

REPORT TO: HOUSING, DUNDEE CONTRACT SERVICES AND
ENVIRONMENTAL SERVICES COMMITTEE –
25 FEBRUARY 2008

REPORT ON: HOME ENERGY CONSERVATION ACT (HECA)
FIFTH PROGRESS REPORT 2005 - 2007

REPORT BY: DIRECTOR OF HOUSING

REPORT NO: 114-2008

1. **PURPOSE OF REPORT**

- 1.1. The purpose of this report is to seek Committee approval for the attached Home Energy Conservation Act 1995 (HECA) 5th Progress Report.
- 1.2. This will be submitted to the Scottish Government after approval by Committee.

2. **RECOMMENDATIONS**

- 2.1. It is recommended that the Committee approves this 5th HECA Progress Report and notes that Dundee City Council has achieved the objective set by the UK Government of a reduction of around 30% in CO₂ emissions and energy use by 2010.

3. **FINANCIAL IMPLICATIONS**

- 3.1. Financial implications of any policies, strategies or programmes stated in the HECA Progress Report (*and the original HECA report*) have been detailed within specific Committee reports which have been brought forward over the life of the HECA.

4. **MAIN TEXT**

- 4.1. The Home Energy Conservation Act 1995, came into force in Scotland on 19 December 1996.
- 4.2. Under the Act all Local Authorities in Scotland became Energy Conservation Authorities (ECAs) and were required to prepare and publish reports identifying energy conservation measures considered practical, cost effective and likely to result in significant improvements in the energy efficiency of the residential accommodation in its area. The first report was submitted to the then Secretary of State for Scotland on 1 December 1997.

- 4.3. In addition to the original report, ECAs are required to publish periodic progress reports. The first Progress Report detailed the steps Dundee City Council had taken over the period 31 March 1997 – 1 April 1999, in making the improvements in energy efficiency and reductions in CO₂ emissions to which it committed itself in its original HECA report. The second report updated progress for the period 1 April 1999, to 31 March 2001. The 3rd Report covered the period 1 April 2001 to 31 March 2003. The 4th Report covered the period 1 April 2003 to 31 March 2005. This is the 5th report, covering the period from 1 April 2005 to 31 March 2007.
- 4.4. By using the Scottish Executive spreadsheet, energy savings and carbon dioxide emissions have been calculated. They show that over the 2 year period of the report a 0.01% reduction has been made in energy usage and a 1.57% reduction in CO₂ emissions. This is due to a variety of activities including the installation of insulation and efficient heating and the provision of energy advice and low energy light bulbs.
- 4.5. Over the 10 year period since HECA started, the cumulative decrease for energy use is 25.1% and a 27.5% drop in CO₂ emissions has been achieved, indicating that Dundee City Council has effectively met the target set at the outset of around 30% savings.

5. **POLICY IMPLICATIONS**

- 5.1. This report has been screened for any policy implications in respect of sustainability, strategic environmental assessment, anti-poverty, equality impact assessment and risk management. The major issues identified are as follows:

5.2. **Sustainability Implications**

Activities under HECA are intended to reduce the consumption of energy and fossil fuels in Council and other domestic properties thus reducing CO₂ emissions and meeting wider climate change implications.

5.3. **Anti-Poverty Implications**

One of the key parts of the HECA Progress Report concerns personal circumstances and fuel poverty. By direct provision of services such as heating and insulation to its own tenants and maximising income and providing energy efficiency advice and information to all residents of the Dundee City Council area, HECA is very much concerned with the alleviation of poverty.

6. **CONSULTATIONS**

- 6.1. The Chief Executive, Depute Chief Executive (Support Services), Depute Chief Executive (Finance) and Head of Finance together with Dundee Federation of Tenants Associations have been consulted on the contents of this report.

7. BACKGROUND PAPERS

- Home Energy Conservation Act (HECA), 1995.
- Dundee City Council HECA Report, 1997 - Housing Committee - 17 November 1997.
- HECA 1st Progress Report - Housing Committee - 10 January 2000.
- HECA 2nd Progress Report - Housing Committee - 13 March 2001.
- HECA 3rd Progress Report - Housing Committee - 16 August 2004.
- HECA 4th Progress Report - Housing Committee - 20 March 2006.

