



The Union Effect: greening the workplace

Contents

5	Acknowledgements
6	Introduction
10	Allianz Insurance
16	Defra (York)
23	EDF Energy
30	Furzedown Low Carbon Zone
34	Great Ormond Street Hospital
39	Port of Felixstowe
46	Conclusions

Section one

Acknowledgements

The TUC would like to thank the Labour Research Department for undertaking the research for this report. We would also like to express our appreciation to the trade union and management representatives from the following organisations who contributed to this study: Allianz Insurance; Defra (York); EDF Energy; Furzedown Low Carbon Zone, London; Great Ormond Street Hospital, London; and the Port of Felixstowe.

Section two

Introduction

This report presents the experiences of six organisations which have made a serious effort to lessen the impact of their operations on the environment and, in particular, to reduce their carbon footprint. It looks at the measurable progress that has been made, and the role of unions in that progress.

The six case studies cover the public and private sectors, as well as a range of industries:

- Allianz Insurance: a financial services company
- Defra (York): a central government department
- EDF Energy: one of the big six energy companies
- Furzedown Low Carbon Zone: a community project based on a further education college
- Great Ormond Street Hospital, an NHS Trust
- The Port of Felixstowe, the largest in the UK.

Although there are differences in the way that environmental improvements are being introduced – power stations and a port face very different challenges to hospitals and offices – there are also similarities.

All six case studies have sought to measure progress towards their targets, and can sometimes point to considerable successes. At Allianz Insurance, for example, CO₂ emissions per employee have fallen by 54.8% since 2006; in the Furzedown Low Carbon Zone there have been 900 energy saving advice visits to local homes. At the Port of Felixstowe, where air quality is particularly important, nitrous oxide levels have fallen by an average 10% between 2008 and 2012, while sulphur dioxide levels have fallen by 80% in a shorter period.

In all six cases, investment in less environmentally damaging plant and equipment has played a role in the improvements made, whether through the reduction in emissions of Allianz's car fleet, the automatic taps at Defra, energy efficient cooling of data centres at EDF Energy, thermostatic radiator valves at the school involved in the Furzedown project, a new power unit at Great Ormond Street, or the switch from diesel- powered to electric-powered gantries at Felixstowe.

However, in all six organisations, employee involvement, seeking their advice, persuading employees to use both old and new equipment and to change their

behaviour in ways which reduce damaging impacts on the environment, has also been crucial, as management itself has also agreed. It is, as the 2012/13 Defra Annual Report points out, with reference to greenhouse gas emissions, a question of “staff culture change”.

Against this background there are significant differences in the role of the unions. At Allianz and the Port of Felixstowe, for example, it seems that a reduction in their carbon footprint and other improvements, are being primarily driven by management, with unions playing a willing role in winning employee support. At Furzedown, it has been the unions who have been the instigators of the whole attempt to develop environmental awareness in the community and promoting sustainability skills among students. Similarly at Defra (York), unions have played a central role. The targets have been set centrally by the government as a whole, but it has been the unions, both locally and nationally, who have worked with their members and developed an environmental auditing process, which aims to ensure that potential environmental gains are actually achieved. At Great Ormond Street Hospital unions and management have worked together over a long period, with upswings and down, on sustainability, through a Joint Environmental Committee. Finally, at EDF Energy, the commitment to “fight against climate change” is included in a Corporate Social Responsibility agreement signed with the unions at international level.

This does not mean that progress has been universal and straight-line. Not all the targets set have been achieved and, with no legal basis for union involvement in environmental issues and no legal obligation on employers to consult unions on the issue, enthusiasm, both among management and union members has sometimes waned.

This also explains why in the research looking for suitable case studies some union representatives responded that management interest in involving unions had fallen away. As one union commented, “over the last couple of years we have seen a reluctance to get involved in any joint employee engagement work on the green agenda with the unions. This is not for the want of trying on our part but there have been some major changes in personnel and resource and the focus seems to have shifted quite radically.” Another said: “Changes in management structure and a downturn in staff morale have forced us to make some tough decisions. At this present moment in time we are not pro-active although we haven’t given up completely.”

However, this is not the picture everywhere. There are certainly examples where local union representatives have successfully pushed for environmental improvements.

In workplaces beyond the scope of this report, at a Revenues and Customs centre in the North West employing more than 300 people, for example, the PCS rep organised a campaign to get disposal plastic cups in vending machines removed and replaced with mugs. The campaign, which included a

Green workplaces case studies

photographic competition featuring “mug shots”, an email vote and personal emails to those unhappy with the switch, resulted in the disposal cups being replaced by 300 recycled plastic mugs with lids.

At a Clinical Commissioning Group in the South West, the UNISON environmental rep, who is also the health and safety rep and a steward, has pushed for a range of environmental improvements. One key change which has been that meetings are now conducted using video or tele-conferencing where possible. With the Group operating on two main sites 26 miles apart, the savings in mileage are considerable. The mile allowance for a single attendee using their own car would be £34.84 for the journey, so there are also financial savings.

At a major motor components factory in the North West, the company has installed fans to recycle waste heat from the roof space and introduced motion sensors to control equipment, resulting in a reduction in energy usage. The union proposed a suggestion scheme for improvements, and is represented in Health, Safety and Environment (HSE) meetings, which take place monthly. Partially as a result, the site has won an HS&E Excellence award in six of the last seven years and in 2013, was only of only 10 sites, out of an eligible worldwide total of 150, to do so.

In all these cases, the role of union representatives has been crucial. Indeed, a survey for the TUC carried out by the LRD¹ in 2012 of over 1,200 union representatives showed that unions are in a unique position to lead on environmental and energy efficiency in the workplace. They can encourage changes in behaviour, and they also see it as their role to convince employers that greening their workplaces is a long-term investment rather than just a short-term cost.

Unions are well placed to:

- monitor the effectiveness of environmental policies and provide staff input
- gain staff support for changes to workplace practices
- use existing union structures and procedures to influence and develop members’ thinking and actions
- raise staff awareness and encourage behavioural change
- improve operational procedures.

At present this depends on voluntary commitments by both sides. However, the right for a recognised trade union to appoint union environmental reps could have a transformative effect in the area of the environment at work

¹ *Unions and Climate Change: a guide for unions reps*, LRD 2012:
<http://www.tuc.org.uk/sites/default/files/GREEN%20UNIONS%20AT%20WORK%202012%20Final.pdf>

today. This cuts to perhaps the fundamental issue - that the three essential underpinnings of workplace environmental reps should provide for:

- sufficient time off for appropriate and relevant environmental training
- sufficient time to carry out an energy and environmental audit with management
- by agreement with management, the option to establish a joint environment forum.

Section three

Allianz Insurance

Background

The financial services group Allianz Insurance has stated public commitments to reduce its carbon footprint. It argues that there are clear business reasons to support the transition to a low-carbon economy, in which union involvement plays an integral part.

The financial services group Allianz Insurance is one of the largest general insurers in the UK employing some 4,500 people in 20 offices. Its headquarters is in Guildford, Surrey. It is part of Allianz SE, based in Munich Germany, and with 148,000 employees worldwide).

Both the group as a whole and the Allianz in the UK have a stated commitment to reduce their carbon footprint. The group's first Climate Change Strategy was published in 2005. The 2014 updates says: "As a global corporate citizen, Allianz takes sustainability seriously. Environmental, social and corporate governance (ESG) aspects are continuously being integrated into our operations, insurance and investment decisions."²

However, the strategy also points out the clear business reasons for Allianz's support for the transition to a low-carbon economy. Climate change will impact on the insurer's business because of predicted increases in the frequency and severity of extreme weather events: "Allianz is well aware that climate change could affect its entire business spectrum."

The group has therefore identified where it can contribute to low-carbon development:

- within the company, by reducing its carbon impact
- as an investor, through investing in areas such as renewable energies and carbon-offsetting projects
- as a financial services provider by helping customers reduce their own environment risks.

² Climate Change Strategy 2014: How Allianz Group contributes to a low-carbon economy https://acs.allianz.com/static-resources/acs.allianz.com/Links/0314_allianzclimatechangestrategy_eng.pdf

Approach taken

In terms of the actions to be taken at company level, the company's four tools are to *avoid, reduce, substitute and neutralise*. Its measures concentrate on three main areas, which together account for 98% of Allianz's carbon footprint worldwide. These are:

- office energy usage (57.3%)
- business travel (37.1%)
- paper (3.9%).³

It has set a target of a 35% carbon reduction by 2015, compared with 2006, and reports on progress every year. The latest figures for Allianz worldwide show that by 2013 the company had cut CO₂ emissions by 37.2% per employee since 2006, to an average of 2.35 tonnes of CO₂ per employee

This has been achieved through setting global standards, including:

- a green IT hardware purchasing policy to ensure that Allianz buys energy efficient equipment; Energy Star and EPEAT (Electronic Product Environmental Assessment Tool) are group-wide standards for all IT purchases
- global travel minimum standards for employee business travel, to help reduce unnecessary travel and promote lower-carbon transport
- global print policy, including mandatory double-sided printing as default.

Although carbon reduction targets are set globally, they have to be achieved locally, including in the UK at Allianz Insurance.

