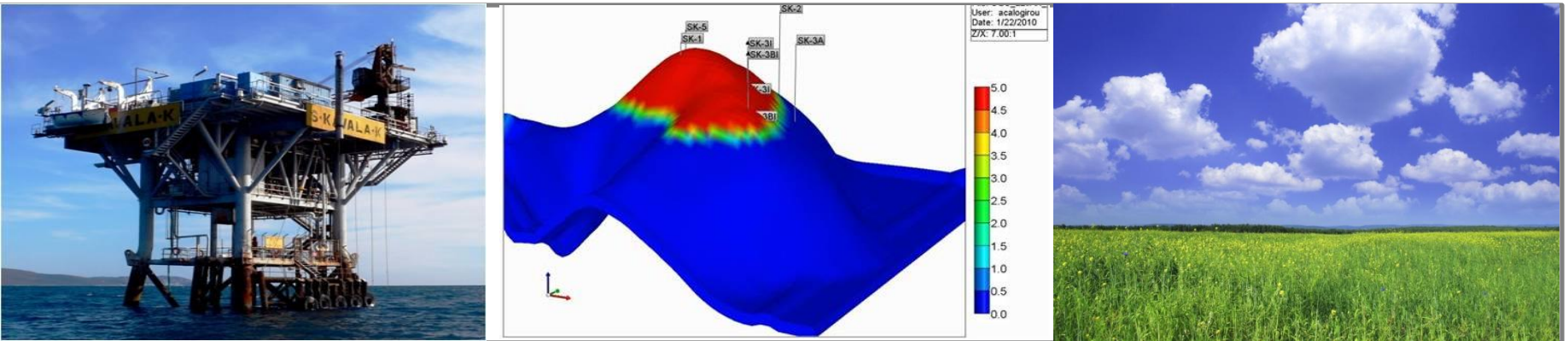
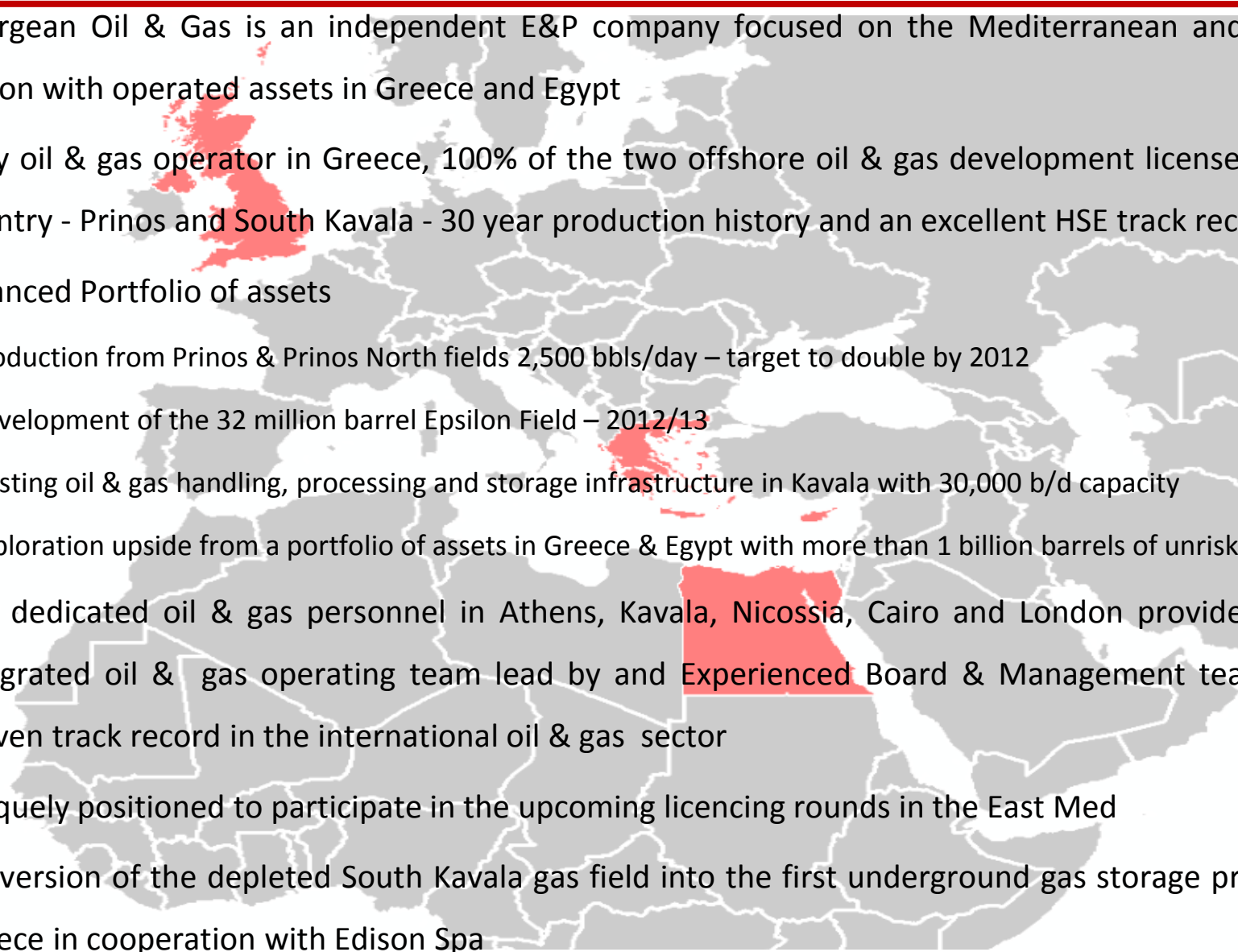


