



Ludgate Environmental Fund

Newsletter 3: Covering Q2 and Q3 2008

This is the third newsletter of Ludgate Environmental Fund Ltd. ("LEF" or "Fund") covering the six month period from 1st April 2008 to 30th September 2008.

In the three months to 30th June 2008 (the financial year end of LEF), Net Assets of LEF rose to £35.37 million with the NAV per share of the Fund rising from 116.13p to 120.26p. This represents an increase in NAV per share of 3.56% over these three months and an increase of 23.60% over the eleven month period since the Fund's admission to AIM. This compares with a 0.30% rise and an 18.70% fall in the FTSE AIM All-Share Index over these periods respectively.

Since then, in the three months to 30th September 2008, Net Assets of LEF have fallen to £32.54 million with the NAV per share of the Fund falling from 120.26p to 110.65p. Whilst this represents a drop in the NAV per share of 7.90% over these three months, the NAV per share of LEF over the fourteen month period since the Fund's admission to AIM has risen by 13.70%. This compares with a 33.10% fall and a 45.70% fall in the FTSE AIM All-Share Index over these periods respectively.

Key Fund & Performance Data

	Q1 2008 (as at 31 Mar 08)	Q2 2008 (as at 30 Jun 08)	Q3 2008 (as at 30 Sep 08)
Share price (pence)	114.00	114.50	103.50
Warrants Price (pence)	15.00	22.00	12.50
Net Assets (£m)	34.15	35.37	32.54
Shares in Issue	29,408,608	29,408,608	29,408,608
NAV per Share (pence)	116.13	120.26	110.65
Market Capitalisation (£m)	33.53	33.67	30.44
Exchange	London - AIM		
Admission Date	2nd August 2007		
Currency	GBP		

Investment Portfolio

Ludgate Investments Ltd. ("LIL"), as Investment Adviser to LEF, has reviewed over 180 investment opportunities in the fourteen month period since the Fund launch in August 2007.

As at 30th September 2008, LIL had recommended and the Fund had completed combined investments of £12.90 million across six companies, representing 43% of total funds raised by LEF. All six investment portfolio companies were revenue generating and required additional development capital for expansion of their businesses.

Of the £12.90 million total, £8.59 million (67%) of investments made by the fund have been structured as loans, convertible loan notes or preferred stock each carrying a coupon of 8% per annum. This yields a cash interest income of £508,000 per annum with an additional £180,000 per annum of accrued interest income.



Company	Activity	Investment Amount	% LEF Funds*
Hydrodec Group plc	Specialist Oils Recycling	£3.0m (Convertible)	10.09%
		£2.25m (Equity)	7.57%
Emergya Wind Technologies B.V.	Wind Turbine Manufacturing	€3.0m (£2.24m) (Pref. Stock)	7.53%
STX Services B.V.	Environmental Product Broking	€0.19m (£0.14m) (Equity)	0.47%
		€0.60m (£0.45m) (Convertible)	1.51%
		€0.50m (£0.40m) (Short Term Loan)	1.33%
Rapid Action Packaging Ltd	Food Packaging Solutions	£1.50m (Equity)	5.05%
		£2.50m (Convertible)	8.41%
Phoslock Water Solutions Ltd	Water Treatment Solutions	AUS\$0.55m (£0.25m) (Equity)	0.85%
Azure Dynamics plc	Hybrid Vehicles	£0.15m (Equity)	0.50%
Total		£12.90m	43.31%

* LEF Funds = funds raised for investment (£29.73m)

1. Hydrodec Group plc (“Hydrodec”) (AIM:HYR)

Specialist Oils Recycling

LEF Ownership: 7.0% (assuming full conversion of all convertible loan notes)

Date(s) of Investment: November & December 2007, March & April 2008

Amounts Invested: £3.0m (Convertible), £2.25m (Equity)

Investment as % of LEF Funds Raised: 10.09%, 7.57%

Valuation at 30 Sept 2008 (method): £7.2m (quoted share price)

LEF has invested a total of £5.25 million in Hydrodec, including an investment into Virotec International plc (“Virotec”) which was converted into ordinary shares of Hydrodec following completion of the acquisition of Virotec by Hydrodec on 25 June 2008. LEF’s investment into 7.5 million ordinary shares of Virotec converted into 2.0 million shares in ordinary shares of Hydrodec. This brings LEF’s total shareholding in Hydrodec to 22.5 million ordinary shares, assuming conversion of the £3.0 million convertible loan note.

