

Retail Therapy: increasing the sales of CFLs

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1. ABSTRACT

The average price paid for a brand name CFL in the UK has halved in the past two years, and industry sources expect the price of CFLs to continue to drop. Thus the price barrier to purchase of CFLs is lowering dramatically, but this alone may not lead to a correspondingly dramatic increase in sales.

Several studies have shown that price is far from the only barrier preventing more sales of CFLs. This paper gathers new and existing evidence on continuing reasons for non purchase of CFLs. These barriers include physical, technical and availability constraints as well as social and cultural factors.

From this analysis, the retail sector is identified as an important arena for removing barriers to purchase. The availability and range of CFLs in most UK retail outlets continues to be poor. For example, the supermarket / grocery multiple sector, which sells more incandescent lamps than any other sector, rarely stocks any CFLs. Information and advice on CFLs is also lacking. New retail initiatives in the UK to increase availability and promotion of CFLs are described. Further policy suggestions to address the non-price barriers are also given.

Emphasis in policy terms is (or should be) moving away from price reduction, and towards the other issues involved in the culturally complex field of lighting. This paper provides analysis to inform future policy directions, particularly with regard to the retail environment for both CFLs and suitable luminaires.

2. INTRODUCTION

“Despite the advances which have been made in CFLs, in terms of their appearance, size and weight, they have not shown quite the volume growth which had been predicted in the industry.” (Intel, 1999)

The market for CFLs in the UK is increasing year by year, however not to the extent which was hoped for by the industry. By looking at evidence on current sales of CFLs in the UK, this paper aims to investigate the barriers to additional sales. In particular the role of the retail sector is considered, and options for making the retail environment more CFL-friendly are discussed. The contribution UK and EU policy has made and is expected to make in future to CFL sales is also considered.

Dedicated luminaires for CFLs are an important part of the eventual transformation of the lighting market towards more efficient solutions. Thus the progress to date with dedicated luminaires is also outlined.

Throughout this paper the terms GLS (general lighting service) and incandescent lamp are used interchangeably.

3. RETAIL SALES OF CFLS AND DEDICATED LUMINAIRES IN THE UK

The market for CFLs and CFL-dedicated luminaires in the UK is described in the sections below.

How many CFLs are sold

There is no single source of reliable data regarding how many CFLs are sold via the retail sector to the UK domestic sector – instead there are two major sources of information, Mintel (a market research company) and the Lighting Industry Federation. The information from these sources is unfortunately contradictory.

- Mintel (1999) estimated domestic sales of 5 million CFLs in 1999.
- LIF (Lighting Industry Federation) estimate that 7 million CFLs were sold into the domestic market in 1999.
- There were 2.2 million CFL sales in IKEA (a chain of home stores) in 1999

To compare these numbers it is important to understand the different bases for the estimates:

- Mintel: 5 million, retail sales only, domestic only, including IKEA
- LIF: 7 million, all sales, domestic, excluding IKEA
- IKEA: 2.2 million, retail sales only, domestic + some non-domestic

To compare the two, the non-retail sales and non-domestic sales figures included in the LIF and IKEA figures need to be excluded:

- Non-retail sales, 1999 = 2 million (supplied through energy company and government programmes)
- Around 15% of sales through retail channels may be going into the non-domestic sector (Mintel, pers comm.) which would give around 330,000 of the IKEA sales being for the non-domestic sector

LIF + IKEA, excluding non-domestic and non-retail sales: $7 + 2.2 - 2 - 0.33 = 6.9$ million

Thus the two sets of figures are 1.9 million different. The best estimate of retail sales of CFLs to the domestic sector is probably the average of the two – 6 million. Total retail sales of domestic lamps were 153 million (Mintel, 1999), thus CFLs made up just under 4% of sales

The lack of good sales data on CFLs makes it difficult to monitor the changes in the market. Sales data from various sources for previous years suggests that since 1995 the UK retail market for CFLs has been rising from 3 million then, by 0.5 – 1 million additional sales per year.

