**“GALP ENERGIA”**

“**OIL & GAS**”

**ANALYST: “BJØRN IVAR S. FURUSETH”**

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**Optimistic view...**

**Will it hold?**

- We have revised Galp Energia with a price target of €13.68 following a buy recommendation down from previous target. The slight decline in price is carried by lower oil prices and also an expected tax increase in Portugal. Nevertheless, we see strong progress supported by an interesting E&P portfolio. At present time the main bulk of profits are received from their R&M segment. However when their E&P portfolio becomes operational they will become a major player with their target production of 150,000kbdp

- The market is still uncertain, with oil prices fluctuating at high levels. European refining margins are under pressure with refineries running at excess capacities. Galp Energia’s refining margins are expected to remain at an elevated level above the Rotterdam cracking margin, with a swift increase when their scheduled conversion project is completed.

- Their Gas & Power segment brings in stable cash flows with their regulated activities, although Galp Energia are shifting their business more towards the unregulated market. Future construction projects are under way which will increase Galp’s capacity, along with improvements in the energy efficiency of their two refineries in Sines and Porto.

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**Recommendation:** BUY

**Vs Previous Recommendation:** BUY

**Price Target FY10:** 13.68 €

**Vs Previous Price Target:** 14.12 €

**Price (as of 7-Jun-10):** 12.00 €

Reuters: GALP:LS, Bloomberg: GALP:PL

- 52-week range (€): 13.68-8.86
- Market Cap (€m): 9,951.006
- Outstanding Shares (m): 829

Source: Bloomberg

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**GALP ENERGIA -B-**

Source: Bloomberg

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<table>
<thead>
<tr>
<th>€(k)</th>
<th>2009</th>
<th>2010E</th>
<th>2011E</th>
</tr>
</thead>
<tbody>
<tr>
<td>sales</td>
<td>11,728,447</td>
<td>12,798,645</td>
<td>16,300,464</td>
</tr>
<tr>
<td>EBITDA</td>
<td>755,462</td>
<td>1,085,659</td>
<td>1,382,704</td>
</tr>
<tr>
<td>Net Income</td>
<td>347,272</td>
<td>548,273</td>
<td>704,357</td>
</tr>
<tr>
<td>ROIC</td>
<td>7.90%</td>
<td>10.50%</td>
<td>9.80%</td>
</tr>
<tr>
<td>P/E</td>
<td>32.6</td>
<td>29.7</td>
<td>16.1</td>
</tr>
<tr>
<td>EPS</td>
<td>0.42</td>
<td>0.66</td>
<td>0.85</td>
</tr>
</tbody>
</table>

Source: Bloomberg
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EXECUTIVE SUMMARY

This report will touch on the different subjects within Galp Energia’s interest. We will analyze the markets for each segment of operations and also possible future scenarios within this business. The main focus will be towards petroleum and petroleum products, along with the natural gas market. The reason for this approach is given that Galp Energia’s main interests lie within these commodities.

We use the so called sum of parts valuation approach when defining Galp Energia’s price at €13.68, thus leading to a buy rating of the stock. This method reflects the company value more precisely due to the business is divided into segments. In the E&P segment we used ROV, as there are managerial flexibilities tied with production on oil fields.

Galp Energia is currently traded at a premium compared to the rest of the players in the industry. The grounds for this can be explained by looking at Galp’s interests in the E&P segment, mainly focusing on their stake in Brazilian oil fields. The resource base that they have acquired over the last years, and the positive outlook of further increase, pushes the value and popularity of this company.

With enormous oil finds in the Brazilian basins, Galp Energia is in for an exciting journey. Even though the E&P segment is not a major contributor to Galp’s operating performance, they have several projects that will boost future revenues significantly.

Galp Energia operates mainly in the Iberian Peninsula with two refineries located in Portugal, namely Sines and Porto refinery. They are the only refiner in Portugal and enjoy a 20% market share in the Iberian refining capacity. Their main concerns regarding risks are drops in refining margins, considering that the main contribution to their performance is from their Refining & Marketing segment. Galp Energia is currently undergoing a conversion project on their refineries which will support their growth potential, considering European refining margins are declining.
COMPANY DESCRIPTION

Galp is working towards a fully integrated energy company comprising three main segments namely E&P, R&M and G&P.

Exploration & Production: This segment is responsible for activities related to exploration, development and production of hydrocarbons. The core areas of interest are in Angola and Brazil where the Tupi Field is the main attraction.

Refining & Marketing: Refining comprises the refining, supply and logistic activities of the Company. Galp operates two refineries, namely in Sines and Oporto. They have the benefit of being the sole refiner in Portugal and one of the largest in the Iberian Peninsula. Their marketing division consists of retail, wholesale and LPG distribution. In the retail division Galp has over 35% market share in Portugal, with roughly 1500 service stations and 449 convenience stores in Iberia.

Galp Energia controls 50% of the market share in Portugal from the wholesale division, where around 50% of their volumes are sold to Spain. LPG section delivers consistent high levels of profitability and currently has a 50% stake of the market share in Portugal. Gas & Power segment supplies natural gas to high volume industrial users, power companies and local distribution companies mainly to the Iberian Peninsula.

