize that geoenergic events are highly dispersed wherever there is a market and commercial interactions. By markets, we mean not only the markets of intangible commodities and derivatives but also the tangible economic production that "brings home the bacon" to our tables. These applications of geoenergics are as numerous as the products that populate the individual, corporate, and national or international capital wealth of human civilization. Geoenergeia is pervasive in the lines of production that form the global structure of the modern way of life.

Nations may play the role of energy superpowers or join worldwide energy networks.

Geoenergeia studies global and regional international relations between energy-rich countries and links them to political and economic power. Consequently, geoenergeia classifies states according to a combination of economic, political, environmental, and cultural factors with their states' wealth in certain energy resources, based on the view that energy is a strategic weapon. From another perspective, the analysis assesses the impact of the possession and use of energy resources which have direct implications for states' sovereignty.

As a case study, Turkey's geoenergics profile and performance during the last decade is an example of national energy resource management that combines political power projection with systematic energy resource production and transportation.

Turkey is one of the world's largest energy hubs with a natural corridor that contains constructed and planned pipelines that run east-west and north-south. Turkey's east-west pipelines include

the Baku-Tbilisi-Ceyhan Project (BTC), the Kirkuk-Ceyhan Oil Pipeline, the South Caucasus Pipeline, the Turkey-Greece-Italy Gas Pipeline, the Nabucco Gas Pipeline, the Trans-Caspian Pipeline, the Kazakh-oil expansion to BTC, and Iraqi Gas. North-south pipelines include the Blue Stream Gas Pipeline, the Eastern Thrace Kiyikoy-Ibrice Oil Pipeline, the Samsun-Ceyhan Pipeline, and the Turkey-Israel Oil and Gas Pipeline (Biresselioglu, 2007). The Port of Ceyhan in southeastern Turkey is particularly important for Iraqi oil exports and potential future Caspian oil exports,³ while the 17-mile-wide Bosporus Strait is a key control point between the Black and Mediterranean Seas. Almost three million barrels of oil per day pass through the Bosporus from the Black Sea to the Mediterranean Sea. This passage is one of the busiest waterways in the world, with more than 50,000 vessels per year, including 5,500 oil tankers, passing through. (Fellers, 2004).

Turkey depicts a potential model for many countries to shape their national, regional, and global policies on current or future energy flows. Aiming to be recognized as a natural "energy bridge," Turkey made a strategic decision to become a regional energy hub with control over the flow of oil and gas from the Caucasus and Middle East regions towards Europe. According to Katinka Barysch (2007) of the Centre for European Reform (CER), "Turkey's natural position of being an energy hub contributes to European energy security positively by its proximity to resource-rich regions in its neighborhood".

Turkey and the United States are forming a geoenergics partnership over the so-called "Western route" pipeline, a planned project which would transfer oil from Baku through Azerbaijan, Georgia, and Turkey to Ceyhan, bypassing Russia and Iran. Russia promotes the "Northern route" from the Caucasus to the Russian port Novorossiysk. Regardless of the details or the probability that the "Western route" project will be executed, it is clear that efforts to increase national political power are a part of the geoenergics context of the region.

According to Turkey's Foreign Minister Ahmet Davutoğlu (2008), "Turkey's national strategy requires establishing the transit of energy across its territory due to its geographical position. Turkey shares common interests with Russia, Iran, and the United States for the successful operation of natural gas and oil pipelines that run in various directions through Turkish territory. Therefore, Turkish analysts try to combine all these interests in one single picture. This is a rational calculation, not an ideological account".

The Turkish government's strategic plan and the policies supporting it, as Coscun et al. (2010) describe, aims to make the country an energy hub. The policies promote a "fourth corridor" of Middle Eastern and Caspian gas suppliers, in addition to Norwegian, Algerian, and Russian corridors. Internal security of supply is expected through the already contractually-arranged off -take rights. The second accomplishment will be increased political influence in the region because of the control over key infrastructure and pipeline routes. The geopolitical and geo-economical implications involved are obvious, but they all serve energy resource considerations.