Range of lamps available on the UK market

The following table (Table 1) shows the number of different types of lamp available in Do-It-Yourself (DIY) stores in Great Britain in 1999. Due to customer confidentiality, less information is available about 'retailer brand' lamps (those which are exclusive to a particular retailer) than branded lamps. Overall, CFLs make up 12% of the total number of lamps on offer. However, these figures do not indicate what the number available in any one store is likely to be. In order to investigate this further a retail survey was undertaken (chapter 4).

Table 1. Lamps available in GB DIY stores, 1999

	Branded		Retailer brand	
	No. available	%	No. available	%
Incandescent	144	72	not known	
Halogen	16	8	52	7
CFL	29	14	81	11
Fluorescent	12	6	not known	
Total	201		745	

Source: GfK Market Research Ltd

Lamp sales by retail sector

The table below (Table 2) shows the distribution of sales, by value, in retail outlets in 1999. Clearly the grocery multiples (or supermarkets) have by far the largest share of the market. It is likely that this share would increase if these figures were available in terms of numbers of lamps sold, as the majority of sales in this sector are standard incandescent lamps. A somewhat greater proportion of higher value lamps are sold through other types of outlet. This is particularly true of the more unusual decorative shapes, which are most likely to be sold through independent specialists and department stores (Mintel, 1999).

Table 2. UK retail sales of lamps, by value by type of outlet, 1999

	1999	
	£m / Euros m	%
Grocery multiples	65 / 106	44.8
DIY stores	42 / 68	29.0
Variety stores	15 / 9.3	10.3
Department stores	6 / 9.7	4.1
Independent hardware stores	5 / 8.1	3.4
Others*	12 / 19.4	8.3
Total	145 / 235	100.0

Source: *Mintel (1999)*

* including lighting specialists and Bhs

CFLs as a replacement for GLS

In the DELight report (Palmer *et al.*, 1998) it was demonstrated that only 46% of luminaires in the UK (and 42% and 43% in Germany and Sweden respectively) were suitable for immediate replacement by CFLs. Looking at data on types of lamps sold gives a further insight into how many sales of GLS lamps could theoretically be replaced by CFLs.

The assumption is that the following types of incandescent lamp cannot be replaced by CFLs: candles, reflectors, pygmy, coloured, >100W. This is somewhat of a simplification as candle shaped CFLs can now be found, as can some CFL reflectors – but nevertheless these would not usually prove an acceptable substitute for their incandescent equivalent for aesthetic and size reasons. In addition, no account is taken of the number of normal GLS which go into dimmer fittings, for which most CFLs are not suitable.

Using these criteria, the percentage of branded incandescent lamps sold in the DIY sector which are not substitutable is 80.2 % (Table 3). Therefore, it is concluded that only 19.8 % of sales of incandescent lamps in this sector in 1998 could have been replaced by CFLs.

Table 3. Proportion of branded incandescent sales, DIY sector, 1998

	% of Incandescent Sales
Candles	28.0
Reflectors	24.6
Lustre/Pygmy	14.4
Coloured	11.6
>100W	4.7
TOTAL	80.2

Source: *Analysis of GfK data*

Fortunately, this is not typical of the whole retail sector. This data can be compared with (Table 4) which shows that 41% of incandescent lamps are either candles, reflectors or soft-tone. Which leaves 59% potentially replaceable by mainstream CFLs excluding the proportion of 100W+ lamps and any 'standard' lamps which may be pygmy or other small lamps.

Table 4. UK retail sales of GLS lamps, by volume, 1997

	m units	%
standard	83	59
candle	25	18
reflector	18	13
standard soft tone	15	11
ALL GLS	141	

Source: *Mintel, 1999*

This is a striking result which reinforces the findings of the DELight study. The percentage of lamps which can be replaced does not necessarily coincide with the 46% of luminaires that can take CFLs – although presumably there would be a considerable degree of overlap.

