Entrust Investment News January 2011

Energy Sector Report

ENTRUST

EXECUTIVE SUMMARY

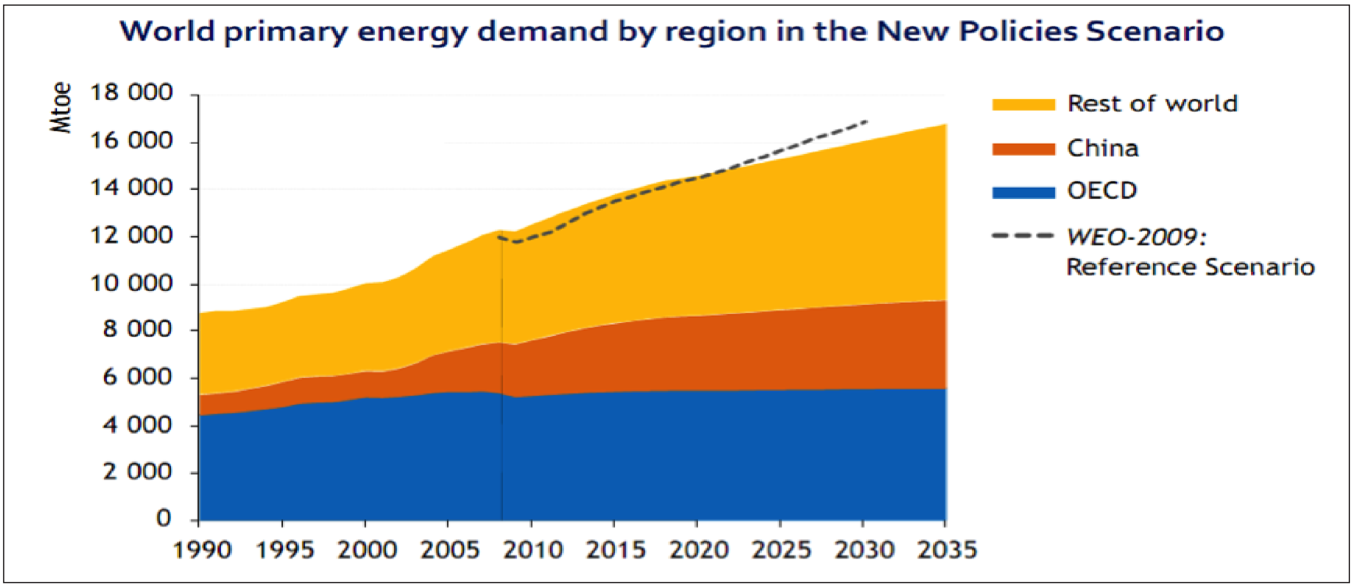
- **Total energy demand growth of 36% (2008-2035)** – Demand growth of 1.2%/year assuming cautious implementation of announced commitments for greenhouse gas reductions;
- **OECD demand little changed – almost all growth from Emerging Markets** – China alone 36% of incremental demand;
- **Oil remains largest fuel source, but most of the growth in gas and renewable energy** – 95% of increase in oil production from Non-Conventional Crude and Natural Gas Liquids (NGLs);
- **Structural upward pressure on oil prices** – Additional oil demand can only be met from higher-cost non-conventional sources;
- **Higher oil prices forecast for 2011 & 2012** – Oil demand slightly exceeded 2007 peak in 2010; oil market close to balance; pace of economic growth will determine extent of price rises over next 2 years; recovery in OECD demand to add to trend demand growth in EM;
- **Energy sector underperformance** – The Energy sector as a whole and the oil & gas stocks in particular have underperformed the rest of the Resource sector by a substantial margin;
- **Sector PE premium reflects unusually large development pipeline** – The relative PE of the Energy sector has consolidated over the last 2? years despite progress on all LNG projects;
- **Rising oil price likely to provide catalyst for better relative performance** –Even moderate economic growth should tilt the oil supply-demand balance in favour of higher prices;
- **Order of company preference: Santos, Woodside, Origin, AWE (speculative)**

ENERGY SECTOR – MEDIUM TO LONGER-TERM DEMAND & SUPPLY OUTLOOK

Overall **demand for energy** is expected to grow 36% between 2008 and 2035 (or 1.2%pa) under (93%) is expected to come from **non-OECD countries,** reflecting mainly faster economic growth. **China** alone will account for 36% of global demand growth with its energy demand to surge 75%.