SHAREHOLDER STRUCTURE

Chart 1:
Shareholder Structure as of 26th of May 2010

Source: Galp Energia
An important issue to discuss is the possible change of shareholder structure that can take place by the end of this year. Eni and Amorim Energia are currently in a pact that holds them back from selling their stake, but this agreement will be over by the end of this year. There are talks that the Brazilian oil company Petrobras will take over Eni’s share in Galp Energia, which would be of extreme importance to Galp. Petrobras and Galp are currently joined in roughly 50 operations in the Exploration and Production segments, where Petrobras enjoys operating leader status in most projects. With Petrobras as a major stakeholder Galp Energia would benefit from Petrobras financial strength and expertise at deepwater fields. Galp would also open the doors for Petrobras into the European refining market. Their operations are already intertwined on several levels, so a possible stake in Galp would benefit both companies greatly. Another scenario to take into account is that the Portuguese state could also sell their stake on the market in order to reduce their debt levels.
VALUATION

We use the so called sum of parts valuation approach when defining Galp Energia’s price at €13.68, thus leading to a buy rating of the stock. This method reflects the company value more precisely seeing as the business is divided into segments. In the E&P segment we used ROV, since there are managerial flexibilities tied with production on oil fields.

In the refining and marketing part of the business, we revised the refining margins, following a future outlook of products prices and also the effect from the conversion project has been taken into account. We estimate a lower utility rate on the refineries than what Galp Energia expects, with a stable rate of 90% opposed to Galp’s estimate of 95% after the conversion takes place. Oil prices along with natural gas prices, are estimated through the forward curve.

Due to limited information regarding oil fields, we have used multiples assumptions and also the location and size of the field compared with data already available from similar fields. In Brazil, the Tupi Field BM-S-11 has been the benchmark for estimates of opex and capex for the other fields in the area. We have been fairly optimistic in the total barrels found, by using numbers close to the limit of what has been announced by either Galp Energia, or one of its consortium partners. Also a fair assumption of 30% probability of reserves recovery has been implemented into our valuation.

<table>
<thead>
<tr>
<th>Oil Field</th>
<th>Total Barrels</th>
<th>Galps share</th>
<th>Risk Free Rate</th>
<th>Method</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BRAZIL</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tupi BM-S-11</td>
<td>8,000,000,000</td>
<td>10%</td>
<td>12%</td>
<td>ROV</td>
<td>€ 3.71</td>
</tr>
<tr>
<td>Iara-BM-S-11</td>
<td>4,000,000,000</td>
<td>10%</td>
<td>12%</td>
<td>ROV</td>
<td>€ 1.68</td>
</tr>
<tr>
<td>Jupiter BM-S-24</td>
<td>3,500,000,000</td>
<td>10%</td>
<td>12%</td>
<td>ROV</td>
<td>€ 1.32</td>
</tr>
<tr>
<td>Bem-Te-Vi (BM-S-8)</td>
<td>1,500,000,000</td>
<td>10%</td>
<td>12%</td>
<td>ROV</td>
<td>€ 0.54</td>
</tr>
<tr>
<td>Caramba BM-S-21</td>
<td>1,300,000,000</td>
<td>10%</td>
<td>12%</td>
<td>ROV</td>
<td>€ 0.46</td>
</tr>
<tr>
<td><strong>ANGOLA</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kuito Field</td>
<td>50,000,000</td>
<td>9%</td>
<td>3%</td>
<td>ROV</td>
<td>€ 0.32</td>
</tr>
<tr>
<td>Tombua Landana Field</td>
<td>32,000,000</td>
<td>9%</td>
<td>3%</td>
<td>ROV</td>
<td>€ 0.17</td>
</tr>
<tr>
<td>BBLT</td>
<td>25,000,000</td>
<td>9%</td>
<td>3%</td>
<td>ROV</td>
<td>€ 0.09</td>
</tr>
<tr>
<td><strong>Sum</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>€ 8.28</td>
</tr>
</tbody>
</table>

Source: Galp Energia, Analyst
Galp Energia’s E&P portfolio has been estimated at a total value of €8.28. We feel it is necessary to run a sensitivity test on this portfolio to show the volatility of the upstream business with changes in the price of oil. Graph 1 demonstrates the price of barrels ranging from $35 to 105$ placing a value on Galp Energia’s most valuable field at $0.41$ and $7.68$ respectively.

One of the risks we face for our valuation of Galp Energia is the appreciation of the USD on the EUR. This can best be explained by looking at graph 2 below where the complete E&P portfolio is estimated at different levels of conversion.
Table 3 underneath explains the layout of each segment and its value. For our valuation we chose an optimistic market risk premium of 6% due to recent studies that give evidence facilitating an average market risk premium is between 4-6%. With Galp Energia's interests spread over several countries, we chose a different risk free rate for each country namely Brazil, Portugal and Angola with rates at 12.46%, 3% and 3.2% respectively. We set the beta for Galp at 1.03, and this has been kept for each segments valuation. The tax rate in Portugal is expected to increase this month and the change has been taken into account.

<table>
<thead>
<tr>
<th>Segment</th>
<th>EV € (k)</th>
<th>Share Price €</th>
</tr>
</thead>
<tbody>
<tr>
<td>G&amp;P</td>
<td>2,616,799</td>
<td>€ 3.16</td>
</tr>
<tr>
<td>E&amp;P</td>
<td>6,867,606</td>
<td>€ 8.28</td>
</tr>
<tr>
<td>R&amp;M</td>
<td>4,023,045</td>
<td>€ 4.85</td>
</tr>
<tr>
<td>Total EV</td>
<td>13,507,449</td>
<td>€ 16.29</td>
</tr>
<tr>
<td>Debt</td>
<td>2,170,642</td>
<td>€ 2.62</td>
</tr>
<tr>
<td>Equity</td>
<td>11,336,807</td>
<td></td>
</tr>
<tr>
<td>shares (k)</td>
<td>829,251</td>
<td></td>
</tr>
<tr>
<td>Price</td>
<td></td>
<td>€ 13.68</td>
</tr>
</tbody>
</table>