Price of CFLs

As with sales of CFLs, there are conflicting data available on the average cost of these lamps.

- Analysis of GfK data on sales of branded CFLs via the DIY sector, shows that the average price fell from £8.95 (14.5 Euro) in 1998 to £5.68 (9.2 Euro) in 1999 – a decrease of 37% in one year.
- Mintel (1999) suggest that the average price paid for a CFL (branded and retailer brand) was £3 (4.9 Euro) in 1997, falling to £2.50 (4.05 Euro) in 1999. These prices are lower than those suggested by most industry commentators, and even taking account of the very cheap CFLs which were sold by IKEA (£2 each) these figures seem too low.
- In the Oxford retailer survey (see chapter 4) prices in the shops varied from £2.50 to £10, with some outlets charging twice as much as others for the same CFLs (lifetimes of CFLs on sale ranged from 3,000 to 15,000 hours).

Whatever, the exact average price being paid by consumers, it has undoubtedly fallen significantly recently. In addition, very low priced (although potentially also lower quality) CFLs are available.

Dedicated luminaires

There is no numerical information available about sales of dedicated luminaires in the UK. However, sales are likely to be very low, as there are few models on the market. At the UK Lighting Show (21-24 January 2001) only one manufacturer of the 160 suppliers and manufacturers represented was showing dedicated luminaires. This figure excludes the special EU 'lights of the future' stand.

4. RETAIL SURVEY IN OXFORD, JANUARY 2001

A survey of a range of retailers was undertaken in Oxford during January 2001. The aim of the survey was to investigate the range of incandescent and CFL lamps available in a variety of retail outlet and to record the environment in which the lamps were sold. Particular attention was paid to whether any information about CFLs was available, the attitudes and knowledge of the retail staff and, where there were luminaires on display, whether any of these featured CFLs. Clearly, this survey does not claim to be nationally representative. However, in lieu of national information it gives an insight into the environments in which consumers buy CFLs and incandescent lamps.

Lamps

In total fifteen shops were visited, of these eleven offered CFLs for sale and four did not (Table 5). Perhaps unsurprisingly, it was the smaller shops with a more restricted range of incandescent lamps which did not sell CFLs. Amongst shops selling CFLs, the ratio of incandescents to CFLs varied from 2:1 to 17:1 with an average ratio of 8:1, that is there was an eight times greater choice of incandescents than CFLs.

Table 5. Summary of availability of CFLs compared with incandescent lamps

Shop Code	Shop type	No. incandescent	No. CFLs	CFL information available
A	General home department store	60	12	Big poster, display of all lamps in the shop
B	General department store	32	3	none
C	General department store	58	9	Philips Ecotone leaflet available. Only advertises Ectone Ambience lamps not whole Philips low energy range.
D	Supermarket (medium)	22	4	none
E	Supermarket (medium)	9	0	none
F	Supermarket (small)	10	0	none

Shop Code	Shop type	No. incandescent	No. CFLs	CFL information available
G	Supermarket (small)	5	0	none
H	Supermarket (medium)	10	0	none
I	Supermarket (medium)	30	2	none
J	Large DIY store	16	3	none
K	Supermarket (medium)	17	1	none
L	Large lighting shop	none displayed		none
M	Large 'home' store	16	8	A board approx. 30 x 75cm was suspended about 30cm above head-height by the lamp stand. Gives advice on lamp selection. Gave sketch and information on incandescent, halogens and CFLs.
N	Large DIY store	74	22	Philips stand, about 1.3m high and 25cm wide. Has three categories for 'Economy', 'Ambience', 'Exterieur'. Has flashing LEDs to compare energy use of normal versus low energy. "Save up to £31 by using an energy efficient bulb"
O	Large DIY store	111	22	Display board at top of stand: "Most applications in the home can now benefit from these direct replacement bulbs: Last up to 15x longer; consume up to 80% less electricity" The display then states what the shop supplies and gives diagram of lamp types.

