



Responsible Investment Corporate Governance and SRI – Q4 2005

Contents

Corporate Governance | pages 2–8

Voting profile

Examples of engagement

SRI | pages 9–22

SRI focus – Energy Supply (3) – Biofuels

Part I: The Biofuels Industry

Part II: Company Involvement

Examples of engagement

Company meeting log | page 23

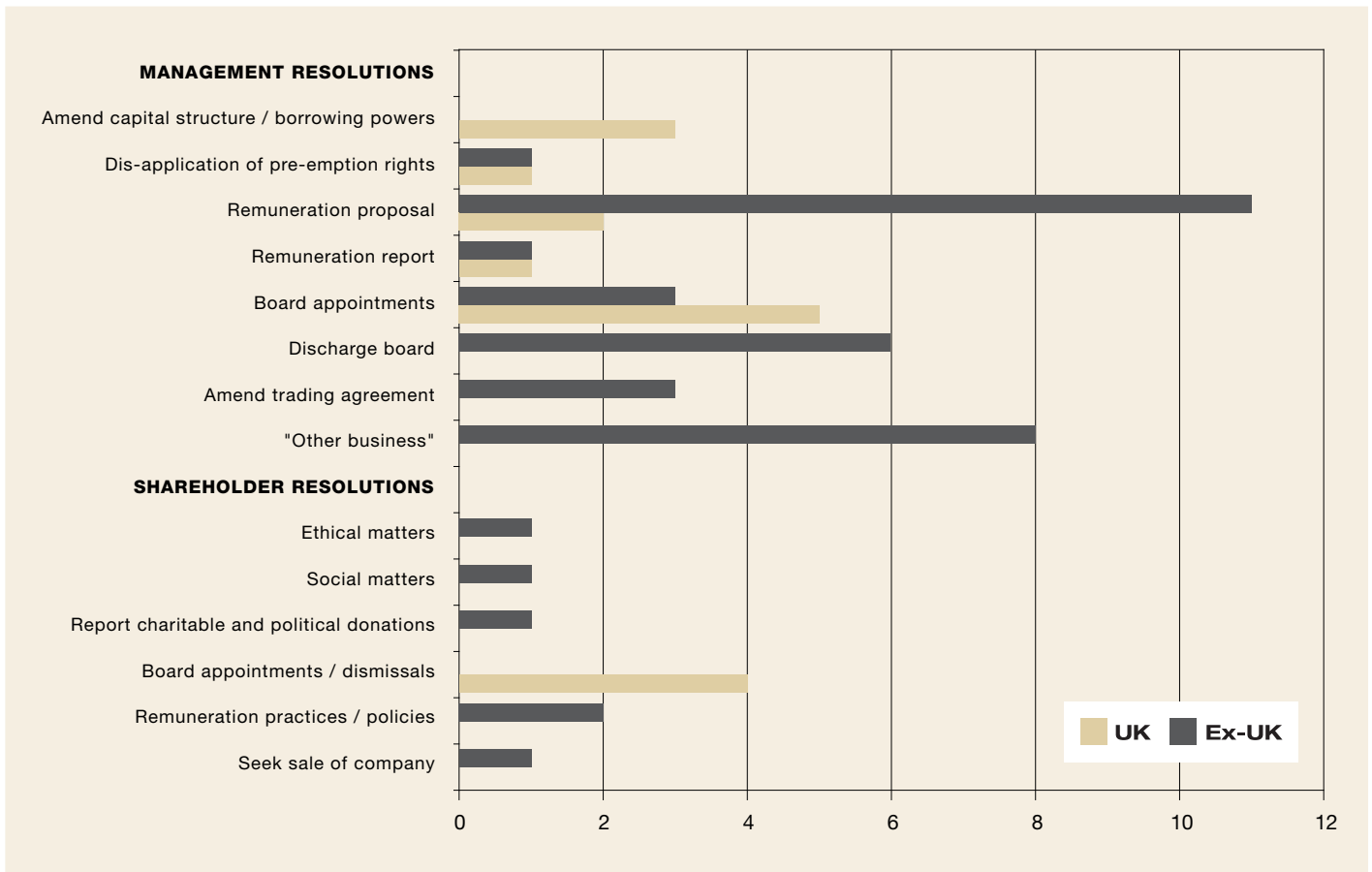
Voting profile for Q4 2005

The table below summarises voting activity during the quarter. Newton took no action at eleven meetings. In these instances, should voting rights have been exercised, Newton would have been restricted from trading in the underlying shares. Given that Newton did not consider the resolutions to be controversial, it was considered prudent to avoid blocking the ability to trade in the shares.

The chart on the following page highlights the main issues behind the decisions to instruct votes against resolution items. The underlying companies, together with justification for each of these decisions, can be found in the pages immediately following this chart.

Complete voting summary – Q4 2005	Total	UK	Ex-UK
AGMs			
Voted in favour of all resolutions	132	99	33
Voted against one or more resolutions	25	3	22
Took no action	2	0	2
Abstained	0	0	0
	159	102	57
EGMs			
Voted in favour of all resolutions	118	79	39
Voted against one or more resolutions	8	3	5
Took no action	9	0	9
Abstained	0	0	0
	135	82	53
Court Meetings			
Voted in favour of all resolutions	4	4	0
Voted against one or more resolutions	0	0	0
Took no action	0	0	0
Abstained	0	0	0
	4	4	0
Totals	298	188	110
Voted in favour	254	182	72
Voted against	33	6	27
Took no action	11	0	11
Abstained	0	0	0
Totals	298	188	110

Breakdown of resolutions voted against during Q4 2005



UK Companies

British Sky Broadcasting PLC – AGM – 4/11/2005

The company proposed a resolution to buy-back 5% of its share capital. Over the longer-term this would result in an increased return to shareholders, due to earnings being distributed over fewer shares. However, in exercising this buy-back, Rule 9 of the Takeover Code would be triggered with News Corp's shareholding in BSkyB increasing from 37.2% to 39.2%. Rule 9 dictates that, in such a situation, News Corp should make a formal offer for the remaining share capital of BSkyB. In accordance with the Takeover Code, BSkyB sought shareholder approval to waive this rule by way of a separate resolution at its AGM. This would allow News Corp, at no cost, to further increase its control over BSkyB, potentially to the detriment of other shareholders. Also, it could reduce a takeover premium should a third party make a bid for BSkyB. Given these reasons and the fact that five Directors of News Corp are members of BSkyB's board, Newton did not support the resolutions to buy-back 5% of share capital or the resolution to approve the Rule 9 waiver. The same resolutions were proposed, and voted against by Newton, last year. Following shareholder criticism last year, this year BSkyB drew up a legal agreement with News Corp. This agreement would mean that News Corp could only

exercise voting rights at a level equivalent to its historic shareholding level. However, in the event of a bid for BSkyB, News Corp would be able to exercise voting rights equivalent to its actual shareholding level following the proposed 5% share buy-back. Newton did not consider that the board of BSkyB was acting in all shareholders' best interests. Newton also voted against three non-executive directors who were seeking re-election to the board.

Highway Insurance Holdings – EGM – 16/12/2005

Votes were instructed against the resolution that proposed a new Performance Share Plan. A number of areas caused concern. Newton felt that the allocation of high up-front awards for the first two years of the plan was inappropriate. The use of absolute growth in returns to shareholders, as a performance condition, could allow for awards to vest for underperformance. Additionally, the remuneration committee exercised its discretion by changing the performance targets that would mean all historic share option awards would automatically vest. Finally, it was proposed that a transitional bonus be awarded to compensate for the lack of a long-term incentive arrangement being in place for 2005. The level of this transitional bonus was 50% greater than prior arrangements.

McCarthy & Stone PLC – AGM – 19/12/2005

Various elements of the company's remuneration structure and policy were considered to be contentious. The company failed to achieve its pre-determined profit targets, which would have resulted in the payment of uncapped bonuses. Despite this, the remuneration committee exercised its discretion and awarded bonuses equivalent to 17% of salary. The failure to achieve minimum profit targets was cited by the company as being a result of unforeseen changes in the property market, the company having issued a profit warning in April 2005. In previous years, it can be noted, directors have enjoyed bonuses resulting from what could be seen as unforeseen buoyancy in the property market. Newton had a further issue with the arrangements surrounding deferred annual bonuses. If an individual defers part of their bonus, the company makes an award of shares depending upon the amount of cash deferred and the length of the deferral period. However, these matching share awards, which are effectively a long-term incentive plan, are not subject to the achievement of any performance conditions. Finally, two executive directors have service contracts that are terminable upon two years' notice, with enhanced provisions in place in the event of a change in control.

Newton instructed votes against the remuneration report and the re-election of two non-executive directors, who were members of the remuneration committee. One of these non-executive directors held the position of senior non-executive director. Newton believes that the senior non-executive director at a company should be truly independent. This principle is especially important where, as is the case at McCarthy & Stone, the Chairman is employed in an executive capacity. The company's senior non-executive director had been a board member for over 15 years.

Murray Income Trust – AGM – 26/10/2005

Newton instructed votes against two resolutions that related to the issuance of shares held in the company's treasury account. Under the proposed resolution, the company would be able to issue shares at a discount to the Net Asset Value of the trading shares. Also, in the event of an issuance of additional shares, it was proposed that existing shareholders' pre-emption rights would be waived. Therefore, the value of existing shareholders' funds could be diluted by up to 10%.