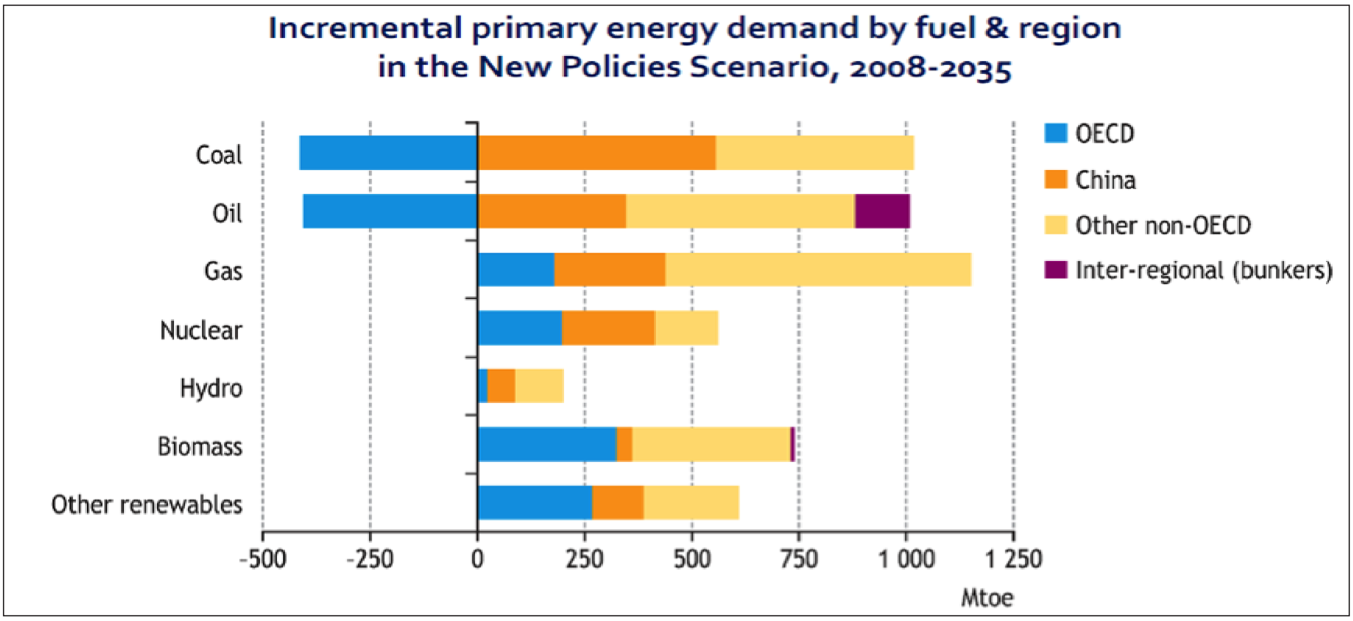
Note: The IEA's central scenario ("New Policies Scenario") assumes a cautious implementation of announced commitments/plans to reduce greenhouse-gas emissions and fossil-fuel subsidies.

CHART 1: GLOBAL PRIMARY ENERGY DEMAND BY REGION TO 2035



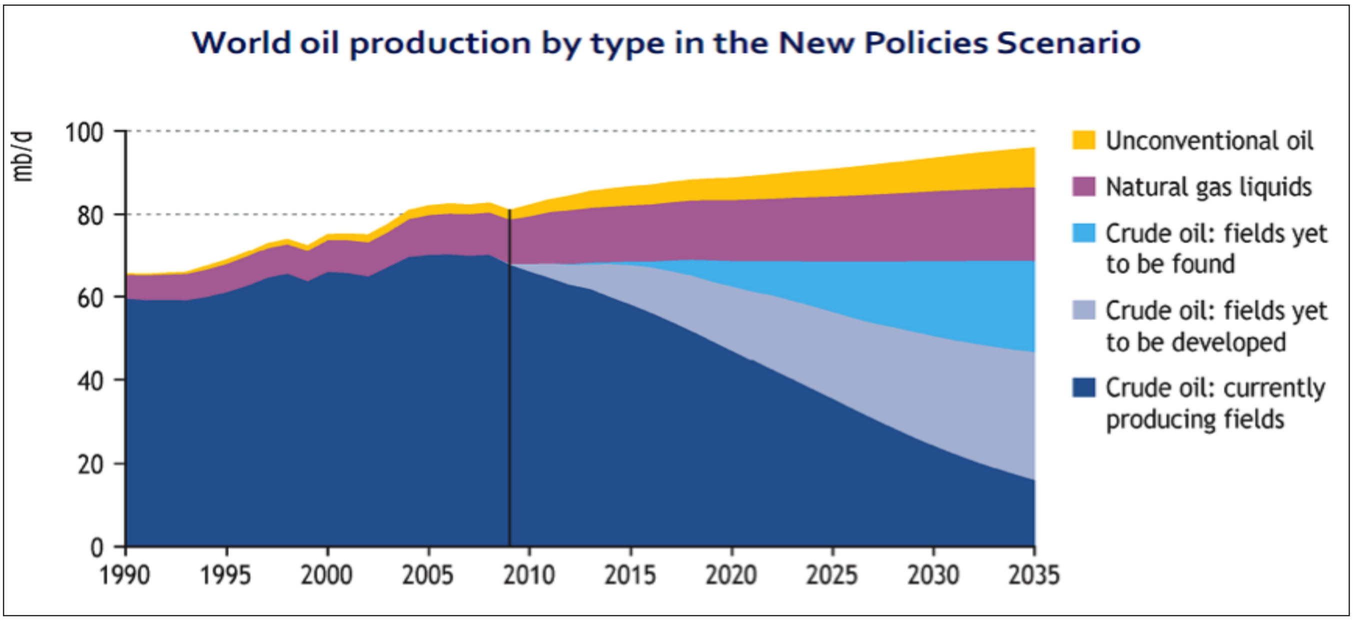
Source: International Energy Agency, World Energy Outlook 2010