Hydrodec’s technology is a patented sustainable oil refining process that takes existing spent oil as feedstock to produce new specialty oils thus creating a virtuous “green” cycle. The process is closed loop and produces no harmful emissions

Hydrodec’s first commercial process re-refines the used transformer oils that insulate and cool utility transformer boxes. It currently has a commercially operating plant in Young, New South Wales in Australia, and is now expanding its operations into the US, the largest market for transformer oil in the world, through the construction and operation of production plants in Canton, Ohio and Laurel, Mississippi.

Hydrodec has made significant progress in Q2/Q3 2008. Highlights include:

- Accreditation as a vendor within the vendor prequalification system for American Electrical Power, one of the largest power utilities in the US;
- Conditional off-take commitment from one of the largest transformer oil buyers in the US for >50% of the Ohio plant production;



- The handover from construction to commissioning for the new Canton, Ohio plant on 16 June 2008;
- Completion of independent quality assurance verification on Hydrodec's "Superfine" transformer oil from the Ohio plant;
- Completion of the acquisition of Virotec International plc on 25 June 2008;
- The pre-payment of the CSIRO royalty for AUD\$5.6 million. With the successful acquisition of Virotec, Hydrodec has now eliminated all royalty commitments;
- As part of its three year plan, the investigation and commencement of commercialization of the Hydrodec technology in at least one other oil type e.g. hydraulic oil;
- Average sales of Superfine oil, from the Australian plant, across May and June 2008 of 500,000 litres per month;
- Construction go-ahead for the second US plant in Laurel, Mississippi;
- The signing of an MOU, to progress the introduction of its technology and business to the Japanese market, with Kobelco Eco-Solutions Co. Ltd. ("KES"), a majority owned subsidiary of Kobe Steel. KES is the environmental business unit of the Kobe Steel Group, one of Japan's most prominent industrial companies;
- The official opening of the Canton, Ohio plant, following commissioning, on 07 October 2008; and
- First bulk sales from the commissioned Canton, Ohio plant.

John Gunn, Senior Adviser within LEF, is non-executive Chairman of Hydrodec.

2. Emergya Wind Technologies B.V.

Wind Turbine Manufacturing

LEF Ownership: 2.45% (post conversion of warranted loan and additional investment)

Date(s) of Investment: December 2007, September 2008

Investment: €3.00m (£2.24m) (Preference Shares)

Investment as % of LEF Funds Raised: 7.53%

Valuation at 30 Sept 2008 (method): €5.09m (£4.05m) (further funding round)

EWT is a Dutch-based manufacturer and supplier of wind turbines and turnkey wind parks. It specialises in the development and manufacture of advanced direct-drive (gearless) wind turbines. EWT was established in 2004 by the acquisition of the intellectual property of Dutch wind turbines manufacturer Lagerwey. The current product portfolio consists of the 750 KW and 900 KW series and EWT is also developing larger wind turbines for both onshore and offshore applications.

Recent highlights include:

- The pipeline of orders for EWT continues to grow and the market remains strong;
- EWT has entered into a letter of intent to acquire Americas Wind Energy Corporation ("AWE") which would give EWT the rights to manufacture and sell the DIRECT WIND turbine product line in North America, a fast growing market for wind power;



- EWT announced on 25 June 2008 that it had extended its geographical market reach into China by establishing a local marketing and sales company through a joint venture with the Chinese Academy of Launch Technology (“CALT”). The joint venture aims to install over 1000 MW of EWT wind turbine capacity in China over the next five years based on the current portfolio of 750 and 900 KW turbines as well as a 2 MW turbine that is currently being developed and is expected to become available in 2010; and
- In September 2008, LEF invested an additional €1.0 million into Emergya Wind Technologies B.V. (“EWT”) as part of a €31 million private placement into the company. The additional investment into EWT has been made by way of preference shares. At the same time LEF, along with all the holders of the warranted loan and other shareholder loans, has converted its €2.0 million of warranted loan into preference shares in the company. Post conversion of the warranted loan and follow-on equity investment, LEF holds 4.1 million shares in EWT, representing 2.45% of the share capital of the company.

