APPENDIX A

# Norwich City Council

# HECA Report 2015

Front page

## 1.0 Foreword by Councillor Michael Stonard and Councillor Bert Bremner

1.1 Reducing energy use has important environmental, social and economic benefits and therefore clearly contributes to Norwich City Council's corporate priorities.

1.2 It will help meet national and international targets to reduce emissions of carbon dioxide, one of the main contributors to climate change. Recent increases in fuel prices have resulted in a rise in fuel poverty nationally, and so emphasised the importance of reducing the impact of this issue locally.

1.3 This is also vital to improve the health of the local community, enhance prosperity and improve the housing stock . Our programme of activities will, we hope, be assisted by a number of national Governmental incentives as well as some of our own funding.

1.4 However, more than a million households in the UK cannot afford to heat their homes sufficiently even though a member is in work. A study by Policy Exchange looking at the 2.3m households in England in fuel poverty found that half of them, around 1.1m households, had someone in work.

1.5 Therefore there appears to be a disconnect between the government's ambition to improve the energy efficiency of all fuel-poor homes to a decent band C level and the amount of money being spent on the issue.

1.6 Since the introduction of the Home Energy Conservation Act we have run a wide range of programmes and projects to promote energy efficiency to our residents. This report outlines how we will continue to develop this work over the next two years.

Councillor Michael Stonard
Cabinet member for Environment, Development and Transport

Councillor Bert Bremner
Cabinet member for Housing

# 2 Contents

# 3.0 Introduction

3.1 The city council is responsible for approximately 60 per cent of the urban area of the city, including the historic city centre, covering a population of circa 143,000 people. Norwich is an innovative, creative city with big ambition for both the place and the people who live here. The fastest - growing population in the east of England, it is home to the headquarters of many global companies, in the top nine shopping destinations in the country and is the regional cultural capital. Its economic, social, cultural and environmental influence is out of all proportion to its size, and extends far beyond its boundary.

3.2 But Norwich is also a tale of two cities. While the city has many positive aspects, it also has many of the tough challenges that urban centres can experience. Many city residents experience deprivation, poor educational attainment and poor health. Norwich is also a growing city (the fourth - fastest growing in the UK), which will put additional demands on the council's services and resources in the future.

3.3 One of the council's key corporate priorities within our corporate plan is 'to make Norwich a prosperous city' and within that we have said we will "support people on low incomes through advocacy and financial inclusion activities" and "reduce fuel poverty through affordable warmth activities". The HECA provides a framework for a number of housing improvement activities which can help to reduce fuel poverty, increase wealth and improve health.

3.4 On average resident earnings are low in Norwich compared to the rest of the region. Partly due to low incomes and financial capability, as well as limited access to products and services that enable people to manage their money more effectively. It is likely the recession and changes such as welfare reform will only make these issues worse.

3.5 We also have a number of citizens on fixed incomes, who maybe suffering from fuel poverty and its associated health issues due to the rise in fuel costs. Low incomes and rising cost generally result in some difficult financial choices.

3.6 In Norwich we believe that 12.3% of households are experiencing fuel poverty. That equates to a staggering 7,335 households. In addition in the last three years we have seen a credit crunch, a double dip recession and a period of limited economic growth. National policy changes such as welfare reform will also affect some of the most vulnerable residents in the city.

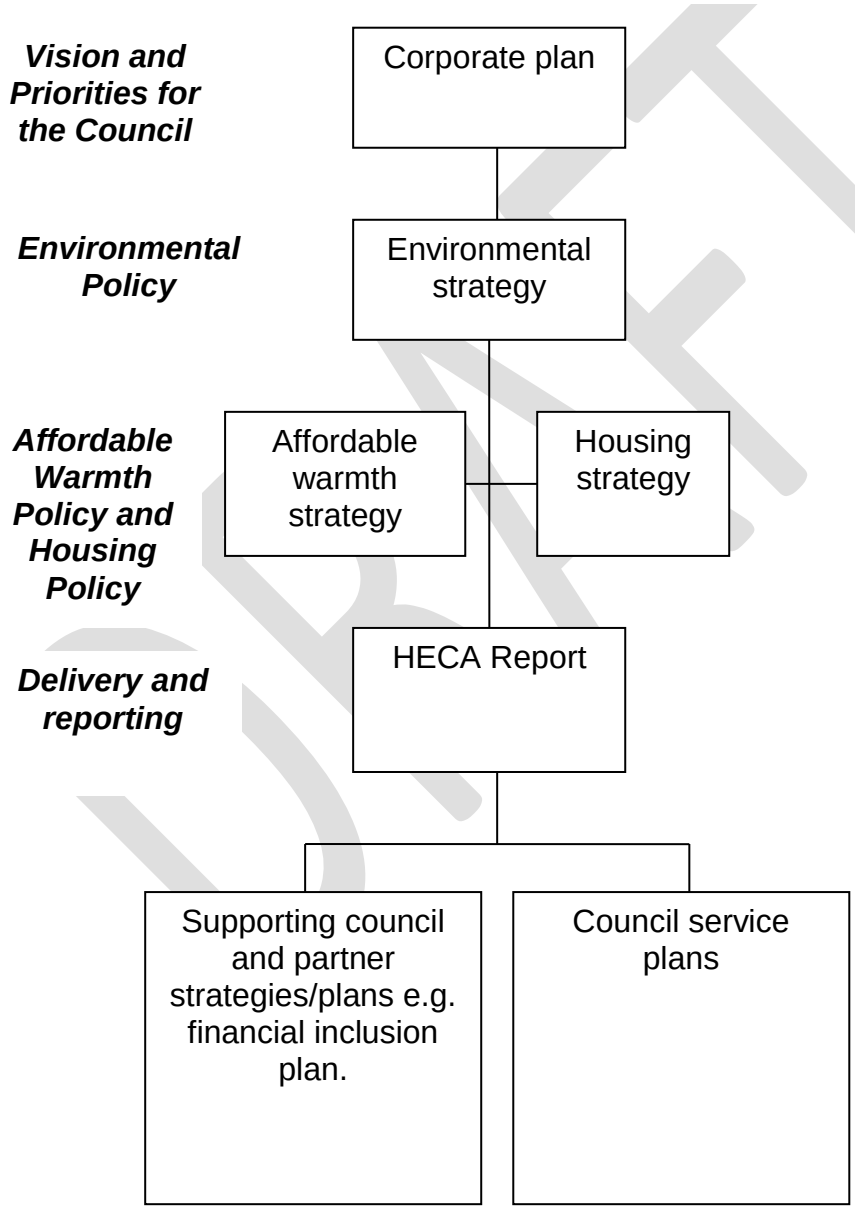
3.7 The Secretary of State for Energy and Climate Change requires all English authorities to prepare an update on HECA reports by 31 March 2015 setting out the energy conservation measures that the authority considers practicable, cost-effective and likely to result in significant improvement in the energy efficiency of residential accommodation in

its area. This HECA report will, therefore, set out Norwich City Council's approach to energy conservation measures to improve the energy efficiency of residential accommodation in the City.

3.8 This report will be a living document and will be updated as we continue our work to improve the energy efficiency of residential accommodation in Norwich over the coming months and years.

## 4.0 Strategic framework

**Strategic framework for HECA report (to be updated).**




The diagram below sets out how the HECA reports fits in with other key strategies, polices and plans

# 5.0 Current position in Norwich

**Properties and condition of the housing stock**

5.1 In 2014 the council commissioned Building Research Establishment Ltd (BRE) to provide information on key housing and domestic energy variables, with a focus on private sector housing. The information has been derived from a series of models which make use of the Experian UK Consumer Dynamics database using a range of statistical methods. This supersedes the traditional private sector stock condition survey published in 2006.