Figure 1: The Turkish example of a national political willingness to integrate energy resources management with multi-level and multi-faceted international cooperation

Geostrategics, geopolitics, geo-economics and geoenergics are all related.

Figure 2: Research fields claim objectivity and Scientific accountability, but they are usually being "manipulated" by geostrategics in favor of biased national, international and global policies



Geoenergeia theory states clearly that energy is the essence and the priority of geoenergics, just as politics and economy are at the heart of geopolitics and geo-economics, respectively. Energy-related, political, or economic variables may simultaneously influence the decisions of global businesses and policy makers, but the variables may not each carry equal weight in decisions. In the geoenergic point of view, two criteria argue for energy to take priority over politics and economics: new technologies and scarcity of energy resources. Lack of energy resources drives world powers toward political and economic decisions to explore for and exploit available energy resources. On the other hand, when energy is abundant, politics and economics take priority over geoenergics. The more businesses and nations experience significant and permanent energy scarcity, the less they care about the law, citizens, or money.

Figure 3: High levels of energy security as well as energy resources abundance result in decision making less driven by energy resources acquisition and utilization planning





Figure 4: Low levels of energy security as well as energy resources scarcity result in decision making more driven by energy resources acquisition and utilization planning



Geoenergics~Geopolitics~Geoeconomics methodologies mix

Geoenergics do not replace existing well-accepted fields of geopolitics and geo-economics, nor is there intention to establish any type of hierarchy among these fields. However, in many situations, geoenergeia may present a more useful or revealing evaluation of policies that control, distribute, and execute global power.

Geopolitics, geostrategy, and geo-economy were all concepts established at the beginning of the 20th century. Naturally, the development of geopolitics and the closely related idea of geostrategy attracted interest from the military and politicians, while the concept of geo-economy was supported by theorists of political economy as well as entrepreneurs. However, there were inadequacies to both of these approaches because they did not take into account advances in technology and the consequent importance of energy resources for the world's administration.

Given the fact that approximately 60% of the world's known oil reserves are located in the Middle East, this area continues to be absolutely vital for energy security. However, the decline of the petroleum economy, as Roberts (2004) has described, will lead the world to alternative forms of energy, such as the so-called "hydrogen economy" (Rifkin, 2002), which would replace fossil fuels with hydrogen products, or the quest to locate undersea energy beneath the Earth's poles. These nations with north polar land claims – the United States, Canada, Russia, Iceland, Norway, and Denmark – are in competition for the resources of the North Polar Region. In 2008, the US Geological Survey (USGS) reported that the Arctic seabed may be home to the "geographically largest unexplored prospective area for petroleum remaining on Earth".⁴

Areas for potential Arctic exploration are mostly inaccessible, but global climate change will soon make them more available for exploitation. The Middle East will gradually move out of its current critical geoenergic position, to take up a role on the periphery of energy. Similar consequences may result from the application of advanced energy processing techniques, such as natural gas hydraulic fracturing, commonly known as "fracking" (Friedman, 2011), that exponentially multiply exploitation possibilities. In short, the more alternative energy sources are developed around the world, the less vital the Middle East will be in terms of energy security prospects, challenges, and opportunities.

The geoenergics methodological approach.

Although the geoenergics approach has a different starting point compared to geopolitics and geo-economics, they all follow a similar analytical scheme: they aim to examine, interpret, and explain the direction of international relations decision making. This paper will soon be followed by others that present more detail and develop methods of evaluating the appeal of geoenergics for analyzing the past, present, and future of international politics.

