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United Kingdom: Tesco case study report

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About

Case study name:

[The greening of industries in the EU](#)

Country:

United Kingdom

Organisation Size:

500+

Sectors:

Distribution and trade

Tesco PLC is one of the world's largest retailers, operating in 13 countries with a workforce of almost 500,000. It is pursuing an ambitious climate change strategy across its worldwide operations to become a zero-carbon business by 2050. This case study portrays the approach taken by Tesco PLC in the UK to manage its carbon emissions through integration of climate change into its business operations. It exemplifies the green business practices implemented at Tesco UK within its property and distribution functions and how they have affected the quality of work and employment. The case study was prepared in December, 2011.

Introduction

[Tesco PLC](#) is an international retailer operating around 5,600 stores in 13 countries and employing almost 500,000 people worldwide. Its headquarters and the major part of business are based in the UK where it was founded over 90 years ago. Currently it is the largest UK private sector employer with 294,000 employees.

Being among the world's largest retailers, Tesco was responsible for 5.4 million tonnes of carbon dioxide (CO₂) emissions in 2010–2011 which, according to the European Energy Agency ([EEA](#)), is comparable with the [average energy use](#) of about one million EU households.

Tesco recognised this responsibility in 2007 alongside the great potential to contribute to climate change mitigation. Consequently, it developed a climate change strategy to curb the carbon emissions from its business, ultimately aiming to become a zero-carbon business by 2050.

In 2011 Tesco was [named the top retailer globally in the Carbon Disclosure Project](#) for its carbon reporting and reduction measures and top FTSE 350 company. Also in 2011, Tesco won the Guardian Sustainable business award. Tesco is a member of the [FTSE4Good](#) and [Dow Jones Sustainability](#) indices and has held platinum status in the [Business In The Community Corporate Responsibility Index](#) since 2007. Tesco endows the [Sustainable Consumption Institute](#) at the University of Manchester.

This case study portrays the approach taken by a large corporation to manage its carbon emissions through repeated integration of climate change into its business operations. The analysis is limited to the Tesco UK business practices to reduce its direct carbon emissions, although most of these practices are adopted across all Tesco's operations.

Drivers and motivations

A number of factors drove Tesco to adopt a climate change strategy.

- It was motivated by Tesco's corporate responsibility agenda, which arose at the [top management level](#) with a recognised will to actively address climate change and to pursue sustainable profits in the long term.
- High awareness of climate change among UK customers allowed the company to capitalise upon its ambitions and, simultaneously, make a value proposition to engage its customers.
- The company perceives the high relevance of climate change to the core of retail business. As explained on its [website](#):

Climate change transcends national boundaries, and threatens to affect us all in many different ways: from risks to supply chains, to the direct impact that changes in the climate will have on our customers' lives and the operation of our stores.

- A carbon reduction strategy comes along with reductions in costs and business risks through lower energy use, thus giving higher energy security and higher resource efficiency:

We see a more carbon-constrained future, a future where carbon energy continues to be more expensive, and we want to operate effectively and sustainably within that future.

Overall, Tesco saw an opportunity to position itself as a leading business on climate change agenda and simultaneously pursue desirable changes in its business operations.

Green business practices

Direct carbon footprint

The scope of Tesco direct carbon footprint is defined according to the international standard of the World Resources Institute (WRI) and the World Business Council for Sustainable Development (WBCSD) [Greenhouse Gas Protocol](#), adapted to business specific activities. Tesco has commissioned specialist consultants, [ERM](#), to assist with the framework design.

For a retailer there are three major sources of carbon emissions:

- energy consumption in buildings;
- energy consumption in the distribution of goods;
- refrigeration gases.

Carbon reductions in buildings

Tesco aims to halve its building emissions per square feet against a 2006–2007 baseline by 2020. Tesco buildings consist of stores, distribution centres and offices.

First and foremost, energy efficiency measures are applied in buildings with measures including:

- efficient and natural lighting solutions;
- energy conservation (for example, doors on refrigerators);
- more efficient equipment.

Second, leakages of *hydrofluorocarbon* (HFC) refrigerants comprise a significant share of the company's footprint. HFCs have a global warming potential many times greater than that of CO₂. To address this Tesco has strict maintenance regimes to minimise refrigerant gas leakage. Tesco also has over 100 natural refrigerant (CO₂) installations in 11 of its markets worldwide. Measures to reduce the carbon impact of refrigeration are having a real impact and in 2010–2011 they prevented Tesco from emitting 165,000 tonnes of carbon dioxide equivalents (CO₂e) into the atmosphere in the UK alone;

Third, renewable energy is generated to power and heat Tesco stores, offices and distribution centres. Examples of Tesco's renewable energy installations worldwide include:

- solar panels;
- wind turbines;
- ground source heat pumps;
- combined heat and power (CHP) power plants which run off biofuels such as waste fish oil.