3. STX Services B.V.

Environmental Product Broking / Trading

LEF Ownership: 19.2% (post conversion of loan notes)

Date(s) of Investment: December 2007, January 2008 & June 2008

Investment: €0.19m (£0.14m) (Equity), €0.60m (£0.45m) (Convertible), €0.5m (£0.40m) (Short Term Loan)

Investment as % of LEF Funds Raised: 0.47%, 1.51%, 1.35%

Valuation at 30 Sept 2008 (method): £0.67m, excluding short term loan (further funding round)

STX is an Amsterdam-based company specialising in the broking and trading of environmental financial products with a particular focus on the carbon markets. STX has mostly been active in broking and trading EU Emission Allowances (“EUAs”) but has diversified into transactions in Certified Emission Reduction (“CERs”), Voluntary Emissions Reduction (“VERs”), Biofuel Tickets, Green Certificates and Electricity Load-Profile Arbitrage. STX is active across the European markets.

Recent highlights include:

- Brokerage activity of STX performing above expectations, as transactions in EUAs and CERs have increased significantly in Phase 2 of the European Emission Trading Scheme and Green Certificates and Biofuels have also shown growth;
- The load-profile trading activity underperforming by comparison due to a combination of huge volatility in power prices and decreasing liquidity in these markets related to the credit crisis; and
- Strong growth in STX’s revenues so far in 2008 as the carbon trading markets continue to develop with transaction volumes now double those seen 12 months ago. Point Carbon estimate that the carbon trading market will grow from €40 billion in 2008 to €63 billion in 2009.

Nick Pople, Fund Manager within LEF, is a member of the supervisory committee of STX, and Nigel Meir, Fund Manager within LEF, is a member of the credit committee of STX.



4. Rapid Action Packaging Limited

Food Packaging Solutions

LEF Ownership: Dependent on conversion terms

Date(s) of Investment: April 2008

Investment: £1.5m (Equity) and £2.5m (Convertible)

Investment as % of LEF Funds Raised: 5.05%, 8.41%

Valuation at 30 Sept 2008: £4.0m (cost)

Rapid Action Packaging Ltd ("RAP") specialises in the design, manufacture and supply of innovative, ergonomic, cost effective and environmentally responsible packaging systems particularly for the "food on the move" marketplace. RAP's unique packaging solutions combine the benefits of both paper and film technologies to improve packaging as a vital tool in sales growth for food retailers whilst also putting a strong emphasis on environmental performance and responsibility. All RAP's products are available in fully compostable and biodegradable materials. Raw materials are sourced sustainably and the design of RAP's finished products not only leads to raw material 'source reduction' but also through their flat-pack form ensures that distribution and storage have a lower environmental impact.

RAP's current customers include most of the largest UK food on the move retailers including supermarkets and some of the world's leading quick service restaurant companies. Established in 1997, RAP has experienced rapid growth in recent years. Turnover in 2007 increased by 40% to £11million and the Company is now trading profitably. RAP is expanding into Asia and, more recently, the US through licensing its production and distribution to third parties. Product design, sales and production are based in Ireland and the UK.

Recent highlights include:

- The company has announced the expansion of its Irish factory with a €3.3m investment supported with grant funding from Údarás na Gaeltachta, the regional economic authority;
- Orders have been placed for key elements of the investment which will enable the company to launch three new patented product lines aimed at the European food on the move market to be launched during the course of the coming financial year;
- A supply agreement has recently been signed contract to supply a major UK based food on the move retailer, securing the business for a further three years;
- The results for the year ended 30 September 2008 will show an increase in turnover for the year of some 10% compared with the previous year; and
- Current sales activity indicates a strong start to the next financial year and significant interest in new products is being received from both UK and European retailers.