Tables- When the properties were built - council and private

| Council Stock | Total |
|---|---|
| Pre 1918 | 48 |
| 1918 - 1929 | 519 |
| 1930 - 1949 | 4,703 |
| 1950 - 1963 | 3,969 |
| 1964 - 1974 | 4,017 |
| 1975 - 1982 | 1,607 |
| 1983 - 1990 | 774 |
| 1991 - 1997 | 27 |

| Private Stock | Total |
|---|---|
| Pre 1919 | 14,867 |
| 1919 - 1939 | 7,740 |
| 1940 - 1963 | 5,371 |
| 1964 - 2001 | 10,426 |
| | |
| | |
| | |
| | |

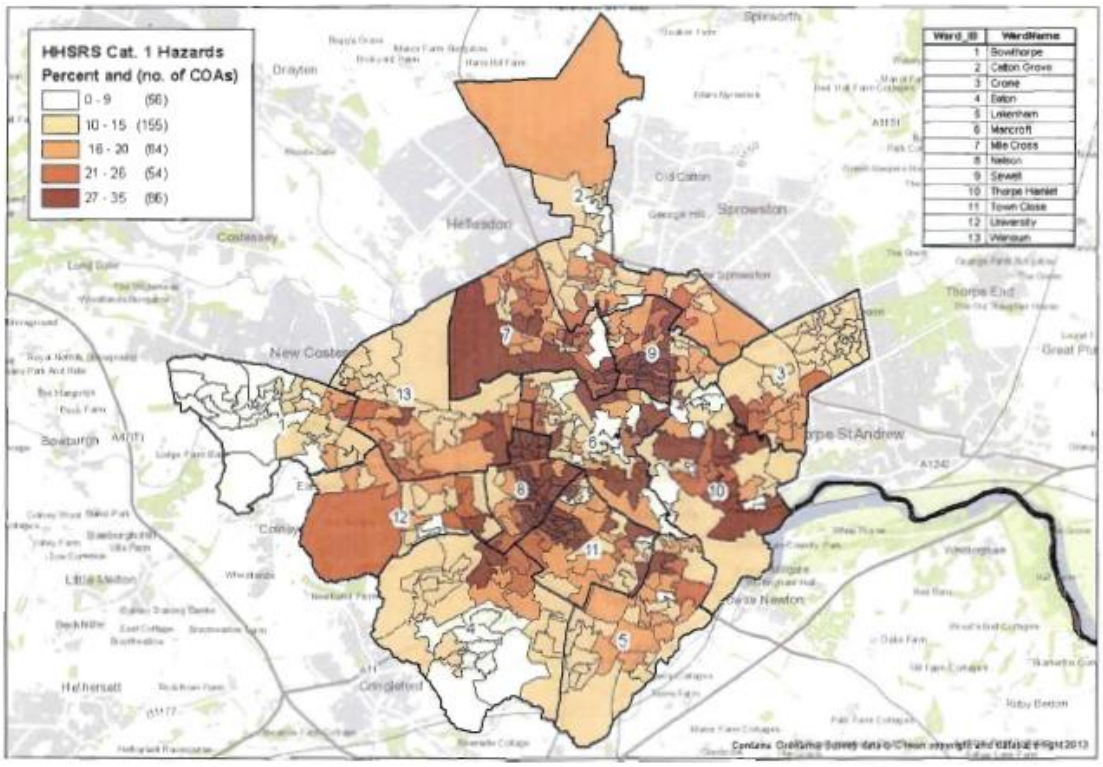
Table 1 - When the properties were built - council and private

Total: 54,068 properties 1918 - 2001

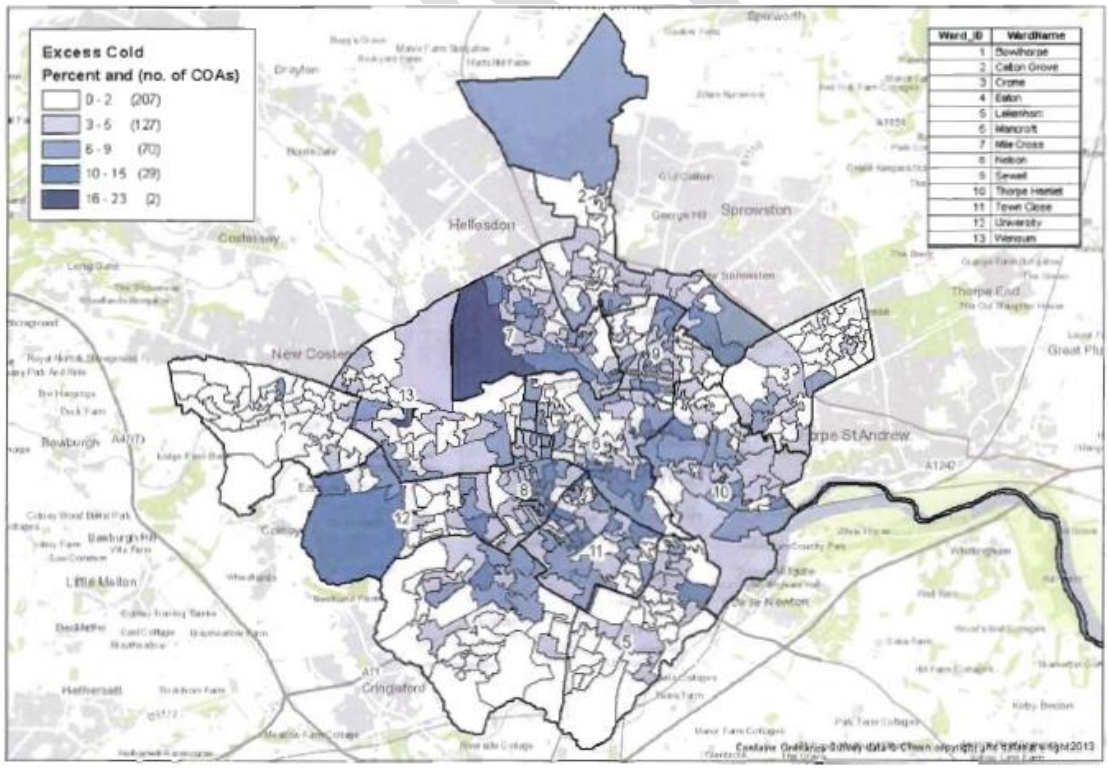
5.2 The 2014 stock modelling highlights the following key facts shown in the table and maps below:

| | |
|---|---|
| **Existence of Category 1 excess cold hazard** | Estimate: 1,676 dwellings ( 7,981 properties predicted to have a category 1 hazard, of which 21% expected to be due to excess cold.) |
| **Average private sector SAP** | 52 |

Table 2 - Condition of stock – private

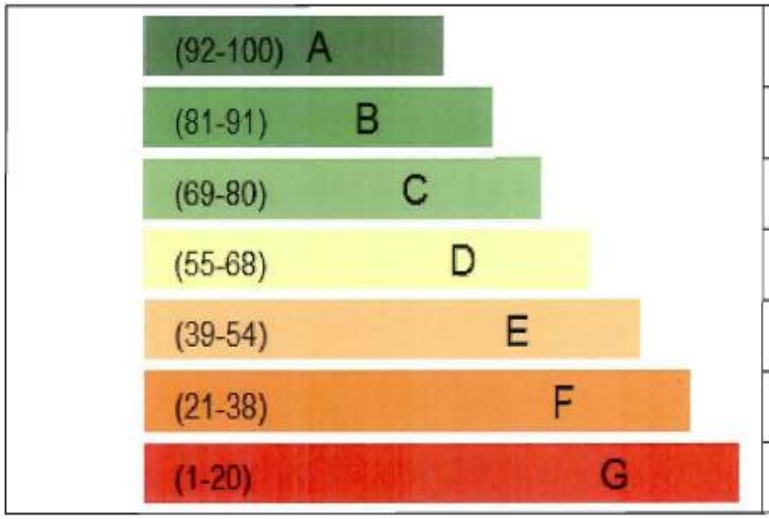



Map 1: Cat 1 Hazards




Map 2: Excess Cold

**Energy Efficiency Rating (Based on SAP) private sector stock**




| | Count | Percent |
|---|---|---|
| (92-100) A | 0 | 0% |
| (81-91) B | 122 | <1% |
| (69-80) C | 4,281 | 10% |
| (55-68) D | 13,726 | 32% |
| (39-54) E | 18,846 | 44% |
| (21-38) F | 5,424 | 13% |
| (1-20) G | 478 | 1% |

Table 3 EPC in private sector

5.3 In regards to the condition of the council's housing stock, following achievement of the decent homes standard in December 2010 we wanted to continue the good work so we developed the Norwich Standard. This is a commitment to ensure that no individual component goes beyond its expectancy, for example no kitchen will be older than 20 years, no bathroom older than 30 years and no boiler older than 15 years.

## 6 $CO_2$ emissions from across the city

6.1 UK primary energy consumption increased by 17 per cent between 1980 and 2005 but since 2005 the combined impact of energy efficiency and the recession have reduced consumption back 1980 levels with UK primary energy consumption at its lowest level since 1985[1].

6.2 In 2013 domestic energy consumption was 29% of the total UK final consumption of energy products, compared to 27% in 2000 and 26% in 1990, however, this reflects a significant fall in energy use by the Industrial sector over this time as since 2000 domestic energy use has decreased by 7%. Over the same period of time there has been a 9% increase in the UK population[2].

6.3 Heating is the major energy requirement of UK homes. In 2011, 78 per cent of energy use in homes was used for space and water heating. Gas accounted for 80 per cent of the heat demand, oil for another 9 per cent, electricity for another 5 per cent, and other sources the remaining 6 per cent[3]. Gas is the dominant fuel used in the domestic sector, however, there is a large amount of variation in the level of gas use by individual households.

6.3 Table 4 and Graph 1 show that between 2005 and 2012 the population of the city increased each year, in total by an additional 8,700 residents over the 8 year period. The per capita emissions dropped consistently and then levelled out in 2010, dropping significantly in 2011 and rising again in 2012. The increase in 2012 is across the Industrial (12%) and Domestic (10%) sectors, with a reduction in the Transport sector of (3%).