Finally, Tesco operates six zero-carbon stores worldwide, of which four are in the UK. They comprise all the measures mentioned. Buildings are designed, built and equipped with carbon efficiency in mind while being powered by renewable energy. The first zero-carbon store was launched in 2009 in Ramsey, UK; it uses 66% less energy than a typical store. The energy it does need is provided from renewable CHP.

In addition to the low-carbon technology solutions, Tesco employs performance management tools to incentivise energy-efficient operations. Stores and distribution facilities have energy budgets set and reviewed weekly. Energy displays are installed to communicate energy consumption to staff.

Carbon reductions in distribution

By 2012 Tesco strives to halve distribution emissions of each case of goods delivered against a baseline of 2006. To achieve this, the '4Fs plan' is being implemented.

- 'Fuller cages' initiative aims to transport maximally full pallets, relying on warehouse workers' performance and optimal warehouse planning.
- 'Fuller trucks' refers to optimal logistics planning in order to minimise the miles of empty trucks coming back to a distribution centre. Arrangements are made for Tesco trucks to pick up a supplier's goods on their way back to a distribution centre.
- 'Fewer miles' aims at optimisation of the distribution network to have most efficient routes. Tesco UK has reorganised their distribution centres from having 36 units to currently 26 units, but in better locations closer to stores.
- 'Fuel economy' is achieved through eco-driving practices and technical vehicle enhancement such as double-decker trailers or aerodynamic improvements. All drivers are personally monitored on their fuel consumption and driving manner.

There is considerable employee involvement in the 4Fs strategy, which relies on logistic planners, drivers and warehouse staff to achieve success.

Tesco has also invested in alternative modes of transport and has transferred more freight from road to rail than any other retailer in the UK.

Climate change dimension of business

To make it effective, Tesco's climate change strategy is thoroughly integrated into its business operations on different levels.

At corporate level, there is a climate change team which formulates Tesco's carbon strategy, sets targets for emissions reductions, and shares expertise on climate science and policies. In addition, within the property and distribution functions, there are environmental experts specialised in technical knowledge of low-carbon solutions.

Corporate carbon reduction targets are cascaded down to country business units, which develop their roadmaps to deliver assigned emission reductions. Ultimately, carbon reductions measures are implemented by local distribution and property teams, who work closely with environmental experts within their function and in the climate change team.

On an operational level, thousands of staff running stores, distribution centres and transporting goods are provided with carbon-related key performance indicators (KPIs) to induce behavioural change.

In this model, the climate change dimension is embedded in business operations from strategic to operational level.

Results

By 2010 Tesco UK had reduced its absolute emissions by 5% despite growing the business by 7%. A [press release](#) issued in December 2011 said that green business practices implemented since 2006 had yielded estimated savings of £200 million in global energy costs in 2010.

Anticipation and management of the impact of green change on quantity and quality of jobs

Impact on quantity of jobs

The climate change strategy at Tesco UK affects three main groups of employees. The new green jobs at Tesco comprise a team of climate change experts and policy advisors. Additional environmental specialists are recruited to property and distribution teams to support them on function-specific carbon reduction measures. Since property undertakings are more knowledge-intensive and diverse, the property function has a team of eight environmental experts. Meanwhile, to facilitate the green business practices within distribution, one new green job of distribution environmental manager was created.

The UK property team has 625 employees who manage current estate and build new stores. All employees within property function are affected by the climate change strategy because energy-related issues are embedded in most of their activities. As a result, all jobs in the property team were transformed by adapting their skills to achieve carbon reductions. In addition, approximately 250,000 employees in Tesco UK stores take part in building emission reductions through behavioural energy conservation measures to meet store energy KPIs.

The UK distribution team represents a group of transformed green jobs since the '4Fs plan' to reduce carbon emissions implies behavioural changes or performance targets in their daily work. Moreover, since the carbon reduction strategy is focused on operational efficiency in transport and warehouse activities, it ultimately reduces the labour demand given the same scope of business. However, the actual staff size at Tesco UK is continuously increasing due to business growth and reduction in the hours of contracted employees.

Overall, the evidence suggests the vast majority of jobs were transformed by adapting their functions and skills (see table). Respondents claim that this is the intended approach of business: to embed the green change into the current structure of operations supported by small teams of environmental experts. On the future prospect, Tesco is determined not to expand the environmental teams. However, in response to the climate change strategy, more employees will have to become better aware of the environmental issues just to deliver their normal job.

Impact on quality of jobs

Skills development

The needs for green skills are significantly different among different groups of employees. Reportedly, employees in the property function do not need new skills since the green business practices are embedded into the standard property operations, with limited changes in daily tasks and responsibilities. For example, to build a solar panel the process is hardly different from a standard construction project: the acquisition manager needs negotiation skills to confirm the project with planners and the store development manager needs project management abilities to ensure compliance with budget and timeline, and so on. It is not the skills that change, but employees need to gain specific knowledge about the green technologies in buildings. The property environmental team was formed to collect such knowledge and disseminate it internally through documentation on specific technologies, workshops and ad hoc queries.