CHART 2: INCREMENTAL ENERGY DEMAND TO 2035 IN CENTRAL SCENARIO



Source: International Energy Agency, World Energy Outlook 2010

CHART 3: WORLD OIL PRODUCTION IN IEA CENTRAL SCENARIO



Source: International Energy Agency, World Energy Outlook 2010

Oil will remain the dominant fuel in the primary energy mix to 2035. However, gas will be the fastest growing fossil fuel (+44%) over the next 25 years and will also experience the largest rise in volume terms. The use of modern renewable energy (hydro, wind, solar, geothermal, biomass, marine energy) is expected to triple between 2008 and 2035, doubling its share of total energy production from 7% to 14%.

Global oil production is expected to rise to 96mb/d by 2035 (from 86mb/d in 2008) on the back of rising output of natural gas liquids ("NGLs") and unconventional oil. Traditional crude oil production is expected to plateau around 68-69mb/d, up about 5% from current levels.

Oil prices are under structural upward pressure over the medium term as both demand and supply have become less sensitive to price. The growing share of total oil use in transportation and a shift in demand to markets where subsidies are prevalent, limit the scope for higher prices to choke off demand and discourage fuel switching. At the same time, constraints on investment and the need to develop higher-cost unconventional sources limit the price-sensitivity of supply.

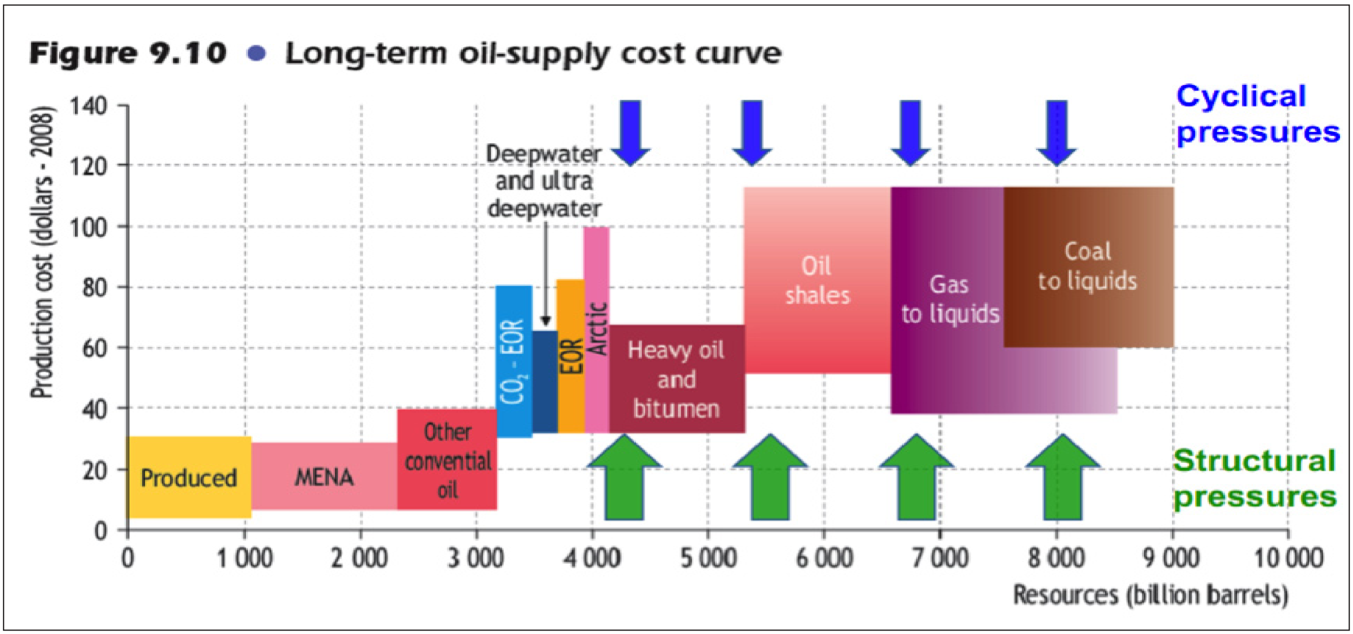
Structurally higher oil prices provide an incentive to develop other primary energy sources which are higher cost, namely:

(a) Unconventional gas – shale gas / CSG with LNG plants as an outlet to export markets;

(b) Alternative energy sources – wind / solar / wave / geo-thermal – assisted by government subsidies and technological progress / economies of scale;

(c) Uranium / nuclear power – dramatically lower capital costs of nuclear power plants in EM (eg China) e.g. $1000-$1500/MW capacity compared to $4,500-$5,000 in DM;

