The UK network of Energy Efficiency Advice Centres

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1. SYNOPSIS

This paper outlines the development of the Energy Saving Trust's network of Energy Efficiency Advice Centres. It outlines the challenges faced and lessons learnt.

2. ABSTRACT

The development of the network of Energy Efficiency Advice Centres (EEACs) began in 1993. The initial aim was to assess the effectiveness of providing free, impartial and individually relevant advice in terms of motivating householders to take up energy efficiency measures. This initiative has now matured into a network of 52 centres covering the whole of the United Kingdom. The network has been extensively monitored over its lifetime in order to ascertain its success in reaching householders and in influencing their behaviour.

This paper outlines the development of the network, the challenges faced and lessons learnt. The paper presents and analyses the quantitative and qualitative performance data that is available, including detailed customer market research and case studies, and will also explore the future options for the EEAC network. These include utilising the network to develop the local infrastructure for the delivery of energy efficiency improvements across the UK. Of particular benefit will be the fact that the centres are all electronically connected by means of a Wide Area Network and can therefore be more effectively linked to up to date technical information, relevant literature and training programmes.

This paper would be expected to stimulate discussion on the effectiveness of energy efficiency advice in particular situations, comparisons with similar initiatives elsewhere, and the potential for replication in other countries. It could also lead into discussions on current efforts in the UK to introduce minimum standards for the provision of energy advice.

3. INTRODUCTION

Britain’s housing stock has always been notoriously inefficient in its use of energy. Building standards lag behind most of Europe and fall far short of those achieved by Scandinavian countries. As result Britons spend more than they need to heat poorly insulated homes with inefficient heating systems[1].

The Energy Saving Trust was set up in 1993 by the United Kingdom (UK) Government to help meet government targets for reducing CO_2 emissions. In 1993 the Trust launched a pilot programme of Local Energy Advice Centres (LEACs) to run from 1993 to 1996.

The LEACs were jointly funded by local sponsors, mainly local authorities and to a lesser extent utilities. The pilot programme proved to be very successful and was continued - changing its name to Energy Efficiency Advice Centres (EEACs) in 1997 in sympathy with the Trusts energy efficiency campaign.

This initiative has now matured into a network of 52 centres covering the whole of the UK.

4. WHAT ARE EEACS AND WHAT DO THEY DO?

EEACs offer a service which aims to:

- Provide free, individually tailored, impartial and locally relevant advice to householders and small and medium sized enterprises,
- Promote and encourage investment in energy efficiency measures in order to help reduce atmospheric emissions, and
- Reduce fuel poverty by assisting people on low incomes to get more warmth from the fuel they use.

The service is provided by means of:

- Telephone or face to face advice on energy efficiency and related issues,
- Distribution and processing of do it yourself home energy check forms (DIY HECs),
- Promotional events, such as presentations, distribution of leaflets, press releases, and participation in exhibitions and campaigns,
- In addition EEACs work in partnership with other organisations, particularly local authorities, to promote energy efficiency.

The EEAC is managed and supported by the Trust who provide resources including:

- Core funding of £22,000 (34,320 Euro) and activity funding (performance related according to the number of promotional events delivered, inquiries processed etc.) of up to a maximum of £53,000 (82,680 Euro) in 2000-2001.
- Information on new developments in energy efficiency, news, grants and EEAC network information.
- DIYHEC enquiry handling software and instruction in its use.
- Access to a database of approved heating and insulation installers.
- Training and support to the EEAC and facilities for consultation with the EST regarding problems relating to the service.
- UK wide marketing of the EEAC service and the national EEAC network as part of the EST's promotion of energy efficiency and grant schemes.
- Free questionnaires and marketing materials.

5. SETTING UP THE NETWORK CHALLENGES ENCOUNTERED AND LESSONS LEARNT

Challenges faced by individual EEACs

The two key challenges faced by most EEACs are the related issues of funding and local Authority support. EEACs require the support of local authorities to provide proactive energy efficiency advice services within their local authority boundaries, and generally require some financial support from the local authorities to fund this service. EEACs often find that some but not all the local authorities in the area will financially support the service. If the EEAC receives enough funding to go ahead those not supporting it financially get a free ride, which can subsequently undermine the support of the funding partners. The issue of energy efficiency is usually low priority for local authorities and many do not have budget allocations for the purpose. EEACs can therefore face the problem of trying to develop and operate the service in a less than adequately resourced situation while also devoting significant resources to bringing the less receptive authorities on board.