In this context, geoenergeia focuses on research mapping and documentation, using methods such as the following:

- The geoenergeia atlas, which depicts geographical information for points of interest where energy resources are concentrated and illustrates the actual or potential prospects of these energy resources. Nations, businesses, and relative stakeholders are identified and classified.
- Energy resources are perceived as power sources. It is not sufficient to draw maps showing
 the regional scarcity of energy treasures, for example. It is more important to assess the
 impact of each geoenergics complex in correlation with the neighboring or antagonistic
 ones. The network of energy exchanges creates centers of political power that aim to
 control energy flows. Consequently, the geoenergeia atlas is being populated with decision
 making centers of gravity driven by energy resources planning.
- For each geoenergeia center of gravity (GCG), strengths, weaknesses, opportunities and threats (SWOT) are also under examination, while every factor in this long and complicated equation of powers is expected to count the costs as well as the benefits of energy investments. All the stakeholders make forecasts based on scientific data regarding energy technologies, and they make political estimates about expected moves of rivals who claim power. Geoenergeia methodology considers decisions made in the past and forecasts future decisions to implement energy resources planning. The energy cost-benefit analysis projection is a sine qua non prerequisite for any geoenergics methodological approach.

Although there is an academic tendency to consider geopolitics and geo-economics to be scientifically objective because they use statistical and geographical tools, it is doubtful that objective analysis happens or could be completely achieved (Grygiel, 2006). Geostrategics, on the other hand, allows by default the formation of policies in favor of several international foundations and global players. In line with geopolitics and geo-economics, geoenergeia takes a quantitative approach, with a pure focus on established facts and findings.

Because objectivity is not completely achievable, it is critically important for any geoenergics review to consider the historical subjectivity of energy resources production, allocation and management. Paraphrasing Dodds' (2007) description of the types of geopolitics (popular, practical and formal), we argue the following: media usually adapt geoenergics to whatever masses of voters are willing to listen to (popular geoenergics). Politicians use symbols, rhetoric, and colorful maps to highlight the bottom lines of their complex policies (practical geoenergics), while academics may produce formal energy management theories that remain in the labs until they transform into popular or practical material in the hands of media and politicians, respectively.

Figure 5: Three-level geoenergeia approach and interpretation

Spatializing power sources: State borders & Energy resources



Discussion To contribute value to the numerous papers exploring the complicated world of political decision making, we need to outline some research fields for further development of the geoenergeia theory. The original idea, represented by the following hypotheses, is that if, indeed, the energy geographical inputs are so numerous and influential in the conscious or unconscious projections of all powerful political minds in this world, we must develop a geoenergics analytical platform that is at least complementary to the other well established platforms of geopolitics and geo-economics.

The following structure tests the quantity and quality of energy management events and attempts to explain why geoenergeia is often a background notion that is almost concealed in political planners' minds. It concludes with the recommendation that the relevant methodology should be explicitly open and public, leading to greater transparency in political decision making and, thus, making decisions more democratic, acceptable to citizens, and easier for leaders to implement:

Hypothesis I

A large number, if not the majority, of international political decisions, policies as well as their results are related to geoenergics issues; they literally refer to specific geographical spots of energy resources.

This first hypothesis implies once again that numerous examples over the last centuries highlight the importance of energy in political decision making. If we consider our commercialized, industrialized, and recently globalized world as a social structure that is about 500 years old, it is not difficult to identify geoenergics events throughout this critical period. The discovery of America and the colonial era are perfect examples for studying energy management related issues. What was the most prominent motive that launched these fascinating discoveries? Was it mainly a sense of adventure, a scientific question, or the obsession to conquer the native tribes of exotic lands that drove exploration? All of these motives indeed existed, but it also could have been the need to obtain energy resources spurring explorers for gold, God and glory (Love, 2006).

During the 20th century, oil caused technological and industrial achievements to increase and set the pace of the world economy and politics for more than a century. Oil's close association with modern daily life caused governments to exploit oil-rich areas and to extract crude oil. However, what initially looked like a definitive energy management issue, several decades later

was revealed to be a cause of many emerging security problems. A similar analysis could extend even to the latest, usually geopolitically approached, issues like the Libyan or even the current Syrian civil wars, as Karkazis et al. (2013) have recently shown, involving international energy management interests in the local energy resources distribution.

Hypothesis II

In addition to the large number of international political decisions, policies and inevitable follow -up events related to energy management issues, qualitative geoenergics factors rather than quantitative factors usually play the most critical role in the decision making and execution phases of international politics.