The target on carbon emissions in Allianz in the UK is currently 55% per employee by 2015, based on 2006, considerably more ambitious than the global company target of 35%. The first target was to reduce CO₂ emissions by 25% per employee by 2012, which was achieved three years early in 2009.

For the UK the main impact areas are those identified globally: *office energy use, business travel and paper use, plus waste.*

³ Allianz Climate Change Booklet 2013
https://www.allianz.com/v_1395826334000/media/responsibility/documents/2013_Allianz_Climate_Booklet_EN.pdf

Green workplaces case studies

Actions and impacts

Allianz in the UK has reduced its **office energy consumption** in a number of ways:

- *Switching off electrical equipment, such as lights, PCs, monitors, printers and photocopiers when not in use.* It has introduced more energy efficient IT equipment, and other energy saving devices. Allianz's offices in Milton Keynes installed a new lighting system when it took over the lease. As well as delivering a comfortable working environment, the intelligent control system also switches on and off with occupancy and responds to daylight levels. It has reduced energy consumption of office lighting by an additional 35% on top of the 60% energy reduction achieved by replacing traditional modular fluorescent fittings with LED edge lit panels.⁴
- *Solar PV panels on the roof of the company's head office in Guildford,* estimated to save up to 60 tonnes of CO₂ annually.
- *New building management systems* in the Woking and Birmingham offices, plus new heating, ventilation and air conditioning in Birmingham, which together should save 230 tonnes of CO₂ a year.⁵

Although some of these developments, such as the equipment purchases and buildings refurbishment, can be carried through without the involvement of the employees, others require their active participation. The company makes specific reference to its success in "engaging employees".

To further reduce its carbon footprint in the area of energy, the company now purchases energy from renewable sources, such as hydro-electricity rather than fossil fuels. It also generates a small amount of renewable electricity itself.

As a result energy consumption per employee fell by nearly half (46%) between 2006, the base year, and 2013. The share of total energy from hydroelectric power rose from 12.7% in 2006 to 35.5% in 2013.⁶

The company has also made **progress in reducing business travel, including:**

- video-conferencing to reduce the need to travel for business
- improved the fuel efficiency of its car fleet, which it estimated at the end of 2008 would "help to reduce the current CO₂ emissions of our workforce by up to 13 per cent each year".⁷ The latest figures show that average CO₂

⁴ <http://www.opentechnologyuk.com/ligo-helping-allianz-reduce-its-carbon-footprint-2/>

⁵ Social Responsibility Review 2013, Allianz Insurance plc

http://www.allianz.co.uk/content/dam/allianzcouk/static/assets/SR%20Docs/Allianz%20Insurance%20plc_SRreport_2013.pdf

⁶ These and other figures on Allianz's environmental performance in the UK come from the company's website <https://www.allianz.co.uk/home/about-allianz-insurance/social-responsibility/environment.html>

⁷ Statement by Richard Foulerton from Allianz Insurance

emissions per kilometre of the Allianz company car fleet have almost halved over seven years, falling from 220g in 2006 to 118g in 2013 – a 46.4% reduction⁸

- employee travel: staff are asked to consider more sustainable modes of business travel, such as rail or car-sharing, as well as in commuting. Allianz promotes car-sharing; it provides interest-free loans for employees to purchase annual public transport passes; and it offers employees a bike-to-work scheme and facilities for cyclists at most offices
- distances travelled per employee, which fell by 13.6% (from 5,472 km to 4,726 km) between 2006 and 2013. Allianz in the UK has been particularly successful in reducing short-haul air travel, which produces much higher carbon emissions than other ways of covering the same distance. Between 2006 and 2012, the total distance travelled in short-haul flights fell by half.

In **printing and paper use, and water usage**, the company depends heavily on employees' actions to reduce paper use:

- The company encourages employees not to print documents unnecessarily. It also avoids printing altogether through electronic communication.
- Total paper consumption initially increased from the 1,042 tonnes consumed in the baseline year 2006, reaching 1,350 tonnes in 2010. However, since then it has more than halved to 592 tonnes in 2013. Expressed as kilograms consumed per employee, paper consumption has dropped by almost two-thirds (63.2%) between 2006 and 2013 (down from 340 kilograms per employee to 124 kilograms).
- Reducing waste and separating waste for recycling to landfill: total waste generated per employee has fallen from 510 kilograms in 2006 to 130 kilograms, a 74.5% reduction. Almost all of this waste (over 90%) was recycled in 2013, compared with just 53.0% in 2006.
- Water consumption reduced from 43,057 cubic meters in 2006 to 38,595 m³ in 2013. Water consumption per head has fallen from 10,800 litres in 2006 to 8,146 litres in 2013, a 25% reduction.

The **overall impact** of all these measures on Allianz's total CO₂ emissions in the UK has been considerable, both in absolute terms and per employee. By 2013, the company had been able to reduce its total CO₂ emissions, including both direct and indirect emissions, by 44.8% as compared with the 2006 baseline, down from 13,306 tonnes to 7,345 tonnes. Expressed in terms of tonnes per employee emissions had fallen by more than half (54.8%) by 2013,

<http://www.cornhilldirect.co.uk/news/18930129-allianz-pledges-to-cut-its-carbon-footprint.htm#>

⁸ Social Responsibility Review 2013, Allianz Insurance plc

http://www.allianz.co.uk/content/dam/allianzcouk/static/assets/SR%20Docs/Allianz%20Insurance%20plc_SRreport_2013.pdf

Green workplaces case studies

down from 3.3 tonnes to 1.5 tonnes (see table). This is very close to the 55% target set for 2015.

Year	Scope 1 ¹ (tonnes)	Scope 2 ² (tonnes)	Scope 3 ³ (tonnes)	CO ₂ per employee (tonnes)	Total CO ₂ emissions (tonnes)
2006 (baseline)	5,552	5,871	1,882	3.3	13,306
2010	4,000	3,338	1,765	2.1	9,142
2011	3,524	2,815	1,280	1.7	7,619
2012	3,675	2,362	1,368	1.6	7,406
2013	Figures not presented in this way			1.55	7,345

Scope 1: Direct emissions from the burning of fossil fuels on-site (natural gas) and in company-owned vehicles for business purposes; *Scope 2:* Indirect emissions from purchased energy arising from the consumption of electricity; *Scope 3:* Other indirect emissions, notably from business travel, paper, waste and water in our operations

Source: <https://www.allianz.co.uk/home/about-allianz-insurance/social-responsibility/environment.html>

Union involvement

Union involvement with the process has been important, in particularly in getting employees engaged and willing to change their working practices. In the UK, the union, Unite, works with management on a number of issues including on the environment, and the union believes it has helped to influence the process, both through the joint Corporate Social Responsibility group and in other discussions on specific issues.

At global level, in line with German and European legislation, half of the members of the 12-member supervisory board, whose role is to supervise and provide advice to the management board, are employee representatives. One of the employee representatives is a full-time official in the German union Ver.di, while the others are all union members, including until recently a Unite member from the UK. (As a result of changes in the composition of the group, the UK member of the supervisory board has been replaced by a representative of Allianz's Italian employees.)

Overall conclusions

The commitment of senior management at both global and national level to reduce Allianz's CO₂ emissions has clearly been crucial to the progress made. The company has clearly identified the main areas which account for the bulk

of its carbon footprint and set out policies to reduce it, some of which apply at global level. It has set clear targets and it measures its progress against them on regular basis.

However, although some of the initiatives can be taken by company management alone, employee engagement is also crucial and here the union has played a role. Working together they have been able to reduce the company's CO₂ emissions by more than half, compared with the 2006 baseline, and Allianz UK looks well placed to achieve the 55% reduction, which is the target for 2015.

Section four

Defra (York)

Background

Defra, the Department for the Environment, Food and Rural Affairs, is one of the smaller government departments. The role of trade unions in workplace environmental audits and supporting energy and resource efficiency is exemplified by our case study at the Defra office in York.

Core Defra, which excludes the agencies linked to the Department, employed 2,170 people in March 2013, although, if the agencies, such as the Rural Payments Agency and the Animal Health and Veterinary Laboratories Agency, are also included, the headcount rises to 8,640.⁹

The government buildings at Foss House in York are primarily occupied by staff from Defra and its associated agencies and other bodies, although the site also includes staff from other government organisations and more recently an outsourced servicing operation, Shared Services Connected Ltd.¹⁰ Around 1,000 people work on site.

Approach taken

Within government Defra has a key role in overseeing sustainable development across central government departments and agencies and in February 2011 Defra produced the *Greening Government Commitments*, relating to operations and procurement.¹¹ The government commits itself to:

- reducing greenhouse gases by 25% from a 2009/10 baseline for the whole estate and business-related transport (including a 20% cut in domestic flights)
- reducing waste by 25% from a 2009/10 baseline (including a 10% cut in paper use in 2011/12)

⁹ Figures from Civil Service Statistics 2013, Office for National Statistics
<http://www.ons.gov.uk/ons/rel/pse/civil-service-statistics/2013/rft-statistical-bulletin-tables--2013.xls>

¹⁰ At the time of the environmental audit, which is the subject of this case study, the York Hub included Core Defra, Office of Rail Regulators, Forestry Commission, Natural England, Food Standards Agency, Animal Health and Veterinary Laboratories Agency, OFSTED, Crown Prosecution Service and the Rural Payments Agency.