Unite Group PLC – EGM – 14/10/2005

The company convened an EGM for the purpose of gaining shareholder approval for a new Long-Term Incentive Plan (LTIP). Newton's concerns centred around the high level of vesting for achieving median performance and the discretion afforded to the remuneration committee in relation to vesting provisions in the event of bad leavers. Also, Newton was not confident in the remuneration committee setting challenging Net Asset Value (NAV) performance targets, which would govern the vesting of any LTIP awards. Given the commercial

sensitivity of disclosing NAV targets, these would only be revealed on a retrospective basis. Newton instructed votes against the single resolution at the company's EGM.

Wyevale Garden Centres PLC – EGM – 22/12/2005

The company's largest shareholder requisitioned another EGM. The same resolutions were tabled at the previous EGM requisitioned on 12 September 2005. It was a formal and second attempt to oust the Chairman and two non-executive directors, whilst proposing the appointment of a non-executive director to the board. The proponents failed to provide the company or its shareholders with appropriate rationale for this action. Newton voted against all four of the shareholder proposed resolutions. The Chairman and the two non-executive directors were appointed between February and August 2005. Considering the recent appointments and the fact that the new management had not had sufficient time to prove its worth, Newton felt that it could not support the shareholder proposed resolutions.

Ex-UK Companies

Centennial Coal Company – AGM – 15/11/2005

Votes were instructed against the resolution requesting shareholder approval for the company to adopt its remuneration report. Newton was concerned with four main aspects of the remuneration report. First, non-executive directors are entitled to retirement benefits. Secondly, long-term incentive arrangements may vest after just two years. Thirdly, should performance conditions not be achieved after the initial two-year vesting period, they may be continually re-tested over the remaining life of the share option awards. Fourthly, in the event of a change in control, share based incentive awards automatically vest irrespective of performance achieved. Based on the reasons highlighted above, Newton also instructed votes against a further resolution that sought to make a one-off share based incentive award to the company's managing director.

Cisco Systems – AGM – 15/11/2005

The company sought approval from its shareholders to increase the number of shares available for it to award as share options. Newton was concerned about the dilution to existing shareholders from the company issuing additional large awards of share options. Over the last three years, the company has been making annual awards of share options that equate to more than 3% of its issued share capital. Also, under the proposal, the cumulative dilution of shareholders funds would be almost 25%. This high level of dilution was the key factor behind Newton instructing votes against this resolution.

A further three resolutions were also voted against. These were proposed by shareholders. Two of the resolutions related to the company's remuneration practices. The first sought to increase the level of share-based incentives to the executive directors. Newton felt that the company's current usage of share option awards was excessively costly to shareholders. The other remuneration related shareholder proposed resolution asked the company to prepare a report that compares the compensation levels of the executive directors with those of the company's lowest paid workers. Newton felt that the requested report would not provide meaningful information to shareholders. The third shareholder proposed resolution, which Newton voted against, requested the company to report on its progress towards the development and implementation of a specific human rights policy. Newton considered that the company had created appropriate codes of conduct, employee policies and guidelines that address the proponents concerns. Cisco has addressed this issue in its own operations and those of its suppliers. Furthermore, the company has committed to report on performance in this area.

CNOOC – EGM – 31/12/2005

The company's board proposed a resolution that would amend the non-compete undertaking that existed between CNOOC and its parent company. The exclusivity that CNOOC enjoys in offshore exploration and production would be removed and this would be without any consideration being awarded by its parent company. Newton voted against the proposal. It is worth noting that CNOOC's parent company controls seven of the twelve positions on CNOOC's board.

Votes were also instructed against a further resolution. This sought shareholder approval of a replacement share option scheme. Newton felt that it was excessive for the company to make up to 30% of its issued share capital available for awarding as share options. Additionally, the company proposed that the whole board administer the scheme. This would allow recipients of share options to influence the operation of the scheme.

Estee Lauder – AGM – 10/11/2005

Newton was concerned with the structure of certain elements of the company's remuneration arrangements. Dilution of existing shareholders' funds by more than 15% was considered excessive. Also, no performance conditions had been established for the vesting of share option awards. Newton assumes that the remuneration committee is granted complete discretion on this matter.

International KRL Resources – AGM – 17/11/2005

The company requested shareholder approval for its share option plan. Newton instructed votes against this resolution. Non-executive directors may participate in the plan on a discretionary basis. This creates a conflict of interest, whereby, the remuneration committee may be able to award its own members with share-based incentives.

A separate resolution was entitled "Other Business". Newton felt unable to support this resolution given that, by its very nature, underlying actions and details would be unknown until the day of the meeting.

JPMorgan Funds, AGMs:

American Small Cap – 16/11/2005

Japan Equity – 1/12/2005

Pacific Balanced – 16/11/2005

Pacific Equity – 25/11/2005

UK Equity – 16/11/2005

A resolution was proposed that sought approval of directors' remuneration. However, the company did not provide any information pertaining to directors' remuneration. Therefore, Newton instructed votes against this resolution at the meetings listed above.

Fidelity Funds, AGMs – 6/10/2005:

America A

American A (Sicav)

Asian Special Situations

European Growth

Pacific

International

At the time of the AGMs for the above funds, the Securities and Exchange Commission was considering bringing civil fraud charges against two of the company's investment businesses. In addition, the company was also under a gifts investigation by the National Association of Securities Dealers. Given these two outstanding issues, Newton considered it prudent to vote against the resolution seeking shareholder approval to discharge the board of responsibility.

Marakand Minerals Limited – AGM – 25/11/2005

Newton instructed votes against two resolutions at the company's AGM. Shareholder support was requested for the re-election, to the board, of a non-executive director. This nominee, who was the CEO of the company's controlling shareholder, would also be re-elected to the board's audit committee. Newton prefers audit committee members to be independent of the company. The second resolution that Newton voted against sought shareholder approval to issue new shares in the company. The proposal would allow the company to issue up to 30% of its share capital without first making an offer to its existing shareholders. It was considered that the potential dilution, in absence of any reasonable justification, was not in shareholders' best interests.

News Corp – AGM – 21/10/2005

Votes were instructed against the two non-executive directors who were seeking re-election to the board. When the company re-incorporated itself from Australia to the United States, last year, a statement was made relating to a commitment to improve corporate governance practices. This was to be achieved, in part, by seeking separate and binding approval from shareholders for the adoption of any anti-takeover mechanisms. However, the company extended, by two years, its existing anti-takeover mechanism without first gaining shareholder approval. In light of the commitment to shareholders last year, Newton considered the non-executive members of the board were not sufficiently diligent in protecting shareholders' best interests. This was also the reason for Newton instructing votes against a further resolution that sought to provide a one-off payment to members of the special committee. The special committee worked on the re-incorporation of the company in the United States.

Procter & Gamble – AGM – 11/10/2005

Newton instructed votes against three resolutions, all of which were proposed by shareholders.

It was requested that all animal food testing be carried-out by way of in-home studies. The company adopts high standards of animal welfare, including the establishment of its International Animal Care Advisory Board and Iams Company Research Policy. Additionally, the company publicly discloses its policies, which includes examples of feedback from the Advisory Board.

A further shareholder proposed resolution requested the company to hire an investment bank in order to explore the sale of the company. Newton considered the company's business model had strength and flexibility, and that performance had been good against a difficult operating market. Therefore, Newton did not consider it appropriate to support this resolution.

The final resolution, which Newton voted against, sought a bi-annual report from the company concerning its political contributions. It was requested that the report include detailed information on the amount of each contribution, the business rationale for each contribution and identification of the person, or persons, in the company who participated in making the decision to contribute or donate. The company is compliant with all applicable legal restrictions and reporting requirements relating to political contributions. Additionally, the company has not been involved in any controversies surrounding political donations. Therefore, Newton did not feel support should be given to this resolution.

Yukos Oil Company – EGM – 9/12/2005

The company requested shareholder approval to amend certain articles within its Charter. Despite being contacted, the company failed to provide any details regarding the proposed changes. Therefore, Newton felt unable to support the company and, in turn, instructed votes against the two proposed resolutions.

“Other Business”

Newton routinely voted against resolutions entitled “Other Business”. These were requests to allow the board and shareholders to raise other issues at a company's AGM. While such requests are often routine in certain jurisdictions, there is a possibility that certain items may be raised and approved under this resolution, which may not be in shareholders' best interests. Until further information and assurances can be provided, Newton will continue to exercise a level of prudence and vote against resolutions seeking approval of “Other Business”.

The following is a list of companies where the only resolution that Newton voted against sought approval of “Other Business”.

Bank of the Philippine Islands – EGM – 11/11/2005

Banpu Public Company – EGM – 2/11/2005

Barclays Investment Funds, North American Equity – AGM – 30/11/2005

Henderson Horizon Fund – AGM – 13/10/2005

Opal Alternative Growth Fund – AGM – 18/10/2005

Singapore Press Holdings Ltd – AGM – 2/12/2005

Southern Rio Resources Ltd – EGM – 30/11/2005

Examples of engagement – Corporate Governance Q4 2005

UK Life Assurance Company – October 2005

Contacts: Chair of the Remuneration Committee
Company Secretary

The company proposed modifications to the performance conditions governing the vesting of awards made under its Long-Term Incentive Plan (LTIP). The amendments were subject to the company successfully acquiring a complementary company. The proposed performance condition was European Economic Value (EEV), as opposed to the previously used Earnings Per Share growth. Newton considered the proposed change to be appropriate given that, should the company be successful in its acquisition, EEV would be the main valuation metric for the company. However, Newton encouraged the company to consider incorporating a secondary performance condition that would provide recipients of LTIP awards with an incentive to protect the company's cashflow. Newton also proposed to the company that it establish minimum shareholding guidelines for its executive directors.