Research on what affects the decision of whether to find an EEAC was carried out for the Trust by independent consultants Michael Herbert Associates in 1999.

The research found that the funding decision was affected by the interplay between a number of factors:

- The needs of the funder in terms of resources available to support energy efficiency.
- The funder's agenda and how it is influenced by drivers such as legislation and changing attitudes.
- The perception of the local EEAC, personalities, abilities and general approach.

The local profile was perceived to be very important by funders, as was the ability to run local energy efficiency projects and schemes, and to assist with grant applications and the provision of monitoring and reporting information required from local authorities by central government.

Challenges faced by the Trust

The EEAC network represents a significant management challenge as it involves working in partnership with central government and local authorities which each have their own agendas and interests. There are many problems, three key challenges are explored further below:

Finding suitable applicants

The Trust has had considerable difficulties finding suitable organisations to provide the EEAC service in some areas of the country. In practice the requirements for impartiality mean that most EEACs are run by local authorities, charities or not for profit companies. Of the existing EEACs, 30% are run by local authorities and 75% receive funding from them. The remainder of EEACs are mostly not for profit companies (35%) and/or charities (48%).

Lack of control

As the EEACs are only partially funded by the Trust, the Trust has to consider the strategic objectives of the other funding organisations. This problem is exacerbated by some local authorities resenting the Trust's central control of the EEACs, instead wanting a local centre, under their own control and responding to their own needs.

This lack of direct control has required the Trust to develop consensus management techniques and a strong focus on partnership working. The Trust has put considerable effort towards counselling the EEACs for their views and involving them in developing the vision and future strategy of the EEAC network.

The reporting requirements of Central Government

Central government requires the Trust to report on value for money achieved by the EEAC network, its focus has been very much in terms of numbers of customers and carbon savings resulting from measures installed. The work of the EEACs also achieves numerous other soft outputs (those which can not easily be measured) but finds it hard to get recognition of soft outputs.

Problems regarding the management of the EEAC network

A number of problems have been encountered during the evolution of the EEAC network between 1993 and present. These include:

Confused legal and reporting structures

The pilot scheme, although successful, did not secure increased or continuing funding. To ensure the LEAC network had finance to continue and be expanded, the Trust franchised the EEAC service to individual organisations for £5,000 (7,800 Euro) with the aim of establishing 50 LEACs.

This resulted in a network consisting 1n 1998 of 43 individual organisations, 30 directly funded and 13 franchisees. All having different legal and reporting structures. The franchise EEACs sometimes felt they were not on a level playing field.

Uneven national coverage

The initial priority for the EEAC network was to set up as many EEACs as possible in order to establish a national network of centres. The network was effectively expanded on an ad-hoc basis in response to interest expressed by local authorities. This created an uneven national coverage with some areas with several EEACs effectively competing with each other for households to serve, whilst other parts of the country had no proactive coverage at all (i.e. no activities designed to promote interest in energy efficiency) - callers in these areas being referred to a central response unit.

Poorly defined EEAC boundaries

The boundaries for the territory of each EEAC were also poorly defined, being based on post code boundaries rather than geographical or government boundaries. Nobody had a clear picture of what area each EEAC covered.

Lack of management control

Few EEACs in 1998 were solely delivering the EEAC service and therefore EEACs were undertaking a range of activities. For many, funding received from the EST was only a small part of their overall income, so loyalty to the Trust was limited. The lack of a detailed and formal service level agreement between the Trust and the EEACs meant that the service provided by the EEACs was of variable and sometimes poor quality.

Problems with software

Upgraded versions of DIYHEC enquiry processing software led to problems of data and hardware compatibility. This resulted in a number of the EEACs not using the new software, or customising it to suit their own needs.