ELAINE ZWIRLEIN
DIRECTOR OF HOUSING

February 2008



DUNDEE CITY COUNCIL

ENERGY CONSERVATION AUTHORITY

Fifth Report to the Scottish Government

Showing progress made in the period
01.04.05 - 31.03.07

With regard to the
Home Energy Conservation Act, 1995

Introduction

The following report describes the action taken by the Dundee Energy Conservation Authority (ECA) to improve the energy efficiency of all stock within its boundaries. It is produced in accordance with guidance issued by the Scottish Executive in 2007 and follows the format prescribed therein. It is organised in terms of the following headings:

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Part A: Aims and Organisation

As stated in its 1997 HECA Report, it is the aim of Dundee City Council to improve the level of energy efficiency of the whole of the City's housing stock. It also aims to provide affordable warmth for its own tenants and to encourage and facilitate such actions as allow for affordable warmth in all other tenures. By these actions, Dundee City Council aims to improve the quality of life of all of its citizens through increasing comfort and health. The strategies employed in achieving these aims are expected to reduce CO₂ emissions by around 30% on the 1997 baseline level, in line with the guidelines originally set out by the UK Government adopted by the Scottish Government.

Both the original report and subsequent Progress Reports have highlighted the fact that it is easier for the Council to influence the energy efficiency of its own stock due to its holding the budget for carrying out physical measures such as renewing heating systems, re-roofing etc. However, as the local Energy Conservation Authority it is also charged with encouraging action and, indeed, recording actions which increase energy efficiency in all other sectors. It is able to do so largely through the actions of the Dundee Energy Efficiency Advice Project (DEEAP) which, as will be shown, engages with all sectors, giving energy efficiency advice and sign-posting individuals and organisations to sources of funding for energy efficiency measures.

DEEAP demonstrates the importance of the use of partnerships as a means of tackling energy efficiency, as will now be shown. When HECA first came into being in 1997, the staff resource devoted to it was approximately 50% of the time of a Housing Development Officer (based in the then Housing Improvements and Maintenance Unit - IMU). This was insufficient and meant that there was virtually no engagement with householders on an individual basis. Therefore, an arrangement was put in place through a combination of funding from the Council's Housing and Economic Development Departments and the then Social Inclusion Partnership (SIP) monies to employ an Energy Advisor. This was later extended through the Community Energy Efficiency Fund (out of Preferred Supplier Revenue) and Community Regeneration Funding (CRF). The advisor was able to visit householders in their own homes giving advice on saving energy and keeping houses warm at an affordable cost.

The Advisor was employed by the local EEAC (Energy Efficiency Advice Centre) and worked alongside the EEAC staff with the Council buying the service in. It became apparent at an early stage that, in spite of limited marketing of the service, demand for the Advisor's services far outstripped what could be provided and so, after engagement with financial inclusion bodies operating in the City, it was decided to apply for additional staffing resources through Community Regeneration Funding. An initial and subsequent bids were successful to the extent that DEEAP now has a team of 5 Officers - one Senior Advisor and 4 Energy Advisors who, as well as giving energy efficiency advice, can also give welfare benefits advice and thus assist in the alleviation of fuel poverty. In April 2005, DEEAP became an integral part of Dundee City Council, within the Housing Department as part of the same team as the HECA Officer. The Senior Advisor sits on various social and financial inclusion groups within the Council.

DEEAP is not the only partnership which is crucial in the ability of the Council to bring about improvements in energy efficiency and reductions in CO₂ emissions. Others will be mentioned during the rest of this report but they are briefly as follows:

1. Partnership with Scottish and Southern Energy plc as default energy supplier. This partnership ensures the smooth running of changes in tenancy with procedures designed to avert the need for new tenants to be put in the position of having to establish previous tenant's fuel supplies etc. Also, Council receives a fee for every new or retained customer achieved by Scottish and Southern and this is used to part-fund the running of DEEAP.

