

# Transition beyond oil in Greece?

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*Debates, imbalances, (alternative) strategies, vision*

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## 1. Introduction

This short paper examines and analyses some key figures and data concerning the oil sector in Greece in connection (and comparison) with the European and global context (see section 2). Furthermore it researches the barriers, debates, power changes and opportunities that arise from the vision and political practice for a *post-oil* era. Of course the processes involved in the post-oil political project (e.g. evaluating the implications of the various pathways, identifying the actors involved, designing a collective mobilization of the crucial social powers and setting the mid-term and strategic goals) cannot be described in detail here. Nevertheless, the different variables can be identified, alternative strategy and principles can be discussed and possible limitations can be listed.

It is obvious that any “roadmap” needs to be considered within the effects of the current severe economic crisis. Greece seems to be in the epicenter of this crisis. Under this perspective, it is seen as a “resource rich but cash poor and indebted” state by transnational capital and global financial institutions, such as the IMF. In this context the extraction-agenda is promoted by different key-players as a “treatment” against the crisis. On the other hand the same players incorporate in their approaches the general recent instability in the geopolitical area of S. East Mediterranean zone. This paper presents briefly the current debate in Greece about new oil-field and its possible exploitation by focusing mainly on the political arguments in the public sphere (see section 3).

It is also obvious that no post-oil future can be described without fundamental changes in – at least- the financial and production sector. It is crucial to identify limitations in all fields (e.g. regarding technical or spatial aspects) and describe possible ways to overcome them in a democratization process. As it is described below, oil and hydrocarbons in general have been the basis for the capitalist development for many decades not only in Greece but globally. Furthermore this centralized, oil-based mode of production has set very specific sociospatial relations and limitations that should be taken into account for any current or future transformation or transition. On the broader context, any alternative strategy needs to be integrated in the overall strategy to tackle the climate change and its social and environmental effects.

During the last years, there have been great struggles and practical initiatives that not only questions the privilege of multinational oil-companies to explore new oil-fields, but also set the main principles for a “leave-the-oil-underground” new era. Yasunization for example entails a “glocal” perspective that has been able to transcend and unify place-based and universal environmental movements and to create democratic spaces for defensive and pro-active actions. It emphasizes not only on fundamental changes in the economy/production, but also provides the pathway for an alternative to capitalistic development. Section 4 of this paper provides some initial thoughts and actions on the post-oil process for Greece mainly in the EU political and legal framework.

## 2. Current situation

Some key figures concerning oil production, distribution and consumption in Greece (import/own production, oil use by sector etc.) in comparison with the European context are presented below.

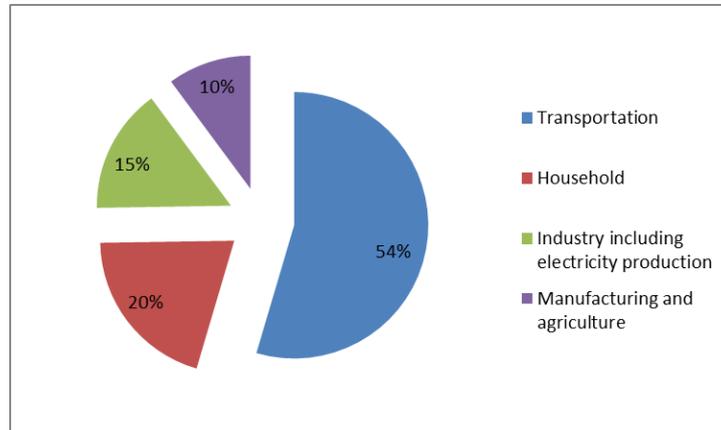


Figure 1: Oil use by sector, 2012 data

Table 1: Actual prices per one liter of fuel in EU countries on Oct 9, 2013 (Source: <http://www.energy.eu/>)