Source: Galp Energia, Analyst

**COMPARABLES**

Galp Energia is being traded at a premium compared to the rest of the players in the industry which multiples in table 4 confirm. The reason for this can be explained by looking at Galp's interests in the E&P segment, mainly focusing on their stake in Brazilian oil fields. The resource base that they have acquired over the last years, and the positive outlook of further increase, pushes the value and popularity of this company.
The main driver of value for Galp Energia is the promising E&P portfolio they are acquiring. With enormous oil finds in the Brazilian basins, Galp Energia is in for an exciting journey. Even though the E&P segment is not a major contributor to Galp's operating performance, they have several projects that will boost future revenues significantly. Galp Energia are increasing their presence in the Iberian Market, with recent acquisitions in the R&M and G&P segment of their business, placing them as the 2nd and 3rd player in natural gas and oil distribution market, respectively.

Galp Energia’s main concerns regarding risks are drops in refining margins, considering that the main contribution to their performance is from their Refining & Marketing segment.

This can be observed by their weak 2009 results where refining margins declined by 67% reaching $1.50/bbl. Further future risks lie within uncertainties of expenses relating to extraction and operating costs in the Brazilian oil fields due to extreme drilling conditions. Devaluation of the USD is also a factor touching Galp’s risk profile seeing as EUR being their currency of operations.
## SWOT ANALYSIS

<table>
<thead>
<tr>
<th>STRENGTHS:</th>
<th>WEAKNESSES:</th>
</tr>
</thead>
<tbody>
<tr>
<td>o  Strong E&amp;P portfolio in Brazil</td>
<td>o  Weak production of raw materials, dependant on external sources</td>
</tr>
<tr>
<td>o  Market Leader of Oil &amp; Gas in Portugal</td>
<td>o  Small or no control of projects in their Exploration portfolio, due to low participation in the stake on each field</td>
</tr>
<tr>
<td>o  Stable Cash flow generation from R&amp;M Segment</td>
<td></td>
</tr>
<tr>
<td>o  Large client base, now also with an increased presence in Madrid after their last acquisition</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>OPPORTUNITIES:</th>
<th>THREATS:</th>
</tr>
</thead>
<tbody>
<tr>
<td>o  R&amp;M segments increasing presence in Spain</td>
<td>o  Economic instability in the domestic country</td>
</tr>
<tr>
<td>o  Sines &amp; Porto conversion project almost complete, this will lead to higher refining margins and increased sales</td>
<td>o  EUR/USD appreciation</td>
</tr>
<tr>
<td>o  Robust exploration portfolio</td>
<td>o  Higher than expected exploration costs in pre salt areas of Brazil</td>
</tr>
<tr>
<td>o  Moving towards a completely integrated oil company when their E&amp;P segment becomes fully operational, receiving compensation for being a player in both the E&amp;P and R&amp;M sector</td>
<td>o  Decreasing refining margins</td>
</tr>
<tr>
<td></td>
<td>o  Insecurity in the long term scope of cash flow generation with a diminishing global resource base</td>
</tr>
</tbody>
</table>

Source: Analyst
CAPEX STRATEGY

Galp Energia’s forward looking capex strategy consists of main investments going to their refining & marketing segment until the end of 2011. From 2012 onwards Galp alter their core focus towards capex in their exploration & production portfolio. The total amount of capex expected is noted at €4 - €4.5 bln for the period 2010 – 2014. To support this plan, Galp Energia were required to make some adjustments in their structure. A brief overview of these changes was to reschedule and renegotiate projects and contracts. They are creating a cost efficiency program that will give an impact of roughly €125 million through the period and also cut their dividend policy from €0.32 to €0.20. They also decided to go into a joint venture project with construction of their newly planned CCGT\(^1\). This agreement is prepared to reduce costs by otherwise taking on the project on their own. These changes do not cover the total amount for the whole period, so support from the banking sector can be expected. Their refining & marketing segment will also be a large contributor through the period, with a strong growth in market share after their recent Iberian acquisition.

\(^1\) CCGT: Combined Cycle Gas Turbine

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**CAPEX 2010 - 2011**

- **E&P**
- **R&M**
- **G&P**

"total capex for the period is €4-4.5 bln"

**Downstream part of the business will receive the major part of capex until 2011**

Source: Galp Energia

**CAPEX 2012 - 2014**

- **E&P**
- **R&M**
- **G&P**

**Upstream segment will take over the core capex from 2012 and onwards**

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1. CCGT: Combined Cycle Gas Turbine
In the US, commercial stocks rose 24.2 mb in April, putting an end to the two month falling trend. The US are stacking up their inventories in stronger volumes than what has been noted over the last 5 years, reaching almost 10 mb² above the average build and touching a level of 1072.7 mb. The US crude commercial oil stocks in April were climbing for the fourth consecutive month at a total of 360.6 mb, placing the volume at the highest level in nearly a year. Strong crude oil imports reaching roughly 260,000 b/d compared with the same period last year are reasons for this build up, with US imports realizing almost 10 mb a week in April. This is a good indicator that the economic conditions in the US are strengthening and that a positive short term scope can be expected.

Japan’s commercial oil stocks came out of a 5 year slumber in March with an increase of 4.0 mb to a total of 159.6 mb, although compared with numbers from last year, the build still falls 10% short. With Japanese crude oil inventories at 93.1 mb they are currently at their highest level since September 2009, giving signals towards an optimistic view. The increase in crude inventories has shrunk the deficit with a year ago at a strong paste, closing the gap by 10% compared with February’s numbers at 19%.