Those who did not understand the dynamically changing geoenergics environment that followed after World War I, and insisted on pre-existing notions of geopolitics and geoeconomics were defeated in World War II. For instance, in 1941, Hitler rushed to invade the Soviet Union, hoping for a quick victorious advance, rather than strengthening for energy security purposes the front in North Africa or advancing to Persia, which would have secured him approximately 70% of the known global oil reserves. Similarly, some analysts argue that the US-Japan conflict did not start with the attack on Pearl Harbor in December 1941, but earlier that year when the US imposed an oil embargo on energy-deficient Japan (Murrin, 2005).

A phrase, worth quoting, that could emphatically highlight the critical role geoenergeia plays in the decision making and execution phases of international politics is what M. Henry Bérenger, a French senator, war-time Oil Commissioner and Clemenceau's deputy, wrote in a memorandum when Great Britain and France in 1919 were negotiating the future of Near East (Denny, 1928):

"He who owns the oil will own the world, for he will rule the sea by means of the heavy oils, the air by means of the ultra-refined oils, and the land by means of petrol and the illuminating oils. And in addition to these he will rule his fellow men in an economic sense, by reason of the fantastic wealth he will derive from oil-the wonderful substance which is more sought after and more precious today than gold itself."

Hypothesis III

Although many international decisions, policies and inevitably follow-up facts/events are related to energy management issues, other geopolitical and geo-economics factors are prioritized in decision making, either unconsciously or sometimes deliberately, to distract attention from geoenergics motives and ambitions.

Given that the geoenergeia-based analytical tool emphasizes the discovery and exploitation of energy resources, it is easy to recognize the series of events that are relevant to geoenergics research, though they are overshadowed by geopolitics and geo-economics analyses. The emphasis on geopolitics and geo-economics in decision making may be deliberate or unconscious. Specific interests may advise avoiding a direct reference to energy issues. Other analysts may tend to highlight by default the political elements of our current global system rather than focus on energy-related interests that motivate and monitor many political decisions. Our third hypothesis, in other words, claims that many political and economic plans rely upon pure geoenergics strategies that may be, deliberately or not, spoken, misspoken or unspoken.

As a working hypothesis, this is not technically ideal because subjective parameters preclude an analysis based on measurable data and decisions. Politicians usually form policies or even declare wars based on humanitarian values and democratic principles, though the goal of their geostrategies may be ensuring access to energy resources. Is it a coincidence that humanitarian interests are mostly protected by the international order whenever they are violated in energy-rich geographical areas? Is it a coincidence that humanitarian interests are underestimated when the violations take place in countries out of the energy spheres of interest? The recent situation in Libya may denote a hypothesis to be further researched, that the more geoenergics interests apply, the more international politicians take action.

If there is, realistically, a hypocritical element in energy management discussions, with secret diplomacy involved, aiming to require, acquire and obtain energy resources, maybe it is time to reconsider this political attitude. People, governments, and organizations may be sufficiently mature to accept the importance of geoenergics-oriented policies, bringing all the stakeholders into a dialogue over the exploitation of this planet's resources in peace and prosperity.

Hypothesis IV

Towards effective and efficient policy making, geoenergics factors should be considered major tools in the hands of politicians. If academia also uses the same analysis, configuration of explanatory and forecasting models will be much more creative and accurate.

This hypothesis suggests that there is a continuous interaction between politics and energy resources management. The relationship is not always predictable and balanced. If it were balanced and the focus was only the acquisition of energy resources, the United States might have preferred to support and be an ally of the resource-abundant Iran instead of Israel, for example. However, the selection of the closest allies is a process that matures over decades, involving oil supplies, international terrorism, weapons of mass destruction, and ideological and cultural rivalries, particularly for superpowers (Freedman, 2008). Sometimes establishing an alliance is a political rather than an economic decision. Consequently, when conflicts arise between state and business interests in energy, the state decisions may prevail against the corporate ambitions, or vice versa.