UK Real Estate Company – October 2005

Contacts: Chair of the Remuneration Committee
Finance Director

The company sought Newton's views on proposed alterations to its remuneration structure. The company intended to introduce a cap on bonus potential, where previously one was not in place. Under the proposal, bonus recipients would be able to defer 50% of their bonus, which would then be matched with shares after three years if pre-determined Total Shareholder Return (TSR) performance had been achieved. The company also proposed to replace share option awards with nil-cost restricted shares, which would again be subject to achieving pre-determined TSR performance targets. Newton was concerned that no internal financial performance measure would underpin the vesting of incentive awards. However, comfort was provided as to the methodology that the remuneration committee would use when assessing improvements in the company's underlying financial performance. Newton expressed concern over the significant increase in the level of awards that may be made to individuals under the proposed arrangements. The company stated that it was not its intention to make awards at the maximum levels that were proposed. Newton reminded the company that investors would be mindful of the overall remuneration levels being awarded, including base salary levels, when assessing the appropriateness of the company's remuneration structure. It was also requested that the company introduce minimum shareholding guidelines for its executive directors. The company made a commitment to introducing such guidelines.

Australian Diversified Industrial Company – October 2005

Contact: Company Secretary

Newton raised two concerns with the company over the operation of its share option awards. In analysing the company's remuneration report, it seemed likely that performance conditions could be re-tested on a rolling three-year basis up to the expiry of the life of the share option awards. Also, in the event of a change in control, it appeared that any award of share options could automatically vest irrespective of performance achieved. The company clarified its position relating to these issues and provided Newton with additional information that allayed Newton's concerns. The company confirmed that future published explanations will provide greater clarity on these matters.

UK Transport Company – October 2005

Contact: Group Commercial Director

The company sought to provide its Finance Director with a special "one-off" long-term incentive award. It was proposed that vesting of the award be subject to the company winning certain franchise bids and subsequent earnings and profitability levels. Newton recognised that the Finance Director had not been awarded significant long-term incentives. Following discussions with the company, Newton's initial concerns with the proposal were allayed. It was agreed that the structure of the proposal was appropriate in supporting the long-term success of the company. The company stated that it was its intention to consult with shareholders, at a later date, on a new Long-Term Incentive Plan (LTIP) for its senior executives. Newton suggested, and received comfort from the company that, when making future LTIP awards, it would give consideration to the level of awards provided to the Finance Director in this "one-off" arrangement.

UK Support Services Company – October 2005

Contacts: Chair of the Remuneration Committee
Remuneration Consultant

Following a full review of the company's executive remuneration arrangements, various amendments were proposed by way of a consultation with the company's shareholders. Newton agreed that the current variable and fixed pay levels were significantly below the median level for the company's peer group. Therefore, the modest increases and alterations in performance-driven variable pay were considered appropriate. The introduction of minimum shareholding guidelines for executive directors was also welcomed. Newton queried certain administrative aspects of the proposals but, on the whole, was comfortable with the proposed amendments.

UK Support Services Company – October 2005

Contact: Executive Chairman

Newton met with the company to discuss and gain a better understanding of its corporate governance practices. A debate was also had on some of the wider issues surrounding corporate governance in the UK and the effects on corporate behaviour. Newton took comfort in the company's explanation for continuing to require a full-time executive chairman. Newton also gained useful insight into the methodical approach taken by the board in its recruitment, training, evaluation and retention of board members.

UK Investment Trust – November 2005

Contact: Client Relations

Newton expressed concern with the company over its entrenched board. The average tenure of the six board members was 11 years. If the two most recent appointments were removed from the equation, the average tenure of the remaining four board members would have been 16 years. Despite this company being an investment trust, whereby all board members are non-executive, Newton would expect a higher level of regeneration within the board.

UK Life Assurance Company – December 2005

**Contacts: Chair of the Remuneration Committee
Remuneration Consultant
Director of Compensation
Director of Human Resources**

The company embarked upon a remuneration consultation with its investors. The main proposal concerned a new long-term incentive structure for the company's executive directors. The company sought shareholders' views on the proposed introduction and operation of two long-term incentive plans. One would reward participants for the performance of the Group as a whole, whilst the other would reward each individual executive director for the success of their respective divisional responsibilities.

Newton felt that the constituents of the comparator group, which the Group would be assessed against on a Total Shareholder Return (TSR) basis, should reflect the dynamics of the business. Therefore, Newton queried the absence of US and Asian companies from the selected comparator group. Newton was also concerned over the appropriateness of using a performance target of median TSR performance plus an absolute percentage, which would govern vesting levels.

For the divisional schemes, it was proposed that Shareholder Capital Value (SCV) be used as the performance metric that would govern the vesting of awards. Newton sought comfort in relation to the setting of appropriate targets, given that the information would be commercially sensitive and, consequently, only disclosed on a retrospective basis. Also, SCV does not, in itself, provide an incentive to protect the company's cashflow. Therefore, Newton requested that a secondary performance condition be introduced that protects cashflow. Newton also suggested that individuals should receive shares, rather than cash, in the event of awards vesting.

The company proposed that each of the two schemes would have separate maximum limits. The company stated that it would then be able to alter the mix between group and divisional incentivisation. It would not be the intention to make maximum grants under both schemes. Newton suggested that caps should be placed on the total level of individuals' participation across both of the proposed schemes.

Points of clarity were also sought on the setting of base salaries and bonus levels, together with the treatment of pension provisions.

SRI Focus: Energy Supply (3) – Biofuels

Introduction

The ease of access to energy is crucial to the modern economy. It delivers light, heat and power to offices, factories, shops and homes and enables the movement of goods and people. The availability of secure, reliable and environmentally sustainable energy supplies, at prices that are economically viable over the long-term, is critically important to business and society.

Environmental concerns, coupled with a desire for security of supply and diversification away from fossil fuels, has been driving political support for renewable energy. The CBI stated in its November 2005 Energy Brief that, by 2020, one third of UK generating capacity will need to be replaced. This is due to planned run-downs of coal and nuclear derived power plants, as well as diminishing gas supplies in the North Sea.

Some examples of actions by governments and companies to address the energy supply issue are highlighted below. All the developments were announced during the quarter under review.

- The UK government announced an energy review that will report by mid 2006 and “will include specifically the issue of whether we facilitate the development of a new generation of nuclear power stations” (Tony Blair, CBI Conference, 29 November 2005).
- In early November, UK Minister of State for Energy, Malcolm Wicks, announced a £30 billion package to help reduce carbon emissions and promote renewables in the UK.
- In Germany, the new coalition government announced its continued support for renewable energy and that existing legislation would remain unchanged until a mandatory review in 2008.
- In November, the UK Department for Trade announced a Renewable Transport Fuels obligation: 5% of all motor fuel sold in Britain must come from renewable sources by 2010. This is expected to save 1 million tonnes of CO₂ emissions in 2010.
- In November, Beijing hosted the 2005 International Renewable Energy Conference. Chinese Vice-Premier, Zeng Peiyan told the conference that China would increase the share of renewables in its energy mix to 15% by 2020. He stated that the country would make better use of its water resources, build several wind power plants with a generating capacity of 1 million kW each, intensify the use of solar energy, expand methane utilisation in rural areas and actively promote the bio-energy sector, while boosting technology research and development.

- Montreal hosted the 11th Conference of the Parties for the United Nations Framework Convention on Climate Change. Nations were seeking to launch negotiations on a follow-on treaty for the Kyoto Protocol, post 2012. Key to discussions was obtaining support and participation from the US, China and India. On the conference’s last day, a significant breakthrough was made. Kyoto Protocol signatories agreed to extend the treaty on emissions reductions beyond its 2012 deadline and a broader group of countries, including the US, China and India, agreed to non-binding talks on long-term measures to reduce greenhouse gas emissions.
- BP announced that it plans to double its investment in alternative and renewable energy to create a new low-carbon power business. “Consistent with our strategy, we are determined to add to the choice of available energies for a world concerned about the environment, and we believe we can do it in a way that will yield robust returns” (BP CEO, Lord Browne).
- On 7 December, the European Commission proposed a set of twenty measures aimed at increasing the use of biomass and biofuels across all member states. This is estimated to reduce greenhouse gas emissions by 209 million tonnes per year.

In Q2 and Q3, Newton’s SRI reports focused on the contributions that wind and solar generated energy made to the reduction of carbon emissions. This quarter’s SRI focus continues along the energy supply theme, looking at the potential of bioethanol and biodiesel as an alternative to fossil fuels in the transport industry. The report is divided into two parts:

Part I: The Biofuels Industry

The development of the industry, the production of bioethanol and biodiesel, the benefits and challenges from the use of these fuels, government support mechanisms and development of the global market are all discussed.

Part II: Company Involvement

This section looks at some of the ways companies are preparing for a lower-carbon future through investment in the biofuels industry.