¹¹ <http://sd.defra.gov.uk/documents/Greening-Government-commitments-Jul2011.pdf>

- reducing water consumption from a 2009/10 baseline and reporting on office water use against a best practice baseline, which identifies usage of four cubic meters or less per full-time employee per year as best practice
- ensuring that government buys more sustainable and efficient products and engages with its suppliers to reduce the impacts of its supply chain.

The government also promised that it would be transparent about the steps it was taking to deliver against these commitments. Departments are obliged to report their progress against these targets in their annual reports.

The latest annual report from Defra for 2012/13¹² shows that its performance against these targets has so far been mixed. The figures are for the Defra network, which, together with Core Defra, includes the Forestry Commission, Executive Agencies, such as the Animal Health and Veterinary Laboratories Agency and the Rural Payments Agency, and Non-Departmental Public Bodies, such as the Environment Agency and Natural England.¹³ With the exception of the Environment Agency, all of the bodies listed above also operate on the York site.

Defra progress report 2013

Area	2015 target	Milestone for 2012/13	Result for 2012/13	Performance
Greenhouse gas emissions	-25%	-15%	-12%	Behind milestone
Waste	-25%	-15%	-6%	Behind milestone
Water	Reduce	n/a	-14%	On target
Domestic flights	-20%	-12%	-17%	On target
Paper use	-10% in 2011/12	n/a	-20%	Continues to exceed target

Source: Department for Environment, Food and Rural Affairs: Annual Report and Accounts 2012–13, Annex 1 Commentary on Sustainable Performance. The report itself states that the Department’s performance on domestic flights is “Behind milestone”. However Defra has confirmed that this is an error and the performance is “On target”.

In two areas, greenhouse gas emissions and waste, the Defra network has not made the necessary progress to reach the government target of a 25% reduction by 2015.

¹² Department for Environment, Food and Rural Affairs: Annual Report and Accounts 2012–13, Annex 1 Commentary on Sustainable Performance
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/224329/defra-year-end-accounts2012-13.pdf

¹³ The government also published figures for Core Defra, which are generally better. However, Core Defra only accounts for 6% of the total Defra Network estate, and its contribution to energy consumption (3%), waste generated (5%) and water usage (1.5%) is similarly low. Only in paper usage (13%) and domestic flights (17%) does Core Defra make a significant impact on the broader picture.

Green workplaces case studies

The position on waste is clouded by the fact that Defra now has better data on waste collection, but the report notes that “reducing the amount of waste the Department produces remains a challenge.”

On greenhouse gas emissions, the report shows that Defra’s performance deteriorated between 2011/12 and 2012/13 and therefore it proposes a number of initiatives to be taken from 2013/14 onwards:

- increased scrutiny of building controls, such as timers and temperature set points
- checking that boilers and lighting are not running unnecessarily
- improved staff engagement (see below).

Elsewhere, the Defra network has met the target on **water usage** and exceeded its target on **paper consumption** (down 20% against a target of 10% by 2011/12). It also appears likely that Defra will meet the target of a 20% **reduction in domestic flights** by 2015. These were down by 17% in 2012/13 ahead of the 12% reduction set as a milestone for that year.

Actions and impacts

It was against this background of limited progress that the Defra site at York was identified as one ten pilot projects for *workplace environmental audits* across the government estate. By way of background, proposals for an environmental audit process across government were initially prepared by civil service unions and presented to the Joint Sustainability Forum (a national level consultative body) in 2009. The forum was set up following a recommendation by the Environmental Audit Committee that civil service unions be consulted on environmental issues, to help identify and promote good practice on sustainable operations and procurement – with a particular emphasis on joint management-union cooperation.

The environmental audits were a joint initiative aimed at developing standard practice across the civil service. They were to be conducted jointly by management and unions. The presence of trade union green reps at local level was important in identifying sites for the pilot projects.

This work was eventually to be taken forward following discussion between management reps from the Whitehall Sustainable Practitioners Forum and the TUC, PCS, FDA and Prospect trade unions. It was agreed that pilot projects were “essentially based on a willingness to work together to reduce the environmental impacts of departments’ operations, by taking practical and deliverable action in central government buildings – providing that the focus from both sides can remain on achieving results whilst avoiding an excess of burdensome process”.

The audit at Defra York was conducted in March 2013, involving nine staff hours (six for the inspection and three for writing the report itself). The audit examined the following 11 **operational areas**, with 58 questions on specific issues:

- heating and cooling (14 questions)
- lighting and electrical equipment (seven questions)
- reduction, re-use and recycling (seven questions)
- office supplies (five questions)
- canteen and catering (eight questions)
- toilet facilities (six questions)
- staff awareness (four questions)
- vehicles and travel (three questions)
- visitors’ area and meeting rooms (one question)
- green spaces (two questions)
- Display Energy Certificate (DEC) (one question).

The questions largely related to actions where remedial action could be taken relatively easily, such as “Is heating/cooling on in areas or times of the day when it isn’t needed?” or “Are printers and photocopiers set to print double-sided automatically and, if not, are staff aware of how to use these functions?”

The audit report scored responses on a range from zero for no or minor implementation to 5 for fully implemented, and, where appropriate, made suggestions for remedial action.

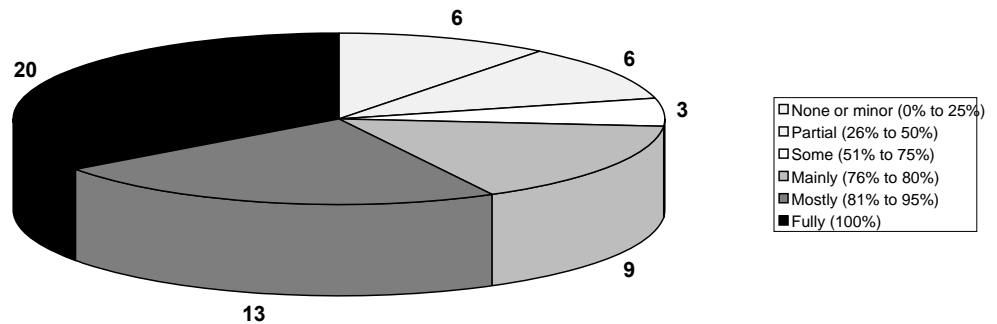
This question on lighting indicates the approach:

Question	Score	Response	Recommendation
Is lighting switched off in unoccupied spaces? If not, why?	4 (Mostly implemented)	More than 90% of site lighting is automatic. There were a small number of lights that require manual switches.	Recommend that reminder stickers (to ‘turn off lights’) are placed near any light switches in stairwells, conference and meeting rooms.

The overall result of the audit was encouraging. Union (PCS) and management representatives agreed that appropriate environmental steps had been fully implemented in 20 of the 57 specific areas where information was available (none was available on vehicle maintenance). In a further 13 areas actions were mostly implemented. But responses from six areas indicated that no or minor implementation had taken place (see chart).

Green workplaces case studies

Extent of implementation: for 57 specific issues



The best results appeared to be in the area of toilet facilities, which scored four “fully implemented”, such as in energy efficient hand-drying, automatic taps and environmentally friendly cleaning products, and one “mostly” and one “mainly implemented”. The worst scores were in vehicles and travel, with one “no or minor implementation” and one “partial implementation”.

The audit at York also found that there were problems with staff engagement in sustainability issues. While staff were made aware of environmental issues via the Intranet, there were no on-site opportunities to make suggestions, and only one out of the five staff interviewed were aware of any consultation on the issue. Overall staff felt that “generally this is something that is just being done to them”.

When the audit was conducted in March 2013, the intention was that it should form a baseline against which to measure future improvements, and that action plans, based on the audit, should be reviewed after three six and 12 months. The unions involved at the Defra site in York (PCS, Prospect and the FDA) also stated that they would consider providing appropriate training support, such as a half-day workshop, if requested.

Although only a limited amount of staff time was required to conduct the whole-workplace audit, discussions are still underway on arrangements to repeat the exercise in the current year.

From a trade union perspective, a factor in the lack of progress on workplace audits is that across the civil service the government has sharply reduced union facility time - the time available for union representatives to carry out union duties and activities. In the Defra network, union facility time has been cut by

75% from the equivalent of 20 full-time staff to just five, in order to comply with the centrally imposed guideline figure of a limit of 0.1% of the total paybill to be used for all union duties and activities.¹⁴

This cut has had an impact on the time available for all areas of the unions' work, including in the area of the environment. Pressure on management resources may also have played a part.

Union involvement

The unions have played a central role in the environmental audit at Defra York. The unions developed the environmental audit checklist that was used in the audit. It was the PCS representative together with a management representative from Defra Estates who planned and undertook the initial audit in 2013 and it was the PCS representative who produced the audit report. PCS is also now proposing second audit to identify where there have been measurable improvements, producing carbon and cost savings.

Overall, it is fair to say that without consistent union involvement the environmental audit would not have taken place.

Overall conclusions

Defra believes that involving employees on environmental issues is important. Its 2012/13 report on sustainability performance makes a number of references to the need to improve staff engagement.¹⁵ However, the fact that, as yet, it has not been possible to continue with three-monthly audits, as initially foreseen, is clearly disappointing. It is particularly concerning as it means that an opportunity to engage employees more closely in developing a sustainable approach to work has not been taken up.