Within the distribution team, the drivers are most affected since they have to acquire fuel-efficient driving skills. All drivers are trained on a one-to-one basis by internal trainers, who are initially instructed by the vehicle manufacturers. In addition, Tesco trucks are equipped with telematic monitoring systems, which track vehicle movements and speed, facilitating efficient driving behaviour. After each journey, drivers have a debriefing session with their manager to evaluate the driving performance.

For shop and warehouse workers, carbon reduction measures require behavioural changes rather than new skills. The employees need to understand the link between their daily tasks and carbon footprint. This understanding is facilitated by community targets – KPIs including carbon emissions applicable to each store or distribution centre. The regular briefings held to review community KPIs provide opportunities to discuss the relevance of carbon targets in Tesco's operations.

Logistic planners have not seen significant changes in their skills due to the green business practices. Their role has always been to optimise

logistic routes to lower carbon emissions.

Other dimensions of job quality

The pursuit of the climate change strategy has affected a number of working conditions among different employee groups.

Since Tesco is recognised as a leading business in sustainability, the employees involved in the green change obtain useful experience, which may enhance their career opportunities. This is more applicable to white-collar employees, who deal with knowledge-specific green issues such as the property development team, logistic planners and environmental experts.

The green strategy has an impact on the income of senior and middle management since carbon reduction targets are among the KPIs determining their bonuses. All other employees relate to carbon reduction targets through non-monetary performance appraisal.

Truck drivers benefit from the green change through improved health and safety conditions. Telematic monitoring systems track their working hours, driving speed and rest periods, ensuring satisfactory levels. In addition, lower speed limits not only reduce fuel use but also diminish the risks of accidents.

Renewal of the vehicle fleet as well as energy-efficiency measures in newly built stores or distribution centres make a better place to work for the employees. Staff feedback indicates that they like the enhancements, such as natural daylight, in new facilities.

Efficiency measures in transport and warehouse pose a need for more flexible working hours for drivers and warehouse staff. As a result, work contracts are adjusted to incorporate working schedules during unsocial hours (that is, time outside 09.00 to 18.00, weekends and public holidays). Incorporation of schedule flexibility in contracts allows the company to save on premiums and at the same time to reduce the proportion of contracted workers.

Collaboration on green change

Tesco engages with numerous external parties to anticipate and pursue future developments in a low-carbon business.

Environmental teams commission research at consultancies or academic institutions. They also collaborate with non-governmental organisations (NGOs) and public authorities to foresee the trends in future technologies and legislation, and to determine strategic directions of green change.

In 2007, Tesco funded the launch of the Sustainable Consumption Institution (SCI) at the University of Manchester, which researches major issues associated with sustainability and climate change. Tesco collaborates with SCI on various projects to understand the possibilities and suitable technologies to pursue its vision of a zero-carbon business.

Collaboration with suppliers is of utter importance to prepare for, and successfully adopt, novel technologies. In the property function, suppliers feed into the pipeline of technology adoption at incremental stages from providing ideas on environmental performance improvements to collaboration on the test applications, and finally a full-scale technology roll-out. In the distribution function, there is extensive cooperation with vehicle manufacturers trying out new modes of transport and developing fuel-efficiency measures.

Tesco openly shares its green business strategy with the main trade union (Usdaw), which represents the majority of drivers, warehouse and shop workers. Tesco believes it is important that the trade unions understand the challenges associated with its ambitions to become a zero-carbon business and the need for changes in operations.

Conclusions and recommendations

- The key driver of green business change often appears to be the synergy between positioning as a sustainable business and improvements in the business bottom line. High public awareness of climate change is a favourable factor enabling businesses to build on their sustainability strategies. Therefore, public authorities should exercise their role to communicate environmental issues.
- The case study illustrates how a large company strives to minimise the effects of green change on its operations and employees. The Tesco model of having one central team for setting targets, a few specialised environmental expertise centres and involving the senior employees across the business units to implement carbon reductions has proved to be very successful.
- Green business practices are embedded into everyone's day-to-day job. Therefore, the vast majority of affected jobs are transformed by integrating the carbon dimension. New green jobs created for the environmental experts make up only a minor number within the company's workforce.
- White-collar employees engaging with knowledge-intensive aspects of the green change incur more benefits though obtained learning outcomes and increase in their career opportunities. Blue-collar employees are most often subject to behavioural changes.

Bibliography

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- [Tesco: Measuring our carbon footprint](#)
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- [Sustainable Consumption Institute website](#)
- [Usdaw trade union website](#)

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