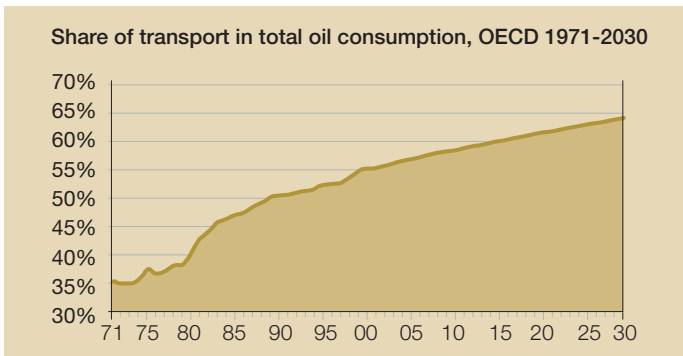
(Please note, a glossary of terms relating to the biofuels industry, can be found at the end of Part 1).

Part 1: The Biofuels Industry

Background

The International Energy Agency (IEA) estimates that transport is responsible for almost 60% of oil consumption in OECD countries¹. It is also the main sector driving the future growth estimates in demand for oil within the OECD. Other sectors of the economy, such as manufacturing, power generation and households, have all made concerted efforts to reduce their oil consumption. However, transport continues to consume oil at an ever-increasing rate (See Figure 1).

Figure 1



Source: International Energy Agency

Being a major consumer of oil means that transport is also a significant emitter of CO₂. The 2003 Energy White Paper states that 25% of carbon emissions in the UK are from transport (including aviation). Road transport alone accounts for over 20% of emissions, with, at least, 10% of emissions being represented by passenger cars.

Biofuels are organic materials, processed into more convenient forms to be used as a fuel. The term encompasses a wide range of fuel derived from organic matter, including bioethanol and biodiesel. The production and use of biofuels is increasing in many regions throughout the world (See Figure 2).

Figure 2



Source: Renewables 2005 Global Status Report, Ren 21, Worldwide Institute.

Biofuels address key policy needs by offering an interesting, though partial, alternative to fossil fuels for the transport sector. Their attractions include:

- A reduction in net emissions of CO₂. Therefore, biofuels can help nations to achieve their carbon reduction goals. Energy derived from biomass helps to prevent levels of CO₂ rising in the atmosphere. Any CO₂ produced when crops are burned is balanced out by the CO₂ taken in by the crops while they are growing.²
- A reduction in emissions of other unwanted products, particularly unburned hydrocarbons and carbon monoxide. Therefore, using biofuels contributes to improvements in local air quality.
- Production from renewable resources i.e. crops and not from a finite resource. The crops used for biofuels also grow well in diverse and wide ranging environments.
- Improvements in energy security. When produced from local and regional biomass resources, biofuels are relatively isolated from the uncertainties of international political disruptions. Domestically produced biofuels also enhance national security by reducing net imports of petroleum and helping reduce international trade imbalances, sometimes associated with oil imports.
- Compatibility with modern vehicles. Current motor vehicles use fuel management technologies that permit use of a wide range of biofuel blends³. Most new vehicles today can readily accommodate biofuel blends up to about 20%. Flexible-fuel vehicles for high concentration blends are also commercially available. Biofuels can be distributed using the same petrol forecourts and transportation systems as that for fossil fuels.

The market for biofuels is expected to grow significantly as the demand for sustainable transportation fuels increases.

1| OECD = Organisation for Economic Co-operation and Development.

Original Member Countries (from 1960) include: Austria, Belgium, Canada, Denmark, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, UK, US. Subsequent members include: Japan, Finland, Australia, New Zealand, Mexico, Czech Republic, Hungary, Poland, Korea.

2| Lifecycle analyses consistently show that using biofuels produced in modern facilities results in net reductions of carbon emissions compared to using petroleum equivalents. These lifecycle analyses include the energy requirements for the farming and production of the biomass resource, as well as harvesting, conversion and utilisation.

Types of Fuel

Currently, bioethanol and biodiesel, account for the majority of biofuel consumption in the transport sector. The table below highlights the differences between the two fuels and provides some background information regarding production methods, usage, capacity and future technologies.

Table 1: Bioethanol and biodiesel information

	Bioethanol	Biodiesel
General:	Is the most common biofuel accounting for more than 90% of total usage ³ .	Biodiesel is the biofuel with the most rapid rate of market growth. Usage has grown rapidly.
Crops used:	Sugar cane, sugar beet, corn, wheat.	Soy, rapeseed, mustard seed, jatropha, palm oil. Also, waste vegetable oils can be recycled.
Production process:	Hydrolysis and fermentation.	Chemical esterification.
Conversion information:	Conversion facilities are typically large-scale, sophisticated bio-refineries, which efficiently process biomass into a range of products such as chemicals and animal feed, in addition to fuels. This provides several revenue streams.	The esterification step involves a simple chemical reaction of the oil with methanol. Methyl esters (chemical name for biodiesel) and glycerol are produced as a result. Glycerol can be sold to pharmaceutical companies as an additional revenue stream.
Usage:	<ul style="list-style-type: none"> Blended with petroleum gasoline and used in motor engines with no modification required and no damage caused to the engine. Bioethanol is usually blended with petroleum gasoline at concentrations of 5 to 10% (E5 to E10) throughout North America and parts of Europe. Selected fuelling stations in a few major metropolitan areas in the US and Europe sell E85 for flexible-fuel vehicles. 	<ul style="list-style-type: none"> Used not only as a transport fuel but also as a fuel for heat and power generation in some locations. It can be blended with petroleum diesel and used in motor engines with no modification required and no damage caused to the engine. Biodiesel is usually blended with petroleum diesel at concentrations of 5 to 25% (B5 to B25) throughout North America and Europe. The use of 100% biodiesel (B100) is common in some European countries, such as Germany. More biodiesel is used in Europe than in North America, mostly because Europe has a much higher percentage of diesel fuel vehicles. Quality standards have been established for biodiesel that help ensure the compatibility of this fuel with most vehicles.
Existing capacity (end of 2004):	31 billion litres/year* ⁴	2.2 billion litres/year* ⁴
Price competitive:	The high oil price produces a more competitive pricing environment for biofuels. Without subsidies, the European Commission estimates that it would take an oil price of US\$84 / barrel of oil to make biofuels breakeven with conventional fuels.	
New technology development:	Conversion of lignocellulose to bioethanol via an advanced enzymatic hydrolysis process.	Conversion of biomass to biodiesel via thermo-chemical conversions.

*Total global gasoline production = 1,200 billion litres/year (end of 2004)

³ Biofuels can be blended with fossil fuels to create a more environmentally considerate transport fuel. Blends for biodiesel are termed, for example, B2. Blends for bioethanol are termed, for example, E2. The number indicates the percentage of biofuel included in the blend. In B20, for example, there would be 20% biodiesel and 80% diesel. A biodiesel blend can come in any mixture percentage, i.e. B2, B5, B20, B85. The same is true for bioethanol blends.

⁴ Biofuels for Transport: A report by IEA Bioenergy, 2003

Benefits and challenges for the biofuels industry

The following table highlights the benefits available from the development of biofuels and the challenges faced by the industry.

Table 2: Benefits and challenges to the biofuels industry

Benefits	Challenges
<ul style="list-style-type: none"> • Biofuels are produced from renewable sources. • Biofuels improve energy security of supply by increasing diversification of fuel source and reducing reliance on imports. • Biofuels burn more cleanly than fossil fuels as less noxious gases are emitted. For example, according to the US Department of Energy, each tonne of biodiesel burnt produces 78% less CO₂ than petroleum diesel. • Biofuels are biodegradable. • Biofuels can be produced using food crop waste. • Biofuels are compatible with modern vehicles. Low percentage bioethanol blends, for example E10, are already dispersed in many fuelling stations worldwide. • Biofuels can be distributed using the same fuelling stations and transportation systems as those for fossil fuels. • Biofuels can enhance rural economic development through new markets for agriculture. • There is some opportunity to use biofuel crops, like grasses, to protect sensitive lands and provide improved habitats for birds and other animals. 	<ul style="list-style-type: none"> • Crop volatility due to adverse weather or disease can lead to crop failure and interruption of feedstock supplies. • There is limited availability of land and water resources for energy crops due to competition for land with the food industry. Not only is underlying demand for food rising each year with the world's rising population, so too is demand on crops as an alternative energy source. In the US, in 2003, the substitution of 1.5% bioethanol into gasoline for transport fuel consumed 14% of the corn crop. • Production capability needs to be ramped up to meet growing demand. This is a significant challenge, especially, for example, in countries such as China, where there is fragmented land ownership and industrial competition for land and labour resources. • Trade in biofuels is beginning but is being hampered by quota systems, import duties and agricultural subsidies within most OECD countries. An abolition of tariff rate quotas on, for example, vegetable oil imports from China, would be required to liberalise a global trade system (see information below on The Doha Negotiations). • The impacts of increasing production of biofuel crops on soil and ecosystems needs further research. • Ongoing research and development is needed to look at opportunities for further conversion processes and methods to increase crop yields in a sustainable manner. Highly efficient processes would produce more biofuel per quantity of biomass resource.

The Doha Negotiations

At the Doha Ministerial Conference in November 2001, 121 governments submitted negotiating proposals for agricultural trade reforms. The objective of the WTO Agreement is to establish a fair and market-orientated trading system through a programme of fundamental reform. The purpose is to correct and prevent restrictions and distortions in world agricultural markets.