Oct. 9, 2013 Country	Unleaded (Superbleifrei, Euro sans plomb, Euro95)				Diesel (Gazole, Gasóleo)			
	Retail Price		Price (Excluding VAT)		Retail Price		Price (Excluding VAT)	
Austria	€ 1.432		€ 1.193		€ 1.377		€ 1.148	
Belgium	€ 1.604		€ 1.326		€ 1.465		€ 1.211	
Bulgaria	€ 1.313	2.57 nb.	€ 1.094	2.14 nb.	€ 1.323	2.59 nb.	€ 1.103	2.16 nb.
Croatia	€ 1.345	10.25 kn	€ 1.093	8.33 kn	€ 1.291	9.84 kn	€ 1.050	8.00 kn
Cyprus	€ 1.338		€ 1.134		€ 1.403		€ 1.189	
Czech Republic	€ 1.439	36.80 Kč	€ 1.189	30.41 Kč	€ 1.435	36.70 Kč	€ 1.186	30.33 Kč
Denmark	€ 1.692	12.62 kr	€ 1.354	10.10 kr	€ 1.565	11.67 kr	€ 1.252	9.34 kr
Estonia	€ 1.249		€ 1.041		€ 1.269		€ 1.058	
Finland	€ 1.634		€ 1.318		€ 1.490		€ 1.202	
France	€ 1.472		€ 1.231		€ 1.387		€ 1.160	
Germany	€ 1.628		€ 1.368		€ 1.380		€ 1.160	
Greece	€ 1.711		€ 1.391		€ 1.405		€ 1.142	
Hungary	€ 1.377	404 Ft	€ 1.084	318 Ft	€ 1.448	425 Ft	€ 1.140	335 Ft
Ireland	€ 1.598		€ 1.299		€ 1.502		€ 1.221	
Italy	€ 1.793		€ 1.482		€ 1.675		€ 1.384	
Latvia	€ 1.355	Ls 0.952	€ 1.120	Ls 0.787	€ 1.299	Ls 0.912	€ 1.074	Ls 0.754
Lithuania	€ 1.385	Lt 4.78	€ 1.145	Lt 3.95	€ 1.336	Lt 4.61	€ 1.104	Lt 3.81
Luxembourg	€ 1.340		€ 1.165		€ 1.224		€ 1.064	
Malta	€ 1.430		€ 1.212		€ 1.360		€ 1.153	
Netherlands	€ 1.782		€ 1.473		€ 1.469		€ 1.214	
Poland	€ 1.318	5.54 zł	€ 1.072	4.50 zł	€ 1.323	5.57 zł	€ 1.076	4.53 zł
Portugal	€ 1.692		€ 1.376		€ 1.482		€ 1.205	
Romania	€ 1.259	5.60 lei	€ 1.015	4.52 lei	€ 1.317	5.86 lei	€ 1.062	4.73 lei
Slovakia	€ 1.506		€ 1.255		€ 1.400		€ 1.167	
Slovenia	€ 1.448		€ 1.207		€ 1.378		€ 1.148	
Spain	€ 1.432		€ 1.183		€ 1.371		€ 1.133	
Sweden	€ 1.599	13.93 kr	€ 1.279	11.14 kr	€ 1.622	14.13 kr	€ 1.298	11.30 kr
United Kingdom	€ 1.580	£ 1.335	€ 1.317	£ 1.113	€ 1.673	£ 1.410	€ 1.394	£ 1.175
<b>EU AVERAGE</b>	<b>€ 1.492</b>		<b>€ 1.229</b>		<b>€ 1.416</b>		<b>€ 1.168</b>	



Figure 2: EU energy import dependency, 2009 data (Source: <http://www.energy.eu/>)