Poorly co-ordinated marketing initiatives

There was often poor co-ordination between large national energy efficiency marketing campaigns sponsored by the Trust and the small EEACs and their small scale local campaigns.

Management response to problems encountered

The Trust commissioned a review of the EEAC network in 1998 by an independent environmental consulting company, (Greenwich Environmental Management Services) GEMS. The GEMS report identified the need for greater management control and put forward a number of recommendations. Following this report the EST made a number of changes to the way the EEAC network was managed. These included:

Redefining boundaries

A restructuring of the EEAC boundaries to conform with regional and local government boundaries. This required the realignment of boundaries and areas of coverage for some EEACs and the merging or closure of others.

Developing a standard Service Level Agreement contract

EEACs are now required to cover a standard sized territory (500,000 homes on average, but between 250,000 - 750,000 depending upon how urban or rural the territory is) and to conform to detailed performance requirements. These include aspects such as:

- Telephone call handling
- Enquiry processing time
- Volume and quality of activity

Developing an application pack and procedure for new EEACs

A standard application pack has been produced which ensures that all applicants receive standard information, and that applications are processed in a transparent way.

Developing an impartiality agreement

A standard impartiality agreement has been produced to clarify the Trusts position for all existing and potential EEACs.

Producing an operations manual

An operations manual has been produced setting out in detail the roles and responsibilities of both the EEAC and the EST.

6. ACHIEVEMENTS OF THE EEAC NETWORK

How are achievements measured?

Demonstrating the success of the EEAC network is vital for securing its continued funding from central government. How does the Trust measure the success of the EEAC network? There are three main mechanisms

Market research

Independent consultants are contracted to monitor the influence of EEACs. And are the primary means of measuring the success of the EEAC network.

The main objective of the market research is to determine the performance of EEACs in providing actionable advice to domestic energy customers and the extent to which this advice is acted on. Chiefly this involves measurement of estimated savings made by customers in terms of financial, energy and CO_2 savings as a result of adopting the measures recommended by the EEAC.

A secondary objective is to provide information about the attitudes of EEAC clients to adopting energy efficiency practices.

Other objectives include:
- Evaluating the level of investment in EE measures made by EEAC clients
- Providing feedback on the effectiveness of marketing activities
- Identifying areas of potential growth
- Providing information about the awareness of EEACs amongst the general public
- Assessing the potential savings achieved by EE measures in households throughout the UK

The research is carried out by means of telephone interviews. Two samples are used:
- A sample of 2,400 EEAC clients who represent all clients in the UK who have been in contact with an EEAC.
- A random (controlled) sample of 2,400 non-client households, who represent all UK households.

No assessment is made of the client's reason for contacting the EEAC and it could therefore be assumed that they have a predisposition to energy efficiency. However, this would be to discount how proactive the EEACs are. Most clients respond to EEAC advertising, and there has been a significant recent increase in clients reporting that the EEAC 'contacted them.' It is also noticeable that awareness of EEACs amongst the control sample is very low (3%.)

Monitoring activity funding

EEACs receive funding according to an agreed schedule for each enquiry they process. Claims for activity funding are submitted to the Trust for payment, and vetted and administered for the Trust by a contracted Managing Agent on a monthly basis. The claims for activity funding provide a running guide to the level of activity of the EEACs.

"Mystery Shopper" surveys

The quality of advice and the level of service provided by the EEACs has been tested by means of dummy inquiries made by consultants on behalf of the Trust.

What are the achievements?

EEACs play a key part in the UK Governments global warming strategy. Figures extracts from the 1999 BJM Energy Efficiency Centre Survey[2] demonstrate the following achievements:

Table 1. Satisfaction with the EEAC Service

Clients saying EEACs were good or very good at suggesting alternative ways of saving money	47%
Clients saying advice was extremely, very or quite useful	78%
Clients saying they would or had already recommended EEACs to others	81%

Table 2. Savings achieved per home per year

Savings from measures installed (such as loft insulation)	£11 (17.2 Euro) or 111 kgs of CO_2
Savings from behavioural measures (such as using less hot water)	£11 (17.2 Euro) or 136 kgs CO_2
Savings from installing new energy efficient appliances (such as a fridge freezer)	£2 (3.1 Euro) or 14kgs CO_2
Additional savings from measures installed with grant advice first provided by EEACs	£1 (1.56 Euro) or 12kgs CO_2