2. Partnership with Financial Inclusion team whereby CRF monies are used to fund a member of staff in DEEAP whose job it is to promote a white goods scheme which allows low-income householders to obtain cheap credit through a local credit union for the purchase of energy-efficient white goods.
3. Partnership with Scottish Gas whereby Council 'sells' energy savings achieved by such measures as installation of loft insulation, insulated render and condensing boilers to Scottish Gas in return for EEC funding which is ploughed back into further energy-efficiency measures.
4. Partnership with IRT surveys (specialists in infra-red surveys), Clyde Insulation (insulation installers) and Scottish and Southern Energy plc - see Part D Looking Forward.

Recent feedback from Communities Scotland on HECA suggested that relationships and joint working with other sectors, particularly Housing Associations, could be strengthened and this is something which Dundee City Council has been very keen to do. This issue will be expanded upon in Part B on Progress and again in Part D on Looking Forward.

In recent years the work of the HECA Officer (designate) has changed considerably to the extent that all work undertaken now relates directly or indirectly to HECA and so from August 2005 the post has been re-designated as HECA Officer. The Officer is also a key member of the Fuel Poverty Strategy Working Group and represents the Housing Department on several Corporate Groups including: Sustainability Policy Group, Sustainable Construction Policy Group, Energy Champions Group, Climate Change Working Group, etc. Over the years the post has become comprehensively concerned with energy and sustainability as they impact on housing.

Part B: Progress to Date

B1. General Comments

In keeping with the approach adopted in the 4th HECA Progress Report, progress will be reported on a tenure basis with the cross-cutting results from DEEAP also reported. As might be expected, the bulk of the statistics reported will be those relating to Council properties simply because it is easier to obtain these and because the Council holds and spends its own budget for energy efficiency measures. We have insufficient information to assess improvements in energy efficiency in the private sector or in housing association stock. This report therefore gives information for the Local Authority sector only and the total figures come from the spreadsheet.

It should also be noted that all figures relate to Dundee's housing stock as it was in the base year for HECA Reporting in 1997. There have been many changes in the stock over the past 12 years, and, as has been done in previous years, a note is made here of the changes over the 2 years covered by this Progress Report.

| | 2005/06 | 2006/07 | Totals |
|----------------------------------|---------|---------|--------|
| Council House Sales | 260 | 243 | 503 |
| Demolition of Council Properties | 39 | 293 | 332 |
| New Build by RSLs | 54 | 196 | 250 |
| In Private Sector | 256 | 58 | 314 |

ie. 503 properties changed tenure
 332 properties demolished
 564 new build properties

ie. a net gain of 232 properties

B2. Council Stock

All Council stock has double-glazing and whole house central heating. The Council was able to accelerate its programme to provide central heating for all tenants because of the then Scottish Executive's Central Heating Programme. In most cases, heating is of the gas wet type. However, there are a few thousand electric systems still in existence. These are largely to be found in high-rise flats (several hundred of which are earmarked for demolition in the next few years) with the remainder in properties where tenants chose to have electric heating installed. As the SHQS (Scottish Housing Quality Standard) requires properties to reach a minimum NHER of 5 and preliminary research seems to indicate that electrically heated homes, unless they are very well insulated, struggle to reach this, then it is likely that measures will have to be taken to address this during the SHQS delivery period.

Between 2005-2007 the Council installed 1,447 new heating systems at a cost of £5.38 million. It was possible to claim back some EEC monies for the cost of condensing boilers and TRVs installed during this work. 472 new roofs were fitted at a cost to the Council of £5.394 million with 250mm of loft insulation fitted in each and, again, funds were available through both EEC and a Warm Deal allocation made to the Council. In 50 of these properties solar panels were fitted to roofs during the renewal works and these added approximately £5,000 to the cost of each roof. It was not possible to obtain funding towards this through either SCHRI (Scottish Community and Household Renewables Initiative) or LCBP (Low Carbon Buildings Programme) but a further phase of roof renewal currently on site (outwith the reporting period for this report) has been successful in obtaining LCBP funding for solar panels. Finally, a total of 111 properties (106 flats and 5 houses) benefited from having old defective render replaced with new insulated render. This cost a total of £1.75m with a small contribution obtained through EEC.