About half of the retail outlets selling CFLs provided information to the consumer. The form in which the information was presented, and the amount available, varied greatly.

Luminaires

Of the shops visited, eight also sold luminaires (shops A, B, C, J, L, M, N, O). Only the specialist lighting store sold a luminaire that incorporated a dedicated CFL fitting, and this was available via a catalogue, rather than being on display.

Of the retail outlets displaying luminaries, all except J had many light fittings lit. The number of luminaires lit ranged from 40 to 200. Many of the luminaires would have been suitable for CFLs, however incandescent lamps were almost invariably used. In two shops, one or two luminaires were fitted with CFLs, although this would not have been apparent to customers.

Staff knowledge and attitudes

It appeared that staff have received little training, if any at all, and that certain 'myths' concerning energy efficient light lamps exist. In one department store which had a dedicated lighting section, the member of staff felt that you would only need to buy a low energy lamp if you would be using it "for more than 2 hours at a time".

In another store, the member of staff stated that he wished to approach the management about the issue of using low energy lamps to display lamps in the store, but he felt the management would object to the large capital outlay. Members of staff in other stores confirmed this view and said that the company policy was to use 25W candles to light most luminaires on display. This would be as much for the reason of keeping the heat down in the store as for saving energy, but it was also stated that it would not be cost-effective to equip the fittings with the more expensive low energy lamps. Some staff members also felt that most of the fittings on display would not be suitable for the CFL shapes available and it was stated that "a CFL bulb here and there would make little difference".

5. POLICY TO INCREASE SALES OF CFLS

For appliances it is fair to say that EU policy (energy labels, minimum standards, voluntary agreements) has been decisive in moving the market towards efficiency, and that the effect of UK national initiatives (marketing, information, subsidies) has been of secondary importance. However, this is not the case with efficient lighting, where much of the activity has been based around subsidies for the product which are offered at national level. Given that it is unlikely that in the near future an EU-negotiated minimum standard will remove incandescents from the market, in lighting these 'pull' activities for moving the market towards efficiency are likely to continue to be the most important activities. Although some such activities are taking place EU-wide much of this activity is appropriately carried out at nation-state level given the necessity of designing schemes and information to meet the different needs of individual nations.

In addition to the policy mentioned below, there are other UK initiatives, including work underway on promoting CFL outdoor / security lighting to replace the current halogen floodlights market.

UK energy company subsidy schemes

The most influential schemes to date in terms of getting CFLs into homes have been the initiatives funded by energy companies, which supply CFLs at either a subsidised cost, or for free, via various mechanisms. Energy companies in the UK are obligated to reach certain energy savings targets per year, to do this they have been allowed to place a levy on their customers

By March 1998, about 8.4m CFL lamps had been subsidised under schemes overseen by the Energy Saving Trust (EST, a public-private institution) and funded by energy companies. Assuming that all of these were installed and working, this would account for 50% of CFLs installed in UK homes in 1997. A more realistic figure is probably 40-45%, taking into account breakage and non-installation (Table 6).

Table 6. Percentage of CFLs in UK households subsidised in schemes overseen by the EST

	1997
UK households	24,116,000
% with CFLs	23%
No. CFLs per owning households	3
Total no. CFLs in UK households	16,640,265
No. CFLs distributed by EST overseen schemes Oct93-Mar98	8,360,920
% CFLs in UK households distributed through EST overseen schemes	50%

Source: Schiellerup, P. (2000)

Currently (April 2000 – March 2002) EST estimate that 4 million CFLs per year are likely to be provided by energy company funding. The funding mechanisms are changing from April 2002, and the savings required are increasing. This increase in obligated savings is expected to dramatically increase the number of subsidised or free CFLs provided, with government estimates that 10 million CFLs per year will be provided in that period. There is no obligation on the energy companies to deliver 10 million lamps per year, however, this figure has emerged after consultation with industry and is thought to be reasonably representative of what is likely to happen.

Given the scale of these proposed schemes compared with the current retail market for CFLs, there is concern that retail sales of CFLs will suffer.