The outcome should be effective, enabling developing countries to meet their needs, in particular in food

security and rural development. The reform proposals must also consider non-trade concerns such as, for example, environmental protection, food security and rural development.

The original deadline for completion of the mandate was 1 January 2005. However, the group of countries has been unable to come to agreement on the negotiations. The deadline has unofficially been put back to the end of 2006. If successful, the Doha Mandate may pave the way for a more balanced market in grains, cotton and livestock.

View from Newton's food analyst: Helen Groves

"Growing demand for biofuels is providing new avenues of growth for companies across several industries.

Agricultural processors are a primary beneficiary of this new growth opportunity. Businesses are allocating crops (sugars, soft seeds) as well as capital investment into the production of bioethanol and biodiesel, and generating attractive margins and returns. Companies such as Archer Daniels Midland have already become established players in these markets (holding a 30% share of US ethanol capacity). However, continued growth opportunities are attracting incremental investment from both existing and new players alike.

The drivers of biofuel demand (environmental concerns, security of supply, economic considerations given high oil prices) support the view that this is a sustainable trend. Whilst inherent volatility in demand and supply cycles applies to biofuels, just like any agricultural commodity, the long-term trend is positive.

There are clear implications for global food demand and supply balance. Global demand for most foodstuffs is rising, given ever-increasing global population growth and improving personal income levels. Renewable energy

adds a further boost to this demand. An example from 2005 is how rising demand for sugar, which has, in part, been driven by expectations related to ethanol, has driven world prices up by 50%.

The obvious question is: Where is the available land to grow the crops required to feed the world's population as well as those required to meet increasing demand for renewable sources of energy? While there is plentiful land supply in South America and Central and Eastern Europe, land quality can be questionable. However, history has shown us (think back to the Green Revolution in the 1960s) that where there is demand, innovation through science and technology will come through to create the supply.

This analysis suggests that there are many ways, from an investment perspective, to play the theme of rising biofuel demand. The bioethanol and biodiesel producers are clear beneficiaries, as long as demand-supply remains tight or, at least, in balance. However, there are many other branches off this "renewables" tree. Some examples are companies that invest in and develop science to increase crop yields and improve disease resistance and weather tolerance. Other examples include companies that produce fertilisers designed to improve soil quality or provide infrastructure to transport agricultural products from farms to processing plants to consumers all over the world".

Government support

Countries and regions that recognise the potential of biofuels have enacted policies and regulations to encourage their use and production. These policies are important for the implementation of biofuels and for their longer-term growth. Currently, policies are necessary for biofuels to compete economically in the market place, though the current high oil price is helping competitiveness.

There are generally three types of biofuels policies:

1. Taxation-based policies

Taxation-based policies typically involve a reduction in motor fuel excise taxes. Blended or undiluted biofuels are taxed at lower rates than their petroleum counterparts. The tax reduction allows biofuels to be sold to consumers at the same or lower prices than conventional transport fossil fuels. However, revenues for the government are reduced.

2. Agricultural-based policies

Farming credits can be provided for using biomass grown on land set-aside specifically for fuel crops or on land that is unavailable for food production. These policies reduce the cost of the biomass feedstock, thereby lowering the cost of the resulting biofuel. Like taxation-based policies, this allows biofuels to be sold to consumers at the same or lower prices than conventional transport fuels. Once again, revenues for the government are reduced.

3. Fuel mandates

Fuel mandates provide a simple, direct method to achieve biofuels implementation. An example of a fuel mandate is one that requires motor fuels to contain minimum percentages of biofuels. This approach generally preserves government revenues based on motor fuel taxes, but consumers may pay higher prices to cover any greater costs associated with production of biofuels.

The table below outlines some examples of biofuel policies set by a range of different countries. Development of the biofuel industry within respective countries is also highlighted.

Country	Biofuel Policy	General information
Brazil	<ul style="list-style-type: none"> • E22 bioethanol blend. • B2 biodiesel blend. • Tax preferences given to vehicles that run on pure bioethanol. • All gas stations are required to sell gasohol (E25) and pure bioethanol (E100). 	<ul style="list-style-type: none"> • Brazil has been the world leader (and primary user) of bioethanol for more than 25 years. By law, all gasoline sold must contain a minimum of 22% bioethanol. All gas stations sell both pure bioethanol and bioethanol blends. • The country produced about 15 billion litres of bioethanol in 2004. This represented slightly less than half the world's total output. Bioethanol blended into gasohol or sold as pure bioethanol (E100), accounted for 44% of total automobile fuel sold. • Brazil has emerged as the leading bioethanol exporter. Brazil exported 2.5 billion litres of bioethanol in 2004, accounting for more than half of global trade. • Brazil's transport fuels and vehicle markets have evolved together. After a sharp decline in the sales of pure-ethanol vehicles during the 1990's, sales began to climb again in the early 2000's. This was due to a significant decline in bioethanol prices combined with rising gasoline prices and the introduction of "flexible-fuel" cars by automakers. Flexible-fuel cars can operate on either pure bioethanol or bioethanol/gasoline blends. By 2003, these cars were being offered by most auto manufacturers at comparable prices to pure ethanol or gasohol cars. Flexible-fuel cars have been widely embraced by drivers, some out of concern for fuel-supply uncertainties (such as a bioethanol shortage that happened in 1989 or future oil shocks). Sales have increased rapidly: by 2005, more than half of all new cars sold in Brazil were flexible-fuel cars.
China*	<ul style="list-style-type: none"> • E10 bioethanol blend in 4 provinces. • 5 additional provinces are due to begin this same mandate in 2005. 	<ul style="list-style-type: none"> • Renewable energy should account for 15% of national consumption by 2020. However, coal remains the primary source for electricity.
India*	<ul style="list-style-type: none"> • E10 bioethanol blend in 9 out of 28 states and 4 out of 7 federal territories, beginning 2003. 	<ul style="list-style-type: none"> • In 2003 the government resolved that 5% ethanol-blended petrol would be supplied to nine states and four union territories. • For biodiesel, a national programme aims to produce enough oil seeds for the production of biodiesel in sufficient quantities to enable blending with diesel to the 20% level.

* Due to poor sugar cane crop yields during 2003-2004, India had to import bioethanol to meet state blending targets, and has had to postpone broader targets until sufficient supplies of domestic bioethanol reappear on the market. Chinese provinces have also had to suspend blending mandates due to bioethanol shortages.

Country	Biofuel Policy	General information
Malaysia	<ul style="list-style-type: none"> National Biofuel Policy is to be unveiled at the end of 2005 	<ul style="list-style-type: none"> The Malaysian government has taken the lead and is developing policies to promote the use of palm oil in biofuels. The government is taking steps to promote a biofuel product called B5. B5 is made of 5% processed palm oil and 95% petroleum diesel. Blending of palm oil with diesel in this manner would be made mandatory by 2008. Oil refiners can blend the mixture, and the product would be distributed via the existing network of service stations. The cooperation of automobile manufacturers must also be sought to ensure that the use of B5 does not damage vehicles. If successful, the promotion of B5 could create additional demand for 0.5m tonnes of palm oil. Current consumption of transport diesel in Malaysia is 10m tonnes. This would equate to 37% of palm oil stock (as at August 2005) and 3% of Malaysian production in 2004. Plans for the construction of 280,000 tonnes of biodiesel capacity have also been announced.
Canada	<ul style="list-style-type: none"> National fuel tax exemption of 10 cents per litre for biofuels. A number of major initiatives are underway to boost production of biofuels significantly, with the aim of blending 35% of all gasoline supplies with 10% bioethanol by 2010. 	<ul style="list-style-type: none"> In Canada, there are currently more than 1,000 retail locations selling bioethanol-blended gasoline in 6 provinces. Approximately 7% of gasoline sold in Canada is currently blended with bioethanol. Bioethanol production is expected to grow to 1.4 billion litres to meet the government's target of 35% of gasoline containing 10% bioethanol by 2010 (from production capacity of 200 million litres per year in 2004). To reach that target the federal government has implemented an Ethanol Expansion Program (EEP) that procures funding for construction of new bioethanol plants or plant expansions.
US	<ul style="list-style-type: none"> Production of 8 billion gallons of biofuels a year by 2012. 	<ul style="list-style-type: none"> Currently 3 states (Hawaii, Minnesota and Montana) have specific targets for E10 blending and 1 state (Minnesota) has a B2 target for biodiesel. The US has implemented tax credits for bioethanol and biodiesel. The US is the world's second largest consumer and producer of bioethanol for fuel. The growth of the US market is a relatively recent trend; bioethanol production capacity increased from 4 billion litres per year in 1996 to 14 billion litres per year in 2004. Recent annual growth has been in the 15-20% range. By 2005, there were nearly 400 fuelling stations (mostly in the upper Midwest) that sold E85, and many more selling E10 gasohol. By 2005, bioethanol contributed about 3% of the 140 billion gallons of vehicle fuel (non diesel) consumed annually in the US. In addition, 30% of all gasoline sold in the US was being blended with bioethanol (E10) as a substitute oxygenator for MTBE (methyl tertiary-butyl ether), which more and more states were requiring to be discontinued. This is because of evidence that MTBE contaminates ground water supplies.