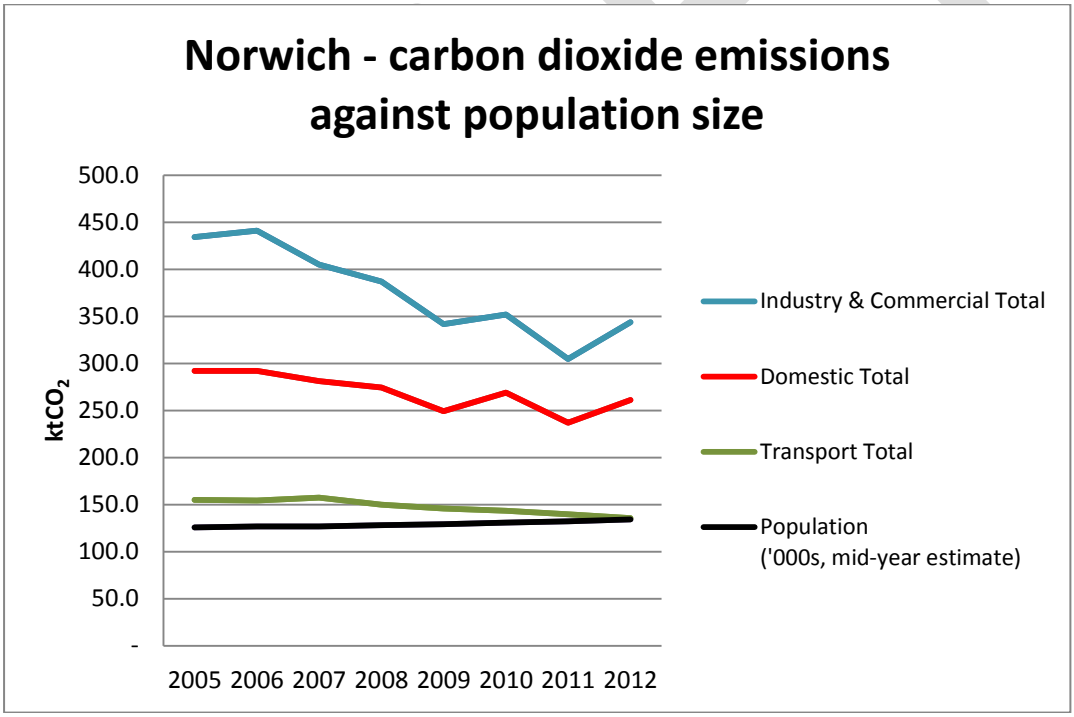
The peaks observed in 2010 and 2012 are due to an especially cold 2010 (average of 9.0 degrees Celsius per day) and a warmer than expected 2011 (average of 10.7 degrees Celsius per day) followed by a typical 2012 (average of 9.8 Celsius per day).



[1] DECC: Energy Efficiency Statistical Summary 2015 (January 2015) p.7
[2] DECC: Energy Consumption in the UK (2014) Chapter 3: Domestic energy consumption in the UK between 1970 and 2013 (July 2014) p.5
[3] DECC: Energy Efficiency Statistical Summary (November 2012) p.16

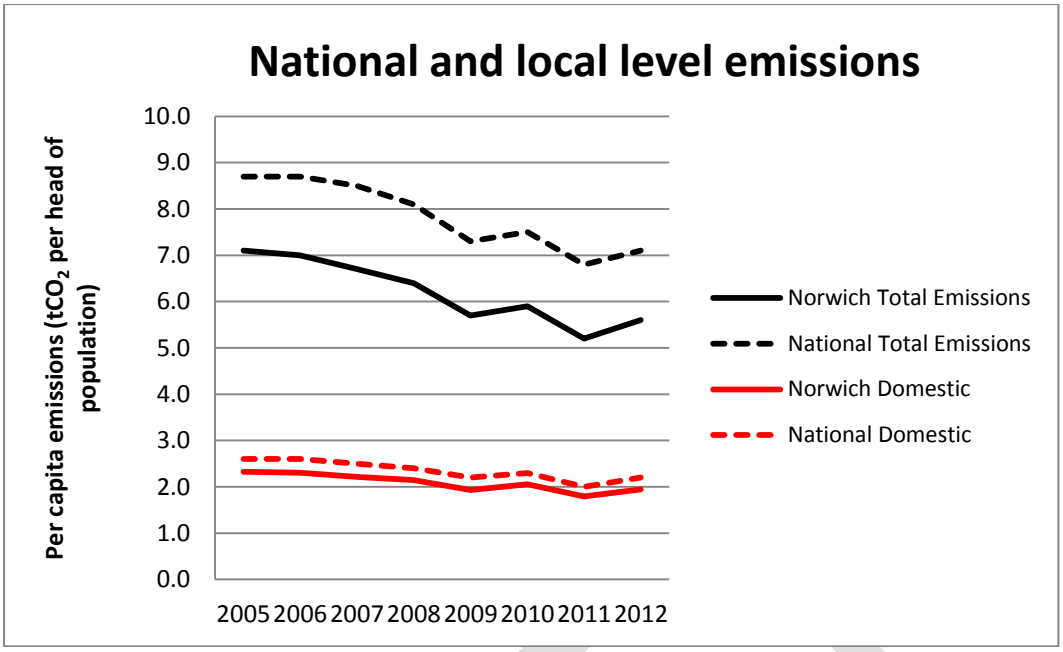
| LA Region Name | Year | Industry & Commercial Total | Domestic Total | Transport Total | Grand Total | Population ('000s, mid-year estimate) | Per Capita Emissions (t) |
|---|---|---|---|---|---|---|---|
| Norwich | 2005 | 434.2 | 292.0 | 155.1 | 881.3 | 125.6 | 7.0 |
| | 2006 | 441.2 | 291.9 | 154.4 | 887.5 | 126.8 | 7.0 |
| | 2007 | 405.2 | 281.3 | 157.3 | 843.8 | 126.9 | 6.6 |
| | 2008 | 387.1 | 274.5 | 149.8 | 811.4 | 128.0 | 6.3 |
| | 2009 | 341.9 | 249.3 | 145.7 | 737.0 | 129.2 | 5.7 |
| | 2010 | 352.1 | 269.1 | 143.4 | 764.6 | 130.9 | 5.8 |
| | 2011 | 304.6 | 236.9 | 139.7 | 681.2 | 132.2 | 5.2 |
| | 2012 | 343.9 | 261.2 | 135.7 | 740.8 | 134.3 | 5.5 |

Table 4. Source: DECC Local Authority Carbon Emissions (2014)




Graph 1: Source: DECC Interactive maps

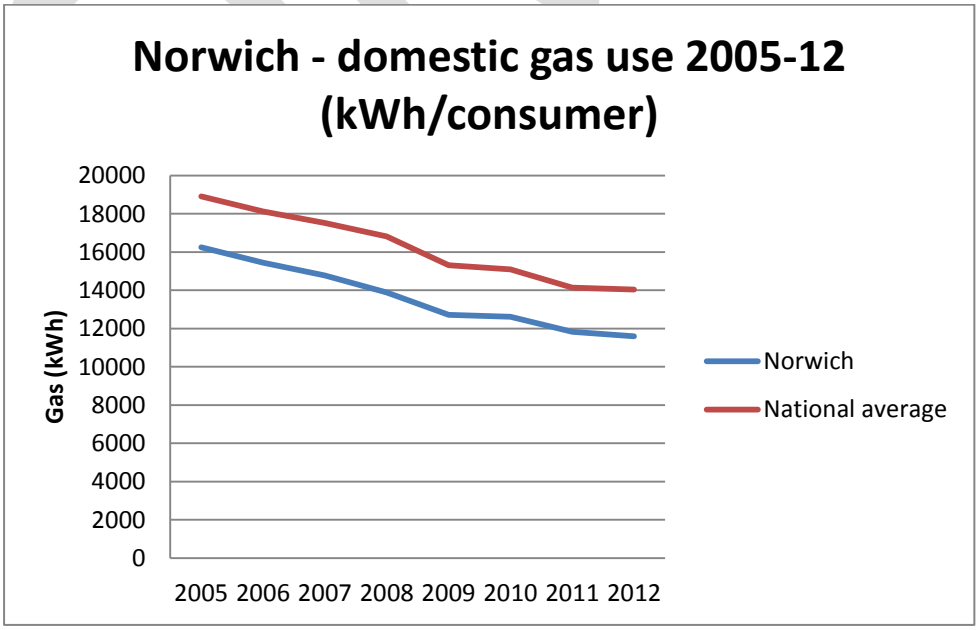
6.4 Graph 2 (below) shows that Norwich's domestic energy consumption mirrors that of the wider country decreasing year on year over the period, with a slight increase in 2010, then a dip followed by an increase in 2012. Again it is thought this may be largely influenced by temperature.