CHART 4: LONG-TERM OIL SUPPLY COST CURVE



Source: OECD / International Energy Agency, Medium Term Oil Market Report, June 2009

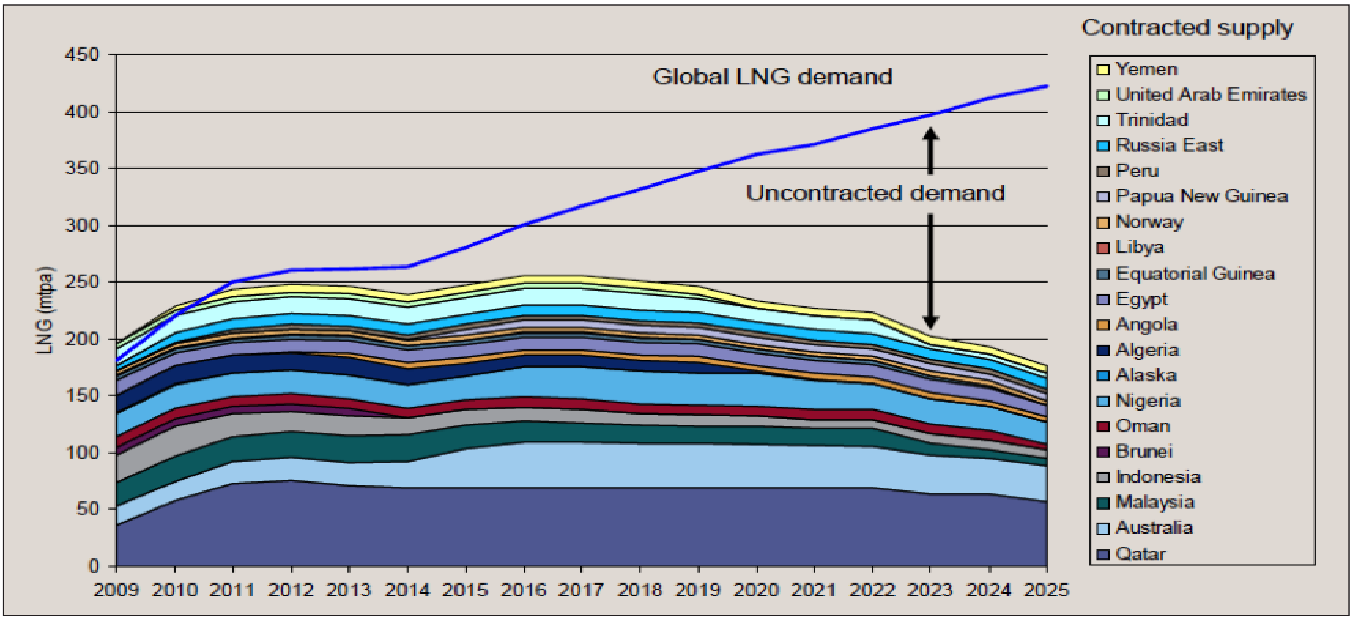
The development of **shale gas** will be an important segment of the necessary development of unconventional gas production. In the USA, shale gas is expected to offset the decline in other gas sources and grow to 45% of total gas supply in the USA by 2035 and eliminate the need for LNG imports.

In the Asia Pacific region, **LNG** will be a major source of supply for the rapidly growing total gas demand. The proposed development of multiple new LNG plants, particularly in Australia and in the Middle East has shifted the LNG supply/demand balance for the 2015 time frame from a sellers' market more towards a balanced market.

However, the post-GFC recovery in Asian economies has been faster than anticipated, increasing overall prospective energy demand.

Gas, including LNG, should also be able to capture a bigger share of the total energy demand growth in Asian Emerging Markets due to its superior environmental characteristics. While coal-fired power generation is likely to grow further, a larger market share for natural gas / LNG will be required in order to meet greenhouse gas emission targets for 2020 and beyond.