It is more surprising that energy management status quo greatly affects even the political culture around the world. Bajrektarevic (2012) characteristically relates the dominance of oil against alternative and renewable resources with the "much larger geopolitical imperative to maintain the hydrocarbon status quo and related ... confrontational nostalgia". The world's major powers avoid commitments like the Kyoto mechanism and insist on the present energy mix with all its consequences in terms of technological, political, and socio-economic alternatives to fossil-fuels.

In sum, we recognize the complexity and the interference of politics in energy management decision making and vice-versa, as well as the need to improve policies enforced with combined studies of power projections and energy management efficiencies. Geoenergeia intends to bridge politics and energy management controversies by reconsidering and reassessing political alliances and energy management rules to emphasize improved energy security and energy savings.

Energy Security—Policy Implications According to the International Energy Agency (IEA), energy security is "the uninterrupted physical availability at a price which is affordable, while respecting environmental concerns."⁵ Because geoenergeia, by definition, considers the abundance or scarcity of energy resources as the factor that most affects international political decision making, the uninterrupted physical availability (the energy security approach mentioned earlier) coincides with the scarcity or abundance of energy resources (the geoenergeia approach).

Energy security is considered a relatively new issue in the international agenda, according to Rewey et al. (2004) – one that is highly related to globalization. In a globalized environment,

reductions in the levels of energy supply may lead to international emergencies and crises. Many countries also depend on energy transportation channels that cross vast distances. Networks of pipelines connect countries, regions, and continents, while tankers carry oil and liquefied natural gas overseas. The transportation infrastructure is complex and critically vulnerable, while the consequences of potential disruptions are a constant threat. However, relations between cooperative nations tend to reduce existing dependencies between consumer and producer countries.

It is obvious that energy security and the geoenergeia focus are both developed in accordance with the particular conditions of specific geographical territories. For example, because of the critical political situation in the Middle East, particularly in the aftermath of the uncertainty caused by the "Arab Spring", the work towards a sustainable and lasting peace in the region has become not just a political priority but also a priority for global energy security. In a global market with such a heavy dependence on oil and gas, threats against the energy supply can emerge from a variety of different sources: natural disasters, riots, terrorist attacks, regional tensions, and conflicts. Undoubtedly, the oil market is the epitome of globalization.

It is also obvious that the geoenergics approach to energy security emphasizes the need for an integrated configuration of energy policies (Kalicki and Goldwyn, 2005). Current European energy policies may be another interesting case study for integrating geopolitics and geoenergics in favor of energy abundance and security. The Commission of the European Communities – according to its Green Paper issued in March 2006, for a European Strategy for Sustainable, Competitive, and Secure Energy – has designed a clear energy policy based upon three pillars: sustainability, competitiveness (open energy market) and security of supply.⁶ The lack of energy supplies drives Europe to diversify energy routes, maintaining sustainability of oil and natural gas flows. At the same time, many energy-supplying countries are insecure due to terrorism, wars, and internal social tensions. Therefore, Russia initially appeared to be the most stable and secure energy partner. After the Russia-Ukraine natural gas crisis in 2006, the Russia-Belarus natural gas crisis in 2007, and the latest Russia-Ukraine crisis, Europe is seeking alternatives to Russia as its main energy supplier. In this context of common interests, Turkey's geoenergics that we described earlier, as well as many other national and regional energy policies, find their place in these long-standing energy security policies, overlapping or contradicting each other (Stern, 2003).

The stakes are high, and the risks resulting from energy insecurity suggest that the new geoenergic orders must be cultivated through a long and responsible cooperative global policy that should prevent crises and conflicts. The prerequisite of such a long-term successful discussion about the future of our living standards and the survival of our planet is the realization that it is necessary to consider our national and international destiny from the geoenergeia perspective – the geoenergics horizon that occasionally expands or limits our individual or collective decision making.

Conclusion Geoenergeia is an analytical process aiming toward analyses and scientifically assisted decision making that considers political energy factors. It reveals implicit political incentives and elaborates upon the most effective and efficient ways to launch global energy handling and peace establishment initiatives.