Linking subsidy schemes and the retail sector

Although exact numbers of subsidised CFLs which have been delivered via the retail sector is not known (the Energy Saving Trust is not permitted to make this information public), expert estimates suggest that it is a small fraction of the total. In order to investigate this further, and to discuss future prospects for subsidy schemes operating within the retail sector, telephone interviews were carried out with a number of energy companies

during January 2001. Of these companies, only one had a scheme being run with retailers at present, and none had any planned for the future. Two of the companies had run relatively small schemes via retailers in the past.

The key barriers to working with the retail sector which were identified are:

- Cost-effectiveness
- Branding of the energy company
- Organisational complexity of dealing with retailers
- Scheme rules

None of the companies interviewed was particularly enthusiastic about running future schemes with retailers, although some recognised that the change in funding rules could make working with retailers more of a possibility in the period 2002-2005.

a) Cost-effectiveness

The energy companies want to make their energy savings as cost-effectively as possible. Retailer mark-up on CFLs makes supplying subsidies via this route less cost-effective than other options. Mail order and other methods of distribution are likely to be more cost-effective than working with retailers.

b) Branding of the energy company

In the competitive UK energy market, branding is a key issue for many energy suppliers, although the emphasis placed on this varies between companies. Promotion of brand-name and thus expanding its customer base at the same time as trying to achieve its energy savings targets seems to be the objective of most of the energy companies. Subsidising CFLs via retailers is not seen as a good method of getting marketing advantage.

EST has recently found it difficult to manage national energy efficiency schemes (paid for by the energy companies) because many of the companies believe they do not get sufficient marketing benefit from such schemes. EST considers that it is unlikely to run any national schemes in future, due to these problems.

c) Complexity of dealing with retailers

A number of energy companies commented on the complexity of dealing with retailers. This is exacerbated if the companies want to run their own schemes, as they must identify and deal with retailers who operate in the areas in which their customers live.

d) Scheme rules

The way in which savings are credited to energy actions at present means that companies may only claim savings in proportion to the funding they supply. Thus if a subsidy is provided via a retailer, but the customer still pays 70% of the normal price the energy company can only claim 30% of savings due to CFLs sold. However, scheme rules from April 2002 will change, as the funding company will be able to claim 100% energy savings even though it may not be putting in 100% of the costs. Therefore some companies feel it may be possible to carry out more retailer initiatives 2002-2005.

EST 'energy efficiency' endorsement

The Energy Saving Trust has launched a major campaign of using its 'energy efficiency' symbol to endorse efficient products. Criteria for endorsement are decided by industry, retail, consumer group, government and other stakeholders. Manufacturers can then apply to attach the 'energy efficiency' symbol (Figure 1) to their products. For lamps this works by having the symbol stuck or printed onto packaging. A promotional campaign is launching the logo to consumers as an instant guarantee of energy efficiency, making it easy for domestic customers to identify and purchase energy efficient products. The scheme is designed to increase general consumer awareness of energy efficiency while providing a framework to link existing and future UK and EU labelling schemes (EST, 2000).

Figure 1. EST's energy efficiency recommended logo

The logo can be used on both A and B-rated 'high quality' CFLs (there are criteria defining various aspects of CFL efficiency, operation and quality). There is no official estimate of how many additional sales of CFLs the endorsement campaign is expected to stimulate. However, at a market transformation programme meeting in May 2000 the assembled industry experts suggest there might be a 5% increase in sales above what would have been expected (MTP, 2000). Details of the endorsed lamps are available via EST's web site: www.est.co.uk/ee/.

EU Energy label

The EU energy label was introduced for lamps from 1 January 2001. In terms of visual impact and the opportunity for sales person intervention, it is certain that the light bulb energy label has less immediate impact than that on cold and wet appliances. In addition, consumers could easily distinguish energy efficient lamps prior to the introduction of the label.