According to numbers from OPEC, European and Norwegian stock movements showed a slight decline in March falling an inch by 2.3 mb. Total inventory levels remained 30 mb or 3 % above the 5 year average at 1153 mb. Reasons for the fall can be explained by a dip in the products stocks of 7.5 mb mainly supported by the large scale of refinery maintenance currently in progress. Total crude oil stocks recorded at 476.3 mb in the end of March, up from February but still at a 26mb lower than last year.

² Mb: million barrels


EXPLORATION & PRODUCTION

ANALYSIS OF THE MARKET

According to OPEC the world oil demand for 2010 is expected to have a slight growth of 1.1% or 0.9 mb/d\(^3\) up from a reduction of 1.4 mb/d in 2009. Recent macroeconomic factors have shown positive signals, creating an upward movement in commodities with the IMF Commodity Index showing an increase of 4% m-o-m in March. Oil prices are still very sensitive and are fairly correlated with the fluctuation of the US economy with crude currently being traded at $72.50 per barrel. The US driving season is coming close and it is likely that we can see a further growth in the oil price with numbers showing a boost in US gasoline consumption in April by 1.4% yoy\(^4\). The petrochemical sector in North America increased demand for petroleum products, expanding total US oil demand by 0.4 mb/d.

Euro-Zone’s economy is still fragile, with Greece and Portugal being the factors of uncertainty. The euro has appreciated towards the dollar and oil demand is contracting. It is stated in the OPEC Monthly Report March 2010 edition, that January data shows 11.8% yoy decline for total oil usage in Europe, and an upward movement is not expected in the near future. OECD Europe’s oil demand was revised downward by 200,000 bbl/d\(^5\), for the first and second quarter this year reaching an average total demand of 14.2mb/d \(^6\) in 2010. Europe is also contributing to decreases in oil consumption by moving towards a greener Europe with more focus on biofuels and renewables.

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\(^3\) Mb/d : million barrels per day  
\(^4\) Yoy: year on year  
\(^5\) Bbl/d: barrels per day  
\(^6\)
Governments slow demand by new tax laws, placing tax increases on transport fuel, where the UK Government has already started the program this April. China’s demand is forecasted to increase by 160,000b/d in 2010 due to high demand in transport and industrial sectors. Imports of oil in February grew by 58% yoy to 4.8mb/d.

Developing countries have started to play an important role in the world growth and growth in oil demand these last years. Expected oil growth for DC countries are 0.6 mb/d with an total average of 26.5 mb/d. Latin America’s growth is expected to reach 123,000b/d in 2010, led by Brazil's hunger for petroleum products. India is estimated to acquire a growth of 135,000b/d mainly supported by agriculture, transport and industry demands. The rest of Asia receives a forecast from OPEC that expands to 220,000 b/d yoy, following an optimistic expectation of fair domestic growth within the Asian countries.

**ANGOLA**

In Angola, Galp Energia participates in four offshore blocks namely, block 14, block 14K-A-IMI, block 32 and block 33.

Block 14 has an estimated resource base with and oil quality ranging from intermediate to light (24°-37° API gravity oil.) The block has been operational since 1999 with 5 development areas; Kuito, Benguela-Belize-Lobito-Tomboco (BBLT), Tômuba-Lândana (TL), Negage and Gabela. Production is currently coming from the three first fields in the list, with BBLT field pulling the most weight. Partners in the Block 14 project are: Sonangol, ENI, Total, Chevron and Galp Energia with working interest.

Tômuba-Lândana field is the newest area of interest for Galp in Angola. It has an estimated resource base of 1 billion barrels with roughly 350 million barrels recoverable. The CAPEX for the consortium in this field is USD 3.8 billion. 100,000 kbp/d of production is expected to be reached by 2011.
Galp Energia has been participating in the development of the first integrated natural gas project in Angola, with the purpose of exploration, research and ensuing certification of natural gas reserves. If the exploration is successful an LNG terminal will be constructed by the consortium of the Angola LNG II project. Partners in this consortium consist of Galp Energia, Eni, Gas Natural, Exem and the operator Sonagas.

**BRAZIL**

Galp Energia is present in seven basins namely; Santos, Espirito Santo, Potiguar, Sergipe/Alagoas, Pernambuco, Campos and Amazonas. Santos basin is the area that has received the most attention with recent discoveries in areas such as Tupi and Iara in BM-S-11 block, Jupiter with block BM-S-24, the Bem-te-vi with block BM-S-8 and the Caramba in BM-S-21. The Tupi Field in BM-S-11 block holds an estimated 5-8 billion barrels of oil and gas with high quality oil of 28° API. The oil is located at pre salt levels, 5-7 km underground. The production process will use FPSO's and the pilot project will reach an estimated 90 kbopd and 5 million cubic meters of gas this year. 10 FPSO's are expected to be taken in use for the complete Tupi field, with the second FPSO being operational in 2013. The first stage CAPEX is considered to reach $3.7 bln.

Recent Discoveries in the Iara well also located in BM-S-11 block shows that there are possible 3-4 billion barrels of recoverable oil and natural gas with a degree of 30° API. Considering the size of this field compared with the Tupi field this is a remarkable find and makes us wonder the real capacity of oil resources located in the whole Tupi field.
Further well tests are needed to clarify lara field. These two areas make Galp Energia an attractive company to watch in the future due to their sudden increase in resource base.

Galp Energia has set a future goal of producing 150,000 kbopd and these fields will help them reach their target. Consortium operating in these two fields consists of Petrobras, BG and Galp Energia.