On greenhouse gas emissions, the Defra report states that it plans “an increased emphasis on staff culture change through awareness campaigns using internal communication channels and engagement exercises”. On waste, Defra plans “a refresh of signage to improve staff engagement on recycling”, and on water use, it talks about “increased emphasis on staff culture change through awareness campaigns and engagement exercises”.

However, it appears that Defra already faces a general problem on employee engagement. The *engagement index* in the department, as measured by annual

¹⁴ See Government Response to Consultation on reform to Trade Union facility time and facilities in the Civil Service, 8 October 2012, Cabinet Office
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/78930/facility-time-consultation-govt-response_0.pdf

¹⁵ Department for Environment, Food and Rural Affairs: Annual Report and Accounts 2012–13, Annex 1 Commentary on Sustainable Performance
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/224329/defra-year-end-accounts2012-13.pdf

Green workplaces case studies

staff surveys carried out across the civil service, was only 52%, six percentage points below the civil service average.¹⁶ On the specific issue of consultation, only 31% of staff agreed with the proposition that “I have the opportunity to contribute my views before decisions are made that affect me”, a figure which was five percentage points lower than that for the civil service as a whole.

Regular workplace environmental audits, undertaken with the union representing staff, offer an opportunity to begin to change this perception. They could also be a step towards the long term goal of making environmental improvements a joint issue for both management and unions, and linking the unions’ green reps, with management’s environment and green champions.

It is to be hoped that resources can be found to make this happen.

¹⁶ Autumn 2013 survey report for Defra
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/279500/2013-staff-survey-results.pdf

Section five

EDF Energy

Background

Both the worldwide EDF group and EDF Energy in the UK have a long standing commitment to make progress on environmental issues. Union involvement in environmental issues at EDF is extensive at global, European and national level.

EDF Energy is one of the UK's six main energy companies, involved in the production, and supply of electricity (including operating eight nuclear power stations in the UK), the supply of gas and the development of renewable energy. It was created in 2003 from a number of separate UK energy supply companies bought by the French company EDF (Electricité de France). The structure of EDF Energy has changed since then through disposals and acquisitions. It employs over 15,000 people in the UK (2013), while the parent company employs 158,500 people worldwide (100,000 in France alone).

Both the worldwide EDF group and EDF Energy in the UK have long standing commitments on environmental issues. For EDF group, this goes back to 1999 when it signed the charter for sustainable development¹⁷. Its commitments to sustainable development were further elaborated in its own Agenda 21 document signed 21 December 2001¹⁸. Commitments on the environment were included in EDF's agreement on corporate social responsibility, co-signed with the unions, both national and international, in 2005 (see below).

In 2013, EDF Group published 11 *Corporate Responsibility Commitments* under three key areas of 'Responsible Industrial Firm', 'Responsible Employer' and 'Responsible Partner'. Company level sustainability objectives are aligned to the EDF Group Corporate Responsibility commitments and performance at a Group level is reported on an annual basis.

Approach taken

Currently the EDF group has made three commitments in the area of the environment.¹⁹ These are to:

¹⁷ See <http://about-us.edf.com/profile/history/1990-to-today-and-beyond-43674.html>

¹⁸ EDF Sustainable Development Report 2005
http://www.edf.com/html/ra_2005/uk/pdf/ra2005_dd_02_va.pdf

¹⁹ See <http://about-us.edf.com/strategy-and-sustainable-development/our-vision/objectives-and-commitments-43682.html>. This is one of a number of ways in which EDF as a group characterises its corporate responsibility commitments. In May 2013, it presented 11 corporate responsibility

Green workplaces case studies

- remain the lowest carbon emitter among the major European energy companies, especially electric utilities
- adapt its fleet and customer offers to promote climate protection
- reduce its environmental impact, especially on biodiversity.

In addition it seeks to promote access to energy efficiency, to support education on energy issues; to report on its corporate social responsibility initiatives and results and contribute to the debate on sustainable development.

EDF Energy in the UK has also developed its own environmental policy, updated in February 2014,²⁰ that the company aims “to power society without costing the Earth” and that to do this:

“We will lead the decarbonisation of the UK electricity sector whilst achieving an increasingly positive environmental impact across our operations. We will deliver our related ambition ‘To deliver safe, secure and responsible nuclear electricity’. We will also continue to deliver the highest standards of nuclear safety in our existing and new build activity, and help shape long-term solutions to radioactive waste.”

EDF Energy in the UK also has a sustainability business strategy, *Better Energy Ambitions*, which includes issues such as workplace training and long-term profitability which are not specifically linked to environmental goals. The main environmental targets in *Better Energy Ambitions* are:

- “providing the energy which is vital to society in a way that protects the natural environment we all depend upon
- securing affordable low-carbon energy for the long-term
- ... reducing the environmental impact of our customers’ energy usage
- improving the efficiency of our operations and of our resource and waste management
- ensuring the highest standards in nuclear safety.”

The company states that it is “clear that sustainability must be at the heart of any energy company’s long-term strategy.”

commitments to shareholders. In the area of energy the commitments are: maintaining the highest levels of security in our installations, remaining the best major energy provider in the development of low-carbon energy, investing in renewables and increasing their competitiveness, significantly contributing to the improvement of energy efficiency within households. Other environment-related commitments are: promoting transparency and dialogue on sensitive issues (discussion on sustainable development is specifically mentioned as an indicator) and preserving water resources in all our activities.

²⁰ See <http://www.edfenergy.com/about-us/about-edf-energy/documents/Environment-policy.pdf>

Actions and impacts

EDF Energy has translated these sustainability aims into a series of short and long term targets, cutting across air, land and water impacts. These targets have been developed under the ambition “to power society without costing the earth.”

Since 2007 EDF Energy has set targets to reduce its impacts on the environment, updated in 2010. These include:

- reducing the intensity of CO₂ emissions from electricity production by 60% by 2020
- by 2020, reducing the carbon intensity of electricity generation to no more than 250 grammes of CO₂ emitted per kilowatt hour of electricity generated (250g/kWh).

As a mark of progress, in 2013, the CO₂ intensity of EDF Energy’s electricity generation was 256grammes of CO₂ emitted per kilowatt hour of electricity generated (256g/kWh). The company points out that the carbon intensity of its power generation was largely driven by the increased operation of coal-fired stations – coal remains more cost effective than gas or lower carbon alternatives in the short term. This brought EDF Energy closer to its 2020 carbon intensity target of 250g/kWh, as part of its Sustainability Commitments launched in 2010.

However, this figure is above the carbon intensity of 208g/kWh achieved in 2011 – again because of short-term energy demand, and reliance on coal in the energy mix, in absence of more abundant and immediate low-carbon and renewable generation.

With the evidence for the human impact on climate change being so overwhelming, EDF Energy believes it has a duty to do its utmost to cut emissions and minimise the risks of future climate change. As part of its *Better Energy Ambitions*, it has therefore set an interim target of reducing carbon intensity to less than 100g CO₂ per kWh by 2030.

The Sustainability Commitments included two further key targets:

- reduce CO₂ emissions from commercial buildings by 30% by 2012
- reduce CO₂ emissions from transport by 20% by 2012 (both against a 2006 baseline).

The 30% target from commercial buildings was narrowly missed in 2012, despite the company taking a range of steps, including energy audits, the installation of voltage optimisers, gas condensing boilers, sub metering, energy efficient cooling of data centres and fitting Solar Photovoltaic Cells. However, this target was met in early 2013. By December 2013, EDF Energy had reduced emissions from its commercial buildings to 1.37 tonnes per full time

Green workplaces case studies

employee (defined as full time equivalent: FTE), or 1.02 tonnes excluding the company's data centres, against a 2012 target of 1.4 tonnes per FTE.

CO₂ emissions from commercial buildings

Unit	2006	2007	2008	2009	2010	2011	2012	2013
Tonnes of CO ₂ per full time employee	2.00	1.76	1.70	1.65	1.61	1.51	1.50	1.37
% change	na	-12%	-15%	-18%	-20%	-25%	-25%	-32%
Absolute total CO ₂ emissions, kilotonnes ('000 tonnes)	23.0	21.9	21.6	31.9	31.1	22.5	21.8	19.8
% change	na	-5%	-6%	39%	35%	-2%	-5%	-14%

Source: EDF Energy Annual sustainability report 2013.

The transport target was met through a combination of proactive travel management and changes to the business.

CO₂ emissions from transport

Unit	2006	2007	2008	2009	2010	2011	2012	2013
Tonnes of CO ₂ per full time employee	2.28	2.16	2.00	1.34	1.22	0.75	0.73	0.73
% change	na	-5%	-12%	-41%	-46%	-67%	-68%	-68%
Absolute total CO ₂ emissions, kilotonnes ('000 tonnes)	26.3	26.8	25.5	25.9	23.6	11.1	10.6	10.6
% change	na	2%	-3%	-2%	-10%	-58%	-60%	-60%

Source: EDF Energy Annual sustainability report 2013.

EDF Energy has also reduced substantially the volume of **waste from energy billing**. The *target* was to reduce waste by 30% by 2020. In fact, several initiatives have allowed the company to reduce waste by much more than this at a much earlier date. Already by 2012, waste from energy billing had fallen from 413 tonnes to 199 tonnes – a 51.8% reduction compared with the 2006 baseline.