In total over the period 2005-07, DCC spent £12,524,000 on energy efficiency measures which benefited just over 2,000 tenants. In addition, all new tenants, a total of 3,369 over the 2 years, were offered an energy advice home visit and received 2 free low-energy lightbulbs in order to get these tenancies off to a good start.

EAGA reported that 902 Local Authority tenants had benefited from Warm Deal measures over the period but this must have resulted from EAGA's own marketing of the scheme as the Council was not involved in any of the referrals.

B3. **Other Tenures**

Figures were made available by both EAGA and Scottish Gas for the numbers of householders in the Dundee area who benefited from the Central Heating Programme and the Warm Deal Scheme.

These were as follows:

Private Sector

| | |
|---------------------------------|----------------|
| Central Heating Scheme | 567 properties |
| Central Heating Scheme Over 80s | 307 properties |
| Warm Deal | 1,050 measures |

Housing Associations

| | |
|-----------|-------------|
| Warm Deal | 97 measures |
|-----------|-------------|

Scottish Gas also reported that 117 cavities were insulated and 73 lofts insulated up to 250mm by Owner-Occupiers through their 'Able to Pay' Scheme.

No other information could be obtained.

Despite contacting all local Housing Associations in the City, the only information received was a complete Stock Energy Assessment Report from one Association. No reports were received at all on the energy efficiency works carried out by the HAs over the 2 year period for this HECA Progress Report. This was particularly disappointing given that several of the Associations work with the HECA Officer on the Fuel Poverty Strategy Working Group and have made clear their commitment to energy efficiency and fuel poverty alleviation. The problem seems to be in either collecting or reporting data.

Similarly it was hoped that the introduction of landlord registration and, in Dundee, landlord accreditation, would go some way towards strengthening links with the private rented sector in the City. However, although leaflets and information about the grants available to assist landlords to increase the energy efficiency of their stock was channelled through the Council's Accreditation Officer, it has not proved possible to obtain information back from landlords. Similarly it was anticipated that the creation of a database of all registered landlords operating in the city would make it easier to contact this group with information and to get information back from them. Again this has not proved possible due to the difficulties there have been in getting the system up and running.

If there are difficulties in making adequate links with actual recognisable groups of householders then it is clearly that much more difficult when dealing with individual owner occupiers who collectively make up the largest group of householders in the City. The limited funds available for 'Able to Pay' clients in the past 2 years has meant the Council has shied away from endorsing particular schemes. The utilities and others have, of course, been free to operate within the City under their own marketing efforts, but the figures shown from Scottish Gas show how limited the uptake of these schemes has been. This issue will be taken up again in Part D.

Part C: Personal Circumstances/Fuel Poverty

Through the Housing (Scotland) Act 2001 there is the requirement on Local Authorities to prepare Fuel Poverty Strategies and to ensure that, as far as is reasonably practicable, no-one in the area is living in fuel poverty in 2016.

The preparation of Dundee's Fuel Poverty Strategy: Affordable Warmth for All was done during the period covered by the 4th HECA Progress Report. Much can be made of the fact that fuel poverty aims sometimes act in opposition to energy efficiency aims, eg where installation of whole house central heating replaces 2 bar fires in tenanted properties and results in more energy being used. However, it is the view of the Authority that strategies to tackle energy efficiency and to reduce carbon emissions, and fuel poverty CAN and MUST run in parallel and, indeed, it is making properties as well built, well insulated and energy efficient as possible that the fuel poverty problem can be tackled. Without incurring excessive expenditure for over-cladding for example or the extreme disruption of dry-lining it is very difficult to make any great impact on the efficiency of the building envelope. Vast swathes of the stock in Dundee, across all sectors, have already benefited from available grants for loft and cavity wall insulation. However, there are still many properties in the city which have not taken up the offer of grant to help towards the cost of insulating their properties.

Fuel poverty measures diverge from purely energy efficiency measures in that they include getting involved in issues relating to household income and the cost of fuel. Indeed, activities around reducing outlays on fuel and increasing household income are central to the activities of the DEEAP Team.