In 2009 Galp Energia entered into a joint venture with Petrobras, the BG Group and Repsol with Galp holding a 16.3% stake. The purpose for this joint venture is to develop three FEED projects for a floating LNG unit to operate in the Santos Basin. At current time the decision of how to recover the gas reserves in Santos Basin has not been finalized and other solutions are still being discussed. The deadline for determining the optimal solution for gas extraction will be decided in 2011, and if the FEED project will be green lighted, it is estimated that the project will be up and running in Q3 of 2015. The unit will be installed next to the FPSO\(^7\) and will receive, process and liquefy up to 14 million cubic meters of gas per day. The FLNG\(^8\) will also store and transfer processed products to gas carrier vessels, which, in turn, will transport them to the final market.

The rest of Galp Energia’s offshore projects are still at early stages with the first exploration well being drilled in the Espirito Santos basin this year. The field stretches over 722 km\(^2\) and is located roughly at a water depth of 2000 meters. Galp Energia owns a 20% stake in the field. In Campos basin, 3D seismic tests have been made on block C-M-593 where Galp owns a 15% stake. The field expands over 84.64 km\(^2\) and is located close to several other discovered fields, so there is reason for optimistic thoughts. In Pernambuco Basin Galp holds a 20% stake in three blocks, where 3D seismic tests are expected to be completed this year.

Galp Energia is keeping up its partnership with Petrobras for their onshore projects where they both control a stake of 50% in the three basins Sergipe/Alagoas, Potiguar and Amazonas. Discoveries of light oil in Potiguar basin wells 1-GALP-1RN and 1-FAC-2-RN are confirmed with production to be realized as early as this year.

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\(^7\) FPSO: Floating Production Storage and Offloading

\(^8\) FLNG: Floating Liquefied Natural Gas Facility
OTHER PROJECTS

Mozambique: Galp Energia entered in 2007 a consortium that is exploring area 4 in Rovuma basin. Seismic tests reveal several prospects that go beyond past predictions. First well test drilling will commence in 2011 and the exploration phase is expected to finish in 2015. Consortium for this area consists of; Galp Energia, ENH, Kogas and the operator ENI.

East Timor: This project is still under very early stages and exploration drilling is expected to be initiated this year with the exploration period estimated to be ended by November 2013. Galp Energia has exposure in blocks A,B,C,E and H. The Consortium in these blocks are divided into, Galp Energia, Kogas and ENI as the operator.

Portugal: Galp Energia signed contracts with the Portuguese state in 2007 for seven blocks divided into two basins, namely Peniche basin and Alentejo basin. Seismic 3D campaigns are planned to be executed this year, following with exploration drilling in 2011. Consortium in Peniche Basin consists of Galp Energia(30%), Partex(20%) and Petrobras(50%) and in Alentejo basin, Galp Energia(10%), Partex(10%) and operator Tullow Oil(80%).

Uruguay: In 2009 this project was added to Galp Energias exploration portfolio. They were awarded two areas namely 3 and 4 in the Punta del Este Basin with expected seismic tests to last until 2017 with possible drilling of two exploration wells. If the project is successful, first oil extraction is planned in 2021. Consortium consist of Galp Energia(20%), Petrobras(40%) which is operating leader in block 4 and Repsol(40%) being operating leader in block 3.

Venezuela: Galp Energia is currently in a partnership with the state owned oil company PDSVA, bringing a possible exploration project in block Boyaca 6 which is located in the Orinoco oil belt. Galp also shares a presence in two LNG projects on Deltana and Mariscal Sucre platforms. Contract date for investment in these projects expires in 2011.
REFINING & MARKETING

Galp Energia operates mainly in the Iberian Peninsula with two refineries located in Portugal, namely Sines and Porto refinery. They are the only refiner in Portugal and enjoy a 20% market share in the Iberian refining capacity. Their products are marketed through their service stations, but they also manage business in Africa and export to Europe and North America. Galp Energia’s strategy is to focus on organic growth in this segment to support their further expansion in exploration & production. Their presence in Spain increased considerably after their acquisition of Agip and ExxonMobil giving Galp Energia an enlarged market share in the Iberian Peninsula. It is not expected that this will increase significantly in the future due to their strategy of organic growth and there are no plans of acquiring more operations in Spain.

ANALYSIS OF THE MARKET

Economic recovery has improved refining margins and product demand in April showing positive signs in certain markets. OPEC May 2010 report state that WTI crude oil on the US Gulf grew by 78 cents to $6.80/b in April up from $6.02/b in March. In Europe where financial difficulties still are roaming the zone are followed by higher costs of North Sea crude oil. The refining margins dropped 11 cents to $1.77/b in April down from $1.88/b in March. Uncertainties of the economic conditions in the Euro Zone and refineries running with excess capacity are leading to low expectations of any high jumps of refining margins in the short term.

US gasoline demand has produced an upward movement the last two months with 9.26 mb/d in April up from 8.63 mb/d in February. This has created positive effects in refinery throughputs and with gasoline prices reaching roughly $20/b and gasoil showing a slight increase to $9/b in the end of April. Jet fuel prices were affected by the Icelandic volcano erupting, with the price falling to $-9/b.
In Europe the market’s climb in prices were slowed in April with refining maintenance and nature setting a halt in growth. The gasoline crack spread against Brent crude oil at Rotterdam was reported stable at $14/b. Gasoil prices were noted at $11/b in April, with possible upside movements in the short term due to a slight positive view of European economic conditions, and also an increased US and Asian export demand for gasoil. Jet fuel oil felt the impact of the volcanic ash cloud, however recovery was swift to reach back to normal levels of trading.

