A Strategy for Unlocking Greece's Hydrocarbon Potential

An IENE Study Project (M25)

Athens, September 2015

Executive Summary

A wide ranging debate concerning Greece's hydrocarbon deposits and potential production capabilities has been conducted over the last four to five years among petroleum geologists, engineers and energy economists while the government has made a moderate effort to restart hydrocarbon exploration. As it was expected the ongoing debate has raised huge expectations among politicians and the public at large of potentially enormous oil and gas reserves, which somehow remain stranded underground, and if properly explored and in case of discoveries, exploited they could generate billions of dollars of income and thus boost the deteriorating public finances and help the country not only to stave off bankruptcy but also make Greece and Greeks wealthy!

Of course the real situation concerning hydrocarbon resources in Greece is far off from this widely held popular belief according to which Greece is flash with oil and gas resources. Partly to dispel such misplaced and misleading view and partly to propose a realistic approach in unlocking the country's true hydrocarbon potential the present study has been undertaken.

While interest has been mounting by international companies for hydrocarbon exploration in the East Mediterranean, including Greecealbeit this interest has lately waned due to lower international oil pricesthe government has been trying to identify oil and gas promising deposits by first initiating an ambitious seismic survey for a vast offshore area in Western Greece and South of Crete and then organising a series of "Open Door" type rounds and an international licensing round with mixed results so far. To an outside observer it is clear that a coherent and goal oriented long term strategy is lacking. So far such a strategy has been lacking as as a result of frequent government changes and consequent policy failures. This is why IENE, within its remit, took the initiative to prepare a detailed strategy oriented study, in short a "strategy for success" for developing Greece's dormant hydrocarbon potential.

The study contains twelve (12) chapters which between them cover the background on Greece's hydrocarbon exploration restart effort, an overview of Greece's existing oil and gas infrastructure and description of the country's petroleum geology. A review follows of the current concessions and their development outlook and the applicable legal framework. Then details are provided on the 1st International Licensing Round, conducted back in 1996/1997, and of the 2nd International Licensing Round, now in progress. The East Mediterranean and the Cyprus Connection is discussed at some length since Cyprus' successful hydrocarbon exploration efforts and the finding there of rich gas deposits has greatly encouraged Greece's successive governments in pursuing their efforts. The non-technical constraints of hydrocarbon exploration and production in Greece are discussed in detail since they have often acted, and still do, as great disincentives in achieving progress. Our understanding of Greece's actual hydrocarbon potential is absolutely key in our effort to formulate a successful strategy for exploration and production. Hence considerable attention was given in grouping data from 17 different oil and gas plays in different parts of the country and updating information concerning their proven, contingent and prospective reserves.

Chapter 11 deals exclusively with the analysis of the host of factors and components involved in strategy formulation. Four key factors are being considered: (a) Appraisal of Resources, (b) The Competitive Environment, (c) Setting Goals, (d) Effective Implementation. A "Strategic Fit" approach is followed in assessing the role and influence of those factors with government and industry acting as the two basic pillars which eventually

act as prime movers in decision making and field action. A number of strategic options are considered prior to finalising and proposing a specific strategy.

The study concludes with IENE's proposal for a "ten-point" (10) Strategy for Success" for unlocking Greece's hydrocarbon potential with the following four premises underpinning this strategy:

- (a) The need to further expand our knowledge and understanding of the country's hydrocarbon resources and further assess its overall petroleum potential
- (b) The need to increase the country's proven hydrocarbon reserves
- (c) The opening up of new exploration areas opting for quicker type procedures alongside with international licensing rounds (i.e. Expression of Interest, Open Door)



(d) Develop public awareness for oil and gas exploration

Oil Promising Areas in Greece (after Hellenic Petroleum)

Study Contributors:

- Costis Stambolis, Executive Director, IENE
- Gus Papamichalopoulos, Senior Partner, KG LAW FIRM, Athens
- Dr. Konstantinos Nikolaou, Petroleum Geologist, Energean Oil & Gas