Country	Biofuel Policy	General information
		<ul style="list-style-type: none"> • Construction of 12 new bioethanol plants was completed in 2004, bringing the total to more than 80 plants. Also in 2004, construction of 16 new plants began. • A biodiesel market is emerging in the US, with currently between 20 and 25 biodiesel production sites, with an estimated production capacity over 150 million gallons per year. An additional 100 million gallons of annual capacity has been announced. • Sales of biodiesel exceeded 30 million gallons in 2004 and are expected to more than double in 2005 due to tax incentives.
EU	<ul style="list-style-type: none"> • 5.75% of all transport fuels to be biofuel blends by 2010. • 20% substitution of traditional fuels in the road transport sector (gasoline and conventional diesel) by alternative fuels before the year 2020. 	<ul style="list-style-type: none"> • The European Commission has stated it will review the implementation of the biofuels directive in the member states at the beginning of 2006. • On 7 December 2005, the European Commission proposed a set of measures to increase the use of biomass and biofuels across all member states. The measures are ambitious. If implemented in full, they would increase the use of biomass from 69 million tonnes of oil equivalent (mToe) in 2003 to 150 mToe by 2010. The measures would need to be undertaken without increasing the intensity of agriculture, or making a major impact on domestic food production. A positive factor is that the measures are estimated to reduce reliance on imported energy from 48 to 42%.
France	<ul style="list-style-type: none"> • 5.75% of all transport fuels to be biofuel blends by 2008. • 7% of all transport fuels to be biofuel blends by 2010. • 10% of all transport fuels to be biofuel blends by 2015. • 100% tax exemption for biodiesel. 	<ul style="list-style-type: none"> • France would become Europe's top biofuels producer if it meets the targets set. • Tenders have been issued for the production of 320,000 tonnes of bioethanol and 480,000 tonnes of biodiesel. This would bring national output to c. 3% of the automotive fuel pool. • French wine makers are looking into developing bioethanol from surplus wine grapes.
Germany	<ul style="list-style-type: none"> • 100% tax exemption for biodiesel. 	<ul style="list-style-type: none"> • Biodiesel production grew by 50% in Germany in 2004. • The country now has over 1,500 fuelling stations selling B100.
UK	<ul style="list-style-type: none"> • 5% of all transport fuels to be biofuel blends by 2010. 	<ul style="list-style-type: none"> • The UK government announced in the 2005 pre-budget report that it plans to support the production of biofuels by: <ul style="list-style-type: none"> – Extending the existing 20 pence per litre biodiesel / bioethanol tax incentive until 2007/08; – Launching in April 2008, the Renewable Transport Fuel Obligation (RTFO), with a target of 5% sales of transport fuels from renewable sources by 2010/11. This is up from the current level of around 0.25%; – Awarding a 100% first-year capital allowance to biofuels plants that have a "good carbon balance inherent in the design" from early 2007.

The global market

With government support in place to encourage investment and development, the international biofuels trade is expanding rapidly. The International Energy Agency (IEA) predicts bioethanol alone has the potential to make up 10% of world gasoline use by 2025 and 30% by 2050. The current usage level is just 2%.

Trade volumes are increasing

World bioethanol trade volume hit a record level in 2004, reaching nearly 4.9 billion litres compared with 3.7 billion litres in 2003. Brazil was the largest exporter. Japan and the US were the largest importers. There was also considerable trade within the EU. There are interesting dynamics in the global market that are beginning to occur. For example, Venezuela is developing its biofuels industry to strengthen the country's position as an oil exporter.

Production capacity is increasing

Biodiesel was not produced in significant quantities anywhere in the world prior to 1996. By 2004, biodiesel markets had developed in seven primary countries: Austria, Belgium, France, Germany, Italy, Indonesia and Malaysia. For bioethanol, 2005 saw production leap with several large bioethanol plants opening in Germany and in the US. Projections for the global bioethanol market are for 60-75 billion litres per year by 2010.

Demand is currently growing faster than production capacity

In 2004, the EU, China and India accounted for 41% of global imports of vegetable oil (biodiesel) and 45% of demand. Demand is currently growing faster than production capacity in these three areas. This means that international trade looks likely to increase further. Countries that already grow and produce sugar cane as a primary feedstock, such as Brazil and India, are currently producing relatively low cost bioethanol. If these countries can produce more bioethanol than they need domestically, a global trade in biofuels may be more rigorously pursued. This looks even more likely when considering the current mismatch between those countries where biofuels can be produced at lowest cost and those where demand is rising most quickly. Feedstocks abroad, for example in Malaysia, would help meet this demand. Diversifying biofuel sources could also benefit energy security, while planting a variety of crops in different regions could help protect against weather-related loss.

Brazil is proof that the biofuel industry can succeed

Currently in Brazil, bioethanol accounts for over 30% of motor fuel demand. By contrast, in the US, bioethanol represents less than 2% of transport fuel.

Conclusion

Biofuels are an increasingly important part of the motor fuel mix in many countries and these fuels are successfully used in a variety of vehicles. This has stimulated the planting of feedstocks across a range of climates and conditions. Policies and regulations have been essential in encouraging

the use of biofuels and will continue to be important in the future. These policies allow governments to achieve benefits in the areas of environment, energy security and economic development.

Some areas of the industry require further research. There is also a need to quantify better the various benefits and costs of biofuels. However, there is evidence that biofuels could represent a serious alternative to conventional fuels, or at the very least, complement existing transport fuels. If all policies and targets are fully implemented, worldwide biofuel use could more than double over the next 5 years.

Glossary

Biodiesel

A vehicle fuel for diesel-powered cars, trucks, buses and other vehicles. Biodiesel is produced through a process in which organically derived oils are combined with alcohol (ethanol or methanol) in the presence of a catalyst to form ethyl or methyl ester.

Bioenergy

Energy made available by the combustion of materials derived from biological sources.

Bioethanol

A vehicle fuel made from biomass (typically corn, sugar cane, or wheat) that can replace ordinary gasoline in modest percentages, or be used in pure form in specially modified vehicles. Bioethanol is made by converting starch crops into sugars. The sugars are fermented into ethanol which is then distilled into its final form.

Biofuel

Fuels devised from biological materials including crops and animal wastes. Examples of biofuel include bioethanol (from fermented sugar), biodiesel from vegetable oil and wood.

Biomass

Organic materials that can be burned to produce energy or converted into a gas or liquid and used for fuel. Biomass includes forest and mill residues, agricultural crops and wastes, wood and wood wastes, animal wastes, livestock operation residues, aquatic plants, fast-growing trees and plants, and municipal and industrial wastes.

Gasohol

A blend of gasoline and ethanol, typically 10-25% ethanol (called E10, E25 etc.).

Lignocellulose

The combination of lignin, hemicellulose and cellulose that forms the structural framework of plant cell walls. Lignocellulosic plant matter can be used in the production of chemicals and renewable fuels. Lignocellulosic materials include such feedstocks as woody biomass or corn stover (dried leaves and stems).

Part II: Company Involvement

Newton, on behalf of its clients, has either a current or past interest in the companies in the table below. Outlined is the steps being taken by these companies to prepare for a lower carbon future by investment in the biofuels industry.

Company	Sector	Biofuel interests
Abengoa (Spain) Market cap: £751m	Construction & Building Materials	<p>Abengoa Bioenergy is a subsidiary of Abengoa S.A. Bioenergy currently contributes 20% of group sales.</p> <p>Abengoa Bioenergy is the European leader in the industrial production and commercialisation of bioethanol. The company owns and operates five bioenergy facilities throughout the United States and Europe. Total production capacity is 195 million gallons. Two additional plants, with a combined capacity of 135 million gallons, are currently under construction. The strategy of the company is to enter into long-term supply agreements for 2006 and beyond.</p>
Associated British Foods (UK) Market cap: £6,599m	Food Producers & Processors	<p>Associated British Foods is commissioning the UK's first bioethanol plant. Construction is expected to be complete in late 2006. The plant will use "C sugar" (sugar produced in excess of quotas) and, therefore, the cost base will be low. This should ensure the plant will be cost competitive on a global basis.</p>
Archer Daniels Midland (ADM) (US) Market cap: £9,287m	Food Producers & Processors	<p>ADM is one of the world's largest agricultural processors of soybeans, corn, wheat and cocoa. The company works with farmers across the world to process these crops into soymeal and oil, corn sweeteners, flour, cocoa and chocolate, bioethanol and biodiesel. Other goods, such as animal nutrition and industrial products, are also manufactured.</p>
Biofuels Corp (UK) Market cap: £36m	Chemicals	<p>Biofuels is an independent producer of biodiesel. The company is in the process of building its first 250,000 tonne biodiesel processing plant at Seal Sands, Middlesbrough. The site offers a deep water port and a well established infrastructure. The plant will use vegetable oil crops as the feedstock.</p>
Bunge (US) Market cap: £3,478m	Food Producers & Processors	<p>Bunge is an integrated, global agribusiness and food company operating in the farm-to-consumer food chain. The company announced in October that it is creating a joint venture with Diester Industrie, to specialise in the production and marketing of biodiesel.</p> <p>The company also announced, in November, that it was expanding the rapeseed crushing capacity of its plant in Mannheim, Germany. The new capacity is expected to come online in the second quarter of 2006 and will enhance Bunge's ability to supply the growing German market for rapeseed oil for biodiesel.</p>
D1 Oils (UK) Market cap: £57m	Chemicals	<p>D1 Oils produces biodiesel from renewable energy crops. The company uses jatropha oil as a primary feedstock. One positive characteristic of jatropha oil is that it has no food usage and, therefore, does not compete for availability as a fuel feedstock. Currently D1 Oils produces 8,000 tonnes of biodiesel per annum. Four new refineries are expected to be deployed in the first half of 2006.</p>
DaimlerChrysler (Germany) Market cap: £29,219m	Automobiles	<p>DaimlerChrysler is developing engines that can run on higher mixtures of alternative energy sources. The company has committed to creating technologies that will ensure vehicles can run on fuels with up to 10% mixtures of biodiesel or bioethanol.</p>