According to numbers from the OPEC oil market report the refining operations in the OECD countries have shrunk due to a slow recovery of demand these past months. Spring maintenance on several major refineries has also been scheduled and will hold back utilization rates. However with positive signals in the economy alongside with a season of high demand, refineries are expected to increase their throughputs with expectations of stronger product demand. Asia who currently has ongoing maintenance on their refineries is experiencing slight drops in their refining operations. As graph 5 below points out, Japan & Singapore are decreasing their utility by over 3% and 1% respectively. European countries which have recently experienced economic difficulties are not expected to enjoy the upward lift that the driving season tends to bring, with a 1% increase to 79.9% in utilization rates from March to April. US refinery utilization rates grew 4% since March, reaching 86.9% in April.

Graph 5:

Utilization Rates

Source: OPEC
In the recent years biofuels have become more significant in contributing to energy supply. It has become apparent that first generation biofuels that come from grains, seeds, sugar and other food crops are taking a toll on environmental factors along with high economic production costs. The market trend is shifting slowly towards second generation biofuels which are not produced by food crops. This is a long term scope, and numbers from OPEC illustrate that second generation biofuels will not dominate until 2020 onwards. Growth potential in the global biofuel market is estimated at an annual rate of 6.7% until 2030. Total biomass expected growth in production per year is set at an average rate of 3.4% with total consumption following at a slower pace, at roughly 3% which is pointed out in graph 6.

Graph 6:

![Total Biofuel Production/Consumption 2004 - 2030](chart)

Source: EIA, OPEC, Analyst

**Refining:** The two refineries Sines and Porto have a combined refining capacity of 310,000 barrels per day, processing crude oil from 15 countries in the world to maintain a diversified portfolio of petroleum products. Sines and Porto refinery holds a nelson index of 6.3, 9.4 and a salomon index of 7.8, 8.0 respectively. There is a conversion project planned on these refineries that will touch a CAPEX of €1.3 billion. This conversion will enable the refineries to process more diesel than gasoline to meet increasing demand in the Iberian.
It is expected to create a $3 USD/barrel positive impact on the refining margin when this conversion project is completed. The reason for this is the new hydrocracker being installed in the Sines refinery that converts heavier crude oil that can be acquired at lower prices than the light crude. Galp also states that their refineries will be run at roughly 95% efficiency after the conversion. The project is expected to be completed in Porto 3Q11 and Sines in 4Q11.
Estimating future refining margins can be difficult with a volatile market in the energy sector where prices have a high tendency of extreme price jumps. There are four main factors to take into consideration when evaluating refining margins. It is necessary to look at the type of crude being processed (light or heavy), the complexity of the refinery\(^9\), supply and demand of crude products and the utilization rate of the refineries. As explained above, when Galp Energia completes their conversion project their estimated refining margin will be inched up $3 USD/barrel, floating at a comfortable level above the benchmark.

**BIOFUELS:** With European countries moving towards a greener environment, Galp Energia has no intention of being left behind in the development of biofuels. In 2009 Galp was already delivering the option of using biofuels with their FAME product, which is a first generation biodiesel. They are also focusing more extensively on production of green diesel (second generation biodiesel). The year was also of great significance to the development of their project regarding plantations of palm oil in Belém, Brazil with over 1.1 million JCL (Jathropa Curcas Linn) plants grown and ready to be planted this year, covering an area of around 6.500 hectare. Mozambique is also an area where Galp Energia operates in biofuel production, with over 640,000 planted JCL plants over an area of 500 hectare.

**MARKETING:** Retail sales went up 35% in 2009 relative to 2008, increasing to 3.6 million ton. Galp Energia kept its leadership position with a market share of 35% in Portugal. After the acquisition of Agip and Exxon Mobil in the Iberian, their main focus has been on organic growth and improving their services to their clients by making their premium products more available.

Since the launch of their Gforce 95 gasoline product in 2007, sales of this product has reached 10% of their total sales, attaining the highest penetration rate in Europe.

\(^9\) Hydroskimming with a distillation unit, a refinery with a visbreaker or a refinery using a catalytic cracker/hydrocracker which is the most complex.
Demand for gasoline and diesel in Spain contracted in 2009, led by financial difficulty and is not expected to change significantly in 2010. This aside, Galp Energia’s sales in Spain increased by 100% leaving them with a 41% market share in the Iberian Peninsula, up from 27% the previous year. The acquisition of Agip and Exxon has benefited Galp Energia at higher levels than expected, with current ownership of 1,451 service stations in the Iberian Peninsula. As demand in the fuel market is still weak, Galp has stepped up their focus on delivering more additional services such as repair, washing facilities, restaurant and hotel facilities and they are also looking inside their business to become more cost efficient for sustained revenue growth.

Wholesale rose by 64% and 2% in Spain and Portugal, respectively. This led to a total increase of sales in the Iberian by 24%. Sales to marine, aviation and industrial dominated in the Portuguese sub segments, reaching a 75% share of total sales. Galp Energia in Spain has reached a status as a model operator in marketing diesel for transportation, agriculture and heating, and also fuel oil to several industries touching volumes of 72% of total sales. The recent acquisition opened the doors for business in 20 Spanish Airports and also operations in the Canary Islands.

In LPG Galp Energia’s client base include around 500,000 clients with sales of bottled LPG having 67% of sales, the butane gas bottle PLUMA and some piped gas. This segment also benefits strongly from the acquisition where synergies are expected to take effect this year, giving Galp Energia a competitive advantage in the Spanish LPG market.
GAS & POWER

Galp Energia’s strategy for this segment is to develop an integrated portfolio of natural gas and power generation projects. They import natural gas from Algeria through a pipeline and also from Nigeria by LNG methane tankers to their distribution and marketing segment in the Iberian Peninsula.

