Implementation of the Greek Exclusive Economic Zone (EEZ) and Its Financial and Geopolitical Benefits.

Impact on Planning the Energy Future of the European Union

by

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BY IMPLEMENTING THE GREEK EEZ

A. We can exploit our Hydrocarbon Resources which are located offshore south of Crete. These resources are by far more than those located in Western Greece. The net benefit to the Greek economy will amount to $437 billion or roughly 302 billion Euros.

THUS ERADICATING GREECE’S DEBT

B. A pipeline originating from either Cyprus or Israel can transfer through the Greek EEZ the surplus natural gas which is already found (2.5 tcm) and yet to be found (15.1 tcm) to Western Europe.

THIS WILL ENABLE EUROPE TO MEET ITS FUTURE ENERGY DEMAND
Figure 1. Exclusive Economic Zones of Greece and Neighboring Counties Based upon the International Law of the Sea (UNCLOS), Montego Bay, Jamaica, 1982, Mazis, 2011
Figure 2. Areas worth exploring for hydrocarbons. 1 Southwest of Gavdos island. 2 Olimpi Mud Flow Volcanoes field. 3 United Nations Rise Mud Flow Volcanoes Field. 4 Herodotus Basin
Figure 3. Distribution of Mud Volcanoes in the North Atlantic, Black Sea and the Mediterranean, Foucher, et. al., 2009. Green arrows indicate hydrocarbon exploration activities around Mud Volcano Fields.
Figure 35. Active Mud Flow Volcanoes (brown triangles), Gas chimneys (brown discs), Thermogenic Pockmarks and Mounds offshore Southern Crete. The pre-Messinian source rocks/reservoir for the mud cones (brown), are highly visible as well as the reservoir/source for the gas chimneys (light brown), are also visible, Loncke et al., 2004,
Εικόνα 29. Κατανομή των υπεράκτιων κοιτασμάτων φυσικού αερίου στον Κώνο του Νείλου, Neftegaz, EU, 2010 Rigzone, 2010
Figure 30. Location of Active Mud Flow Volcanoes (MV) in relation to the natural gas deposits in the Nile Cone offshore Egypt.
Figure 6. Potential hydrocarbon areas offshore Cyprus and the Greek Herodotus Basin, after IFP (Institute Francais du Petrole), Bruneton et al., 2009. Overview on the Hydrocarbon potential of the East Mediterranean Deep Offshore: Perpectives for Greek exploration. Map from BEICIP/ FRANLAB
Greek Herodotus Basin

Fig. 22: Geophysical survey by TGS-NOPEC, 2010
Figure 7. Herodotus Basin with 7 tectonic and structural hydrocarbon traps, Krois et al., 2009
Oil and gas Exploration Areas By Turkiye
Petrolleri A.O.(TRAO)

Anticipated: 1 – 2 trillion m³

CYPRUS HERODOTUS BASIN

Expected: 300 billion m³
Total discovered: 0,75 trillion m³

ECB CYPRUS LEVIATHAN TAMAR

Kg 45-1 + La 52 = 300 billion m³

BP SHELL

STATOIL EXXON MOBIL

DALIT

NEL LEONE

Drilling activity since 1990: 1840 wells
Discovery: 126 gas fields + 2 oil fields
Total gas discovered: 1,8 trillion m³

Figure 5. Oil Companies Exploring and Exploiting around the Greek Herodotus Basin. Blue dots indicate discovered natural gas fields
Figure 7. The Levantine Basin with its recent oil and gas discoveries.
Assessed potential for further discoveries of natural gas 122 tcf and oil 1.7 billion barrels, USGS Technical Report, 2010
Economic Benefits for Greece based upon the exploitation of 1.5 tcm and 2 tcm natural gas deposits occurring in Olimpi field and Greek Herodotus Basin, respectfully. Calculations based on 25 years of exploitation.