Nevertheless, introducing the energy label is an important advance. Governments / companies can design schemes on the basis of a label, as is the case in Denmark, where a comprehensive A rated lamp education and subsidy campaign is underway. Further, consumers will now see energy labels on products which are purchased frequently.

EU promotion campaign

There is currently a "European wide initiative for the promotion of efficient lighting in the residential sector". It is being sponsored by Unipede, the European Commission and Eurelectric. The idea is that electricity companies etc. will design schemes which fit the rules of this promotion. Then their actions will be endorsed by the sponsors "giving extra credibility to your own actions in partnership with other organisations sharing a common and global objective"(scheme leaflet). The scheme is for stick CFLs of energy label A, and lookalikes of B+.

However to date "the level of participation has been low and slow" (EST, pers comm). This is due to the reluctance of energy companies to join in with the scheme. The organisers hope that by extending the deadline for participation more companies will be encouraged to participate. Thus to date this scheme has had little effect on the market.

6. POLICY TO INCREASE SALES OF DEDICATED LUMINAIRES

The key policies affecting promotion and sales of CFL-dedicated luminaires are listed below.

UK building regulations

Amendments to the energy efficiency provisions of UK building regulations (Part L) are currently being finalised, with new regulations due to be issued in Spring 2001. One of the aims of the new regulations is that:

"Reasonable provision should be made for dwelling occupiers to obtain the benefits of efficient lighting. A way of showing compliance with the requirement would be to provide at a reasonable number of locations, where lighting can be expected to have most use, fixed lighting (comprising either basic

lighting outlets or complete luminaires) that only take lamps having a luminous efficacy greater than 40 lumens per circuit Watt. Examples of lamps that achieve this efficacy include fluorescent tubes and compact fluorescent lamps.” (DETR, 2000)

The draft regulations go on to propose the number of efficient lamps per dwelling based on the number of rooms, with the number varying from 1 for dwellings of 1-3 rooms to 4 for 10-12 room dwellings. Assuming these regulations are adopted in this form, they will vastly increase the market for dedicated-CFL luminaires in the UK, as providing CFLs alone would not meet the requirement of the regulations.

EU dedicated luminaire competition

The European Commission is promoting a design competition ‘Lights of the Future’ for designers, students and luminaire manufacturers. The aim of the competition is to create designs that will give consumers a wider choice of efficient lighting. The luminaires are compatible only with pin-based CFLs. Twenty seven winning entries were chosen and these are now being promoted in four EU countries, including the UK (a SAVE initiative).

In the UK, many of the winning designs were on display at the recent Lighting Show (January 2001), meetings have been held with retailers and manufacturers to promote the designs, and there is a dedicated web site about the winning designs (www.etsu.com/eulightdesign). It is too soon to assess the success of this initiative, however, given the forthcoming Building Regulations in the UK there should be interest in the designs offered.

7. BARRIERS TO SALES OF CFLS

The barrier cited to purchase of CFLs usually include: price; technical characteristics; suitability for existing fittings; consumer preferences. To a large extent debate has moved on from the ‘people don’t like them’ / poor aesthetics arguments. Evidence in the DELight report showed that this was not the case, that most people who have CFLs are satisfied with them and go on to buy more. The technical characteristics of CFLs have continued to improve. Also, as the evidence in this paper shows, the price differential between CFL and GLS lamps is far less significant than it used to be. So what are the main barriers now to further adoption of CFLs?

Consumer research

A number of factors which seem to be holding back the development of the market clearly emerge from research undertaken by New Perspectives (2000). This research was qualitative and quantitative research among energy company funded scheme CFL recipients, which includes people who bought subsidised CFLs (the majority) as well as those who received them for free.