In 2009 they imported 4.8 billion cubic meters of natural gas, down 15% from 2008. 2 billion came from Algeria, 1.9 from Nigeria and the rest was purchased at the spot market when pricing was more favorable for Galp. Galp Energia also owns and operates cogeneration plants with new CCGT plants in the process of being constructed. The future goal of Galp is to acquire higher market share in its neighbor country Spain. To reach this goal their aim is to expand their sourcing capacity and also enter into the midstream LNG business with focus on projects in Angola and Venezuela. Galp Energia is also planning to enlarge their presence in renewable energy, mainly wind power.

ANALYSIS OF THE MARKET

Natural Gas: According to OPEC’s World outlook report from 2009, gas demand in the OECD countries are expected to hold a modest growth in the future with a mere 0.3%-0.4% increase per year. This can be explained by strong growth in the past ranging from 3-4% growth per year. A slower growth is estimated since distribution networks are operating close to their limits, and are not expanding to meet further strong demand. In contrast, developing countries energy demand can be expected to grow at a high pace supported by their major economic growth. Graph 8 below illustrates that their need for natural gas is estimated to reach OECD levels as early as 2020.

Russia and the rest of the countries from the former Soviet Union are the third largest players in the gas market with an expected growth just touching 1% per year.
Hydropower: Numbers from 2009 show that hydropower contributed to 16% of the market share in global energy production. Developed countries are already reaching their maximum capacities, however developing countries have just acquired a taste for hydropower production and there are expansion possibilities in these areas. Referring to OPEC’s forward scope in this market, global demand will grow at roughly 2.3% per year, with China leading the way at an estimated 4.4% growth potential per year.
Natural Gas: This segment is comprised of regulated and unregulated activities in Portugal. Sales in the Iberian market declined by 17% in 2009 compared with 2008 with sales at 4.680 million cubic meters. The market is still bearing the effect of the economic slowdown and also a stronger demand in hydropower due to a higher than expected raining season. Galp Energia increased their presence in the natural gas segment by their Madrid acquisition from Gas Natural in 2009 at a price tag of €800 million.

This left them with an increased client base of 504,000 households with a total annual consumption of 400 million cubic meters. In Portugal Galp Energia is the market leader of distribution and marketing activities with over 900,000 clients, so with this acquisition they are the second largest player in the Iberian Peninsula with a total market share of 15%.

The unregulated market consists of sales to electricity producers, industry and trading. Sales to electricity producers fell by 12%, due to higher demand in hydro generated products and the usage of coal for thermal production. Galp Energia sold 1,010 million cubic meters of gas to industries pushing sales of 887 million cubic meters more than in 2008. The reason for this increase can be explained by the loss of the competitiveness the regulated market used to enjoy by the regulated tariff. Sales to Spain in 2009 went up by 45% to 165 million cubic meters, giving Galp Energia a market share of 1% in a market with a demand of over 15 billion cubic meters which can be explored. In trading, sales contracted by 69% due to lower demand in Spain and sales margins dropping as a response to the global natural gas demand.

In the regulated market Galp Energia sold volumes of 1.472 million cubic meters down 39% from 2008. Industrial, residential and commercial sub segments were the dominant areas of sales with industrial sales contracting 48% in 2009 due to movement away from the regulated and into the regulated market. The commercial and residential segment increased 1% relative to 2008 reaching sales of 291 million cubic meters.
POWER:

Galp Energia’s strategy for this segment is to develop a competitive power portfolio. Already operating cogeneration plants are Carrico, Powercer and Energin which are part of owned by Galp Energia. The plants have a joint capacity of 80 megawatts with a 2009 electrical power generation of 556 gigawatts/hour and a consumption of 164 million cubic meters of gas.

In 2009 a new cogeneration plant in the Sines refinery became operational, doubling the cogeneration capacity to 160 megawatts. The plant is expected to consume 250 million cubic meters of natural gas per year, however this new cogeneration plant will create a positive effect on the cost efficiency of the Sines refinery. It will improve their energy efficiency, lowering thermal energy costs, cut back emission of sulphur and nitrogen oxides and also reduce domestic CO2 emission. According to Galp this will lead to an expected reduction of 23% in the primary energy consumption. In October 2009 the cogeneration plant was operating at 99.5% and supplied the Sines refinery with a total of 821,166 tonnes of steam.

OVERVIEW OF PLANNED PORTFOLIO:

![Chart showing planned portfolio](chart.png)

Source: Galp Energia
A similar project for their Porto refinery is under construction, and can be expected operational in 2011. The plant will be equipped with two gas turbines, creating a production of 80 megawatts. They also plan to connect the two gas turbines with recovery boilers, so that Porto’s steam consumption will be met by this cogeneration plant. The planned construction of the Sines CCGT plant is still under negotiations with bidders for engineering and construction. The expected installed capacity will reach 800 megawatts. The plant’s estimated gas consumption will reach 820 million cubic meters per year, which could leave Galp Energia with possible synergies due to their strong gas segment. This is a joint venture project with Galp Energia holding roughly 50% ownership.

Galp Energia enjoys a reasonable share in the wind power market, with a 49% ownership the company Ventinveste S.A. The company was awarded installation of generation capacity reaching 400 megawatts with 6 wind farms in 2009.