The savings have been achieved primarily through a combination of changing behaviour and installing energy efficiency measures. The five most frequently reported activities, and greatest CO_2 saving measures are listed below:

Table 3. Most frequently reported activities (% of clients)

Installing energy efficient light bulbs	23.1
Using lights efficiently	22.8
Reducing draughts	20.3
Using heat efficiently	17.1
Using less hot water	9.7

Table 4. Greatest CO_2 savings (per 100 homes)

Using heat efficiently	5662 kgs
Reducing draughts	4660 kgs
Installing cavity wall insulation	3225 kgs
Installing loft insulation	2789 kgs
Installing non condensing boiler	1255 kgs

Table 5. Total annual savings from all actions taken on EEAC Advice

Total £ savings per home	£24 (37.4 Euro)
Total energy savings per home	1,068 kWh
Total CO_2 savings per home	272 kgs
Total £ savings (for total EEAC clients in 1999/00)	£4,632,288 (7,226,369 Euro)
Total energy savings (for total EEAC clients in 1999/00)	206 GWh
Total CO_2 savings (for total EEAC clients in 1999/00)	52 kt

The methodology for calculating actual savings achieved by clients on EEAC's advice was developed by independent consultants, New Perspectives. The method takes into account the typical savings from homes of different types as measured by the Building Research Establishment, the actual types of homes installing or missing measures, whether these measures are partial or cover the whole house, and the mix of fuels used to heat the house and their relevant CO_2 savings. The national actual and potential savings are then grossed up from data collected from a sample of telephone interviews.

Research by New Perspectives[3] in 1998 showed that EEACs have not only proved to be a cost effective way of cutting CO_2 emissions, but also of meeting the needs of local authorities. For every £1 a local authority spent on supporting an EEAC in 1998, its clients invested around £20 in energy efficiency improvements, and saved £3 per year off their fuel bills.

7. LESSONS LEARNT - SWOT ANALYSIS

Key lessons learned from the EEAC network are considered here in terms of strengths, weaknesses, opportunities and threats (SWOT) relating to the current EEAC network. The SWOT analysis was drawn from a series of strategic workshops that took place in 2000 involving the EST and representatives from each of the 52 EEACs around the country.

Strengths of EEACs

- A trusted source of impartial advice.
- UK-wide infrastructure comprised of local centres working within defined territories and as a consistent national network.
- Provide a cost effective advice service that achieves real and quantifiable improvements in energy efficiency.
- Connected to a powerful central database.
- Provide a local presence with local knowledge and contacts.
- Proven to be flexible and innovative and to forge effective community links.
- Centres work to defined service and quality standards.
- Bring in additional funding from a variety of sources.
- Provide a wide range of additional services.
- Expert and experienced staff.
- Networking creates shared knowledge and experience and added value benefits.

Weaknesses of EEACs

- Partial funding by the EST requires EEACs to continuously seek additional funding and, where this is short, could compromise their ability to deliver a quality service.
- The service to SMEs (small businesses) is variable and needs to be more consistently proactive.
- EST funding regime results in a focus on getting and processing HEC forms for new customers, this limits the resources available for EEACs to develop existing customers and to work proactively in the community.
- Limited enquiry processing capacity in some EEACs negates the option of carrying out large-scale marketing activity.
- There is no national training programme or accreditation of the various competencies of EEACs.
- EST enquiry processing software and the central database that manages this are not being used to their full capacity
- Home Energy Checks could be more flexible to deal with the variety of circumstances in which they are used.
- The EEAC network needs to be promoted more extensively.
- Links with national marketing initiatives need to be strengthened.
- Communications and information sharing between EEACs is patchy and not as strong as it could be.
- There is a need for greater co-ordination between EEACs and other local and national campaigns and organisations.