*Conversion of South Kavala Gas Field
into Underground Gas Storage*

On the crossroad of pipelines in South East Europe



Fourth Energy Summit
Sustainable, competitive and secure energy in Europe
November 14, 2011 @ Nicosia, Cyprus

- 
- Energean Oil & Gas is an independent E&P company focused on the Mediterranean and MENA region with operated assets in Greece and Egypt
 - Only oil & gas operator in Greece, 100% of the two offshore oil & gas development licenses in the country - Prinos and South Kavala - 30 year production history and an excellent HSE track record
 - Balanced Portfolio of assets
 - Production from Prinos & Prinos North fields 2,500 bbls/day – target to double by 2012
 - Development of the 32 million barrel Epsilon Field – 2012/13
 - Existing oil & gas handling, processing and storage infrastructure in Kavala with 30,000 b/d capacity
 - Exploration upside from a portfolio of assets in Greece & Egypt with more than 1 billion barrels of unrisksd HCIP
 - 300 dedicated oil & gas personnel in Athens, Kavala, Nicossia, Cairo and London provide a fully integrated oil & gas operating team lead by and Experienced Board & Management team with proven track record in the international oil & gas sector
 - Uniquely positioned to participate in the upcoming licencing rounds in the East Med
 - Conversion of the depleted South Kavala gas field into the first underground gas storage project in Greece in cooperation with Edison Spa

- Does Greece Need Gas Storage?
- Is the South Kavala project suitable?
- Will the project happen ?