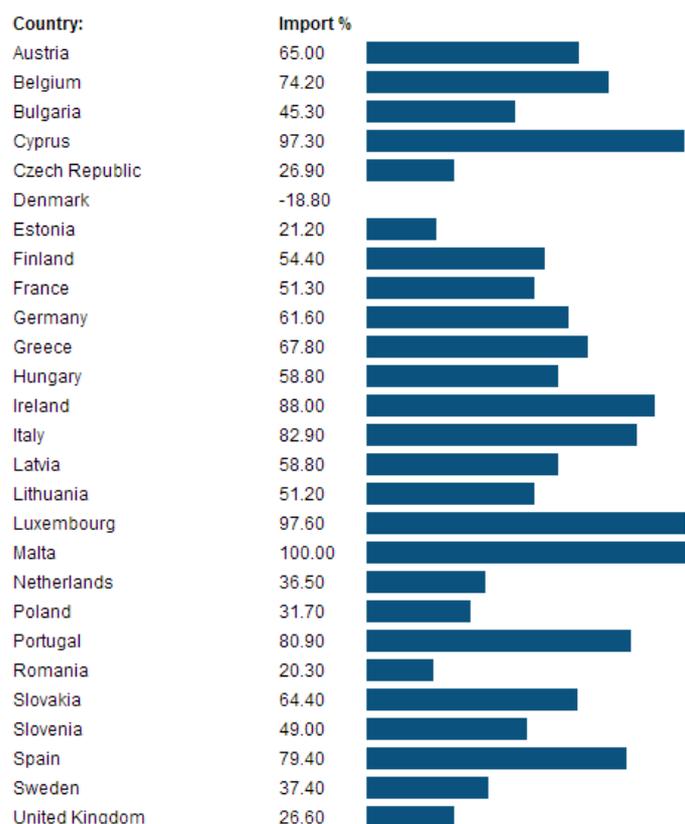


Figure 3: Energy import dependence of EU member states in 2009 (Source: <http://www.energy.eu/>)

Main suppliers of crude oil for Greece are Russia, Kazakstan and Arabian countries.

Natural Gas has only been available in Greece since 1997 and its use has been actively promoted through tax rebates, in order to reduce the use of oil. From 2010, however, due to the economic crisis, gas consumption related taxes have been substantially increased. There are currently three regional gas distribution/supply companies (called EPAs, the majority owned by DEPA) that operate under a concession regime for a period of thirty years. EPAs hold the exclusive (monopoly) right to (a) plan, design, construct, operate and exploit the distribution network in their respective area and (b) supply gas to small consumers (annual consumption <100GWh/pa) in their respective area. As a result, small consumers connected

to the distribution grid of each EPA are not eligible and cannot switch to alternative gas suppliers.

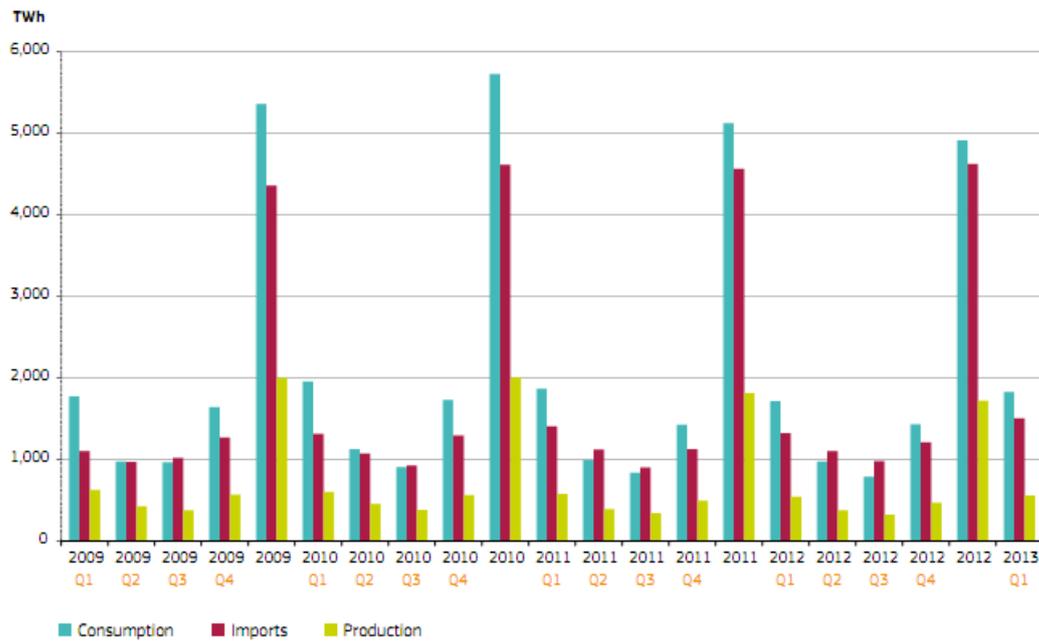


Figure 4: EU Gas consumption, imports and production (Source: European Commission, DG Energy)

As stated in the "General Report about the current situation of the energy sector in Greece" Oil production, is owned by Hellenic Petroleum. Since this year, there is no safeguard that the public sector will have a guaranteed participation in the Majority Board members. The latest Majority Board act states that there number of the Greek public sector is not harmed as long as it holds above 35% of the shares, but the correspondent paragraph of the Hellenic Petroleum Articles of Association, that used to set the lowest shares percentage of the Public Sector, has been deleted since January 2013).