CHART 5: GLOBAL LNG DEMAND & SUPPLY OUTLOOK



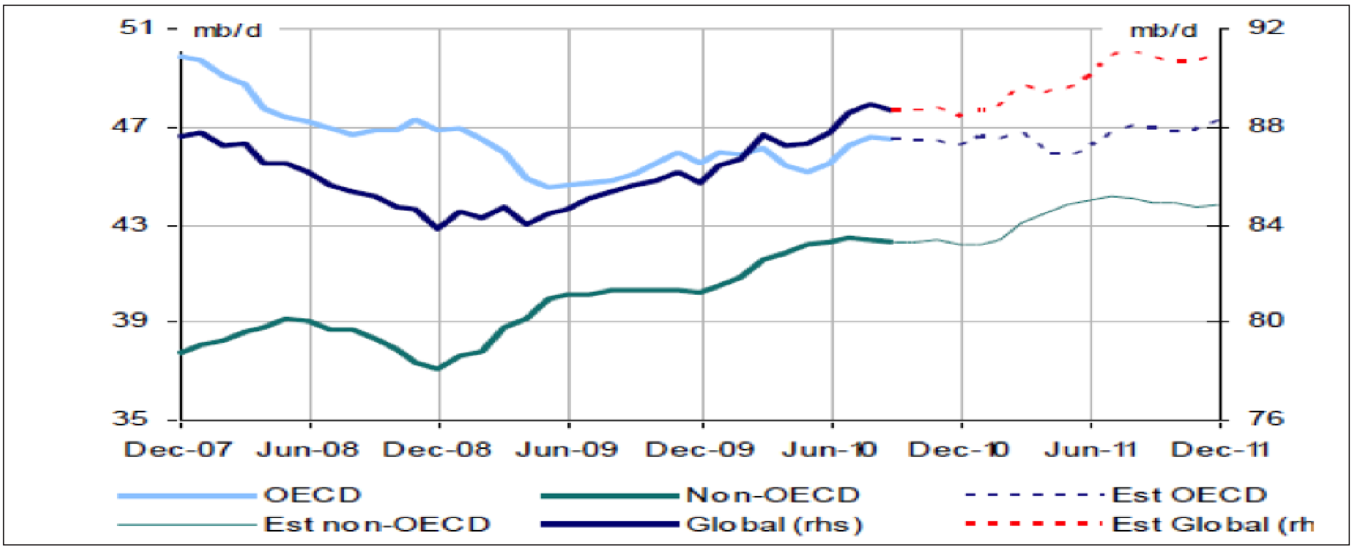
Source: Woodside Petroleum / Wood Mackenzie, February 2010

ENERGY SECTOR – SHORT-TERM DEMAND & SUPPLY OUTLOOK AND OIL PRICES

Oil Demand – Global oil demand fell from a peak year-average of 86.6mb/d in 2007 to 85.0mb/d in 2009. The low point in global demand occurred in 1Q09 (84.2mb/d) while the bottom in OECD demand was reached in 2Q09. Non-OECD countries (=EM) led the recovery in demand as their economies quickly bounced back after the GFC, led by China (oil demand +8% in 2009; +12% in 2010). By 3Q10, global demand had reached a new record high of 88.9mbbbls/d. Total EM oil demand was up by 4.7mb/d (+12%) since the 4Q07 demand peak, while OECD oil demand is still down 3.6mb/d from the 4Q07 level. *(all data from Macquarie, Dec'10).*

Economic Growth – The outlook for global economic growth has improved over recent months. Most forecasts centre around 3.5%-4% GDP growth for 2011 with a slightly stronger expansion expected for 2012. A better performance of the US economy after the recent extension of tax cuts and income support measures could result in further upward revisions (Goldman Sachs expects 4.5% global GDP growth in both 2011 & 2012), while a possible hard landing in China present downside risks.

CHART 6: RECENT OECD, EM AND WORLD OIL DEMAND (IN MB/D)



Source: Macquarie Capital (USA), December 2010

Oil Demand Growth – The view about the prospects for the US economy appears to be the major swing factor in the oil demand and oil price forecasts of major brokers and government / supra-national institutions. Macquarie expects global oil demand to grow to 2.1% in 2011 to 90mb/d, while the US Energy Information Administration (US EIA) forecasts a 1.35mb/d rise in global oil demand for 2011 followed by a 1.55mb/d increase in 2012.