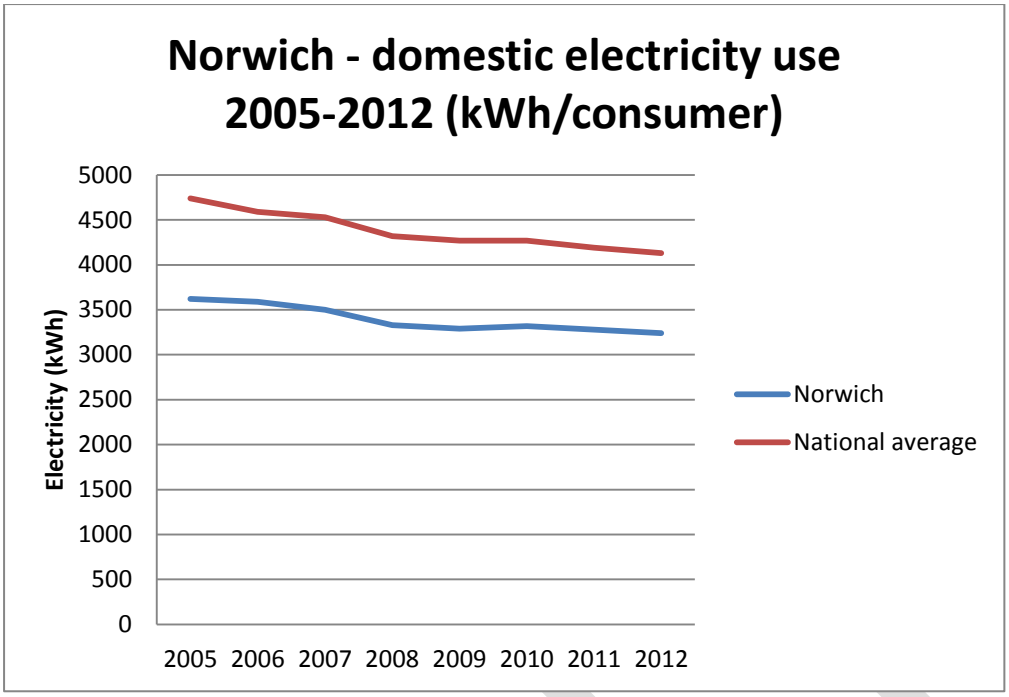

Graph 2: Source: DECC Interactive maps

**Domestic energy use:**

6.5 The following two graphs (3 and 4) show the trends in gas and electricity use in Norwich as compared to the national average energy consumption. Both the national average and Norwich figures show an overall decrease in energy consumption over the period to 2012. This is likely to be in part due to an increase in energy efficiency measures being installed, but also due to the increase in fuel prices over this period driving more households moving into fuel poverty. It is noticeable that both Norwich's domestic gas and domestic electric consumption is well below the national average consumption.




Graph 3 – Source: DECC Interactive maps




Graph 4 – Source: DECC Interactive maps

**Fuel poverty:**

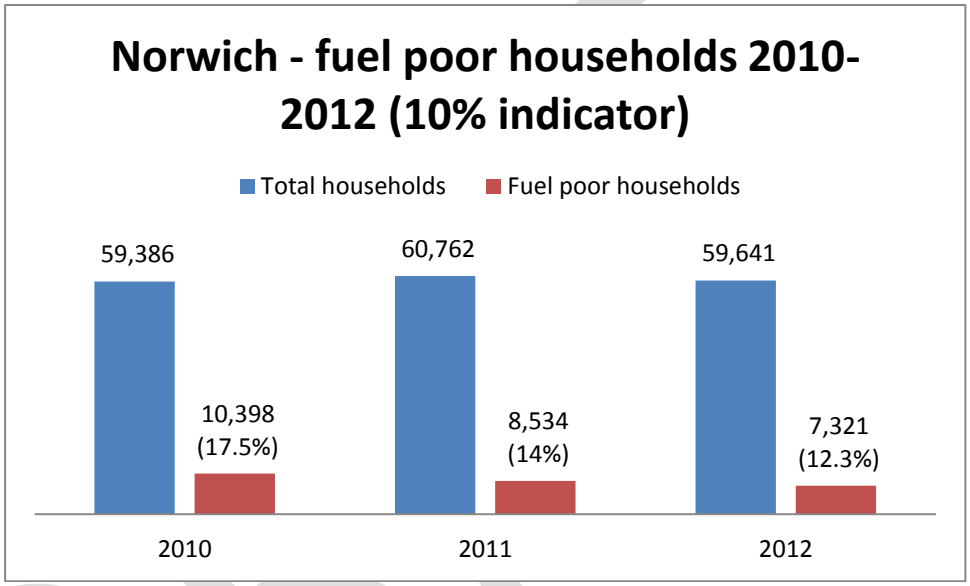
6.6 Since the last HECA report the way that fuel poverty is measured has been re-defined by central government. Previously a household was considered to be in fuel poverty if they were required to spend more than 10% of their income on fuel to maintain an adequate standard of warmth. Under the new 'Low Income High Costs' (LIHC) measure a household is considered to be in fuel poverty if: they have required fuel costs which are above average (national median level) and were they to spend that amount, they would be left with a residual income below the official poverty line[4]. This makes comparing data prior to the new measure being implemented in July 2013 difficult to compare with data gathered since that time.

6.7 According to the most recent fuel poverty data released by DECC[5,6] in 2012 there were 59,641 households in the Norwich City Council area. At this time, using the 10% fuel poverty indicator, 7,321 households were in fuel poverty, or 12.3%. Using the LIHC indicator, 7,272 households were in fuel poverty, or 12.2%.

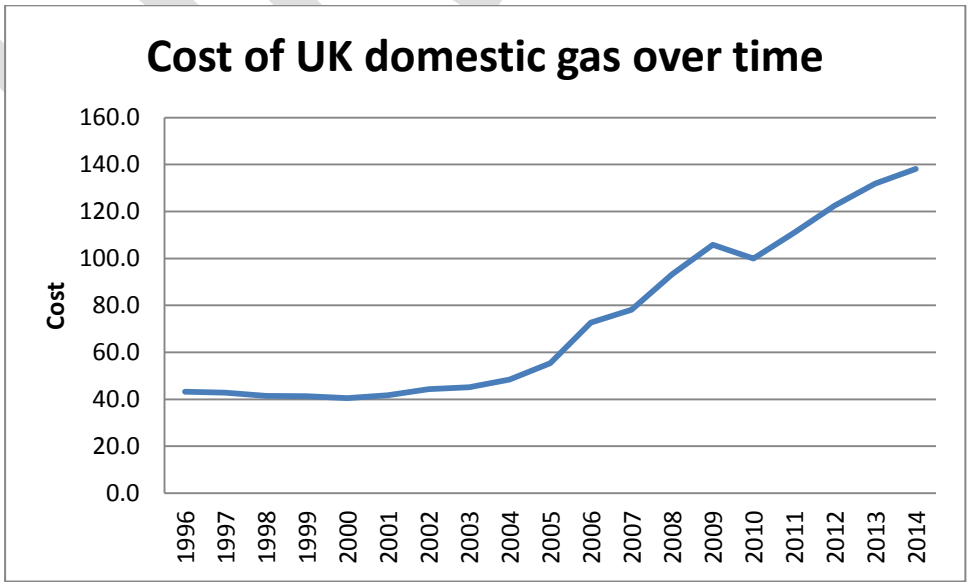
6.8 Graph 5 (below) shows that over the period 2010 to 2012 the number of houses in fuel poverty has reduced by over 5% over this period. This is surprising given the cost of rising UK domestic gas prices over the same period of time as shown on Graph 6. Some of the drop in fuel poverty can be accounted for by the increase in the number of energy efficiency measures installed to date. In addition, Norwich City

[4] DECC: Annual Report on Fuel Poverty Statistics 2013 (May 2013) p.6
[5] DECC: 2012 Sub Regional Fuel Poverty Data: low income high costs indicator (June 2014)
[6] DECC: 2012 Sub Regional Fuel Poverty Data: 10% indicator (June 2014)

Council continues to work to drive down fuel prices through the successful Big Switch and Save scheme which has completed 5 tranches of switching, to date over 1500 households have benefitted from cheaper energy bills. (A collective saving of £250,000)