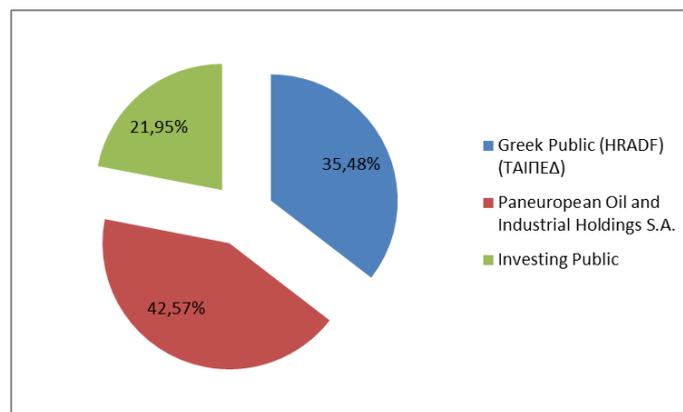


Figure 5: Main share-holders of Hellenic Petroleum

### **3. The current debate about new oil fields and the Greek case**

During the last years of economic crisis which determines political developments worldwide, one of the areas where competition between technologies, companies and states is increasingly taking greater intensity is the energy sector. Despite the growth of the renewable energy sector, some recent developments mark a new era for oil.

#### **3.1. Shale gas and fracking**

Key parameter that determines the agenda of the relevant debate is the discovery and extraction of significant deposits of unconventional oil ("shale gas") and natural gas in the U.S. Despite the proclamations of Obama at the start of last term in relation to the intention of support for Renewable Energy Sector, the rate of exploitation of deposits of unconventional oil and gas resources (shale oil / shale gas) has changed the power balance in the global market of oil. *Fracking* ensures access to oil and gas reserves which are trapped in geological formations. However, the environmental impact of this technology has already mobilised the environmental movement worldwide. In the US, UK and Eastern Europe, protesters, environmental groups and radical movements have been calling for a ban on fracking.

According to estimates made by the International Energy Agency (IEA), the recent developments in the exploitation of shale gas reserves could provide U.S. energy independence but also the first place in the list of oil-exporting countries. Such a development would certainly mark a new era in geopolitical relations of the U.S. with the Middle East, China and the developing countries of Asia which would cover about 90 % of demand for Arabic deposits. On the other hand, such a scenario, according to many analysts, disregards the important technical issues associated with the even greater development of unconventional oil and gas extraction in the U.S., although the data from the hitherto rapid expansion of the sector remain impressive.

#### **3.2. “Business as usual”: identification of new fields, financialization, competition**

At the same time, the competition between large multinational oil companies is increasing in the region of North Pole, where the identification of new exploitable deposits has attracted the interest of major players on the international market.

In Europe, there is growing concern among the elites about European industry competitiveness which is directly linked to the cost of energy. It is interesting to note that in one of the last E.U. summits (May 2013) the issue of energy cost was at the top of the agenda, with the EU leaders discussing the re-thinking (i.e. the loosening) of climate policies since “high energy prices and costs hamper European competitiveness”. A call from different sources (e.g. Europe’s biggest energy utility companies proposal for reforming the European energy system) for a slow down on the development of renewables and an increase on the investment on conventional sources (coal and oil) is rapidly gaining momentum. The

coexistence of the current “green development” with a return to a conventional “black development” is therefore again on the table.

It is certain that the tug of war between governments and economic interests on the one hand promoting the further exploitation of the remaining mineral deposits planet's resources and political and social forces on the other that propose the need to develop an integrated plan of transition to post-conventional era, will become even more acute in the coming months.