TABLE 1: SUMMARY OIL SUPPLY & DEMAND STATISTICS

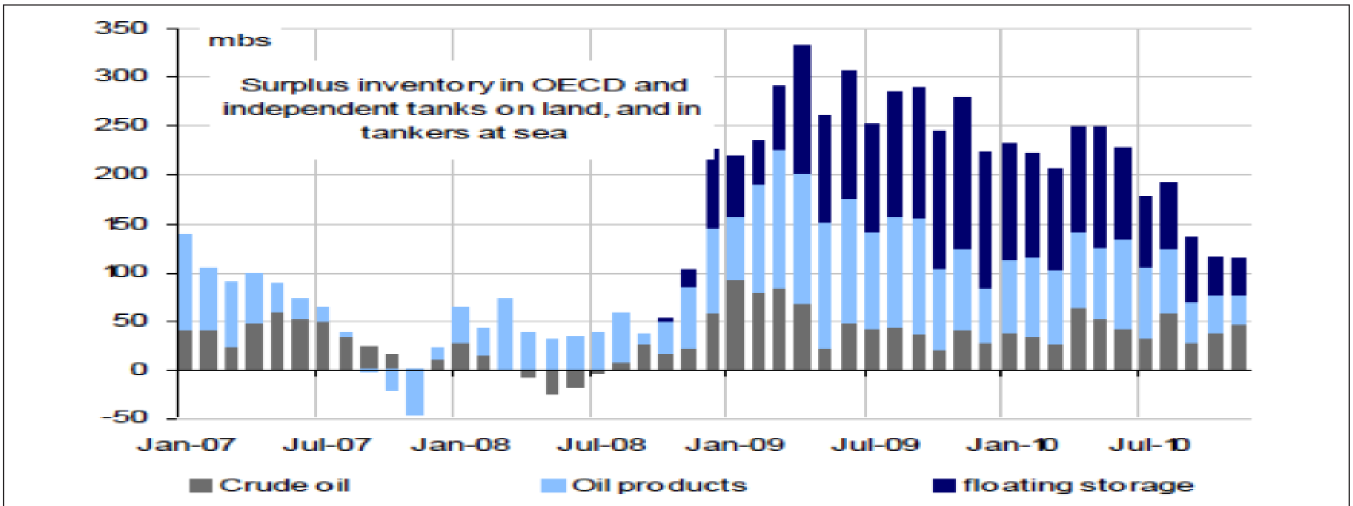
(Million barrels daily)	2007	2008	2009	Q3-'10	Q4-'10E	Q1-'11E	Q2-'11E	Q3-'11E	Q4-'11E	2010E	2011E
Global demand	86.6	85.9	85.0	88.9	88.7	88.8	89.5	91.1	90.5	87.9	90.0
YoY change	17%	-0.8%	-10%	4.2%	3.0%	2.5%	2.6%	2.5%	2.1%	3.4%	2.4%
Less non-Opec supply	50.6	50.4	51.2	52.2	53.3	53.1	53.2	53.0	53.9	52.4	53.3
Less Opec non-crude	4.3	4.3	4.7	5.4	5.2	5.3	5.5	5.6	5.6	5.2	5.5
Less Iraq	2.0	2.3	2.4	2.4	2.5	2.6	2.7	2.8	2.9	2.5	2.7
='Call on Opec' & inventory	**29.6**	**28.8**	**26.7**	28.9	27.7	27.9	28.2	29.7	28.2	**27.7**	**28.4**
Less actual / Est. Opec-11	28.9	29.4	26.8	27.6	27.0	27.4	28.2	28.8	28.4	27.3	28.2
Implied inventory change	-0.7	0.6	0.1	-1.3	-0.7	-0.5	0.0	-0.9	0.2	-0.5	-0.2
Reported inventory surplus to 5yr norm (mbls)*	+21	+145	+84	+70							
Stocks demand cover (days)	52.5	58.1	58.1	59.1	58.5	58.5	58.5	58.5	58.5	58.5	56.8

Includes 'Independent' storage

Source: Bloomberg, Macquarie Capital (USA), December 2010

Oil Supply – Non-OPEC oil production has grown from 48.5mb/d in 2007 to 49.2mb/d in 2009 and an estimated 50.3mb/d in 2010. However, further production growth is limited by natural field decline for some of the major producers (Mexico, UK). In response to the decline in oil demand in 2008 and early 2009, OPEC has again acted as the swing producer and has cut its production quota by 4mb/d. Actual OPEC production declined from 36.1mb/d in 2008 to 33.9mb/d in 2009, but has recovered to 34.9mb/d(e) in 2010.

CHART 7: SURPLUS OF ALL REPORTED OIL INVENTORIES TO 5-YEAR NORM



Source: Bloomberg, Macquarie Capital (USA), December 2010

Inventories & Spare Capacity – Inventories remain above normal, but OECD surplus inventories (70mb above the 5-year average) are only a third of the peak surplus at the depth of the GFC downturn. Moreover, the floating storage of oil in tankers at sea has also shrunk dramatically. With inventories likely to be called upon to fill part of the supply gap over the next 2 years, the surplus is likely to be eroded quickly.

Current **OPEC spare capacity** is estimated at 5mb/d. This should shrink to 4mmbls/d over 2011. Expected further oil demand growth in 2012-13 would shrink excess capacity to critically low levels and increase the upward pressure on oil prices.

TABLE 2: SELECTED BROKER AND ENERGY AGENCY OIL PRICE FORECASTS

Data Source (Date of Forecast)	CY 2010 Average	CY 2011 Average	CY 2012 Average
Citi (16/1/11)		91.25	91.00
EL&C Baillieu (30/11/10)		88.40	89.80
Goldman Sachs (30/11/10)		100.00	110.00
Macquarie (18/1/11)		95.00	113.50
Moelis & Co (18/1/11)		100.00	95.00
Morgan Stanley (17/01/11)		100.00	105.00
UBS (23/12/10)		85.00	85.00
US EIA (7/1/11)	79.41	93.42	97.50
Average Forecast Value	79.41	94.13	98.35
High Forecast Value		100.00	113.50
Low Forecast Value		85.00	85.00

Oil Price Forecasts – Recent forecast revisions have resulted in a substantial increase in near-term oil price forecasts. The current 2011 average WTI price forecast of $94.13/bbl is 18% above the average 2010 price of $79.41/bbl. A further 5% increase is expected in 2012 to $98.35/bbl. Key drivers are the stronger than expected energy demand during 2010 and the improved global economic outlook for 2011 (especially for the USA). Higher prices appear inevitable given the tightening of spare capacity and inventories already evident and the apparent reluctance of OPEC to increase production unless the oil price exceeds $100/bbl.