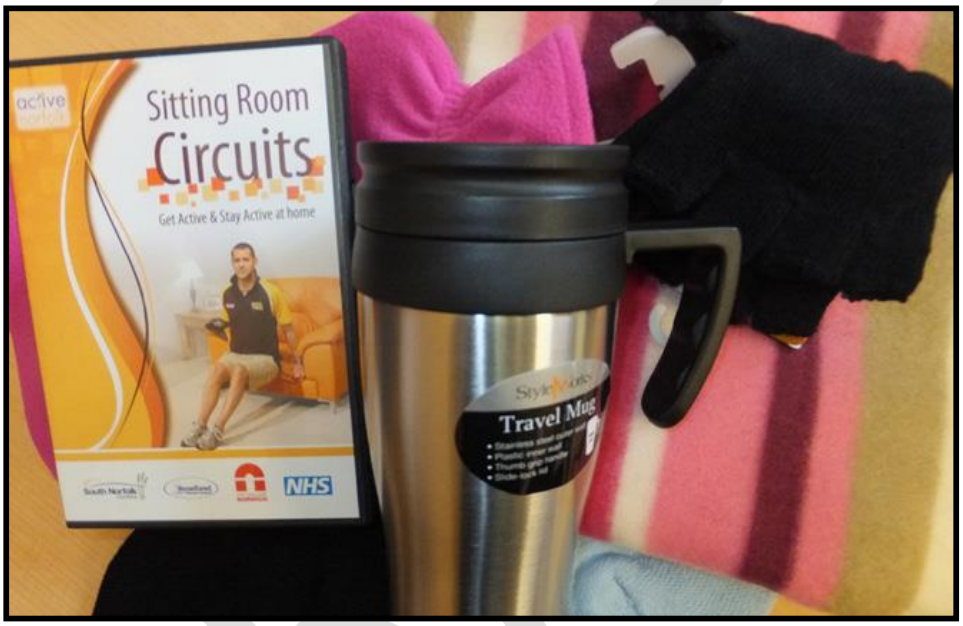




Graph 5: Source: DECC: sub-regional fuel poverty data: 10% measure (2012, 2013, 2014)




Graph 6: Source: DECC: Consumer Price Indexes: Fuel Components (2015)

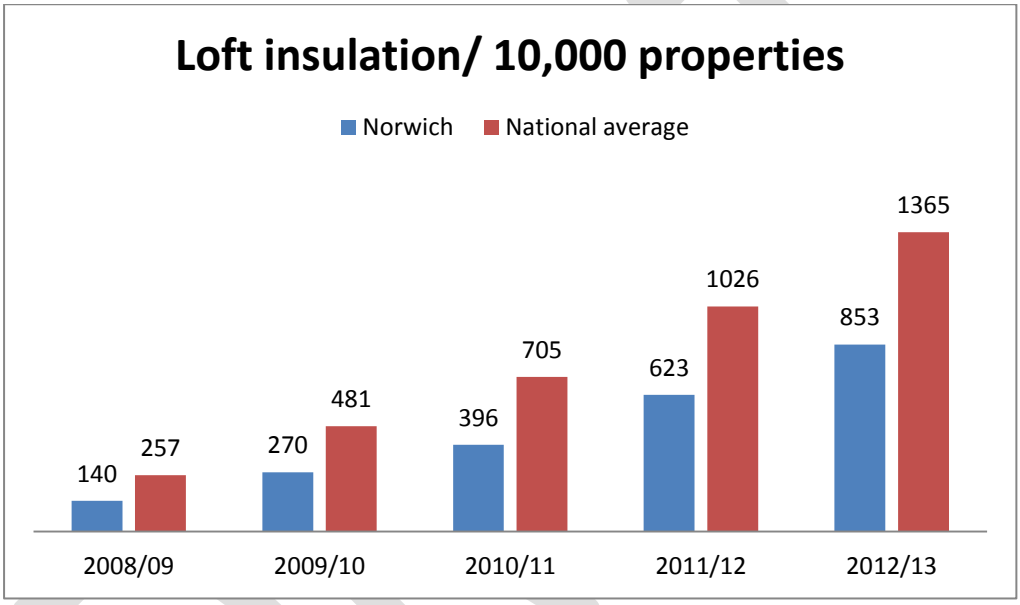
6.9 In addition to energy efficiency works and collective switching Norwich City Council has also been working with partners across the city to distribute “Warm and Well” packs to the most vulnerable. Most recently NCC has worked with the Foodbanks, Community Matrons and Age UK. Since the last HECA report the council has distributed over 300 “Warm and Well packs”. We have also distributed over 300 smaller energy efficiency measures to households including radiator foils and draught-proofing tape primarily via the annual Winter Wellbeing events.



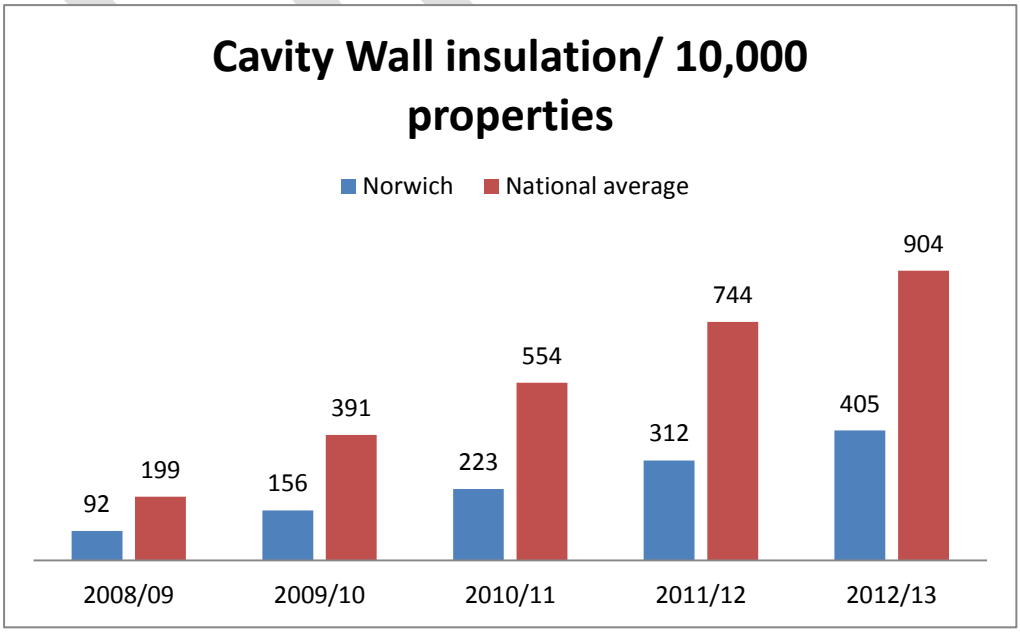

Warm and Well pack

**Energy efficiency:**

6.10 Some of the drop in domestic energy use over the period can be attributed to an increase in energy efficiency in properties. Whilst figures in Norwich are steadily increasing the city is well below the national mean figure for both cavity wall and loft insulation installations (Graphs 7 and 8). Of the two measures loft insulation has been a more popular measure, but this may be indicative of the fact that not all properties have cavity walls, and it requires specialist equipment to install. Also, within the private sector a significant proportion of properties are rental which restricts the take-up of home improvement measures since the landlord may be reluctant to pay to improve the thermal efficiency of the property. Take up of loft insulation can also be impeded due to people storing belongings in their loft space.




Graph 7: Source: DECC Interactive maps



Graph 8: Source: DECC Interactive maps

6.11 CERT/CESP funding was introduced by central government in 2008 and Norwich City Council widely promoted free and subsidised loft and cavity wall insulation. This funding expired at the end of 2012 and has since been replaced by the Green Deal.

**The Green Deal – Norwich's Cosy City project:**

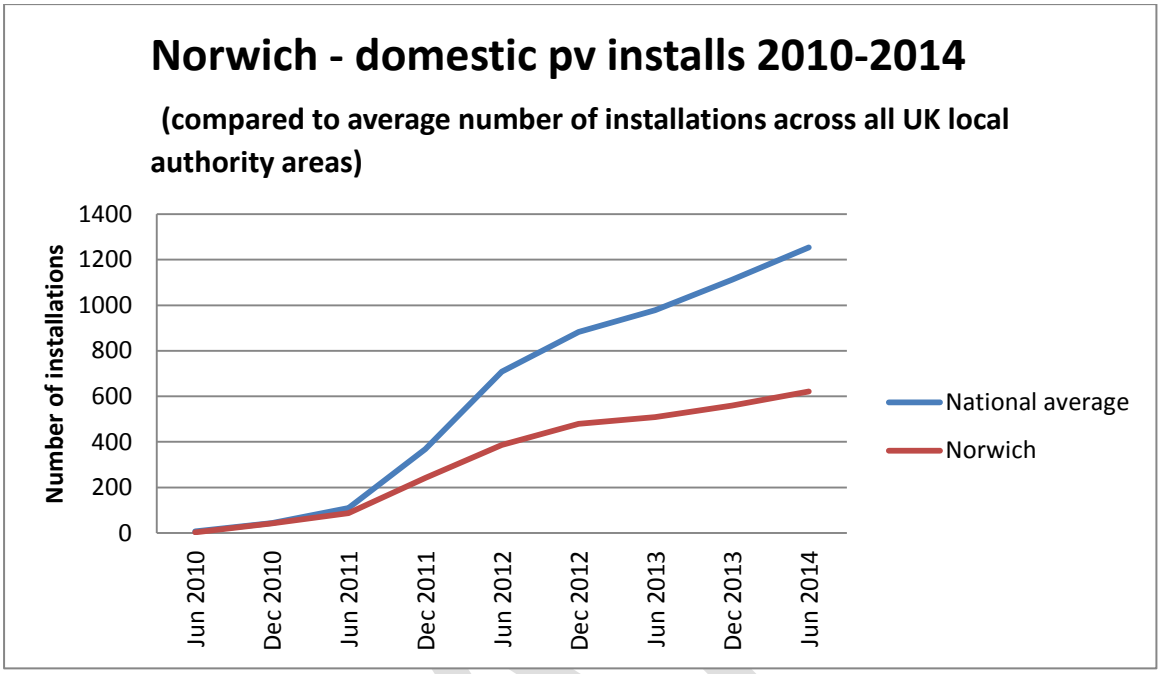
6.12 The Green Deal is a new way to pay for energy-saving home improvements. Householders can take out Green Deal finance to pay for measures such as loft, cavity or solid wall insulation, double glazing, a new boiler or even a 'micro-generation' system such as solar panels. The loan is repaid through savings made on the household's electricity bills, meaning bills shouldn't be any higher than usual. Once the loan is paid off the household benefits in full from the energy savings.