Company	Sector	Biofuel interests
Deere (US) Market cap: £9,824m	Engineering & Machinery	Biodiesel fuels can be used in John Deere diesel engines if the fuel meets provisional standards. The company announced in February 2005 that it planned to use B2, a blend of two percent biodiesel fuel, as the preferred fuel for diesel propelled machines made in the United States.
E.ON (Germany) Market cap: £41,038m	Utilities	E.ON announced this quarter that it plans to build a 44 MW biomass power station in Lockerbie, Scotland. The station would have the capacity to provide 70,000 homes with power. The company stated that the use of biomass (instead of fossil fuels) would avoid c. 140,000 tonnes of greenhouse gases emissions every year. Construction began this year with the project due for completion at the end of 2007.
Golden Hope Plantations (Malaysia) Market cap: £1,360m	Food Producers & Processors	Golden Hope Plantations offers a feedstock supply for the biodiesel industry through cultivation of palm oil. With the Malaysian government supporting development of B5 diesel (5% processed palm oil and 95% petroleum diesel), the group looks well placed to benefit from this growing industry. The group is also well positioned to take advantage of the growing global trade of biofuel feedstocks.
IOI Group (Malaysia) Market cap: £2,068m	Food Producers & Processors	IOI group is another Malaysian plantation business that is well positioned to benefit from the growing market for biodiesel. As at 30 June 2005, the Group's total plantation area stood at 158,514 hectares. All the plantations are located in Malaysia. The Group has 79 estates. 99% of the plantation is planted with oil palm. Processing of the palm oil is principally undertaken by the group's own twelve palm oil mills.
Neste Oil (Finland) Market cap: £4,131m	Oil & Gas	Neste Oil is an oil refining and marketing company, with a focus on advanced, clean traffic fuels. The company is investing c.100 million in a new facility, which will produce 170,000 tonnes per year of biodiesel. It is due to come on line in summer 2007. The production of the biodiesel will be based on the company's proprietary technology. The plant will use 100% renewable raw materials.
Novozymes (Denmark) Market cap: £1,790m	Chemicals	Novozymes specialises in enzymes and micro-organisms. The group's biological solutions aim to improve industrial performance and quality while also saving on water, energy, raw materials and waste. Enzymes are used in the production of bioethanol. With demand for bioethanol increasing, large-scale commercialisation of technology to convert biomass to ethanol will be needed. Novozymes could be a potential beneficiary of this move. The company announced, in early November, that it is launching three new enzymes, which make the production of ethanol from wheat, rye and barley up to 20% more efficient.
Pacific Ethanol (US) Market cap: £168m	Oil & Gas	Pacific Ethanol is a marketer and producer of renewable fuels. The group's main focus is on corn-based ethanol. The company is based in California and aims to benefit from the growing demand for bioethanol in the area. California's demand for bioethanol represents approximately one third of the current total US market. Almost all of the estimated 900 million gallons of bioethanol used in California in 2004 was imported, mainly from Midwest-based producers.

Company	Sector	Biofuel interests
Petrobras (Brazil) Market cap: £16,209m	Oil & Gas	<p>Petrobras is Brazil's largest energy company. In its 2015 Strategic Plan, the company decided to allocate 0.5% of total capital expenditure to developing and implementing new sources of renewable energy, including the production of biodiesel fuel. The targets in the Strategic Plan require Petrobras to be generating 96 MW of electricity from renewable sources and producing 2,300 barrels of biodiesel per day by 2010. The company is planning to increase bioethanol exports from 2 billion litres in 2005 to 9.4 billion litres in 2010. The company is also looking at the production of hydrogen from bioethanol for fuel cells.</p> <p>Petrobras has been key in the development of Brazil's bioethanol industry, particularly through the use of infrastructure to distribute the product.</p>
Royal Dutch Shell (UK) Market cap: £50,993m	Oil & Gas	<p>Shell is actively involved in the development of renewable sources of energy. In biofuels, the group is involved with the development of Lignocellulosic ethanol. Shell has formed a strategic partnership with Iogen, the leader in this technology, to make their "eco-ethanol" (TM) a commercial reality. Shell is also engaged in research and development for Biomass-to-Liquid processes. This is a process in which a woody feedstock is first gasified and then converted into high-quality diesel fuel components. Shell has recently announced a partnership with CHOREN Industries to develop this process further.</p> <p>Although promising, these technologies still need to prove that they can be scaled up for commercial operation. The partnerships announced by Shell will enable further development.</p>
Tesco (UK) Market cap: £26,009m	Food & Drug Retailers	<p>Tesco is involved in the biofuels market through its petrol stations. Over 150 petrol stations in the South East of England sell standard unleaded petrol, which contains 5% bioethanol. B5 biodiesel, blended with rapeseed, is sold at 23 stores. Tesco states that the biodiesel cuts particulate emissions by 20%, improves fuel efficiency by 1% and reduces carbon dioxide emissions by 5%.</p> <p>Tesco also has a 25% stake in Greenergy, a biodiesel supplier. Greenergy is currently investing in a biodiesel plant that is scheduled to open in early 2006. The plant will have an annual production capacity of 100,000 tonnes. Greenergy aims to buy rapeseed from around 1,500 farmers through a contract with Grainfarmers, a large agricultural co-operative in the UK.</p>
Total (France) Market cap: £90,002m	Oil & Gas	<p>Total is a distributor of automotive diesel containing a rapeseed blend. Plans for the group to build biofuel production plants in Africa and South America are currently under discussion.</p>

Market Cap Information Source: Datastream, 20 December 2005

Next quarter's focus

Supply chain management is a key issue for companies to consider, especially those involved in production and sourcing in developing countries. Next quarter's report will investigate some of the issues surrounding the supply chains of large retailers and how companies that Newton invests in, on behalf of its clients, are managing these issues.

SRI Activity

These are examples of SRI activity and engagement over the quarter. It is not an exhaustive list. A complete list of how Newton voted on securities during the period is available upon request.

EU Emissions Trading Scheme (EU ETS) Update November 2005

On 31 December 2005, the EU ETS had been operating for a year. Over the period the price of a carbon credit ranged between €6.70 t/CO₂ to €29.10 t/CO₂. The price of a carbon credit on 19 December 2005 was €21.65 t/CO₂. 11,400 sites in the 25 member countries of the EU are included in the scheme.

The scheme is still in its infancy with some complexities that remain to be resolved. The scheme was implemented over a short time-frame. Therefore, countries and companies did not have much time to prepare for adhering to the new regulations. Even now, some countries have still to implement registers for site-specific carbon reduction targets. This means that there is currently a lack of visibility on how the scheme, in its entirety, is actually progressing.

UBS, the stockbroker, believes the current price of a carbon credit is not high enough to encourage wide ranging carbon emission reduction behaviour. However, there is an expectation that higher gas prices could drive a higher carbon credit price. This relationship could develop. As the gas price rises, it becomes more economical for power generators to have a higher proportion of coal in their fuel mix. If coal usage increases, more carbon is emitted, thereby increasing demand for carbon credits. For the EU ETS to encourage the behaviour it was designed to achieve, the carbon credit price needs to be high enough that it becomes cheaper for power generators to use more gas (requiring less carbon credits) than coal (requiring more carbon credits) in their fuel mix decisions.

May 2006 will be a key period. This is when companies must disclose how they fared in their carbon reduction targets for 2005. This transparency will allow clarity on whether there is likely to be a shortage or excess of carbon credits in 2006. From this information, it will be possible to see which companies are ahead or behind schedule to meet their emission reduction targets. Newton continued to engage with companies over the quarter in relation to their actions and responses to the EU ETS regulations.

Associated British Foods

Subject: Primark – Management of supply chain November 2005

Consumers, media, trustees, investors and companies all have a heightened awareness of the risks that surround supply chains in developing countries. Appropriate management of social, ethical and environmental concerns is important for the protection of a company's reputation.

Primark is owned by Associated British Foods. Key to Primark's business model is the sourcing of products from the cheapest possible supplier. Primark has used hundreds of suppliers located across the world. Relationships with suppliers can be short and variable, sometimes even changing mid-season. The location, diversity and cultural difference among the company's suppliers raises concerns from an SRI perspective. Newton had the opportunity to discuss these in a meeting with the management of Associated British Foods.

The company is aware of the importance of ensuring its supply chain meets appropriate employment and human rights standards. Through the use of an independent auditor and through buyer assessment, the company monitors and assesses the management and operation of its suppliers. The company is committed to a programme of improvement if either the buyer or auditor find any issue that is deemed to be below industry standard or not compliant with the company's principles. The company stated that it does not walk away from any issue that may arise. Instead, it will seek improvements at the individual supplier.