The main near-term downside risks are lower than expected activity levels due to e.g. a sharper decline in China's growth, a failure of US growth to accelerate or a larger negative impact on growth of Europe's financial troubles and fiscal austerity.

CHART 8: HISTORICAL OIL PRICE (WTI) WITH HIGH, MEDIAN & LOW FORECASTS FOR 2011 & 2012

Source: IRESS, Bloomberg, US Energy Information Administration (US EIA), UBS, Goldman Sachs

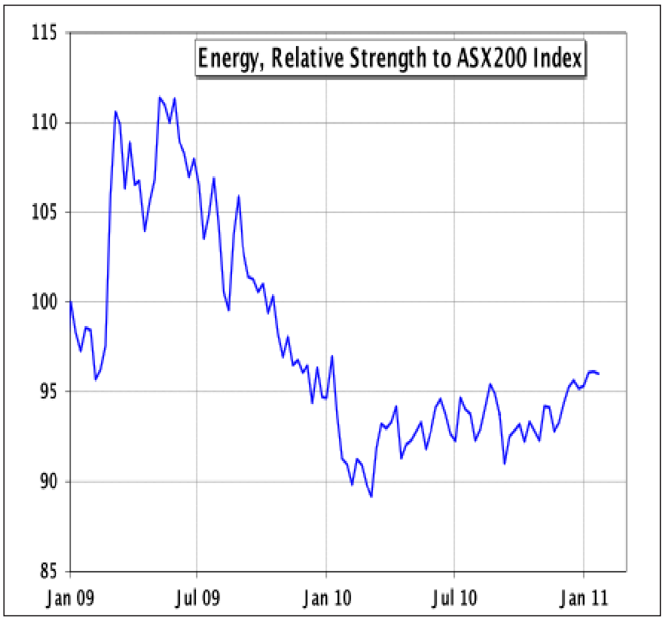
ENERGY SECTOR – SHARE PRICE PERFORMANCE & VALUATION

Share Price Performance

The ASX200 Energy Index has on balance unchanged over the last year. A rally in the second half of 2010 offset a decline in the first half. Last year's performance of the Energy stocks was in line with the performance of the ASX200 Index, but fell well short of the performance of the other part of the Resources sector, the Metals & Mining sector, which achieved a total return of 15.5%.

The underperformance of the Energy sector is more marked over a 2-year time frame: While Energy stocks returned +33% over the period, this is less than half the 76% gain of the Metals & Mining sector and 6% below the ASX200 gain of 39%.

CHARTS 9 & 10: ASX200 ENERGY INDEX & RELATIVE STRENGTH TO THE ASX200 INDEX OVER LAST 2 YEARS



Source: IRESS

Disparate stock performance – The performance of individual oil & gas stocks varied widely: Oil Search (OSH) was the best performer over the last 1 and 2 years, while Origin Energy (ORG) had the best gain over 3 years. AWE and Beach Petroleum (BPT) were among the poorest performers over all time periods. The individual stock performance also highlights the fact that the performance of the Energy sector as a whole has benefitted substantially from the strength in coal stocks.

TABLE 3: SHARE PRICE PERFORMANCE OF SELECTED OIL & GAS STOCKS

Company / Share Price Performance	1 Year	2 Years	3 Years
Woodside Petroleum (WPL)	-9.80%	16.90%	-14.80%
Origin Energy (ORG)	-1.00%	3.30%	91.20%
Santos (STO)	-6.70%	-4.20%	0.90%
Oil Search (OSH)	14.80%	51.40%	45.20%
Beach Energy (BPT)	-6.00%	-7.60%	-40.90%
AWE (AWE)	-37.80%	-31.10%	-44.90%
ASX 200 Energy Index (Price Only)	-0.20%	27.00%	3.30%
ASX200 Index (Price Only)	-2.60%	27.50%	-25.20%
ASX 200 Energy Index (Accumulation)	2.30%	33.30%	11.10%
ASX200 Index (Accumulation)	1.60%	39.20%	-14.30%

Source: IRESS

Valuation

Premium PE rating for Energy Sector – Table4 shows that the Energy Sector trades at a large premium to the PE ratio of the ASX200 Index. This reflects to a large degree the fact that projects under development or construction account for a substantial part of the NPV of the major companies in the index (both for oil & gas as well as coal & uranium companies) without contributing revenues and earnings. This is particularly relevant for all of the larger oil & gas stocks in the sector which all have exposure to LNG projects in the planning or construction stage. The relative PE of the Energy sector has been in an uptrend for the last 10 years (see Chart 11). This coincided with a major rise in the oil price from $15-20/bbl to a peak of $145/bbl in 2008, the emergence of the CSG industry and the development of multiple LNG projects as a way to add value to domestic gas resources.