6.13 In response to the introduction of the Green Deal Norwich City Council launched the Cosy City project Spring 2014. It is a partnership with several Green Deal Providers. The council has promoted the scheme widely across the city and further details of the Cosy City scheme can be found at www.cosycity.co.uk A great deal of research has been done into understanding the property types and tenure type of houses across the city in order to most effectively promote Green Deal opportunities.

6.14 Following the launch of the Cosy City project, in Summer 2014 Norwich City Council was successful in securing £400,000 of DECC Greener Communities funding as part of a wider bid with Broadland and South Norfolk district councils. As part of the bid Norwich City Council are working hard to deliver heavily-subsidised Sold Wall Insulation

installations, as well as smaller measures such as boiler replacements and loft and cavity wall insulation, across the city.

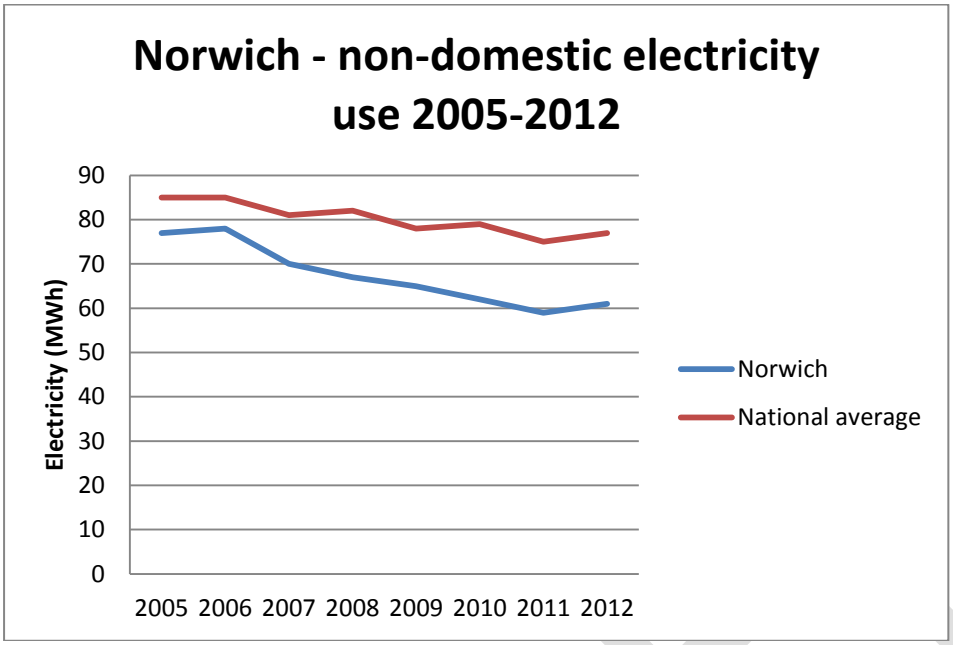
**Renewable energy:**




Graph 9: Source: DECC Interactive maps

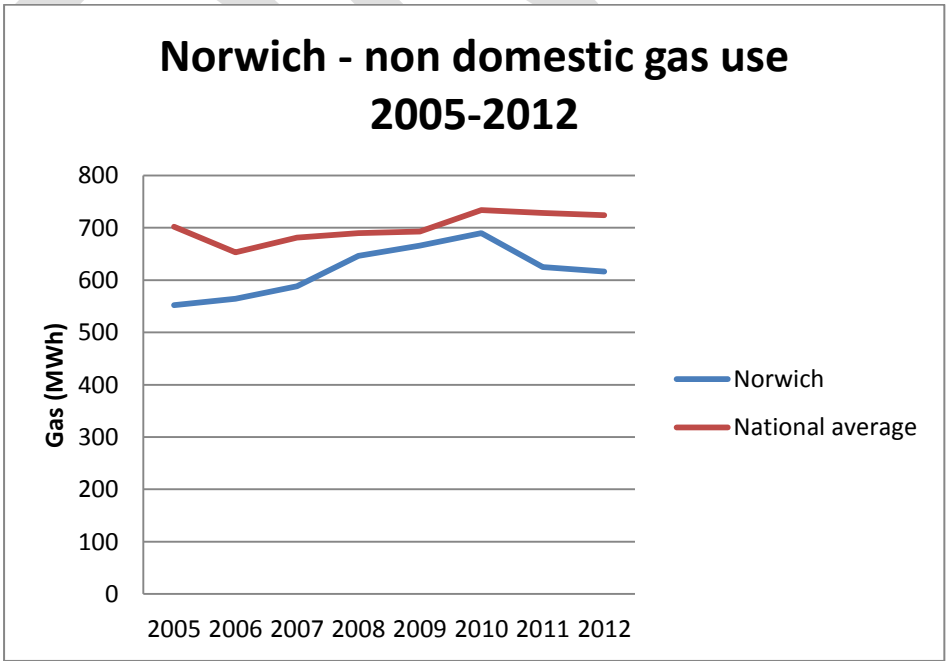
6.17 Graph 9 shows the increase in the number of domestic photo-voltaic (PV) installations in Norwich between June 2010 to June 2014. During this time the government Feed in Tariff (FiT), a kind of subsidy for installing PV technology was made available at 43 pence / kWh, this was then significantly reduced to 21 pence/kWh on 1st April 2012. We note that while the number of installations continue to rise Norwich is dropping further and further behind the UK mean number of installations as time progresses.

**Non-domestic energy use:**




Graph 10: Source: DECC Interactive maps

6.18 Graph 10 shows that non-domestic electricity consumption in the city reduced consistently from the period 2006 to 2011. This long period of decreasing consumption was not mirrored in the national average figure which fluctuates over the same period of time. However, both local and national average consumption experienced an increase in 2012, which again may be due to the cold 2010, warm 2011, average 2012 temperatures referred to earlier in this report.




Graph 11: Source DECC Interactive maps

6.19 Conversely non-domestic gas consumption in Norwich increased over the period 2005 to 2010. There may be a link between the dropping electrical consumption and rising gas consumption if businesses moved away from electric heating to gas powered heating systems as gas is significantly cheaper per kWh of energy.

6.20 Graph 11 shows that in Norwich sales of non-domestic gas peaked in 2010 and since then have been dropping more rapidly than the national average gas sales. Whilst the peak in 2010 is likely to have been due to an extended snowy period the subsequent decrease is likely to have been caused by other factors such as the loss of 30 manufacturing businesses in the city and 35 food and accommodation businesses in the period 2010-2012.

6.21 Undoubtedly many businesses will have been engaged in cutting costs over this period and will have been implementing energy saving measures and looking at ways to reduce unnecessary energy consumption as part of wider cost saving measures.

**$CO_2$ emissions from our own estate (NI185)**

6.22 Norwich City Council has been reducing it's carbon dioxide emissions year on year for the past 6 years through its carbon management programme, and in total has reduced these emissions by 26.6%.