Nick Pople, Fund Manager within LEF, is a non-executive director of RAP.



5. Phoslock Water Solutions Limited (ASX: PHK)

Water Treatment Technology

LEF Ownership: approximately 3%

Date(s) of Investment: September 2008

Investment: AUS\$0.55m (£0.26m) (Equity and Warrants)

Investment as % of LEF Funds Raised: 0.87%

Valuation at 30 Sept 2008 (method): AUS\$0.55m (committed amount)

PWS is an Australian public company that owns the patents and global trade mark for 'Phoslock'. Phoslock is a modified clay product which removes phosphorus from the water column and sediment pore water of water bodies. By removing the phosphorus, Phoslock effectively controls the growth and proliferation of algae through limiting one of their essential nutrients. Application of Phoslock in a water body will break existing algal blooms and prevent future blooms.

Phoslock was invented and developed by the Commonwealth Scientific & Industrial Research Organisation (CSIRO), Australia's national scientific organization. PWS manufactures Phoslock at its joint venture manufacturing operation near Kunming, China.

Having made the commitment to invest (subject to the passing of resolutions at a general meeting) in August 2008, LEF completed its investment into Phoslock following the general meeting of the company held on 03 October 2008. LEF has subscribed for five million fully paid ordinary shares in the Company at a subscription price of \$0.11 per share. As part of its investment, LEF has also been granted options to subscribe for an additional 1.25 million shares in PWS at \$0.11 per share any time up to 31 July 2009. LEF's investment was part of a wider share placing in PWS, which raised a total of just over AUS\$1.7 million for the Company on the same terms. Post investment, LEF's shareholding in PWS is approximately 3%.

Recent highlights include:

- The restructuring of PWS's European operations by forming a joint venture company, Phoslock Europe GmbH, registered in Zurich, Switzerland. Phoslock Europe GmbH will be owned 60% by PWS and 40% by Bentophos GmbH, a German company, which is the current licensee for Phoslock in Germany, Switzerland and Austria. Phoslock Europe GmbH will hold the license to sell and distribute Phoslock in the UK, Ireland, Netherlands, Belgium, Luxembourg, France, Italy and Scandinavia;
- Good progress on key projects in Western Europe with several major applications planned in the UK and Germany prior to the end of 2008 and with further applications planned for 2009 (planning underway on ten projects of 50 to 200 tons and a substantially larger number of smaller projects);
- The commencement of work on a major project, which will potentially involve the application of up to 2,000 tons of Phoslock to a large well-known lake in Northern Italy;
- In Canada, results of trials undergone in July 2008, on storm water basins and a small lake in southern Ontario, have proved very positive with very noticeable benefits of using Phoslock have been recorded. The Ministry of Environment approval for use of Phoslock in Ontario is now at an advanced stage; and
- In Australia, approval has been received from the Department of Environment & Climate Change to apply Phoslock to a 500 hectare drinking water reservoir.



6. Azure Dynamics Corporation (AIM: ADC), (TSX:AZD)

Electric and Hybrid Electric Drive Technology

LEF Ownership: less than 1%

Date(s) of Investment: August & September 2008

Investment: £0.15m (Equity)

Investment as % of LEF Funds Raised: 0.50%

Valuation (30 Sept 2008): AUS\$0.12m (quoted share price)

Azure Dynamics Corporation (TSX: AZD) (LSE: ADC) (OTCQX: AZDDF) is a world leader in the development and production of hybrid electric and electric components and powertrain systems for commercial vehicles. Azure is strategically targeting the commercial delivery vehicle and shuttle bus markets and is currently working internationally with various partners and customers. The Company is committed to providing customers and partners with innovative, cost-efficient, and environmentally-friendly energy management solutions. AZD is headquartered in Detroit with offices in four centers across North America.