Natural gas gates and national gas transmission system in Greece



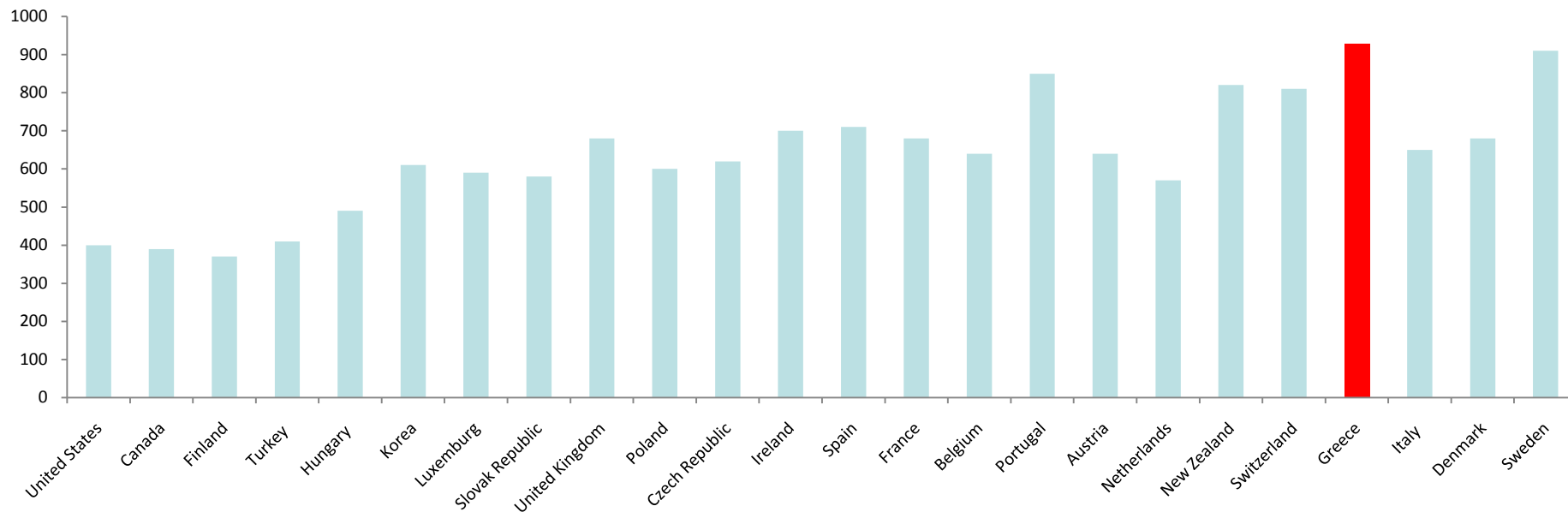
- Storage Capacity: 75.4 million Nm³ (130,000 m³ LNG)
- Gasification capacity : 12.5 million Nm³/day
- Injection Rate to the tank : 104 million Nm³/day
- Coverage of average gas demand: 8 days
- Coverage of peak demand: 5 days
- The main purpose of the Terminal is the import of gas; not an actual storage facility
- Gas-fired power plants are required to hold at least five days of fuel reserves: either diesel stored at the plant site, or equivalent gas reserves



Does Greece need more Gas Storage ?

- New Regulation (EU) No 994/2010 concerning measures to safeguard security of gas supply
- Ensure gas supplies to vulnerable customers for at least 30 days under severe conditions
- Obligation to Member States to implement the N-1 rule, by 2014, which requires the ability to cover the maximum daily consumption in the event of disruption of the single largest gas import infrastructure with possible occurrence once in 20 years
- Even if Revythousa is not the “largest infrastructure” in 2014, Greece cannot meet the N-1 rule without additional gas storage
- South Kavala would also be considered for the consolidated implementation of Regulation 994/2010 in the region “Romania-Bulgaria-Greece”
- A report of the Greek Ministry of Environment, Energy & Climate Change to the Parliament, in 2010, concluded that the Underground Gas Storage facility of South Kavala is **absolutely necessary** under the new market conditions

Natural gas prices in IEA countries- Households (USD/Mcm)



Source : Energy Policies of IEA Countries – Greece, 2011 Review

“All Households are supplied by local monopoly distributors (EPAs) which are obliged to be supplied by DEPA for all volumes stated in the DEPA contract. However EPAs may purchase any amounts exceeding those stated in the DEPA contracts from other suppliers” – Energy Policies of IEA Countries – Greece, 2011 Review

- Does Greece Need Gas Storage?
- **Is the South Kavala project suitable?**
- Will the project happen ?