This has been achieved through a variety of methods including;

- Voltage Optimisation
- T8 to T5 light replacement
- LED lighting scheme in our flagship long-stay car park
- Motorised pool covers – local leisure centre
- More efficient transport as a result of new contracts
- Staff behavioural change scheme
- PV and new AC systems

A highlight in 2014 was for the authority to win ESTA's Energy Manager of the Year

**$CO_2$ emissions from our housing stock**

6.23 The council has carried out arrange of work to improve the energy efficiency of its housing stock. The table below sets out some of the measures used;

| Applied Renewable Technologies | Total Installations |
|---|---|
| Photovoltaics | 31 |
| Solar thermal | 1 |
| Voltage optimisation | 26 |
| Air source heat pump | 1 |
| Loft insulation (300mm) | 1,396 |
| External wall insulation (EWI) | 92 |
| Condensing boilers | 2,245 |

# APPENDIX A

The photographs below provide examples of some of the work carried out:
Photograph - Property before external wall insulation was installed, SAP rating Band D

Photograph - Property after external wall insulation was installed, SAP rating Band C

Photograph - Photovoltaic panels installed at a sheltered housing scheme where 19 bungalows benefitted from Photovoltaics following funding from CESP.

6.24 Following the introduction of CESP and CERT in 2008 & 2009 Norwich City Council secured funding and delivered the following installations working alongside Carillion (EAGA) & British Gas;

| Renewable Technology – Delivered by CESP & CERT | Total |
|---|---|
| Loft insulation | 269 |
| Cavity wall insulation | 6 |
| Boilers & controls | 202 |
| PV | 31 |
| EWI | 46 |

6.25 39 BISF (British Iron & Steel Federation) properties benefitted from external wall insulation (EWI). These properties were under insulated. The authority used a whole street approach and even offered the works to one private household (at a charge). Since the EWI has been installed these properties have benefited from a warmer home and better air quality, they are also cheaper to run and have an improved external appearance. This now has improved the whole street scene which empowers tenants and makes them proud of where they live. NCC will continue to roll out EWI using the whole street approach to enable the authority to access the ECO funding stream .

Photograph - BISF properties after EWI

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Photograph – showing installed to council property alongside private property

**$CO_2$ emissions from Private Sector Housing**

Enforcement activity

6.26 NCC already tackles excess cold in privately rented accommodation through enforcement. This is currently mostly in response to complaints. However, the address-level information from our stock condition survey will enable us to target this enforcement activity more effectively and pro-actively. The council is also considering an extension of the existing houses in multiple occupation licensing scheme to an estimated 3000 properties (a 10-fold increase over the statutory scheme.) The landlords of these properties would be required by a licence condition to remove any excess cold hazard.

**Photograph– Property before enforcement action showing no heating system**

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**Photograph - Property before enforcement action showing defective single glazing**

**Photograph– After enforcement action – New double glazing**

**Energy performance calculation / SAP rating**

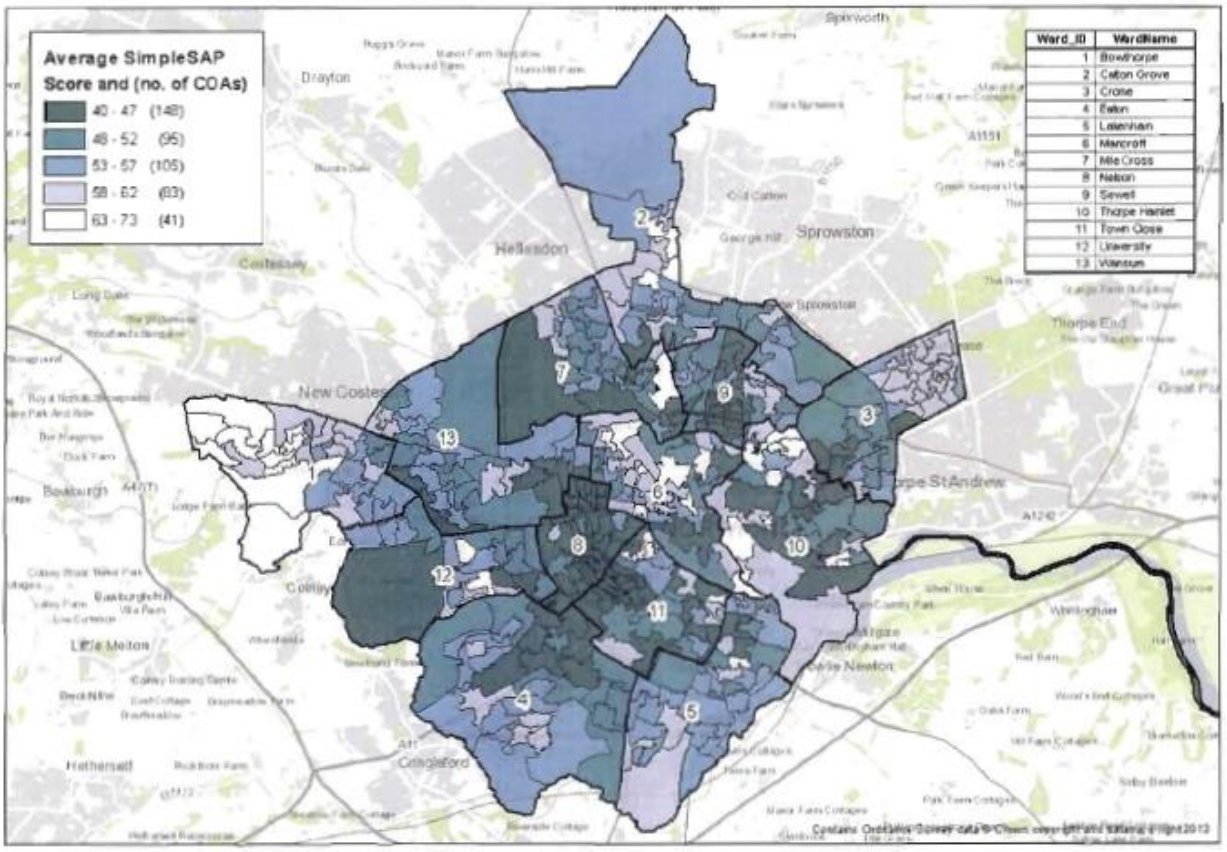
6.27 The current Norwich average SAP is 71% for our current tenanted housing stock. NCC report on average SAP quarterly, this allows the authority to capture all the renewable technologies that have been installed. Current SAP analysis is generated from 2005 Energy module from Codeman system. The tables below provide more information on rating of our properties.

| Energy Efficiency Rating | Total |
|---|---|
| Band A | 0 |
| Band B | 49 |
| Band C | 11,090 |
| Band D | 3,629 |
| Band E | 428 |
| Band F | 218 |

| | |
|---|---|
| Band G | 5 |
| | 15,465 |

| Tonnes of $CO_2$ per year | Total |
|---|---|
| Under 5 tonnes | 14,204 |
| Over 5 tonnes | 1,453 |
| Over 10 tonnes | 7 |

6.28 The average SAP in the private stock is 52 (2014 stock modelling) which is just above the national average of 51 and compares with 54 in Broadland District which comprises a significant part of the Norwich urban area. This is probably due to a large proportion of hard-to-treat solid-wall pre 1919 terraced housing. Norwich also has a larger than average privately-rented sector (at 22%) which increases the likelihood of sub-standard heating and insulation.




6.29 NCC currently takes enforcement action for excess cold in a number of properties. Enforcement, whilst necessary, is resource intensive and will only be effective if used alongside promotional work. However, it does lead to significant improvements in the lives of some of the most

vulnerable private sector tenants in the city. An example of our recent work is with a large block of flats with SAP ratings of below 20 which involved the service of over 60 statutory notices. The flats that have been upgraded to date are returning new SAP ratings of over 70.

# 7 Looking ahead

### The Green Deal

7.1 Continue to deliver our energy efficient improvements via our own Cosy City Programme and work with DECC to promote any national retrofitting funds.

7.2 Further investigate and explore what role the green deal may have to play for our housing stock.

7.3 We believe that there is considerable scope for the green deal to be taken up by private landlords and we are already beginning to promote it in individual cases. We expect the next update of our private sector stock condition survey to include predicted tenure and green deal variables to individual address level which will enable us to target our energy efficiency work, and the green deal in particular, effectively.

7.4 Develop a new solar programme to increase the take up of PV and other renewables.

7.5 Work with neighbouring authorities to maximise any grant funding.

### Energy Company Obligation (ECO)

7.6 The council is networking with providers who have access to the ECO funding stream. The authority has a property list in place which is used to see what percentage of funding we could secure. ECO measures include;

- Boilers
- EWI
- IWI
- loft insulation
- Cavity wall insulation
- Draught proofing
- Solar heating

7.7 The more measures that are applied to a property the more funding we would acquire. Also if the property falls within a LSOA (lower super output area) this will attract more funding.

**Feed in tariff and renewable heat incentive (RHI)**

7.8 The council has 31 PV installations across our housing stock which would be eligible. These were installed by Carillion to a variety of properties. A sheltered housing complex was our biggest single installation to - date. These PV panels were fitted for free, this will allow the tenant to benefit from free electricity and Carillion shall claim the FiT payment.