Opportunities for EEACs

- Energy Efficiency activity is generally poorly co-ordinated at a local level. EEACs can work to improve this.
- Local authorities have many reasons to embrace energy efficiency, but need local assistance to maximise their effectiveness. EEACs can fulfil this role.
- The IT connections to a central database via a wide area network allow for efficient information transfer and great infrastructural potential.
- There is a greater national recognition of the effectiveness of local centres in translating public awareness of energy efficiency into action, which can be exploited.
- There is a need for local agencies to consistently deliver national initiatives, which a consistent national network of EEACs is well placed to do.
- EEACs can present a strong local profile for energy efficiency which is consistent with national campaigns and messages.
- They can provide local information for national strategy development.
- The database of existing customers could be fully utilised to encourage further action.

Threats to EEACs

- Other agencies (such as utilities, local authorities) also provide energy efficiency advice, which in some cases is better resourced.
- The external environment is changing, EEACs need to be able to respond by changing with it.
- There is increasing competition for local match funding.
- The introduction of the Best Value concept in local authorities may affect their support of EEACs.
- Increased opportunities for energy efficiency specialists elsewhere may make it harder and more expensive to attract and keep good staff.

8. FUTURE OPTIONS FOR THE EEAC NETWORK

The EEAC network has faced a number of challenges and has evolved considerably since 1993. The profile of climate change as a political issue has grown considerably over this time and particularly in the last year. The profile and influence of the EEAC network should grow to reflect this.

The Trust's aim is for EEACs to spend less time and resources on administration and the processing of routine inquiries and more time on partnership working and liaising with local authorities. The Trust also plans to make more use of IT to exploit the networking potential of the EEACs network.

The Trust plans to increase its funding of the EEAC network and to develop for it a strong national brand which is consistent with national initiatives and retains their local identity. These moves will make the EEACs more stable, enhance their credibility and raise their profile.

The Trust also plans to exploit opportunities presented by the network. All EEACs are electronically connected by means of a Wide Area Network and can therefore be more effectively linked to up to date technical information, relevant literature and training programmes.

In support of these overall goals the Trust is considering the following agendas for the EEAC network:

Provide a consistent local profile

Create higher profile EEACs with standardised quality and service and more consistent branding.

Provide enhanced energy efficiency advice

This is to be achieved through:

- More focus on achieving action as a result of advice given.
- Streamlined processing of DIYHEC inquiries through well resourced regional processing centres.
- extending the EEAC's role towards facilitating and co-ordinating the provision of advice from a variety of sources within the territory they cover, as well as giving advice themselves.

Develop local infrastructure

This would be achieved by the development of local partnerships and networks, working face to face to generate participation and establish communication mechanisms.

The EEACs also have experience in training provision and this would be expanded as a specific role to assist with the support and development of local activity.

Carry out local marketing

EEAC marketing activities could be expanded to include promotion of energy efficiency generally, promotion of partner schemes and linking more closely to national marketing activity. The EEACs can therefore utilise their local knowledge and established links with local media to stimulate and improve the impact of local marketing.

Act as an information bank

The EEAC network is currently linked electronically following the installation of the latest EEAC software. Each EEAC has a dedicated ISDN connection to the central database located at the Trusts HQ in London. The implementation of IT communications within the EEAC network will allow us to develop the EEACs role as a one stop information resources for their local area. This provides the facility to centrally co-ordinate up to date information that the EEACs can then access instantly. This information can include technical data, promotional material, installer databases, best practice, case studies, customer leaflets, press releases, guidance notes, training material, slides for presentations, statistics, fuel prices or even a collation of the latest energy and environmental news stories.

9. BIBLIOGRAPHY

The Energy Efficiency Report-1998, A review of home energy efficiency in the UK from 1993 to 1997 and of people attitudes to improving it, New Perspectives, May 1998.
The 1999 Energy Efficiency Centre Survey UK Report, Clear Thinking, February 2000.

10. END NOTES

On 16th January The Energy Saving Trust received approval from the UK Department of the Environment Transport and the Regions for a funding package to provide increased funding to the EEACs for the next three years

[1] Energy: The Changing Climate": Royal Commission for the Environment and Pollution 22nd Report
[2] The 1999 Energy Efficiency Centre Survey, BJM, February 2000.

[3] The Energy Efficiency Report-1998, P52, New Perspectives, May 1998