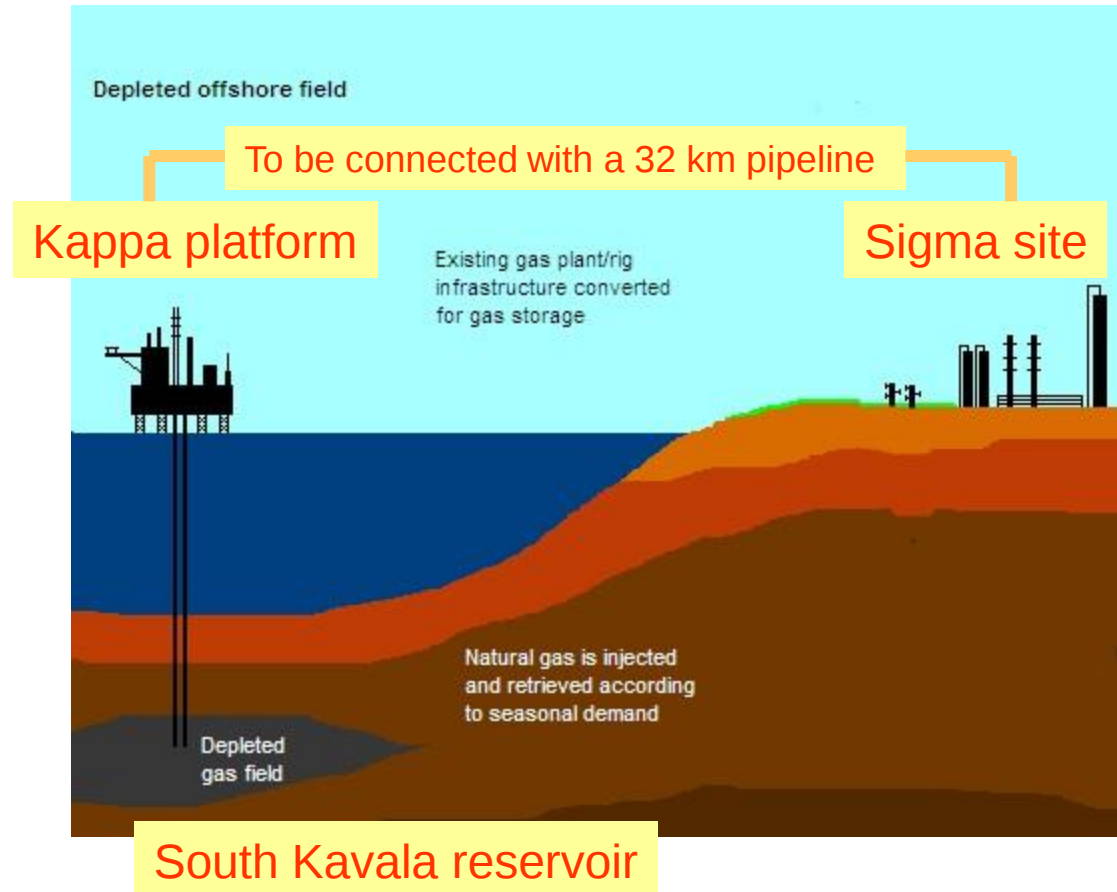
Source: Economist Oct 14th 2010 print edition

- **Greece in the cross roads of three continents** – can act as the gateway to the South Corridor, the markets of SE Europe and beyond.
- **Kavala** - is ideally positioned to support major gas pipelines planned or act as an entry point for new offshore Gas Projects in the East Med

Is the South Kavala field suitable for UGS?

- South Kavala is an almost depleted, offshore gas field producing since 1981 (85 % RF; 52 m water depth; GIIP $0.95 \cdot 10^9 \text{ m}^3$)
- Turbiditic sandstone; Φ_{avg} 22%; k_{avg} 100 mD; Evaporite top seal
- No aquifer
- Dry gas (0.14 mol% CO_2)
- P_{ini} 182 bar (current P_{res} 27bar)
- T_{res} 95 °C
- Located next to the Greek gas transportation network