British Energy**Subject: The nuclear debate****November 2005**

The debate surrounding nuclear power continued over the quarter. Newton had the opportunity to visit one of British Energy's nuclear power plant sites, meet the management team and discuss the issues involved in the nuclear power debate.

Many factors encourage the continued use and new build of nuclear power plants. Nuclear power offers a form of affordable electricity. It emits low levels of CO₂ during energy production and generation. It offers a method of improving security of supply. In the next 15 years the UK's current energy capacity will be reduced by one third. This is mostly due to the decommissioning of nuclear power plants, the run down of coal-fired power stations and diminishing supplies of gas resources in the North Sea. However, no new power generating plants (except for renewable generated-energy) are currently under construction. Nuclear energy offers a significant contribution to help fill this gap in energy supply.

The main negative issue of nuclear energy production is the management of radioactive waste that is produced during the power generation process. For British Energy, the UK government has full liability for all long-term waste management costs. Currently, most waste is contracted to the government owned company, British Nuclear Fuels Limited (BNFL), for storage and reprocessing. Management of radioactive waste over the long-term is a considerable challenge. The most viable option continues to be long-term retrievable storage. The Commission on Radioactive Waste Management is currently undertaking an enquiry that is looking at the viability of different methods for management of radioactive waste. The report is due to be published at the end of July in 2006. It is not likely that any long-term plans for the management of radioactive waste will emerge until then.

Attendance at corporate responsibility updates**Subject: Investor update**

Over the quarter, Newton attended investor updates on corporate responsibility by Scottish Power, Scottish & Southern, Scottish & Newcastle, Centrica and Royal Dutch Shell (on Sakhalin Energy).

Company Meeting Log: Q4 2005

During the quarter, Newton analysts and fund managers had individual meetings with the management of 276 companies to initiate or maintain dialogue around financial performance and/or responsible investment matters. The insights gained through this engagement are used when making investment decisions. Meeting were held with the following companies:

ABC Learning	CMR Fuel Cells	Kepeco	Securitas
Acciona	Comdirect Bank	Kimberley Diamond	Semtech
Acom	Comsorcio Ara	Korean Reinsurance	Seoul Semiconductor
Actelion	Compass Group	Kuroda Electric	Serco
Adastra Minerals	Cosmote Mobile	Land Securities	Serono
A-DATA Technology	CreaGene	Legal & General	Severn Trent
Adecco	Companhia Vale do Rio Doce	LG Household & Healthcare	Shed Productions
ADTRAN	Daiwa Securities	Link REIT	Shun Tak
Advanced Info Service	Dasan Networks	Lipoxen x 2	Sibir Energy
Alitalia	Deutsche Bank	Lowe's Cos	Silicon Precision Industries
Alliance Unichem	Deutsche Postbank	Lukoil	Sistema JSFC
Alltracel	DiGi.com	Magyar Olaj Gazi	SkyePharma
Alpha Pyrenees	DIS Deutscher Industrie Service	Magyar Telekom	Slough Estates
Amadeus Fire	DragonWave	Maine	Smart Telecom
Amerada Hess	Dyson x 2	March Networks	Smith & Nephew
AMP	EBT Mobile China	Max Re	Societe Generale
Anglo Amercian	EdF	Mayne Pharma	Soco International
Australia & New Zealand Bank	EFG Eurobank	Meredith	Sodexho
Aplix	Egat	Metorex	Sonic
Applied Optical Technologies	Enagas	Millicom	Sony
Arcelor	EOG Resources	Miranda Technologies	SPAusnet
Asahi Glass	Expro	MLP	Spansion
ASOS	Extreme Networks	MobileOne	Stanley Leisure
Associated British Foods	Ferrovial	National Australia Bank	Stericycle
AstraZeneca	Filenet	National City	SUMCO
Aveva	First Choice	National Express x 2	Suncor Energy
AWG	First Group	National Grid	SunCorp Technologies
Axalto	FKI	Nautical Petroleum	Supporta
BAA	Fortum	NDS x 2	Svenska Cellulose
Baker Hughes	France Telecom	Nepes	Swiss Life
Bango	Fraport	Nestle	Synergy Healthcare
Beckman Coulter	Freescale Semiconductor	Nikko Cordial	Synexus Clinical Research
BG Group	Futuris	Nippon Building Fund	Taiwan Mobile
BHP Billiton	Gallaher	Nord Anglia Education	Taiwan Secom
Bio-Treat Technology	GenProbe	Novartis x 2	Taiwan Semiconductor Manufacturing
Block Shield	GFI	Novo Nordisk	Talisman Energy
Bloomsbury Publishing	Gilead Sciences	Novozymes	Tandberg
BOC	Givaudan	Oil Search	Tate & Lyle
Body Shop International	Goodman Fielder	Olam International	Teijin
Boots / Alliance Unichem	Halfords	OMV	TeliaSonera
Bovis Homes	Hartford Financial Services	Oriental Land	Test Rite International
BP	Havit Information	Orion	ThreeSeven
British Sky Broadcasting	HDFC	Pacific Management	Tipp24 x 2
BT	Hitachi	PayPoint	Titan Europe
Buenaventura	Hitachi Chemical	Pacific Gas & Electric (PG&E)	Tokyo Star Bank
Cable & Wireless	Homeserve	Plasmon	Transens Technologies
Care UK	Hornby	Plum Creek Timber	TTP Communications x 2
Carlsberg	Huntleigh Technology	Powertech	Umicore
Carluccios	Hyatt Regency	Praktiker	Unicredito Italiano
Carpetright	Insurance Australia	Prelude Trust	Uniden
Cathay Financial	Icap	Premier Research	UPS
CB Richard Ellis	Imagination Technologies x 2	Primary Health Properties	Verbund
Cbeyond Communications	Imperial Tobacco	Promise	Vinci
CDNetwork	Inbev	Prudential x 2	Vodafone x 2
Celesio	Inco / Falconbridge	Recordati	VT Group
Cemex	Informa	Red Electrica	Vulcan Materials
Centrica	Intermediate Capital Group	REI Agro	Waters
Chemokine Therapeutics	Invensys	Rexam	Wienerberger
Chesapeake Energy	Investcom	Roche	Whatman
China TechFaith	iSoft	Rowan Drilling	Whitbread
Chloride	Ivanhoe	Royal Bank of Scotland	Wilmington Trust
Chrysalis	J.Bridge	RWS	Wolverhampton & Dudley Breweries
City National	Johnson & Johnson	Safran	WorkSpace
CJ CGV	Juniper Networks	Saft	Xaar
Clapham House	Jupiter Telecom	Schibsted	Zetes Industries
Clariant	KAF	Schlott	
Clorox	KDDI	Scottish & Southern Energy	

In addition, the analysts and fund managers attended a large variety of external meetings arranged by companies or by brokers and other research providers.

Ian Burger Associate Director of Investment Management, Corporate Governance Officer

Katie Swanston SRI Officer

Tel: 020 7163 9000

Fax: 020 7163 5063

newton.co.uk

Issued and approved by Newton Investment Management Limited,
Mellon Financial Centre, 160 Queen Victoria Street, London EC4V 4LA.

Registered in England No. 1371973.

Authorised and regulated by the Financial Services Authority

Please be advised that the companies named throughout this document are not indicative of current investments made by Newton on behalf of its clients.

Newton Investment Management Limited

This is a financial promotion and is not intended as investment advice. Past performance is not a guide to future performance. The value of investments, and income from them, is not guaranteed and can fall as well as rise due to stock market and currency movements. When you sell your investment, you may get back less than you originally invested.

The information pertaining to individual securities contained within this document are purely for illustrative purposes and must not be construed as a recommendation to buy or sell. The opinions expressed in this document are those of Newton Investment Management Limited and should not be construed as investment advice.

Newton Investment Management Limited

The Bank of New York Mellon Centre

160 Queen Victoria Street

London EC4V 4LA

Registered in England No. 1371973

Tel: 020 7163 9000

www.newton.co.uk

Registered office: As above

Authorised and regulated by the Financial Services Authority


Newton Capital Management Limited

'Newton' refers to the following group of affiliated companies: Newton Investment Management Limited, Newton Capital Management Limited, Newton International Investment Management Limited, Newton Capital Management LLC and Newton Fund Managers (CI) Limited. Assets under management include assets managed by all of these companies except Newton Capital Management LLC, which provides marketing services in the U.S. for Newton Capital Management Limited. Except for Newton Capital Management LLC and Newton Capital Management Limited, none of the other Newton companies offer services in the U.S. Newton Capital Management Limited is an investment management firm authorized and regulated in the United Kingdom by the Financial Services Authority in the conduct of investment business and is a wholly owned subsidiary of The Bank of New York Mellon Corporation. Registered in England no: 2675952. Newton Capital Management Limited is registered in the United States as an investment adviser under the Investment Advisers Act of 1940.

The information pertaining to individual securities contained within this document are purely for illustrative purposes and must not be construed as a recommendation to buy or sell. The opinions expressed in this document are those of Newton and should not be construed as investment advice.

Tel: (516) 338 3521

www.newtoncapitalmanagement.com

Printed on think⁴ warm 150 g/m²  FSC

Investors should be aware that past performance is not a guide to future performance and that the value of investments and the income derived from them can go down as well as up. Investors may not get back the full amount invested.

The opinions expressed are those of Newton Investment Management and should not be construed as investment advice.

In addition the information contained in this document should not be construed as a recommendation to buy or sell a security.