1. Substituting imported oil with locally produced Natural Gas (0.55 tcm) $ 209.4 billion

2. Substituting imported Natural Gas from Russia with locally produced Nat. Gas (7.0 bcm/year X 25 years = 0.175 tcm) $ 14.4 billion

3. By exporting the surplus Natur. Gas, roughly 2.775 tcm, to Europe at $7.5/ Gj $ 145.7 billion

4. Creating 100 thousand jobs in the Primary and 200 thousand jobs in the Secondary Sectors and taxing their income at 30% $ 67.5 billion

TOTAL $ 437 BILLION OR 302 BILLION EUROS
## PROVEN, HIGHLY PROBABLE AND PROBABLE NATURAL GAS RESERVES OF EASTERN MEDITERRANEAN (OFFSHORE) IN TRILLION CUBIC METERS

<table>
<thead>
<tr>
<th>EEZ OF COUNTRIES</th>
<th>PROVEN OFFSHORE</th>
<th>HIGHLY PROBABLE</th>
<th>50% PROBABLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>EGYPT</td>
<td>1.8</td>
<td></td>
<td>6.3&lt;sup&gt;1&lt;/sup&gt;</td>
</tr>
<tr>
<td>ISRAEL</td>
<td>0.7</td>
<td></td>
<td>1.8&lt;sup&gt;1&lt;/sup&gt;</td>
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<tr>
<td>CYPRUS</td>
<td></td>
<td>0.3</td>
<td>2.0&lt;sup&gt;2&lt;/sup&gt;</td>
</tr>
<tr>
<td>SYRIA+ LEBANON</td>
<td></td>
<td></td>
<td>1.2&lt;sup&gt;1&lt;/sup&gt;</td>
</tr>
<tr>
<td>GREECE/CRETE</td>
<td></td>
<td></td>
<td>3.5&lt;sup&gt;3&lt;/sup&gt;</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>2.5</strong></td>
<td><strong>0.3</strong></td>
<td><strong>14.8</strong></td>
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<sup>1</sup> USGS Technical Report, 2010.<br><sup>2</sup> BEICIP/F3.RANLAB and PGS<br><sup>3</sup> Relating similar natural gas findings with number of MVF and similarities of the Herodotus basin portions belonging to Egypt and Cyprus to the one belonging to Greece.
Figure 8. Global Oil Supplies as reported by EIA’s International Petroleum Monthly, by Likvern, R., November 2010 Oil Drum, Europe
Figure 9. Trends in World Oil Supply/Consumption and Net Exports/Imports, Likvern, R., September 2010 Oil Drum Europe
Figure 10. World’s Liquid Fuels Supply by EIA, 2009
Figure 11. Natural Gas Production, Consumption and Net Imports of the European Union, Likvern, R., August 2010. [www.energybulletin.net/node/53656](http://www.energybulletin.net/node/53656) - Cashed and in August 3, 2010 the Oil Drum
Figure 13. Actual Natural Gas Consumption between 2001 and 2009 of the European Union. Forecast Supplies and Consumption towards 2020, Likvern, R. August 2010. [www.energybulletin.net/node/53656](http://www.energybulletin.net/node/53656)- Cashed and in August 3, 2010 the Oil Drum
HENCEFORTH TO COVER THE HUGE EUROPEAN ENERGY DEFICIT WHICH AMOUNTS TO 845 BILLION CUBIC METERS PER YEAR NATURAL GAS RESOURCES FROM EASTERN MEDITERRANEAN AND CRETE HAVE TO FIND THEIR WAY TO THE EUROPEAN MARKET EITHER BY LNG OR BY CONSTRUCTING 1-2 NATURAL GAS PIPELINES.

IT MUST BE UNDERSTOOD THAT NEITHER RUSSIA NOR NORTH AFRICA CAN SATISFY THE EXCESS ENERGY NEEDS THAT EUROPE WILL HAVE AFTER 2020
PIPELINE EXPORT ROUTE FROM EAST MEDITERRANEAN GAS FIELDS
PIPELINE EXPORT ROUTE FROM ISRAEL-CYPRUS TOWARDS EUROPE
Figure 1. Exclusive Economic Zones of Greece and Neighboring Counties Based upon the International Law of the Sea (UNCLOS), Montego Bay, Jamaica, 1982, Mazis, 2011
ONE WONDERS IF CORNUCOPIA EXISTS OFFSHORE THE ISLAND OF CRETE............OIL COMPANIES WILL FIND OUT

ZEUS DRINKING AMALTHIA’S MILK IN THE MOUNTAIN OF PSILORITIS, CRETE

CORNUCOPIA (AMALTHIA IN CRETE)
THANK YOU