The following barriers emerged from focus group studies:

- Lack of appreciation of the savings produced by energy saving lamps, despite a belief that they do save energy/money/time changing lamps. This makes people think only in terms of replacing CFLs when they eventually fail, rather than using more.
- Lack of awareness of the expected life of CFLs, although many people (especially the elderly) value them as “long-life bulbs”.
- Low awareness of the full range of products now available, and hence a view that many light fittings are not suited to any CFLs. Some people still feel CFLs need to be smaller (especially the 20W new style CFL).
- Low awareness of the current lower prices for CFLs. Many people still think they cost £10 (16.2 Euro) (they were told this on information included with the scheme offer).
- Many people cannot understand why CFLs are not widely advertised and feel they are still very new and experimental, with only 1% or 2% of households using them.

And from a telephone survey of 461 scheme participants the following results emerged:

- 28% had bought additional CFLs (after receiving their subsidised/free lamps).
- 63% are “certain/very likely to buy more CFLs in future”.
- 93% did not know how much money a CFL would save per year (in answering a multi-choice question giving intervals of £5).

Probably the key theme that emerges from this research is that people do not understand the true benefits of CFLs, or the range of products now available. It is very interesting that people perceive CFLs to be new and experimental, and not used in many households. This must reflect to a large extent their experience of the retail sector, and the availability and visibility of CFLs.

Industry concerns

There is concern within the UK lighting industry that sales of lower-quality, shorter lifetime CFLs will damage the future market for the product as consumers become disillusioned with the promises made to them. This concern has been taken on board by EST, whose lighting endorsement criteria (which also applies to CFLs supplied by energy companies) specify higher quality, long life lamps. Despite this concern, at least one of the big lamp companies (Philips) is selling both longer life (10,000 hours) and shorter life (3,000 hours) CFLs in its own brand packaging. There was particular controversy over some of the products on offer from IKEA, which failed to meet their claimed performance characteristics both in terms of lumen output and lifetime. However, this has now been resolved to a large extent and IKEA is now selling different lamps.

There is as yet no evidence (other than anecdotal) that shorter-lifetime CFLs have damaged the market. Evidence from *New Perspectives* (2000) showed both that people do not understand how long CFLs should be lasting, and that most felt that if a lamp lasted 2 years they would be satisfied. This may indicate that despite concerns of the industry, shorter lifetime products will not have a negative effect on consumer perception. However, clearly products should meet the standards they claim. In addition, longer-life CFLs have considerable environmental advantages in terms of material efficiency. Unless manufacturers are able to communicate and sell the benefit of longer life products, consumers may choose the generally cheaper, shorter life alternatives.

8. DISCUSSION

The role of the retail sector

The retail sector is an important route for CFLs to reach consumers. At present although the percentage of models of CFLs available in aggregate exceed the percentage sales, many smaller retail outlets sell very few or no CFLs. Larger shops which sell more specialist lamps vary greatly in the percentage of CFLs stocked, so the consumer will often not be able to buy a suitable CFL unless he/she visits more than one shop.

The amount of information available and staff expertise varies greatly between different types of retail outlet. For example, the DIY sector has more space for displaying larger range of CFLs and more information about them than do supermarkets. However, CFLs best substitute for ordinary 40/60/100W lamps – which are much less likely to be sold in DIY outlets than other types of bulb. Supermarkets / small variety stores which are the outlets least likely to stock CFLs and to have staff and information to help the consumer are the sector which sell the majority of ordinary incandescent lamps. Thus there is a mis-match between the outlets which sell most GLS which can be readily substituted by CFLs, and those which have the greatest opportunity to educate, intervene and persuade the consumer to buy CFLs (Table 7).

Table 7. Comparison of retail environments for lamps and luminaires

	Sales of lamps	Sales of luminaires	Opportunity to interact with staff
Supermarkets	***		
DIY stores	**	**	*
Department stores	*	***	**
Lighting specialists	*	***	***

Consumer education

The limited opportunity to deliver information in supermarkets / small shops means people have to be educated before they enter the retail environment if they are to choose to buy a CFL. The EST's 'energy efficiency' marketing campaign is one way of doing this. However, the evidence shows that the messages about how much energy and money CFLs can save are not readily absorbed by consumers. This may also become a problem for manufacturers trying to sell the benefits of longer life CFLs. There is no easy answer to this problem, but it must

be recognised that it is a problem, and a serious barrier to the expansion of the CFL market. Hopefully, in their own commercial interests, manufacturers will increasingly find methods of communicating more effectively.