⇒ **Ideal candidate for UGS**

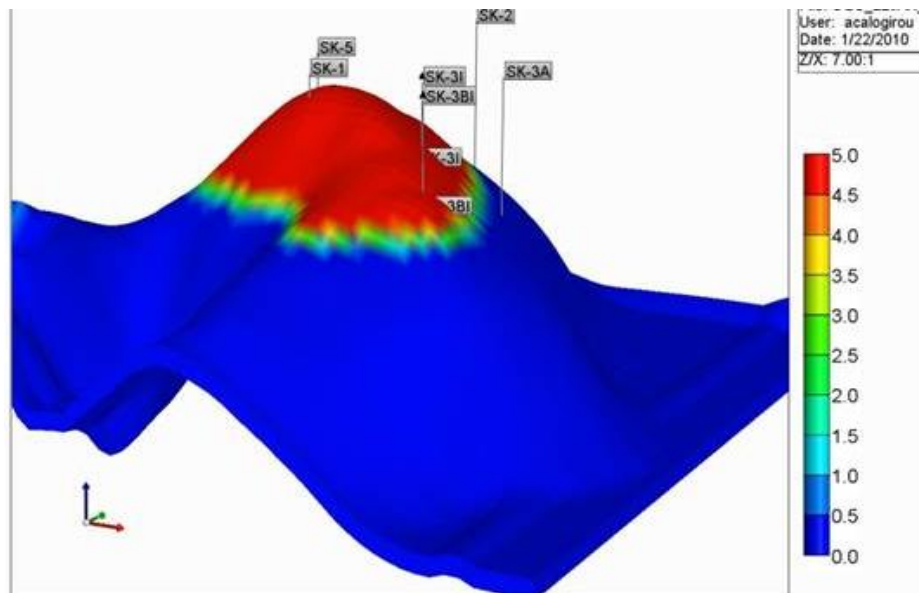


South Kavala Underground Gas Storage – Project Characteristics

Gas Initially In Place	1 BCM
Remaining Gas in reservoir	150 MCM
Working gas	530 x 2 MCM
Max Deliverability	9 Mcm/d
Max Injection	7,5 Mcm/d
Cycles per year	2
Max well-head pressure	180 barg
Number of wells	5
Gas pipeline diameter	30 inch



South Kavala infrastructure with associated project costs



	CAPEX mln €
Pipelines	93
Onshore facilities	187
Platform modifications	18
Drilling	40
Cushion gas	62
<i>Total</i>	<i>400</i>

Prefeasibility study by Technip/Genesis

- Does Greece Need Gas Storage?
- Is the South Kavala project suitable?
- **Will the project happen ?**

- Transmission System Operators for national and regional security of supply
- Power Generators for cost reduction and enhancement of their security of supply and flexibility
- Industrial users
- Gas supply companies
- Gas traders
- Southern Gas Corridor project developers
- Potential flexible entry point for East Med gas supplies through CNG/LNG projects into Europe

- ENERGEAN proposed
 - Part of the capacity to be booked for national security of supply
 - Part to be TPA exempted for project sponsors to ensure bankability of the project
 - Part to be offered through open season tender process to market participants

- Energean Oil & Gas SA is the Operator of Prinos and South Kavala licenses (Law 2779/1999)
- The New Energy Law 4001/2011 (Article 93) provides to the holder of the petroleum license a “priority right” for the conversion of an existing hydrocarbon development license into an underground gas storage (“UGS”) license, as is the common practice in many countries (i.e. UK, France, Netherlands)
- Energean Oil & Gas submitted to the Greek Energy Regulator RAE an application to convert its South Kavala development license into a UGS license in July 2011
- Common Ministerial Decision on the terms of the conversion of the license is required. The Government has appointed a Financial Advisor for this purpose
- The EU has granted to Energean and Edison, as sponsors of the project, TEN-E financing for the completion of technical and commercial studies
- Pre Feasibility study completed by Energean - Ongoing Feasibility study in cooperation with Edison
- High degree of acceptance of the project by the local community

- Does Greece Need Gas Storage ?
 - ✓ There is effectively no Gas Storage in the country
 - ✓ EU regulations require Greece to have more gas storage capacity
 - ✓ The market participants need more storage capacity
 - ✓ Competition in the market will be introduced
- Is South Kavala Suitable for a UGS project
 - ✓ Ideal gas reservoir with an operator that has a 30 year production history and excellent HSE track record
 - ✓ Existing offshore & onshore infrastructure with proximity to the national gas grid as well as the planned regional gas pipeline network
 - ✓ The only depleted gas reservoir in Greece makes it unique in the region.
- Project Status
 - ✓ Legal framework in place with the recent energy law and the existing licensing status of Energean Oil & Gas
 - ✓ Strong project sponsors – the combination of the reservoir and local knowledge, technical and financial strength ensure the seamless execution of the project
 - ✓ Awaiting ministerial decision for the terms of the conversion of the license
- The project investment of €400MM is essential and of high importance for the security of supply in Greece and introduction of competition in Greek natural gas market