The company is also on track to meet a waste commitment that by 2020 **no office or depot waste would be sent to landfill**. In 2006, the baseline year, only 39% of this waste was recycled, with the remaining 61% going to landfill. By 2012 the proportion being recycled had more than doubled to 88%, with only 12% going to landfill. Further progress was made in 2013, with proportion recycled increasing to 94%. As well as analysing the type of waste produced and making changes to both service providers and the goods used (including their packaging), the company has increased awareness of the need to recycle among its employees and promoted best practice.

EDF's Sustainability Report 2013 provided performance statistics on delivering safe, secure and responsible nuclear electricity. Among the most important are the figures on Nuclear Reportable Events. Although EDF Energy points out

that these can fluctuate from year to year, it also notes that there were none in 2013 (three in 2012, seven in 2011 and nine in 2010).

Union involvement

Union involvement in environmental issues at EDF is extensive at global, European and national level.

At global level, EDF signed an agreement with the unions on Corporate Social Responsibility (CSR) in January 2005. The process began in June 2003 with a forum to discuss CSR, organised jointly by the company and the European Works Council, and the discussions continued on other occasions until the formal negotiations, which lasted six months, began in the summer of 2004. Although representatives from the French unions were the largest single group on the employees' side, unions from a range of countries, as well as three international union groupings were also involved in the negotiations and signed the agreement. The UK unions, GMB, UNISON, Prospect and Amicus (now Unite), were also all signatories.²¹

The 2005 CSR agreement covered fundamental rights, employee relations, community responsibilities, relations with subcontractors. The section of the environment committed the EDF group to ensure the safety of its facilities to protect local and wider communities, to take exemplary actions in the area of the environment, and to promote energy efficiency for clients and within the group. Implementation measures include setting up a consultative committee on CSR, made up of the signatory unions, which was to meet annually (see below).

The agreement was revised in 2009 when the section on the environment was strengthened with specific references to counteracting climate change and reducing CO₂ emissions. For example, where the 2005 agreement stated that EDF Group “contributes to the development of renewable energies”, the 2009 agreement went much further:

“EDF Group contributes to the fight against climate change, the preservation of biodiversity and the development of renewable energies. It aims at remaining the energy company that emits the least CO₂ among the main European energy companies, in particular by reducing the emissions of the industrial facilities and most particularly of the generation facilities.”²²

The Consultative Committee on the agreement (CCSR) has continued to meet on an annual basis since the agreement was signed. There is also a bureau (steering committee) which meets twice a year. Although a wide range of issues are covered by these meetings, progress on environmental issues is one of the

²¹ Codes of conduct and international framework agreements: New forms of governance at company level Case study: EDF, Eurofound 2008

²² See EDF Group CSR Agreement – 2009

Green workplaces case studies

key concerns. Representatives from all four UK unions (GMB, UNISON, Prospect and Unite) are members of the committee, with the trade unions collectively nominating a representative to sit on the bureau (currently the Prospect representative).

This global agreement has direct impact at national level, as it requires that in each country “at a minimum” there must be “an annual written review” of progress, which should be sent to the employee representatives in charge of CSR monitoring.

Looking to the future, there is an intention to review the CSR agreement in the light of new developments; initial discussions were held in June 2013. The revision process will include the existing signatories, including the global union bodies.

At European level, the European Works Council, the bulk of whose members are designated by the unions (although the UK members are elected by all staff), also has a role in environmental issues. “Environmental policy” is one of a number of issues where “the EWC must be consulted before the implementation of the group’s orientations”.

In the UK, environmental issues are sometimes raised in the Company Council (the main union/management consultation body in EDF), but there are also quarterly meetings with CSR reps from the four unions solely to discuss sustainability issues and to review the company’s progress towards its sustainability goals.

In addition, there is a rotating union representative, currently from Prospect, on the company’s Sustainability Panel, whose role is to “oversee [EDF Energy’s] policy and direction with regards to key operational objectives for delivering on our commitments for sustainability performance.” The Sustainability Panel meets quarterly and it reports to the most senior body dealing with sustainability in EDF Energy, the Sustainable Development Committee, chaired by the chief executive. This governance structure is, however, under review.

The unions and the company are currently exploring how the unions’ own networks can be involved in winning greater active support from employees for the environmental goals set by the Sustainability Panel. They are particularly looking at the role of health and safety reps, given that there is a company-wide structure covering health, safety and the environment. One possibility is that union representatives at local level could be linked to the company’s own sustainability ambassadors, with joint environmental audits being developed. Another is that there could be a common training and education programme, involving unions and management representatives, which would deliver a single curriculum and set common standards.

Overall conclusions

At group level EDF has had a long commitment to action on the environment, as well as more broadly on corporate social responsibility (CSR), and, perhaps more unusually, in 2005 this commitment was translated into an agreement with the unions at global level. This provides for a global forum through the establishment of a committee on CSR, in which unions can review progress, including on the environment. The presence of UK union representatives and the requirement to report back on national progress both help ensure UK union involvement.

EDF Energy, the UK company, has its own sustainability goals, based on the overall group objectives, but, in contrast to some other companies, it has been willing to actively involve the unions in achieving them. Unions have a clear position in the formal structures at national level, although not in the structures covering environmental issues at local level. The challenge now is examine how to achieve active union involvement on environmental issues at local level and so strengthen support for the agreed environmental goals.

Section six

Furzedown Low Carbon Zone

Background

The Furzedown Low Carbon Zone in Wandsworth, south London, is a trade union-college-community partnership in south London established in 2010 to integrate environmental awareness and sustainability issues across curriculum, among students, the workplace and community. In 2012, the project was awarded a prestigious national *Green Gown Award*.

The idea to develop the Furzedown Low Carbon Zone (FLCZ) emerged from discussions between the Greener Jobs Alliance and South Thames College, a further education college in South London.²³ The FLCZ was established in 2010 to integrate environmental awareness and sustainability issues into the college curriculum, the workplace and community activities in the Furzedown area. A range of measures on energy efficiency, renewable energy and environmental awareness have since been introduced. Links have been developed with the college curriculum by integrating sustainability into education, training and work experience programmes.

The Green Jobs Alliance (GJA) was set up on the initiative of the University and College Union (UCU) with funding from Battersea and Wandsworth Trades Council. Other partners in the GJA include the TUC, the National Union of Students (NUS), the Institute for Public Policy Research (ippr) and a number of leading environmental organisations.²⁴

Alongside the GJA, a number of organisations have supported the FLCZ including Battersea and Wandsworth Trades Council, Unionlearn at the TUC, Kingston University and local environmental and community organisations.²⁵ Funding support (of around £20,000) has been provided by the GJA and the Learning Skills and Improvement Service (LSIS).

Approach taken

²³ The Greener Jobs Alliance was established to advocate a coherent approach to deliver green jobs and skills in the UK. The founding members of the GJA are the University and College Union, the TUC, Greenpeace, Friends of the Earth, National Union of Students, People & Planet, and the Institute of Public Policy Research.

²⁴ See <http://www.furzedown.net/lowcarbon.php> and <http://www.projectdirt.com/project/7792/>

²⁵ The FLCZ project partners are the Greener Jobs Alliance, Battersea and Wandsworth TUC, Sustainable Merton, Transition Town Tooting, Green Skills Partnership, Unionlearn, Project Dirt, Kingston University, National Union of Students, Wandsworth Environment Forum, Parity Projects, JoJu Solar, Southern Solar, Eardley School and the Furzedown Community Network.

The Furzedown project sought to combine two important strands of activity within the tertiary education sector:

- the need to integrate education for sustainable development (ESD) into the curriculum
- the need to develop broader community engagement activities.

This also meant developing a co-ordinated approach to different elements of activity on sustainability within the sector.

Actions and impacts

In terms of engaging in the wider community, the project involved liaison with local employers and community organisations to develop more meaningful work experience opportunities with an emphasis on promoting green skills. Links were also forged with local schools. The South London College worked with Kingston University and a school in the Furzedown area in order to develop a co-ordinated approach to promoting sustainability skills. Students were involved in community engagement activities focused on promoting energy efficiency and bringing financial savings to households, schools and workplaces.

The project established a partnership model through which the college could work in the community and with schools, also utilising the expertise of Kingston University in both education for sustainable development (ESD) and community engagement. It involved students in the development of this framework, providing them with valuable experience and work based learning that could increase their employability. It provided positive publicity for the College as a leader in promoting ESD.

Under this partnership model, a number of specific actions were undertaken:

- Effective links with local schools were developed, involving meetings and visits from Kingston university staff and students to discuss sustainability and energy efficiency.
- A comprehensive energy audit of one local school – Eardley primary school – was undertaken. Funding was allocated to implement six energy efficiency measures in the school, with significant energy and cost savings envisaged. These included fitting the school with Thermostatic Radiator Valves (TRVs), and loft insulation.
- Public meetings were organised to explore community responses to energy policy and local measures to promote sustainability. A website and email group was developed to keep the local community updated on developments.
- A partnership was developed with the local environmental group Transition Town Tooting to raise community awareness on energy policies and local initiatives. This led to the training of 50 residents in the community.