### **3.3. The Greek case**

Greece provides at the moment a very crucial case study for the political economy of extractivism. It is a country of the global North, a Eurozone country facing a severe economic and social crisis as an epicentre of the global economic crisis. Under this perspective, it is seen as a “resource rich but cash poor and indebted” state by transnational capital and global financial institutions, such as the IMF. In this context a series of political choices emerge: the in debt state structurally adapts to the requirements of IMF or other multinational institutions, sells public lands and resources to transnational and domestic capital and ultimately together they organise “legitimate violence of the state” to counter social resistance.

As it is stated in the relevant literature “the crisis lowered costs by: reducing the cost of labour (devaluation of salaries and of the value of health of workers) used in extraction activities; reducing the opportunity costs of extraction; reducing social resistance; minimising the costs from the delay of projects; and, reducing the monetary cost of externalities and the monetary value of impacts (‘the poor sell cheap’- health, visual or environmental impacts are no longer that highly valued)”.

In Greece, under the pretext of the economic and debt crisis, a looting has started, evolving around the privatisation of common goods and public services. Many “investors” with the assistance of the government and, stripped of any concept of planning, environmental protection, respect on the citizens and the nature, pursue a “development”, completely catastrophic for the people, that only benefits the national and international capital.

With regards to oil and gas reserves exploitation, a series of publications, news reports and official government announcements engage in an informal bid for the actual value of hydrocarbon deposits in Greece. The benefits for public funds have already been calculated precisely and range from 200 billion up to 1.3 trillion euros! The new grandiose project, around which Greek government's “success story” is constructed, is promoted by domestic and international circles and aspires through mining to solve once and for all the financial problems of the country, should be taken seriously because, despite the ridiculous approach by the media, poses great risks.

The strong voices heard around the hydrocarbons should not be addressed independently of the overall policy of selling out basic public goods and services on the pretext of dealing with

the fiscal crisis. Moreover, interests promoting these plans consider as weakness of Greek rule to manage any deposits eventually confirmed.

At the same time, the memorandum government promotes the unilateral proclamation of the Greek EEZ "to defend the country's resources." Backdrop tension will therefore be culminating in the Aegean Sea, through which the government will attempt to reconstruct, around itself of course as the dominant political force, the "national body", leading the country into dangerous paths.

Aside from the dominant propaganda, there are also voices within the Greek Left that call for a strong support to extraction activities, initiating of course from a different perspective: state control, environmental protection, use of revenues to fund social welfare projects. However, this approach of "progressive extractivism", which attempts to transfer in a –rather mechanistic- way, examples from Latin America and even Norway to the current Greek reality has many flaws which will be briefly presented in the next chapter.

#### **4. Strategies beyond oil?**

Today there is considerable pressure on the price of oil internationally, as declining global demand due to the economic recession is smaller than the increasing oil supply mainly because of new reserves in North America, but also because of the increase in oil production from the OPEC countries.

The crisis conditions create a highly sensitive landscape in which the debate about the effects of fossil fuel use on climate change and the need to shift to renewable energy and new energy saving methods seems to lose ground. But it is useful to look at things from different angles.

For example, an interesting aspect, though difficult to estimate accurately, is the rate EROEI (Energy Returned on Energy Invested), i.e. the fraction of the amount of energy gained to the energy that must be expended in the production of this amount of energy. For oil when early deposits were discovered, this index was about 100, i.e. the consumption of 1 barrel of oil was required for finding, mining and processing of 100 barrels of oil. As the "easy" reserves depleted and mining is becoming more difficult or more dangerous (tragic example of this is the accident in the Gulf of Mexico), the ratio has steadily decreased. Today it is about 3:1 for the U.S. and 10:1 for Saudi Arabia. On the other hand, in 2006 the EROEI of wind energy in Europe and North America was approximately 20:1, while for shale gas the corresponding value estimated at approximately 5:1. The continuation of conventional extraction becomes ever more expensive, both in economic and in environmental terms.