Retail staff education

Although providing better training for retail staff on energy efficiency would not help sales in all sectors (see Table 7) it would clearly be beneficial in those sectors where staff have the opportunity to interact with customers. It will also be vital for encouraging sales of dedicated luminaires, once these become available on the market. At present the UK's Lighting Association runs training schemes for retail staff – the energy efficiency component of this training could be enhanced. It might be possible to develop mechanisms to reward staff who completed additional efficiency training modules.

Showcasing energy efficient lighting

As identified in the Oxford retailer survey, at present retailers are not showcasing energy efficient lighting in their luminaires, despite the fact that this would saving running costs, reduce over-heating and save staff time in constantly changing short-lifetime bulbs. Introducing more use of CFLs would be a positive signal to consumer and of benefit to the shops themselves. Of course many of those lamps which are replaced by CFLs would not be visible anyway, as it is luminaires where the lamps is not visible that are generally best suited to CFLs.

Risks of not involving the retail sector in subsidy programmes

In the UK the structure of obligations on energy companies may well mean that the retail sector is excluded from growing their market share of CFLs. Up to 10 million CFLs will be distributed outside of the retail market from 2002. Already the scale of lamps being distributed (around 4 million in 2000) is considerable compared with retail sales of around 6 million. Whilst these schemes will distribute a large number of CFLs it is questionable whether this is the best way to transform the market. Many of the subsidy schemes are essentially selling on price rather than the benefits of CFLs. They are not getting the 'hearts and minds' of the consumers.

In addition, given that the retail sector market may be damaged by the scale of energy company scheme from 2002 it might well be difficult to persuade them to play a more positive role. Serious consideration should be given to mechanisms for supporting the efforts of retailers to sell additional CFLs.

The effects of policy – CFLs

In the UK a great many CFLs have been delivered into the domestic sector as a result of government policy, and energy company scheme in response to that. Whether as a direct result of that or not, the price of CFLs has also reduced considerably over recent years – which removes what was thought to be one of the biggest barriers to CFL purchase.

Subsidising sales and giving away free lamps has clearly been effective. But whether this is sustainable in the long term, or the best approach to building the market for CFLs now that the price has come down considerably, is open to question. Education has been identified as one of the major barriers to further purchase of CFLs, and providing education and consumer advice is a role ideally suited to government.

Dedicated luminaires

Assuming the 'lights of the future' competition is successful and the building regulations are introduced as drafted, the future for dedicated luminaires is looking positive. Until more designs are brought onto the market by these two actions, it is difficult to suggest further measures to ensure their uptake. Increasing the number of designs is rightly the first priority.

9. CONCLUSIONS

There are a lot of reasons to be hopeful about the role of CFLs in lighting: prices are falling, technical characteristics are improving and people are buying them in increasing numbers. However, much existing policy is focussed around delivering cheap CFLs to householders, which may not be the best way to deliver long-term market growth. In addition, making significant savings depends on changing the perception (and reality) of the CFL from a specialist lamp owned by a few, to the ordinary lamp bought and used by everyone in many of their fittings.

The retail sector could make a greater contribution to increasing sales of CFLs by increasing the range available, offering in store information, using CFLs in their own displays and training their staff. However there are a number of barriers in the way, not least the threat that many CFL acquisitions in the future will bypass the retail sector altogether. Unless opinion in the industry changes it seems likely that ten million lamp per year will be acquired via the domestic sector, outside of retail outlets.

10. ACKNOWLEDGEMENTS

The research on which this paper is based was funded by the UK government's Market Transformation Programme.

Particular thanks are due to Sarah Key-Bright, who undertook the retail survey in Oxford and the telephone survey of energy companies, and Richard Pearson who analysed some of the GfK data.

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