Green workplaces case studies

- Energy efficiency was promoted by working with the independent energy efficiency company Climate Energy. Approximately 900 visits to local homes within the FLCZ were completed with 95% implementation of some form of efficiency measure.
- Promoting solar photovoltaic (PV) energy systems: six households had installations that generated £1,600 for the FLCZ via a community levy paid by the two local companies installing the systems.
- Sustainable Development case studies were developed in three college curriculum areas – Building Services, Hair and Beauty and Creative Industries. Four students from electrical installation and heating and ventilation were engaged with local employers on energy efficiency visits and solar (pv) systems installation.
- A hair and beauty pop-up event for staff and students was organised, attended by 20 people, mostly apprentices, and supported by employers and researchers in the industry. This involved working with a local salon, as well as the international hair and beauty company Aveda. An Aveda representative delivered a talk on use of sustainable products.
- A video showcasing the work of the FLCZ was made. A creative industries student undertook filming, and a media professional undertook the editing. The video has been used in training programmes, and has received around 1,000 hits on the web.²⁶
- A competition to design a poster to showcase the project is being staged among students at South Thames College. The winning poster was to be presented at a conference on supporting sustainability and employability in curriculum at London South Bank University in June 2014.

The impact of the project has not just been local. The project has been extensively communicated both within and outside the sector. It was referenced in a response by LSIS to the Government Task Force on sustainability skills. It has been disseminated at a number of events in the college and meetings in the local community. The video has been posted on YouTube and the UCU website. It has been presented at two national conferences run by the Trades Union Congress and a European conference organised by the ETUC. It has also featured in European Trade Union Institute publications.

The project was awarded a prestigious national *Green Gown Award* for best newcomer by the Environmental Association for Universities and Colleges (EAUC) in 2012. The EAUC is a not-for-profit charity with a membership of over 220 universities and colleges, supporting sustainability within the UK tertiary education sector. The judges referred to the project as “an excellent example of building a local sustainability alliance; working with and learning from other organisations and sectors.”

²⁶ Project video - <http://www.youtube.com/watch?v=VNRx6tNFG8U>

Looking to the future, in 2014 the GJA provided funding to the FLCZ to set up an energy co-operative. This is the first union promoted co-op in the UK. Discussions are also taking place with local schools with regards to installation of solar PV and other measures to both reduce energy costs and provide linkage to the curriculum.

Union involvement

The UCU was the principal driving force in establishing and coordinating the work of the GJA, getting funding from the local trades council, and in engaging senior managers at South Thames College in the project. The senior management at the college recognised the benefits of working constructively with trades unions and community organisations in order to promote ESD. An ESD working group was established with senior management and trade union representation. The ESD co-ordinator at the college was previously the UCU environmental rep (Graham Peterson²⁷), in addition to his role as co-ordinator of the GJA and FLCZ.

Overall conclusions

The work of the GJA in developing this project illustrates the role that unions can play in local and national sustainability initiatives, in promoting green skills and student employability, and as partners in broader community-based alliances. The partnership between employers, trades unions and local community organisations has been recognised as a model for the further education sector in promoting sustainability skills.

²⁷ Graham Petersen, Project Co-ordinator – graham.petersen@south-thames.ac.uk

Section seven

Great Ormond Street Hospital

Background

Great Ormond Street Hospital for Children NHS Trust (GOSH) is a national centre of excellence in the provision of specialist children's healthcare. The hospital's trade union, UNISON, has initiated and provided enduring support for a range of energy and resource saving initiatives on site.

With around 3,600 staff, GOSH is covered by NHS England's carbon reduction strategy, initially published in 2009 and updated in 2010, which then called for an overall 10% reduction in emissions by 2015 (based on a 2007 baseline).²⁸

The NHS has now supplanted this approach with a wider Sustainable Development Strategy, which covers all aspects of sustainability (not just carbon) and includes the entire health, public health and social care system (not just the NHS). This new strategy was launched in January 2014.²⁹ Details of the carbon footprint of the NHS, public health and social care, were presented to the launch. They showed that procurement accounted for 72% of the total, building energy for 15% and travel for 13%.

Approach taken

Tackling carbon dioxide emissions from energy use featured in the GOSH annual report for 2007/08, where the Trust had “produced a sustainable management programme and received approval for our Carbon Management Implementation Programme, designed to achieve a minimum 15% reduction in carbon dioxide from our operations over the next five years”.³⁰ A year later the Trust produced its first sustainable development management plan, which was endorsed by the board of the Trust in March 2010. The specific environmental issues covered by the plan included:

- energy and carbon management
- water and waste management

²⁸ See Saving Carbon: improving health, January 2010 http://www.sduhealth.org.uk/documents/publications/1264693931_kxQz_update_-_nhs_carbon_reduction_strategy.pdf

²⁹ See Launch of Sustainable Development Strategy <http://www.sduhealth.org.uk/policy-strategy/engagement-resources/launch-event-29-jan-2014.aspx>

³⁰ Annual Report 2007/08

- travel and transport
- design and operation of buildings.

The Trust declared its intention to reduce its carbon emissions “via a range of practical but ambitious measures, the sharing of good practice, and the active engagement and support of its staff.”³¹

Actions and impacts

Progress towards these goals has been challenging, as reports for 2012 and 2013 show. To address these concerns, in 2011/12 the Trust developed an action plan, which as well as improved communications, better data collection and greater involvement of key stakeholders (see below), included “the development of a sustainable procurement strategy” and identifying “opportunities to reduce the Trust’s carbon emissions, particularly through the active management of energy, transport and procurement”. It also provided figures in the annual report for the first time on waste expenditure.

Figures for waste show clear progress with total expenditure on waste falling by 11.3% in just two years.

Total expenditure on waste

	2010/11	2011/12	2012/13
	£	£	£
Total waste arising	384,504	345,079	340,919
Waste sent to landfill	32,452	21,750	29,955
Waste recycled/ reused	52,726	67,693	32,096
Waste incinerated/ energy from waste	299,325	255,653	278,868

Source: Great Ormond Street Hospital for Children NHS Foundation Trust: Annual Report and Accounts 2011/12 and 2012/13

However, the figures carbon emissions are less positive. From 2006 onwards, as a heavy energy user GOSH has been required to report its carbon emissions under the terms of the EU Emissions Trading Scheme.

In 2012, following a fairly steady downward trend in carbon dioxide emissions, GOSH emitted 7,314 tonnes of CO₂, the highest figure for the whole period. This sudden increase in emissions is the result of opening the Trusts onsite Combined Cooling, Heating & Power (CCHP) unit and a new clinic (The Morgan Stanley Clinical Building) coming on stream.

This means that the Trust now generates around half of its base-load electricity on site. This is generally a more efficient process than using electricity generated elsewhere and supplied through the distribution system. It also means that the heat produced as a by-product of the electricity generation can

³¹ Annual Report 2009/10

Green workplaces case studies

be used to provide part of the Trust's heating and cooling needs. However, the first year performance of the plant, which burns gas continuously, proved to be less efficient than expected, with the result that the Trust's actual CO₂ footprint rose by 7%, although part of this is a result in an increase in the size of the hospital. The positive development was that the Trust's carbon intensity fell by 12.5%, meaning it now heats and powers its buildings more efficiently.

Sometime ago, it appeared to the staffside representatives that management was less fully engaged on environmental issues and there was a perceived lack of direction in the GOSH sustainability strategy. However, a further round of management changes clearly helped to reinvigorate management's approach. In the last 18 months to 2014, the trust has embarked on a new sustainability strategy developed with the involvement of the Global Action Plan consultancy. As with the initial greenworkplaces initiative, the new strategy is based on extensive consultation with staff and management.

The trust has set four key objectives to which the new strategy will contribute:

- 20% cut in energy use normalised to occupied floor space
- 15% reduction in CO₂ emissions
- 35% reduction in water consumption by 2015–16.
- zero waste to landfill.

Union involvement

The enduring greenworkplaces project at Great Ormond Street Hospital (GOSH)³² was one of six pilot projects founded in 2008–2010 with the support of the TUC's *Union Modernisation Fund* (UMF) established by the Department for Business, Innovation and Skills. The UMF aimed to initiate and support projects that would facilitate a “transformational change in the organisational efficiency and effectiveness of the unions involved.” Greening the workplace was seen as a planned change that would involve a lasting alteration to a union's priorities or strategy.

The hospital's greenworkplace project was instigated at the request of the UNISON branch at Great Ormond Street Hospital, where union members identified the potential for a more systematic approach to energy saving and cutting resource use in the workplace. With work underway to redevelop and refurbish the hospital site, the project presented an opportunity to ensure workforce engagement in the hospital's sustainability strategy.

³² *GreenWorks: TUC GreenWorkplaces Project Report 2008-2010:*
<http://www.tuc.org.uk/sites/default/files/extras/greenworkplacesreport.pdf>

The aims of the union-led project included:

- providing environmental training for workplace ‘green reps’, supported by training materials and a workbook for reps
- engaging staff through staff surveys, awareness activities, newsletters, etc.
- working jointly with management to develop a shared approach to sustainability; develop good practice in workplace environmental activities and energy management
- raising awareness within UNISON and the wider trade union movement, business and the wider population of the union role in environmental issues.

The project established a Joint Environment Committee (JEC) comprising union and management reps, chaired by the Unison Branch Secretary. Reps were granted reasonable time off to carry out environmental/energy audits, supported by a standard environmental checklist.