TABLE 4: VALUATION DATA FOR THE ENERGY SECTOR AND SELECTED OIL & GAS STOCKS

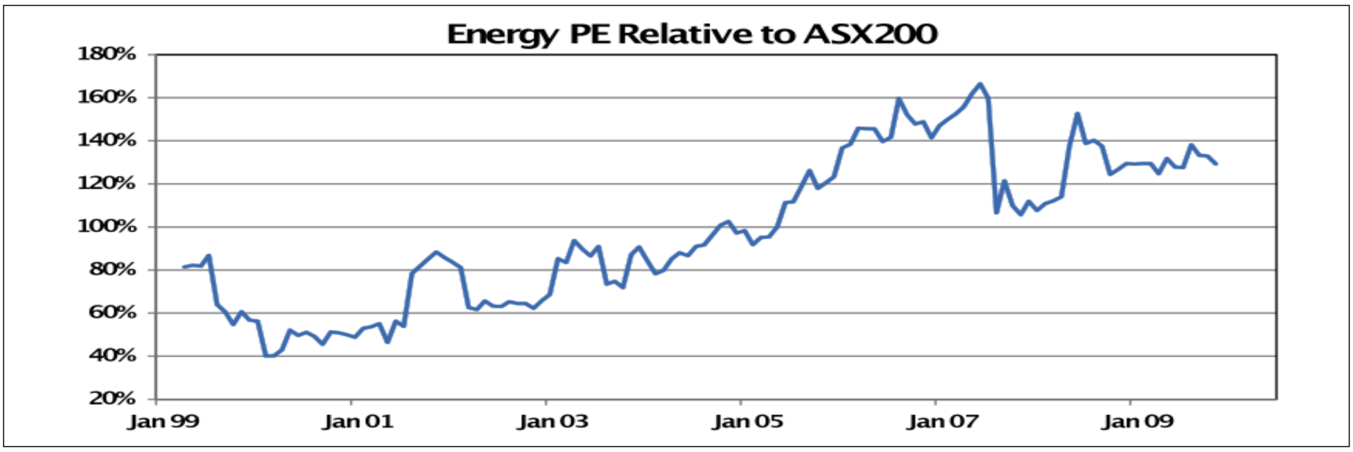
Company / Valuation Indicator	24/01/11	Average Target Price	EPS 10	EPS 11	EPS 12	DPS 11	PE10	PE11	PE12	DY11
Woodside Petroleum (WPL)	42.76	48.35	202.2	170.3	285.5	84.0	21.1	25.1	15.0	2.0%
Origin Energy (ORG)	16.57	19.46	66.5	75.6	95.5	50.0	24.9	21.9	17.3	3.0%
Santos (STO)	13.69	16.20	39.4	43.5	66.6	34.0	34.7	31.5	20.6	2.5%
Oil Search (OSH)	6.80	7.88	10.5	13.3	15.7	4.3	64.6	51.3	43.3	0.6%
Beach Energy (BPT)	0.85	1.01	1.7	3.5	5.1	1.9	51.5	24.3	16.8	2.2%
AWE (AWE)	1.79	2.33	-4.1	7.9	7.8	0.0	-43.7	22.8	22.9	0.0%
ASX 200 Energy Index	16,261.10		594.6	654.1	989.5		27.3	24.9	16.4	
ASX200 Index	4,789.50						16.1	13.4	12.0	4.1%

Source: IRESS, Broker Forecasts

The relative PE of the Energy sector peaked in the run-up to the record high oil price of $145/bbl in mid-2008 which coincided with the take-over attempt for ORG by BG Group and the formation of 4 major LNG developments located in Gladstone. Since then, the sector had to absorb a major oil price correction in the wake of the GFC as well as much closer scrutiny of the viability and the likely financial returns of the various LNG projects.

Sentiment more sceptical – All of the major LNG projects have advanced towards implementation. The two Gladstone LNG projects led by Shell and Santos have reached final investment decision (FID), the PNG LNG project is in construction, while WPL's Pluto project is nearing completion. The progress on these projects added value for the equity participants, but – with the exception of OSH – this has not been reflected in their share price performance. The focus has instead been on negative developments such as (major) cost overruns and construction delays for the Pluto project; doubts about the availability of sufficient gas supplies (Pluto2; GLNG); concerns about securing enough customers on attractive terms (GLNG; APLNG); and potential dilution from the equity raising required to finance the construction of the proposed new LNG plants (STO; WPL). Arguably, this has wrung most of the "blue sky" out of the valuation of the various LNG projects and has instead replaced it with a hefty discount for implementation risk. This provides additional upside for the sector, once investor sentiment becomes more positive.

CHART 11: ENERGY SECTOR RELATIVE PE (ON 12-MONTHS FORWARD EPS) TO ASX200 INDEX



Source: IRESS

Pace of economic growth to determine timing of oil price gains – The catalyst for such a change in sentiment may well be provided by the increase in the oil price that is forecast for the coming year. Typically, the Energy sector performs better later in the economic cycle when spare production capacity and inventories have reached critically low levels and any additional demand for energy, particularly oil, has a disproportionate impact on price. If current expectations for global economic growth are met, such a situation is likely to occur towards the end of 2011. However, faster than expected growth could bring the timing forward, while a slower pace would limit any oil price gains.