As explained above, geoenergeia does not contradict or undermine geopolitics or geoeconomics; in fact, they complement or overlap each other. The importance and effectiveness of each method for interpreting national, regional, and international politics depends on the case being studied. A combination of the methods may enrich any research as long as the diversity of approaches focuses on several details in multiple ways, revealing areas of interests, motives, and hidden theories and practices. The common idea of the three methodologies is that all political decision making is geographically projected. Geoenergeia, geopolitics, geoeconomics, and geostrategics all refer to maps and the information they depict. Maps are simply spatial representations of energy flows, international politics, economic interactions, and strategic policies, respectively.

In conclusion, this paper aims to stimulate further research of the concepts and applications that have as their main component the prefix "geo-". It is premature to discuss a new scientific field, but there is persuasive evidence of the usefulness of the geoenergeia analytical methods for international politics, given that the new world order is undoubtedly connected to energy management issues. The source of control is often unavoidably connected to energy management and the relevant decision making processes. Therefore, geoenergeia may be considered the analytical tool that monitors and interprets developments in remarkably close proximity to energy resources; it is attached to some of the most critical sources of power and, thus, should be subject to further and deeper application and evaluation.

About the Authors

Ioannis Vidakis is a Commodore HN (S.C.) ret., having worked extensively as Logistics Director and Resources Manager. He has an MA in Economics, Ph.D(c) at University of the Aegean, Greece. He can be contacted at johnvidos2000@yahoo.gr

Georgios Baltos is a Law School graduate with long working experience in business administration and auditing. He has an MBA in Financial Management, Ph.D(c) at University of the Aegean, Greece. He can be contacted at <u>gbaltos@yahoo.gr</u>

Acknowledgements

We would like to thank Dr. John Karkazis, our doctoral advisor at the Department of Shipping, Trade & Transport, School of Business Studies, University of the Aegean, Greece, for his guidance as well as his patience challenging the ideas of this article, since some of them may appear unconventional. They are all our own views for which we take responsibility.

Endnotes

¹See<u>http://www.oneearthfuture.org/</u>(accessed: 15/01/2014)

²See <u>http://www.globalcollab.org/publications/essays/apsnet/policy-forum/2009/Valencia-Khalid.pdf</u>, (accessed: 30/04/2013).

³See<u>http://www.worldpress.org/specials/pp/turkey.htm</u>, (accessed: 15/01/2014).

⁴See<u>http://townhall.com/tipsheet/chrisfield/2011/03/31/arctic_anxiety_the_war_for_energy_resources_is_on</u>, (accessed: 15/01/2014).

⁵See <u>http://www.iea.org/subjectqueries/keyresult.asp?KEYWORD_ID=4103</u>, (accessed: 30/04/2013).

⁶See <u>http://europa.eu/documents/comm/green_papers/pdf/com2006_105_en.pdf</u>, (accessed: 15/01/2014).

References

- Bajrektarevic, A. H. (2012). GEOPOLITICS OF TECHNOLOGY AND THE HYDROCARBON STATUS QUO. Geopolitics, History and International Relations, 4(1), 128-142.
- Barysch, K., 2007. Turkey's Role in European Energy Security. Centre for European Reform essays, December, 1-8. Available at <u>http://www.cer.org.uk/sites/default/files/publications/attachments/pdf/2011/</u> essay turkey energy 12dec07-1381.pdf , (accessed: 15/01/2014).

Biresselioglu, E.M., 2007. Turkey: Europe's Emerging Energy Corridor for Central Eurasian,

Caucasian and Caspian Oil and Gas. *Balkanalysis.com Publications*. Available at <u>http://www.balkanalysis.com/</u> <u>blog/2007/01/20/turkey-europe%E2%80%99s-emerging-energy-corridor-for-central-eurasian-caucasian-and</u> <u>-caspian-oil-and-gas/</u>, (accessed: 15/01/2014).