The operation of the JEC was specifically referred to on the Trust’s 2010/11 annual report which stated that it helped in “the engagement of Trust staff”. The 2011/12 report stated that the role of the JEC meant that the Trust was able to complete “the development and establishment partnerships with key stakeholders through local strategic partnerships and others.”

In 2011, the Joint Environmental Committee Annual Report highlighted the following key activities:

- Environmental week: The JEC along with the Bicycle Users Group organised an environmental week in September 2011.
- Staff magazine: the JEC have had a regular spot in the staff magazine. This has enabled the committee to increase membership by promoting events and the on-going work of the group.
- Paperless meetings: The project chosen by the committee members this year focussed on developing a paperless meetings culture throughout the organisation, centred on six key meetings in the organisation.
- Fitted energy efficient LED bulbs in areas being refurbished.
- Installed a highly efficient condensing boiler at one site.

Since the greenworkplace project was established, energy and resource management has evolved at GOSH and is now overseen by a high level Sustainable Development Management Committee, supported by the action-oriented Joint Environment Committee, tasked to action the objectives set by the management committee as well as issues arising through the JEC.

However, it’s fair to say that in recent years staff changes have taken their toll, both at senior management level and among the staffside reps. The effectiveness of the JEC had fallen away. As noted above, there were indications that for a period management seemed less engaged on the

Green workplaces case studies

sustainability issue, while some staff reps left the trust and were not replaced on the JEC. The TUC would also acknowledge that it had less capacity to provide support to re-energise greenworkplaces projects such as perhaps was required at GOSH, as funding for the TUC's in-house greenworkplaces project leader came to an end in 2012.

However, with renewed management commitment (see above), it appears that sustainability at GOAH is back on track. With the agreement of the union, management now chairs the JEC, which is discussing a new round of initiatives to develop a "carbon culture" among staff, such as an energy awareness Carbon App. Crucially for the union, the ethos of staff involvement prevails.

Overall conclusions

Great Ormond Street Hospital Trust has been engaged in an attempt to reduce carbon emissions and improve its environmental performance since at least 2007/08 and the unions, primarily through the greenworkplaces project, have been involved almost from the beginning. The figures show that significant progress has been and the work of the union, through the Joint Environment Committee has been recognised by the Trust. There have sometimes been difficulties in maintaining the impetus necessary to drive the process forwards, but with management now apparently recommitted to greater efforts on sustainability there is every prospect of further progress, as well as an ongoing recognition that staff involvement is critical.

Section eight

Port of Felixstowe

Background

At the Port of Felixstowe in Suffolk, the UK’s largest container port and the seventh largest in the EU, issues of scale and sustainability are directly linked. Trade unions have been involved since the early days of environmental improvements at the port.

The Port of Felixstowe, which handled 3.7million containers in 2012, employs some 2,500 staff directly, and a further 10,000 work for other employers in related transport activities.

The port is owned and operated by Hutchison Port Holdings (HPH), a subsidiary of Hutchison Whampoa Limited based in Hong-Kong, one of the largest terminal operators in the world. HPH states that it “always endeavours to help the environment by combating pollution, reducing waste and lowering noise levels. We invest in new equipment and implement new techniques to make our operational practices more planet-friendly.”

These worldwide aims are matched by similar plans for Port of Felixstowe. The Environmental Policy Statement of Hutchison Ports UK in August 2006 aimed to “reduce to a minimum the environmental impact of its activities, seek ways to conserve natural resources and continually strive to improve its environmental performance”.³³

Scale and sustainability underpin Felixstowe’s efforts to reduce the environmental impact of its business. As it stated in its 2011-12 environmental report, “The size of the Port of Felixstowe provides economies in terms of carbon as well as costs”. The largest container ships now operating, which can transport 18,000 containers, emit only half the CO2 per container produced by the average vessels operating on Asia-Europe routes. Felixstowe is one of only three UK ports capable of handling these vessels and, in early 2014, it was still the only UK port to have done so.

More than a quarter (28%) of the port’s domestic throughput is currently handled by rail – a more environmentally friendly mode of transport than road. With the doubling of rail capacity in 2013, as a result of the opening the new North Rail Terminal, this percentage is likely to grow. No other UK terminal has a similar range of rail services and it is expected that over time some 500,000 lorry journeys will be removed from the roads each year. The

³³ <http://www.harwich.co.uk/common/publications/documents/Environmental0806.pdf>

Green workplaces case studies

Port of Felixstowe is also attempting to increase the volume of goods that are transhipped onto coastal services.³⁴

Approach taken

However, in addition to reaping the benefits of large-scale operations, the Port of Felixstowe is taking action directly to reduce its environmental impact, using an Environmental Management System, for which full ISO14001 certification was obtained in 2011. Action in the port is concentrated in four areas, which to some degree are linked:

- reducing carbon emissions
- improving air quality
- increasing waste recycling
- other environmental issues, such as biodiversity, water use, more environmentally friendly travel to work and cleaning beaches.

Actions and impacts

In order to reduce **carbon emissions**, at the end of 2006 the Carbon Trust undertook a study of energy uses in the port and the changes which could be made to cut the port's carbon footprint. The company reached agreement with the Carbon Trust to deliver a full carbon management programme.³⁵

The port currently has a five year carbon reduction plan, reviewed annually, and which is part of the Environmental Management System. The plan is expected produce a reduction of approximately 4,000 tonnes CO₂ at the port each year, although the figures are affected by the volume of containers moved and potentially also by the weather. In June 2013, Andrew Harston, Port Development Director and chair of the port's Environment Committee said that the action taken so far had "seen carbon emissions at the port reduce by 12.5% since 2007 and sets us on the way to achieving a target of 30% by reduction 2017".³⁶

A significant part of the carbon reduction is being delivered by investing in new and retrofitting existing equipment, and this often has a beneficial impact on air quality (see below).

A key area for improvement relates to the operation of Rubber-Tyre Gantry cranes (RTGs), which account for around half the diesel used in the port. RTGs are the main way in which containers are moved in and out of storage stacks and they must be not be switched off. The engines either idle, using diesel, or the RTGs are plugged into the main electricity supply. To reduce fuel

³⁴ See Port of Felixstowe Journal 2014

³⁵ Port of Felixstowe: Environmental Report 2007.

³⁶ SHIP2SHORE #13 March 2014

consumption the port has bought 22 eco RTGs, which have smaller engines, allowing them to run at maximum efficiency at emission levels up to 40% lower. It has retrofitted fuel-efficiency controls on another 22 RTGs, producing a 25% reduction in fuel consumption, and it has installed more electricity supply points, making it easier for RTGs to be plugged in and the engines switched off. In addition, the Port of Felixstowe has commissioned a contractor to convert four RTGs into fully electric operation. This is the first time this has been done in Western Europe, and the installation is expected to begin later this year.

As well as improvements in the operation of RTGs, the port has purchased a number of other vehicles (reach stackers, empty container handlers, and internal movement vehicles), which have lower fuel consumption than the equipment they replace. The port has also implemented a number of other projects to reduce greenhouse gas emissions, including new lighting systems, improved refrigeration plant, energy efficient boilers and smart metering of electricity.

Although many of these measures have a direct impact on CO₂ emissions, their full benefit will only be realised if employees make changes to the way they work with them, using eco-driving and handling practices. As the ports own environmental report for 2011/12 states, there is a need to “bring ownership of fuel use to operational personnel”.

Actions taken already have had an impact on the Port of Felixstowe’s carbon footprint. CO₂ emissions, calculated on the basis of kilos per standard container. Between 2007 and 2011 emissions fell from 19.4 kg of CO₂ to 17.1 kg, an 11.9% drop.

Port of Felixstowe: CO2 emissions per container 2007-2011

Year	Kilogrammes of CO2e per container*
2007	19.4
2008	19.3
2009	18.6
2010	17.3
2011	17.1
* Both CO2 emissions and containers are calculated on an equivalent basis Source: Port of Felixstowe Environmental Report 2011-12 http://www.portoffelixstowe.co.uk/index.php/tools/required/files/download?fID=351	

Improvement in air quality is another high priority for the port and it is particularly important as an area just outside the port has been designated an Air Quality Management Area by the local authority, Suffolk Coastal District Council. Air Quality Management Areas are areas where air quality is poor and must be improved. There are more than 550 across the country.

Green workplaces case studies

The main sources of nitrous oxides (NO₂) causing air quality problems were container handling operations (including vehicles on roads within the port boundary) and emissions from heavy duty vehicles on roads outside the port boundary.³⁷ Measures were taken to reduce carbon emissions in a 13-point action plan shared between the port and the council, including a strictly enforced vehicle booking system, to prevent vehicles queuing and idling in the zone.

These measures have also had an impact on levels of NO₂ within the port itself. After a spike in 2009, levels have fallen. Taking an average of all the readings, NO₂ concentrations dropped by 10% between 2008 and 2012, falling from 37.3 µg/m³ to 33.7µg/m³.