Recent highlights include:

- Azure Dynamics announced on 22 August 2008 that it had raised CAN\$25 million of new equity into the company through a private placement of 100 million ordinary shares at CAN\$0.25. As part of this placement, 74 million shares were subscribed for by three pension funds managed by Shell Asset Management Co. for CAN\$18.5 million;
- An initial order for three units from Con Edison of New York for its Balance™ Hybrid Electric system on Ford's E450 chassis; and
- An order for six of the company's Low Emission Electric Power (LEEP™ Freeze system). This system will be mated to a Kidron Ultra Temp system to provide a transport refrigeration solution for Buchy Food Service in Greenville, Ohio.

The Market

According to the Global Trends in Sustainable Energy Investment 2008 Report published by the United Nations Environment Programme and New Energy Finance Ltd ("NEF"), a total of nearly US\$150 billion of new money was invested into sustainable energy in 2007, an increase of 60% over 2006. NEF also expects total investment in clean energy between now and 2030 to reach US\$450 billion a year rising to more than US\$600 billion a year from 2020.

Despite the general economic downturn as the credit crunch continues to worsen in recent months, investment activity in the environmental/cleantech sector has remained strong through Q1 and Q2 2008 and into Q3 2008.

A record of US\$2.0 billion was invested in 118 cleantech growth companies in Q2 2008, with Q3 2008 set to break that. This total compares to US\$1.25 billion into 102 funding rounds for Q1 2008 and US\$1.3 billion in the comparable Q2 of last year (2007). The geographic focus remains skewed towards North America, with 75% of the total invested there. A trend to watch within Europe is the record number of early stage rounds in the quarter.



Sector Focus

Investments in Q2 2008 were spread unevenly across the sub-sectors within the environmental/cleantech space. The sub-sectors receiving the most attention from investors in this quarter were thin film solar PV, concentrated solar thermal and algae companies. According to Cleantech Venture Network:

- Solar is now the largest sub-sector, totalling more than one-third of VC investments.
- Biofuels have been up and down, paralleling the oil price, however continued investment in cellulosic and algae will be needed as companies move from pilot phase to commercial-scale operations.
- Attention is increasing in the green building sector, though given the likely impact of the downturn, the future for this space is highly uncertain.
- Electric vehicles have been another major focus area for VC money, with particular attention to batteries and fuel cells.

Water is only beginning to make the radar screen of most VCs and agriculture, clean coal, carbon capture storage and hydrogen technologies have seen minimal investment in the past year. Lighting and energy efficiency is another nascent sector which has seen investments in prior quarters.

Policy/Regulation

Environmental and sustainability issues continue to be a focus for regulators around the world. The European market continues to be strengthened by the binding target of 20% renewable energy by 2020. Regulations are also being strengthened in the areas of waste and recycling, as landfill taxes increase across the continent. Globally, the increased focus of investment in 'green' energy was mirrored at the World Bank, where funding for efficient and renewable energy rose 87% this year to nearly US\$2.7 billion.

The credit crunch is pushing forward the green agenda in unexpected ways. In the US, the bailout bill included the much-needed extension to the renewable tax credit. In Europe, car makers have included a proposal to use their proposed €40 billion of loans to develop green vehicles. Additionally, France unilaterally announced €400 million would be made available for research into clean vehicles over the next four years. In related news, the EC voted to approve a plan to force automakers to meet average CO₂ emissions of under 130 g/km by 2012.

Carbon has finally become an officially traded commodity in the US, with the launch of Regional Greenhouse Gas Initiative ("RGGI"), the nation's first auction of CO₂ allowances. RGGI covers ten states in the North East of the USA and mirrors Europe's Emissions Trading Scheme, though only covering power plants. US\$38.6 million was generated from the first auction.

Investment and Exit Opportunities

In the near term, the IPO exit route is not likely to be attractive with wildly fluctuating markets and we have already seen some major IPOs retracted (e.g. Schott Solar). Corporate activity, however, is likely to continue with, according to NEF, corporate venture investments in cleantech having grown from less than US\$10 million in 2005 to over US\$350 million in the first three quarters of 2008.