In terms of the production model, some leftist approaches that are positive towards the current oil extraction mega-project in Greece tend to forget that oil and hydrocarbons in general have been the basis for the capitalist development for many decades. In Greece, this is even more evident, not just in absolute figures (petroleum products constitute 66% of total energy consumption in Greece, while the European average is 42%), but more

importantly on the way that oil has been dominant in all aspects of industrial and economic life (from factories and industry units to vehicles and buildings).

In this sense, an alternative development model, as the one currently presented in the public discussion by SYRIZA, which will be built around the “economy of basic needs” and which will promote the idea of socio-ecological transformation of the production process, cannot take as given and reproduce the current dependence on oil. A political plan for a decisive reduction on oil dependence has to be set, a plan which will horizontally transcend all aspects of the development model and the economic structure.

For Greece in particular, this transition strategy cannot, at least in the short run, underestimate the major energy challenges of our time: security of supply and energy efficiency, optimal utilisation of domestic energy resources and imports reduction, sustainable development and ecological transformation of the production base, addressing ever-increasing energy poverty, financial support of weaker and already burdened by austerity policies households and businesses. In this complex context, a key tool should be the democratic planning of energy policies, which while taking into account the international initiatives to halt climate change, will prioritise the keystones of energy policy according to the public interest.

The transition to the post-lignite era obviously passes from intermediate stages in which the process of improving the efficiency and reducing emissions of power units may in no way be underestimated. To put it more precisely: the complete withdrawal of lignite from the energy mix of Greece will not take place tomorrow, but in medium/long term, aligned with the roadmap of the transition to an energy system without coal by 2050 and the requirements of the UN Intergovernmental Panel on reducing greenhouse gas emissions by developed countries. This means that an energy policy with such a strategic goal requires a comprehensive plan to mitigate the environmental impact of the existing lignite plants.

Especially for the environmentally burdened and financially dependent from lignite-fired energy complexes of Ptolemaida (Northern Greece) and Megalopoli (Southern Greece), the gradual withdrawal of lignite activity (mining and electricity production) from the production base requires a comprehensive development plan for production rehabilitation and environmental restoration of these regions.

Finally we should note that during the last years there is a great concern widely not only about the climate change, but also about the sociospatial consequences of a centralized and unjust development model with great inequalities globally (and especially on the so-called global South). The oil question is in the heart of this debate. There are political and practical initiatives coming mainly from Latin America that argue that leaving oil and other fossils in the soil is a necessary, effective and feasible way to avoid more climate change, biodiversity loss and risky exploitation and to move to greater socio-ecological transformations (e.g. energy transitions). Such initiatives build upon experiences not only from Latin America (e.g. Yasunization) but also from European Union countries (e.g. anti-fracking movement in

Spain). Furthermore they provide a general framework of policies and legal steps to be done in this direction. Some indicative examples of such proposals are:

- Energy companies, private and public, should be obliged to disclose the carbon content in their reserves as a basis for distinguishing burnable from unburnable fuel.
- Initiatives for “leaving oil in the soil” in socially and environmentally vulnerable areas should be supported as a first step towards an inventory of “unburnable reserves”.
- EU should consider a fund for contributing to such initiatives
- EU governments should also revise their mining laws to rule out any further exploration for fossil fuels on their territories and start discussions for even greater steps.

## 5. Conclusions

The strategic goal for a gradual transition to a zero-carbon economy is directly linked with a decisive increase in the use of renewable in the energy mix. However, it is important to note that this transition should not be regarded solely as a technology shift but as part of a much broader socio-ecological transformation. The emergence and consolidation of societies organised around capital domination is inseparable from the hegemony of specific energy technologies, the use of which has been exploited to produce horrendous social inequality, which combined with an unprecedented destruction of the natural environment.

A radical plan for the economy and the society cannot exist as such without promoting a different proposal for the development of energy technologies. As the capital came to dominance together with its own energy technologies and the environmental and social devastation brought with them, shifting beyond capitalism, from an alternative/radical perspective, could not be achieved without the introduction of energy technologies that are designed and used to support protection of the environment and enhance social welfare based on equality. Crucial therefore for the ecological transformation of the production process and for a deep change in social relations is the replacement of the energy technologies of capital with energy technologies that will utilise renewable sources.