Port of Felixstowe NO2 Monitoring Results 2007-2012

Site	Annual Mean Concentration (µg/m ³) – Adjusted for Bias					
	2007	2008	2009	2010	2011	2012
Mallard House	50.1	49.4	47.4	49.8	45.7	45.5
Central Eng. / Stores Car Park	49.3	49.3	46.6	48.6	44.0	42.5
Pier House LT7113	~	34.8	32.4	35.1	33.0	32.9
Pier House LT7120	~	33.7	31.3	33.6	31.3	31.7
Landguard Eng LT7404	~	36.4	32.4	33.4	30.8	29.5
90 Park LT7403	~	31.9	30.7	32.4	30.2	30.0
90 Park LT7410	~	30.2	28.4	29.7	27.9	27.1
75 Park LT7402	~	37.1	35.4	38.2	35.4	34.8
75 Park LT7507	34.7	33.1	31.6	32.0	29.5	29.1
Average	~	37.3	35.1	37.0	34.2	33.7

Source: 2013 Air Quality Progress Report for Suffolk Coastal District Council; December 2013
<http://www.suffolkcoastal.gov.uk/assets/Documents/District/Air-quality/Air-Quality-Progress-Report-2013.pdf>

The Port of Felixstowe also significantly reduced levels of sulphur dioxide, produced by diesel-burning engines. Ships in the port increasingly use low sulphur diesel and all Port of Felixstowe plant now uses ultra-low sulphur fuel³⁸ levels at the port.

The consequence has been a more than 80% reduction in sulphur dioxide levels between 2009 and 2012.

³⁷ 2013 Air Quality Progress Report for Suffolk Coastal District Council; December 2013
<http://www.suffolkcoastal.gov.uk/assets/Documents/District/Air-quality/Air-Quality-Progress-Report-2013.pdf>

³⁸ See Port of Felixstowe Environmental Report 2011-12
<http://www.portoffelixstowe.co.uk/index.php/tools/required/files/download?fID=351>

Port of Felixstowe SO2 Monitoring Results 2007–2012

Site	Annual Mean Concentration ($\mu\text{g}/\text{m}^3$)			
	2009	2010	2011	2012
Berth 1 & 2	13.0	7.4	5.9	2.4
Berth 3 & 4	14.3	8.8	7.2	2.9
Berth 5	15.6	6.9	5.2	2.3
Berth 6	16.8	7.3	5.9	2.6
Berth 6 & 7	14.7	5.1	4.4	2.9
Berth 7	12.6	6.0	5.2	2.1
Berth 8	~	~	6.7	2.9
Berth 9	~	~	3.6	2.9

Source: 2013 Air Quality Progress Report for Suffolk Coastal District Council; December 2013
<http://www.suffolkcoastal.gov.uk/assets/Documents/District/Air-quality/Air-Quality-Progress-Report-2013.pdf>

In recycling and reducing waste, the Port of Felixstowe has made significant progress. The port is required to deal with waste arriving in vessels from around the world as well as the waste it generates itself. In 2007 it introduced a new waste management system, involving a local waste and facilities contractor, and since then recycling rates have increased sharply, rising from 30% in 2007 to 68% in 2011 (see table). There has also been a reduction in the amount of waste produced by the port, which fell by 14% in 2011. Workforce involvement is crucial to the success in this area. As the 2011–12 Environmental Report notes: “Education of the workforce and other stakeholders remains a key component in improved performance.”

Port of Felixstowe: percentage of waste recycled

Year	%age
2007	30%
2008	38%
2009	59%
2010	67%
2011	68%

Source: Port of Felixstowe Environmental Reports: 2007, 2008, 2009, 2010 and 2011-12
<http://en.calameo.com/read/000046992788cf406a5d5>
<http://en.calameo.com/books/000046992e4f51ef3d56d>
<http://en.calameo.com/read/000046992fb6b0e30df6b>
<http://en.calameo.com/books/000046992a2a4ff3542f6>
<http://www.portoffelixstowe.co.uk/index.php/tools/required/files/download?fid=351>

The port has taken action to improve the environment in and around the port in a number of other areas. The extension of the Trinity Terminal, and Berths 8 and 9 within the port has been accompanied by a wide range of mitigation measures to protect wildlife habitats, which have developed in cooperation with Natural England, the Royal Society for the Protection of Birds and Suffolk Wildlife Trust. In total 84 hectares have been transformed into the Trimley Marshes Nature Reserve and a further 16.5 hectares of intertidal

Green workplaces case studies

habitat have also been created. The Port of Felixstowe has also commissioned the Suffolk Wildlife Trust to undertake a biodiversity survey of the port area.³⁹

The port has reduced its **water usage** through smart metering and leak reductions, with the result that in 2011 water usage fell by 25%. There have also been improvements in the quality of the waste water discharged from the port.

There is a Travel Plan which aims to encourage employees to **travel to work** in more environmentally friendly ways. This includes a care-sharing website, launched in 2009, and measures to encourage walking and cycling. By 2011 the number of single occupancy journeys had fallen by 11%, as compared with the start of the scheme, while car-sharing was up by 11% and cycling by 5%.⁴⁰

The port has also been involved with the “Beachwatch” for the Suffolk coast, with employees and their families volunteering to collect **rubbish from the beach**.

Union involvement

Unions have been involved at various stages in environmental improvements in the Port of Felixstowe. In 2007, during the early stages of the port’s implementation of its carbon reduction plan, environmental policy and strategy was determined by the joint Environmental Committee, bringing together senior management and meeting initially every two months. This committee was supported by the Environmental Working Party, which provided a six-monthly forum for consultation, in which management, the unions and other interested parties were involved.⁴¹ In 2009, the port introduced Employee Forums covering a range of issues, including the environment, and, in 2011, the port set up a communications working group, whose task is to develop employees’ engagement with employment issues.⁴²

The Port of Felixstowe was involved in the TUC’s Green Workplaces scheme in 2011, and Unite has established the post of Green Workplace Rep, a senior steward whose role is to assist in communication with the workforce on environmental issues. He also sits on the Port Travel Steering Group covering both travel to and from work and at work, and has been given paid release for TUC training on the environment.

³⁹ See Port of Felixstowe Journal 2014

⁴⁰ See Port of Felixstowe Environmental Report 2011-12

<http://www.portoffelixstowe.co.uk/index.php/tools/required/files/download?fID=351>

⁴¹ See Port of Felixstowe Environmental Report 2007

⁴² See Port of Felixstowe Environmental Report 2011-12

Speaking at an European Trade Union Confederation conference in October 2012 one of the port's environment and energy managers said that he hoped that working with the TUC's Green Workplaces programme would help the port to "further engage with all Port of Felixstowe employees and continue the progress made to date ... If we can tap into just 10% of the workforce, that's 250 people on board helping us to make environmental improvements."

Not all these hopes have been realised and it has proved difficult to get the full engagement of the workforce, although the Unite Green Workplace Rep remains fully committed to the need to make environmental improvements and would be keen to do more.

Overall conclusions

Ports have a major impact on the environment both on the area around them and more widely. The Port of Felixstowe has taken a number of important steps to manage this impact and reduce and mitigate any damage caused. Since at least late 2006 it has had a clear plan to reduce its carbon emissions and improve air quality; it has also sought to reduce waste and increase recycling, as well as encouraging bio-diversity in the area around the port.

Much of the progress it has been able to record in these areas has resulted from decisions port management has taken on investment in new equipment. However, involvement by the employees is crucial and the union has the potential to play an important role in winning employees for new ways of working and travelling. As Unite's Green Workplace Rep noted in a blog in 2012, the experience at the Port of Felixstowe shows "how non-confrontational dialogue can be progressed between the trade union and management through constructive joint working."⁴³ There is still work to be done to make this happen.

⁴³ <http://strongerunions.org/2012/10/30/greening-the-workplace-at-port-of-felixstowe/>

Section nine

Conclusions

This study demonstrates that in settings ranging from hospitals to offices, and on the dockside as well as in the community, trade unions and their members are actively working with management, often taking the lead, to make their workplaces more sustainable and energy efficient.

Whether by facilitating behavioural change or investing in smart new plant and equipment, this report shows that joint union-management cooperation can make a real difference.

Much of the focus in these case studies is on energy savings. Organisations are deliberately setting targets to reduce their “carbon footprint”. Allianz, for example, told us that it has cut carbon emissions by one third in five years. Workplaces account for a fifth of UK carbon emissions, so they are a natural place to tackle the challenge of climate change.

But this study also reveals that unions are involved in a much wider range of environmental challenges in the workplace. At work, we consume resources, generate waste and travel as well as burning energy. Examples of wider savings include hospitals introducing paperless meetings, a government department saving on water consumption, a port operator tackling sulphur emission from transport and an energy company with a zero waste target.

This does not mean that progress has been universal and straight-line. Not all the targets set have been achieved. But greenworkplace projects are making a difference. At present this depends on voluntary commitments by both sides. However, the provision of some new practical statutory rights at work would have a transformative effect on workplace efficiency and sustainability, particularly where employers haven't really got going on the green workplace agenda. This includes the right for a recognised trade union to appoint union environmental reps, and for those reps to receive appropriate training and to enjoy joint consultation with management on environmental change at work. *The Union Effect* demonstrates how much progress could be achieved with a shared focus and commitment on greening the workplace.

The TUC produces regular reports on economic and social issues, providing up to date analysis and commentary on key policy debates.

You can also read TUC policy officers' comments on the issues in the report series and the ongoing economic situation at the TUC public policy blog: www.touchstoneblog.org.uk

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