When a DEEAP Advisor visits a householder, as well as making recommendations about the use of fuel within the home, reducing boiler thermostats, closing curtains at dusk etc, they also check the householder's benefit income to ensure they are receiving all of the income to which they are entitled. As under-claiming of benefits runs into millions of pounds across the UK every year then substantial numbers of householders have, through the actions of DEEAP Advisors, found their weekly incomes increasing. This means that someone who has been paying £10 a week on fuel out of an income of £70 say (10/70 or 14.3% fuel poor) might find themselves paying £10 out of an increased income of £105 and is now 10/105 or 9.59% fuel poor, ie is technically taken out of fuel poverty.

It should be noted that, although the majority of its work is carried out with Local Authority tenants and in Community Regeneration areas, DEEAP's remit covers all tenures within the Dundee City Council area and substantial time is spent with householders in all groups and with representatives of Housing Associations, student groups, BME (Black and Minority Ethnic Groups) groups etc.

In the 2 year period covered by this report, 2,900 householders have been visited in their own homes, with 1,053 of householders being offered benefit checks. This has led to 122 successful claims for additional benefits amounting to additional income of £283,439.25, an average of £2,323 per annum per household. 3,369 new tenants were sent letters offering them home visits to get their tenancies off to the most energy efficient of starts. With the help of DEEAP staff, 706 householders have been registered on Scottish & Southern Energy plc's Energy plus Care tariff which has resulted in a 20% reduction on their fuel bills. As well as work with individual tenants, DEEAP has given 208 presentations, attended 84 events including everything from taking an information caravan into the heart of small local communities, to the area-wide Spring and Autumn Flower and Food Festivals and appearing in 46 news features in the local media.

Part D: Looking Forward

D1 **General Comments**

It is acknowledged that this 5th HECA Progress Report is to be the last in the reporting format prescribed by Communities Scotland and, indeed, in the period set out in HECA itself. Together with all other Local Authorities in Scotland, Dundee City Council awaits information regarding the future requirements to be imposed on local government for increasing energy efficiency and reducing carbon emissions in domestic stock. The expectation is that this will form part of the larger Climate Change Agenda, but the experience and expertise obtained by Officers during the operation of HECA should ensure that many current activities for energy reduction will continue. The existence of DEEAP will also ensure that the plight of the fuel poor will not be overlooked in the efforts to reduce energy use. Specific activities which were initiated recently and do not fit into the reporting period covered by this Progress Report are as follows:

D1.1 **Engagement with the Owner-Occupied Sector**

DCC is currently receiving approaches from various utilities and other organisations offering CERT (Carbon Emissions Reduction Target)-funded packages for private sector insulation and other measures such as solar panel installation. We are currently studying the various bids with a view to identifying the package (or packages) which offer(s) the best combination of cost and service so that we can endorse it - ie correspondence will carry the Council logo and results of those taking the scheme up will be recorded and sent back to the Council for monitoring purposes. This will be done by directly mailing individual owners.

A group of owners which are of particular interest are the owners of ex-Council houses. Notwithstanding the restrictions imposed by data protection considerations, it is possible to uniquely identify this group and, indeed, they are represented in the City by an organisation called DACHO (Dundee Association of Council House Owners). It is hoped that a Warm Deal programme of insulation for those who qualify can be offered to this group using DACHO as an 'in'; giving their Committee a presentation on the benefits of insulation and then, hopefully, getting them to endorse the scheme.

D1.2 **Engagement with the Private Rented Sector**

Although engagement with this group has proved difficult in the period covered by this Report, hopes are still high that, once the database mentioned in Section B3, has bedded in, it will be relatively easier to contact this group via landlords.

D1.3 **Engagement with Housing Associations**

Again despite the lack of information which has come back from Housing Associations to the Local Authority in its role as Energy Conservation Authority contacts between the Associations and the Council are good. DEEAP does provide very useful links and it is hoped that, in future, these can be strengthened.

For all tenures, it has to be acknowledged that the LA as ECA can really only advise, encourage and persuade them towards energy efficiency activities and it is only through legislation and financial incentives that major changes can be effected. Even so, the Council will continue to work with all tenures in the ethos of HECA in whatever new form it appears.