### FINANCIAL STATEMENTS

Table 6:

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<tr>
<td>Sales</td>
<td>11,728,447</td>
<td>12,798,645</td>
<td>16,300,464</td>
<td>17,262,504</td>
<td>18,256,251</td>
<td>19,316,825</td>
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<td>Services rendered</td>
<td>279,898</td>
<td>305,561</td>
<td>389,165</td>
<td>412,133</td>
<td>435,859</td>
<td>461,179</td>
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<td>Other operating income</td>
<td>130,034</td>
<td>141,868</td>
<td>180,684</td>
<td>191,348</td>
<td>202,363</td>
<td>214,119</td>
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<td>Total operating income</td>
<td>12,138,379</td>
<td>13,246,073</td>
<td>16,870,313</td>
<td>17,865,985</td>
<td>18,894,473</td>
<td>19,992,123</td>
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<td>Cost of sales</td>
<td>10,193,419</td>
<td>10,861,780</td>
<td>13,833,656</td>
<td>14,650,108</td>
<td>15,493,468</td>
<td>16,393,541</td>
<td>17,331,875</td>
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<td>Other operating costs</td>
<td>1,189,498</td>
<td>1,298,635</td>
<td>1,653,952</td>
<td>1,751,567</td>
<td>1,852,399</td>
<td>1,960,012</td>
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<tr>
<td>Total operating costs</td>
<td>11,382,917</td>
<td>12,160,415</td>
<td>15,487,609</td>
<td>16,401,675</td>
<td>17,345,867</td>
<td>18,353,553</td>
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<tr>
<td>EBITDA</td>
<td>755,462</td>
<td>1,085,699</td>
<td>1,382,704</td>
<td>1,484,310</td>
<td>1,548,606</td>
<td>1,638,570</td>
<td>1,732,359</td>
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<td>Income before tax</td>
<td>451,393</td>
<td>707,175</td>
<td>915,094</td>
<td>971,870</td>
<td>1,030,506</td>
<td>1,093,091</td>
<td>1,158,329</td>
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<tr>
<td>Net Income</td>
<td>347,272</td>
<td>548,273</td>
<td>704,357</td>
<td>747,056</td>
<td>791,158</td>
<td>838,228</td>
<td>887,294</td>
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<td>EPS</td>
<td>0.42</td>
<td>0.66</td>
<td>0.85</td>
<td>0.90</td>
<td>0.95</td>
<td>1.01</td>
<td>1.07</td>
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</table>

Source: Galp Energia, Analyst
**Table 7** – Source: Galp Energia, Analysit

**Table 8** – Source: Galp Energia, Analyst

<table>
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<tr>
<td>(+) Net income</td>
<td>548,273</td>
<td>704,357</td>
<td>747,056</td>
<td>791,158</td>
<td>838,228</td>
<td>887,294</td>
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<tr>
<td>(+) Depreciation and amortization</td>
<td>370,684</td>
<td>459,369</td>
<td>483,733</td>
<td>508,900</td>
<td>535,760</td>
<td>563,761</td>
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<td>(-) Change in operating assets</td>
<td>-204,341</td>
<td>-762,016</td>
<td>-209,346</td>
<td>-216,245</td>
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<td>(+) Change in operating liabilities</td>
<td>100,942</td>
<td>110,026</td>
<td>119,929</td>
<td>130,722</td>
<td>142,487</td>
<td>155,311</td>
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<td>Cash flows from operating activities</td>
<td>815,557</td>
<td>511,736</td>
<td>1,141,372</td>
<td>1,214,535</td>
<td>1,285,688</td>
<td>1,365,769</td>
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<td>(-) Capital expenditures</td>
<td>-1,161,815</td>
<td>-1,411,915</td>
<td>-745,422</td>
<td>-779,214</td>
<td>-824,251</td>
<td>-864,516</td>
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<td>(-) Other financial investments</td>
<td>-9,851</td>
<td>-29,560</td>
<td>-8,121</td>
<td>-8,389</td>
<td>-8,953</td>
<td>-9,333</td>
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<tr>
<td>(-) Other cash flows from financing activities</td>
<td>-45,746</td>
<td>-148,969</td>
<td>-40,851</td>
<td>-42,197</td>
<td>-45,035</td>
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<td>Cash flows from investing activities</td>
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<td>-1,475,041</td>
<td>-695,880</td>
<td>-723,819</td>
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<td>Dividends paid</td>
<td>-100,666</td>
<td>-113,782</td>
<td>-151,495</td>
<td>-151,022</td>
<td>-150,025</td>
<td>-149,352</td>
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<td>(+) Increase in equity</td>
<td>298,804</td>
<td>1,190,628</td>
<td>-419,136</td>
<td>-222,051</td>
<td>-426,088</td>
<td>-458,853</td>
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<td>(+) Increase in debt</td>
<td>198,138</td>
<td>1,076,846</td>
<td>-570,631</td>
<td>-373,073</td>
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<td>Δ change in cash</td>
<td>-176,191</td>
<td>113,541</td>
<td>-125,139</td>
<td>117,642</td>
<td>-54,321</td>
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<td>Initial cash</td>
<td>243,839</td>
<td>67,648</td>
<td>181,190</td>
<td>56,050</td>
<td>173,693</td>
<td>119,371</td>
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<tr>
<td>Ending cash</td>
<td>67,648</td>
<td>181,190</td>
<td>56,050</td>
<td>173,693</td>
<td>119,371</td>
<td>79,263</td>
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Disclosures and Disclaimer

Research Recommendations

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<tr>
<th>Rating</th>
<th>Description</th>
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<tr>
<td>Buy</td>
<td>Expected total return (including dividends) of more than 15% over a 12-month period.</td>
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<tr>
<td>Hold</td>
<td>Expected total return (including dividends) between 0% and 15% over a 12-month period.</td>
</tr>
<tr>
<td>Sell</td>
<td>Expected negative total return (including dividends) over a 12-month period.</td>
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