**New Council Homes**

7.9 The council has embarked on a programme of building up to 250 new council houses over the next five to ten years. It is intended to explore cost-effective technologies, including passivhaus techniques, to maximise the energy efficiency of these new homes. NCC will be working closely with a local housing association which will be building a large passivhaus development of 250 homes in central Norwich, to benefit from their experience and supply chain knowledge.

**Site Waste Management Plans (SWMP)**

7.10 All contractors working on a contract over £300,000 will need to have SWMP. This is a legal document and the company can incur a hefty fine if there is not an SWMP in place on a contract. The contractor is also responsible for keeping an audit trial of what percentage of waste is disposed and recycled. There are also Green Travel plans which enforce the need to use minimal numbers of vans when on site and the contractors also make sure there are enough materials within the van to complete the jobs for the day also minimising the need to continue to go back to a depot for more supplies. All our current contractors have SWMP's in place.

# 8 What did we achieve?

**Progress against 2013 Action Plan:**

| Priority | Proposal | Timescale | 2015 Update |
|---|---|---|---|
| **Building relationships** | Networking with the Big 6 Energy Providers | Ongoing | Investigating opportunity for tower block to be upgraded through funding via Big 6 energy company |
| | Working alongside Income Assistants to find tenants who may be in poverty | | Improve links to other services that could benefit from this information too. |
| | Assisting with reports and supplying data to the Environmental Strategy team | Ongoing | Continuing to work across council services and with major contractors to assimilate energy data |
| | Tenant involvement by producing documentation on energy saving, tenant fund days & liaising with tenants regarding their energy bills | | Documentation completed and handed out at fun events. Continued liaising with tenants regarding energy saving measures. |
| **New equipment** | Replacement of our asset database and upgrade. Our current database runs RdSAP 2005. Upgrading will allow us to use RdSAP 9.91. | 2013/14 | Database now using up to date RdSAP 2009 methodology, and in a position to easily update when required. |
| | Purchasing of additional thermal imaging camera and data loggers | 2013/14 | Data loggers bought. An additional thermal imaging camera has not been required. |

| Priority | Proposal | Timescale | 2015 Update |
|---|---|---|---|
| **Trial projects** | **IWI** – 8 properties to be involved in a trial | | Assets and tenants benefitting from application of technology. Reviewing and planning for future installs. |
| | **Damp Trial** – 6 month trial to reduce spend and investigate alternative methods alleviate damp within our homes. The trailing out of new products such as single, whole house ventilation and continuous running extractor fans working with the market leaders. | | C. 1.2 million saved through trial. Programmed works for 15/16 modified to accommodate measures found, such as 'french drains' and bin/meter cupboard insulation (to specific assets). New extract fans being installed with continuous then boost as required features. |
| **Trial projects cont/d…** | **Air source heat pumps** – to carry out a trial | | Applied where practicable. |
| | **Thermodynamic hot water** – potential trial of this technology that can provide hot water 365 days of the year, using a local company. | | Trialled x 4 units. Feedback 100%. Contracted to install an additional x 28 units 14/15 with nearly 100% satisfaction from tenants. Assigned budget for 15/16 for additional units and shall investigate economies of for even wider application for future programmes. |

| Priority | Proposal | Timescale | 2015 Update |
|---|---|---|---|
| **Projects** | 95 homes on district oil heating. Exploring and investigating renewable options. | Ongoing | Solution being investigated – no works currently planned. |
| | Upgrading of old pipework, underground pipes from district boiler to be super insulated. | 2013/14 | This work was completed at one Sheltered Housing bungalow scheme (2013) and is scheduled to go ahead at a second site in Spring 2015 |
| | **PVT (photovoltaic thermal)** – to install to c. 10 properties. | 2013/14 | Research concluded that technology is not currently reliable enough, plus cost prohibitive. Review in future. |
| | **Voltage Optimisation** – to install c.500 units into our housing stock | 2013/14 | Completed with limited stock remaining. VO no longer traded. Investigation continue to find residential alternative. |
| **Projects cont/d…** | **EWI** – installation to c.82 properties with potential to deliver up to 200 properties by accessing ECO funding. | 2013-18 | Completed. Specification change to include relocation of gas meters has increased unit rates impacting future rates. Work set to proceed targeting poorest performing assets, or those in the areas of highest deprivation. |
| | **IWI** – following the trial, | 2013-18 | Ongoing review of methodology |

| Priority | Proposal | Timescale | 2015 Update |
|---|---|---|---|
| | investigate opportunities to complete the block using ECO funding | | before committing to programme. |
| **Funding Streams – Green Deal/ ECO** | **ECO -** Investigating ECO funding opportunities to deliver EWI, IWI, new boilers, loft insulation and cavity wall insulation<br><br>**Green Deal -** Investigate a wider whole city approach to Green Deal and the role the council should play | 2013-18<br><br>2013 | None present.<br><br>Cosy City launched Spring 2014. DECC Greener Communities bid successful Summer 2014. On target to deliver. |
| **Collective Switching** | Working to promote Norwich Big Switch & Save. Leaflets and advice given when carrying out stock surveys, visits etc. also assisting offline registrants by offering paper-based registration. | 2013-18 | 1500+ residents have successfully switched so far with an average saving of £250. The most successful local authority in the country. |
| **Tackling Excess Cold** | To identify privately-owned homes where an excess cold hazard exists and to take appropriate action to remove the hazard. This may include the use of improvement notices in the | Affordable Warmth action plan (ongoing) | 38 homes identified and 32 improvement notices served since 2013. |

| Priority | Proposal | Timescale | 2015 Update |
|---|---|---|---|
| | case of privately-rented accommodation and financial assistance for vulnerable owner-occupiers. | | |
| **Private sector housing energy efficiency information** | To commission private sector stock condition research to identify the extent and distribution of excess cold hazards, poor thermal efficiency and fuel poverty. | 2013-14 | Report and stock modelling database received in January 2014. |
| **New council homes to achieve high energy efficiency standards** | To research and adopt an energy-efficiency design standard for all new council homes. | 2013-14 | |
| **Private sector housing renewals strategy** | To introduce a new strategy, based on information provided by the stock condition research, which will address the problem of excess cold and poor thermal performance in owner-occupied and privately rented homes in the city. | 2013-15 | A number of initiatives and policies have been implemented instead of an overarching strategy which include:<br><br>Private sector financial assistance policy which has been extended to offer help to private landlords<br><br>Empty homes policy<br><br>Private rented sector property registration scheme (launch due 2015) where |

| Priority | Proposal | Timescale | 2015 Update |
|---|---|---|---|
| | | | minimum standards will be required including energy efficiency. |

***In addition to the actions detailed 2013 action plan we were also successful in installing PV for free at 200 assets.***

# 9 Future actions

**Future actions:**

| Priority | Proposal | Timescale |
|---|---|---|
| **Building relationships/ changing behaviours** | Working to identify opportunities for 'habit discontinuity' where tenants and residents can be encouraged to change their habitual behaviour | 2015-16 |
| | Once 'habit discontinuity' opportunities are identified work to promote energy efficiency and sustainable lifestyle changes when people move home through the use of tenancy packs etc. | 2015-2016 and then ongoing |
| | To develop an open-homes online network to enable residents to learn from one another on how to improve their home's energy efficiency | 2015/15 and then ongoing |
| | To raise awareness and encourage skills development in the local construction industry in the green deal and the installation energy savings measures through the council's Cosy City service and other activities | To date 5 NVQ's fully funded with 'Building Futures' via the Cosy City Greener Communities project. |
| | To implement initiatives to raise awareness and create action at a local neighbourhood level about energy efficiency, managing energy use and the benefits of installing renewable energy by providing information, advice and education | Ongoing |

| Priority | Proposal | Timescale |
|---|---|---|
| **Research/ Projects** | Investigating opportunities from heat from rivers via the DECC HNDU project | 2015/16 |
| | Investigating the country's first Collective PV auction with switching partner iChoosr. | 2015/16 |
| | To explore with partner organisations the potential for a district heating scheme for the City and other options for the development of renewable energy for the future | 2015/16 |
| | To explore the development and delivery of a large scale PV scheme on council housing across the City in consultation with tenants and review other opportunities for micro- generation | Ongoing |
| | To ensure the council's private landlord accreditation scheme promotes energy efficiency | 2015/16 |
| | To continue to lobby OFGEM for a standard for renewable energy tariffs so that this can be included within the council's switch and save scheme. | 2015/16 |
| **New homes** | To explore the potential use of Passivhaus or Sustainable Homes level 4 for all new build | 2016/17 |
| | To develop new homes for the City Council that conform to Sustainable Homes Level 4 or Passivhaus | Ongoing |
| | To ensure the Threescore phase 2 | 2016 |

| Priority | Proposal | Timescale |
|---|---|---|
| | development is planned to provide 75% dwellings to Passivhaus standards | |
| | To continue to deliver an affordable warmth strategy and programme to reduce fuel poverty and increase wellbeing | Ongoing |