"Despite these unusual times in the financial markets, we remain optimistic for the long term prospects of the sector as the fundamental drivers that have been the foundation of the sector's growth over the previous five years remain unchanged - energy security concerns, rising and volatile energy pricing, climate change and sustainability concerns have not gone away. Clearly, we expect to see continued volatility in the sector and the overall market, but we fundamentally expect to see a strong, long term growth cycle for CleanTech given the size of the market and the challenges we face." – Jefferies CleanTech Review 2008 Q3.



Deal Flow

Although we are experiencing a general market downturn, investment activity in the environmental / cleantech sector has remained strong. As a result of current market conditions, we are seeing investment opportunities at more attractive valuations than earlier this year. This trend is expected to continue and strengthen in 2009. For funds with sufficient liquidity, this offers significant up-side potential.

Current market trends, as described above, are reflected partially in the deal flow which LIL has seen and reviewed over the last sixth months – e.g., second generation biofuels, solar in all its various forms; energy efficiency; electric vehicles and sustainable building materials. LIL also continues to research and identify interesting investment opportunities in the areas of waste and recycling; biomass; and novel air conditioning technologies.

Deal flow remains strong with the Fund Team continuing to see a growing number of investment opportunities in the Cleantech / Environmental space at the expansion and development stages. With investments made in six companies to date, the Fund Team is conducting due diligence on a number of UK, European and Australian companies, and expect to make additional investment recommendations in Q4 2008.

Team

There have been a number of changes within LIL's environmental Fund Team in Q3 2008. Whilst a portfolio manager left in the period, the Fund Team was at the same time strengthened with two additional portfolio managers joining. Bill Weil joined from outside LIL at the beginning of September and Edward Daniels has moved internally within LIL to spend more of his time on the Fund.

William B. Weil – Portfolio Manager

Bill joined the team as portfolio manager on 1 September 2008, bringing with him a wealth of experience in the environmental/cleantech sector.

Bill graduated with honours from the University of Pennsylvania's intensive Management & Technology programme, with degrees from both Wharton and the School of Engineering. He joined Environmental Resources Management as a consultant, gaining exposure to the environmental impacts across a wide variety of sectors. Following various operational experiences, including helping to turn around a start up in the metals sector, Bill completed an MBA at INSEAD.

Prior to joining LIL, Bill was responsible for analysing companies, new technologies and markets as the General Manager of Strategy and Portfolio for Royal Dutch Shell in their Renewables and CO2 division. Whilst at Shell, Bill managed a large scale project, to develop algae based fuels, from initial concept through to formation of the joint venture company called Cellana in December 2007. Latterly, Bill gained experience in cleantech venture investing working with Vantage Point Venture Partners. Bill brings a strong international network of contacts in the environmental arena.

Edward Daniels – Portfolio Manager

Edward joined LIL in January 2007 since when he has, amongst other things, acted as portfolio manager for LIL's principal investments portfolio and been responsible for the financial due diligence part of LEF's investments into Hydrodec and EWT.

He graduated from Newcastle upon Tyne University in 1996 with joint honours in Accounting and Economics. Following his qualification as a Chartered Accountant, he joined Ernst & Young LLP, spending



two years working with small entrepreneurial companies in London, and four years providing buy-side due diligence and related transaction services for private equity clients in London and New York.

Edward will focus on the financial due diligence of potential investments for LEF and on the financial monitoring of portfolio companies.

Other Fund Data

ISIN Number – shares	JE00BIYW3102
ISIN Number – warrants	JE00BIYW3L02
Reuters RIC Code – shares	LEF.L
Reuters RIC Code – warrants	LEFW.L
Bloomberg code – shares	LEFLN
Bloomberg code – warrants	LEFWLN

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Important Information

Past performance is not a guide to future performance. The value of investments and the income generated from them may go down as well as up and are not guaranteed. You may not get back the amount you originally invested. Changes in rates of exchange and stock market performance may cause the value of investments to fluctuate. Where investments are made in unquoted securities or smaller companies, their potential volatility may increase the risk to the value of, and the income from, the investments. Net Asset Value (NAV) performance is not the same as share price, and you may realize returns that are lower or higher than NAV performance.