Bock, P., Scheibe, B., 2001. Getting it right: R & D methods for science and engineering, third ed., Academic Press, San Diego.

Brown, M. H., Rewey, C., Gagliano, T., 2003. Energy Security. National Conference of State Legislatures, Denver, Colorado. Available at <u>http://www.oe.netl.doe.gov/docs/prepare/NCSLEnergy%20Security.pdf</u>, (accessed: 15/01/2014).

- Coskun, Bezen Balamir and Richard Carlson. 2010. "New Energy Geopolitics: Why does Turkey Matter?" Insight Turkey 12 (3): 205-220.

Davutoglu, A., 2008. Turkey's Foreign Policy Vision: An Assessment of 2007. Insight Turkey, 10, no. 1, 77-96.

- Denny, L., 1928. We fight for Oil. Alfred A. Knopf: New York, London. Available at <u>http://www.yamaguchy.com/</u> <u>library/denny/foroil_02.html</u>, (accessed: 15/01/2014).
- Dodds, K., 2007. Geopolitics: A very short introduction. Oxford University Press, Oxford.
- Fellers, G., 2004. Where are the World's Oil Transit Chokepoints? Pipeline & Gas Journal, Vol. 231, Issue 6, 41-43. Available at http://www.thefreelibrary.com/Where+are+the+world%27s+oil+transit+chokepoints%3F-a0118853932, (accessed: 15/01/2014).

Freedman, L., 2008. A choice of enemies: America confronts the Middle East. Doubleday Canada, Toronto.

Friedman, G., 2011. The next decade: Where we've been and where we're going. Doubleday, New York.

Grygiel, J. J., 2006. Great powers and geopolitical change. Johns Hopkins University Press, Baltimore.

- Hugill, P. J. (2009). THE AMERICAN CHALLENGE TO BRITISH HEGEMONY, 1861-1947*. Geographical Review, 99(3), 403-425.
- Kalicki, J. H., Goldwyn, L.D., 2005. Introduction: The Need to Integrate Energy and Foreign Policy, in: Kalicki, J. H., Goldwyn L.D. (Eds.), Energy Security Toward a New Foreign Policy Strategy. Woodrow Wilson Center Press, Washington DC, pp 1-16.
- Karkazis, J, Vidakis, I., Baltos, G. C., 2013. The Energy Wealth of Syria. Foreign Affairs, The Hellenic Edition, November 2013, Vol 20, 104-118.
- L'Espagnol de La Tramerye, Pierre, and Charles Leonard Leese. 1924. The world-struggle for oil. New York: A.A. Knopf.
- Love, R. S., 2006. Maritime exploration in the age of discovery, 1415-1800. Greenwood Press, Westport, CT.
- Murrin, J. M., 2005. Liberty, equality, power: A history of the American people, 4th ed. Thomson/Wadsworth, Belmont, CA.
- Nelson, V., 2011. Introduction to Renewable Energy. CRC Press, Boca Raton, FL.
- Rifkin, J., 2002. The hydrogen economy: The creation of the worldwide energy web and the redistribution of power on earth. J.P. Tarcher, New York.
- Roberts, P., 2004. The end of oil: The decline of the petroleum economy and the rise of the new energy order. Bloomsbury, London.
- Shah, S., 2004. Crude: The story of oil. Seven Stories Press, New York.
- Smith, Z. A., Taylor, K. D., 2008. Contemporary world issues: Renewable and alternative energy resources: A reference handbook. ABC-CLIO, Santa Barbara, CA.
- Stern, S., 2003. Turkey's Energy and Foreign Policy. Globalization, Vol. 3, No. 1. Available at <u>http://globalization.icaap.org/content/v3.1/03_stern.html</u>, (accessed: 15/01/2014).
- Stieb, J. A. (2011). Understanding engineering professionalism: A reflection on the rights of engineers. Science and Engineering Ethics, 17(1), 149-69.
- Weissenbacher, M., 2009. Sources of power: How energy forges human history. Praeger, Santa Barbara, CA.