D2 **Renewables**

As outlined, Dundee City Council has embarked on a programme of installing solar panels in properties whilst they are having new roofs fitted. This is one area of the City only and, even with funding through SCHRI or LCBP (which we have not always successfully obtained in any case) it is not possible to roll this out anywhere else in the City at the present time. Unlike other Local Authorities who are installing CHP plants to supply heating and electricity to multi-storey blocks, we in Dundee are demolishing much of our unpopular high-rise stock. This does not mean that we will not consider this type of approach, rather it is that bit more difficult to find the density of properties required to make CHP viable within the rest of the stock. Indeed, 2 small district heating schemes, with CHP, have been installed at 2 small sheltered housing complexes in the City, but completion dates were such that they could not be included in the reporting period for this report. The fact that most parts of Dundee are supplied by gas provided the opportunity for Energy Efficient heating for most residents in Dundee, however, we will continue to investigate opportunities for renewables such as ground and air source heat pumps, where gas supplies do NOT exist we have been able to make its installation financially viable by drawing down EEC funding for fuel switching to subsidise the cost. The high current price of initiatives such as photovoltaics can be prohibitive. However, it is hoped that as the price of renewables drops, Dundee City Council will engage in their installation for tenants and their promotion for all other tenures.

D3 **Defective Cavity Wall Insulation**

One of the issues that has faced Dundee City Council for some time has been the fact that the majority of Council properties with cavity walls had these insulated in the late 1970s/early 1980s. Methods and materials at that time were far inferior to what is possible today, and as the cavities were already filled, the Council could not take advantage of the funding available over recent years for insulating 'virgin' cavities. Anecdotal evidence has suggested that some cavity insulation is in poor condition and this evidence has been borne out by surveys commissioned by the Council from IRT surveys. The specialist thermographic images produced clearly show areas within some walls of 'missing' insulation. Although there has been no progress in doing anything about this over the period covered by this report, a recent development and one which it is hoped will carry forward, is the formation of the Project Team mentioned in Part A of this report comprising the Council, IRT, Clyde Insulation and Scottish and Southern Energy plc. It is hoped that this Team will work on finding a cost-effective method for either clearing cavities and re-filling them from scratch or a means of filling the voids in them. The Council will oversee the work with Clyde doing the insulation work, IRT charting progress by means of thermographic images and Scottish and Southern Energy plc bringing in funding. If suitable methods and funding mechanisms can be found then it would be possible to re-insulate several thousand properties in the City thus increasing their energy-efficiency and substantially reducing CO₂ emissions.

Part E: Summaries

Actual improvements in Energy Use/Emissions.

Using the spreadsheets issued by the Scottish Executive, the following outputs have been calculated:

| Reporting Period | Energy Use in Giga Joules Per Year | CO₂ Emissions in Kilotonnes Per Year |
|-------------------------|---|--|
| Original HECA Report | 7,872,667 | 574 |
| 1997 - 1999 | 7,446,109 | 531 |
| 1999 - 2001 | 7,123,222 | 511.4 |
| 2001 - 2003 | 6,836,941 | 486.8 |
| 2003 - 2005 | 5,897,215 | 423 |
| 2005 - 2007 | 5,896,837 | 416 |

This shows a 0.01% decrease in energy use over the 2 year period of this report and a 1.57% reduction in CO₂ emissions. The cumulative decreases are 25.1% and 27.46% respectively. This is over a 10 year period and shows that Dundee City Council has achieved the Government objective of around a 30% reduction by around 2010.

Summary - 1 April 2005 - 31 March 2007

| | |
|--|-----------------|
| % Energy Efficiency Improvement | 0.01% |
| % Reduction in CO ₂ Emissions | 1.57% |
| Reduction in CO ₂ Emissions | 6,645 tonnes |
| Cost of Works to Council Properties | Approx £12.524m |
| Number of Council Dwellings to Benefit | 2,035 |

The contact person for all enquiries relating to this report is:

MISS HEATHER McQUILLAN
HECA OFFICER
Housing Investment Unit
Dundee City Council
1 Shore Terrace
DUNDEE DD1 3AH

Tel: (01382) 434872

Fax: (01382) 434597

E-mail: heather.mcquillan@dundeecity.gov.uk