# INVESTMENT OPPORTUNITIES IN GREECE: OIL, GAS, ELECTRICITY & RENEWABLES

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#### **EXECUTIVE SUMMARY**

A well functioning energy sector will accelerate Greece's economic growth, make growth more inclusive, reduce poverty, and strengthen Greece's status as a developed country. Greece must position itself as one of the oil & gas industry's hottest new exploration frontiers. The investments in the energy sector (oil, gas and electricity) can significantly affect the discussions about the sustainability of the Greek debt by 2020 with almost immediate socioeconomic benefits in terms of economic growth and net employment.

Energy-investment policies can contribute to Greece's growth by giving suitable market signals for investment decisions in key areas such as:

- Upstream oil and gas exploration with a particular focus on the Cretan Sea, Ionian Sea and Northern Aegean Sea as well as onshore explorations. Overall, government take might be set in the region of 50-70% to allow enough returns to be made for the successful early entrants, particularly small-medium E&P companies.
- Large power (primarily gas) generation plans to replace old coal (lignite) stations.
- Focused portfolio of low-carbon technologies (e.g., Concentrated Solar Power hereafter CSP) for electricity generation.
- Development of electricity grids (distribution and transmission lines) to reduce congestions and bottlenecks. The grid should be operated by non-commercial monopolies as the commercial players are not and cannot be responsible for the security of supply.

Oil, gas and electricity can form the basis of a new export-oriented industry for Greece to supply Europe with much needed energy and contribute to the enhancement of European energy security.

In particular, energy policy can support investment decisions through a combination of price signals, taxes, subsidies (e.g. reduced rate of VAT), charges (e.g. on electricity consumers) and standards (on energy efficiency of housing and equipment). For example, the government can grant a comfortable mineral extraction tax regime for developing offshore oil and gas deposits while providing guarantees of no changes for at least 15 years from the start of industrial-scale production. The tax structure for prospective offshore oil and gas should reflect the timing and scale of development, with oil being given a preference because of the prospective supply pressures at the global level.

The most obvious way in which energy policy could stimulate economic growth is by increasing the total rate of investment above what it would be under a "Business as Usual" scenario. Of course, it is important to remember that public sector infrastructural investment and investment support is in any case desirable to stimulate depressed economies. Once the Greek government has recognised this, and agreed an accelerated rate of public sector investment, all investment should still be selected using best-practice social cost benefit analysis (SCBA). It is a serious but common error to consider that creating "green jobs" is a way to stimulate growth — many low-carbon technologies are considerably more capital-intensive and less labour-intensive than the fossil technologies they replace and to that extent the net impact of a switch of investment on employment can be negative.

Given that the re-denomination risk for Greece has been significantly reduced, we think an appropriately engineered commercial and fiscal investment scheme is necessary and sufficient to attract energy-related inward Foreign Direct Investments (FDIs) based upon:

• The growing appetite in Asian markets for LNG and oil to fuel and power their

growth.

- Enhancement of European energy security an additional important market for oil and gas discoveries
- Fiscal terms offering a potential export route for future oil and gas discoveries.

Reflection of the frontier nature of oil and gas exploration and the competition from other regions (e.g., East Africa) to prioritise contractor cost recovery and allow for robust project economics with Internal Rates of Return (IRRs) in the region of 15%.

It should be noted that at the heart of the inward FDI story is that Greece has sizeable undersea terrain in the Mediterranean and several Mediterranean countries have already discovered and are exploiting undersea natural resources.

To summarise, If energy policy is evidence-based and if support interventions are market-friendly and meet good public finance criteria, it is not clear that anything further is needed to encourage upstream oil and gas investments, energy-transport infrastructure development, and gas-fired electricity generation, other than support on low-carbon technologies (e.g. CSP) for electricity generation where these are both promising and immature. By way of example, an energy policy for sustainable economic growth can translate energy targets (e.g., 20% renewable energy by 2020) into financial targets (as a percentage of GDP) which can be spent on any SCBA-selected energy projects. It is important that energy projects should be given targeted government incentives based upon best benchmarks within the EU member states rather than within Greece to encourage the dissemination of EU-wide best practices. For example, feed-in-tariff schemes for wind plants in Greece are too generous while contracts length of 10 to 15 years would be sufficient to remove most of the market risk associated with investments in wind generation.