

Creating a Climate for Change

How can local government make a difference?

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Carmarthenshire County Council

- The area's largest employer - 9000 employees
- The biggest consumer of goods and services – a turnover of £500m per annum
- 474,392 Sq mtrs of buildings
- 10,337 Street lamps
- 7.2 Million fleet vehicle miles per annum
- 5.8 Million staff/business miles
- 9000 council owned residential properties

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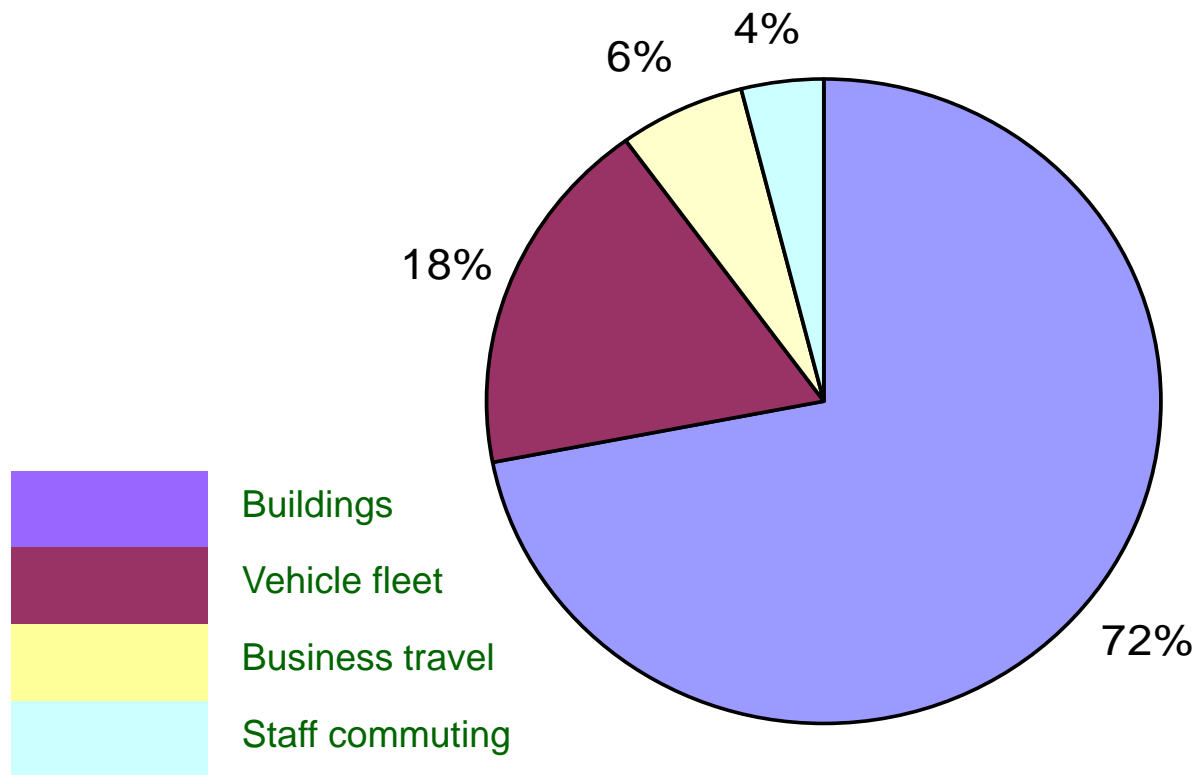
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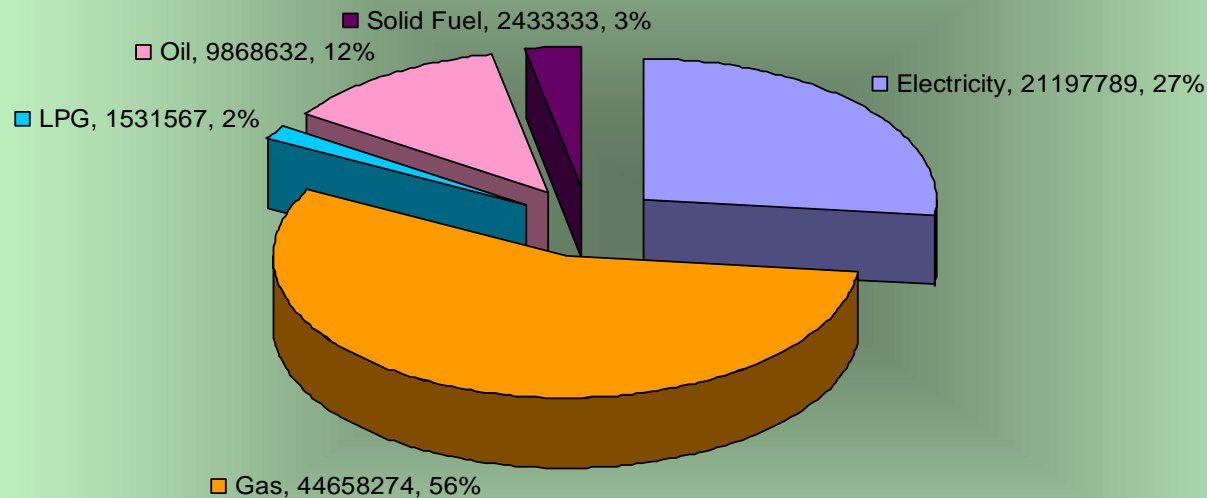
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Council's CO₂ Impacts



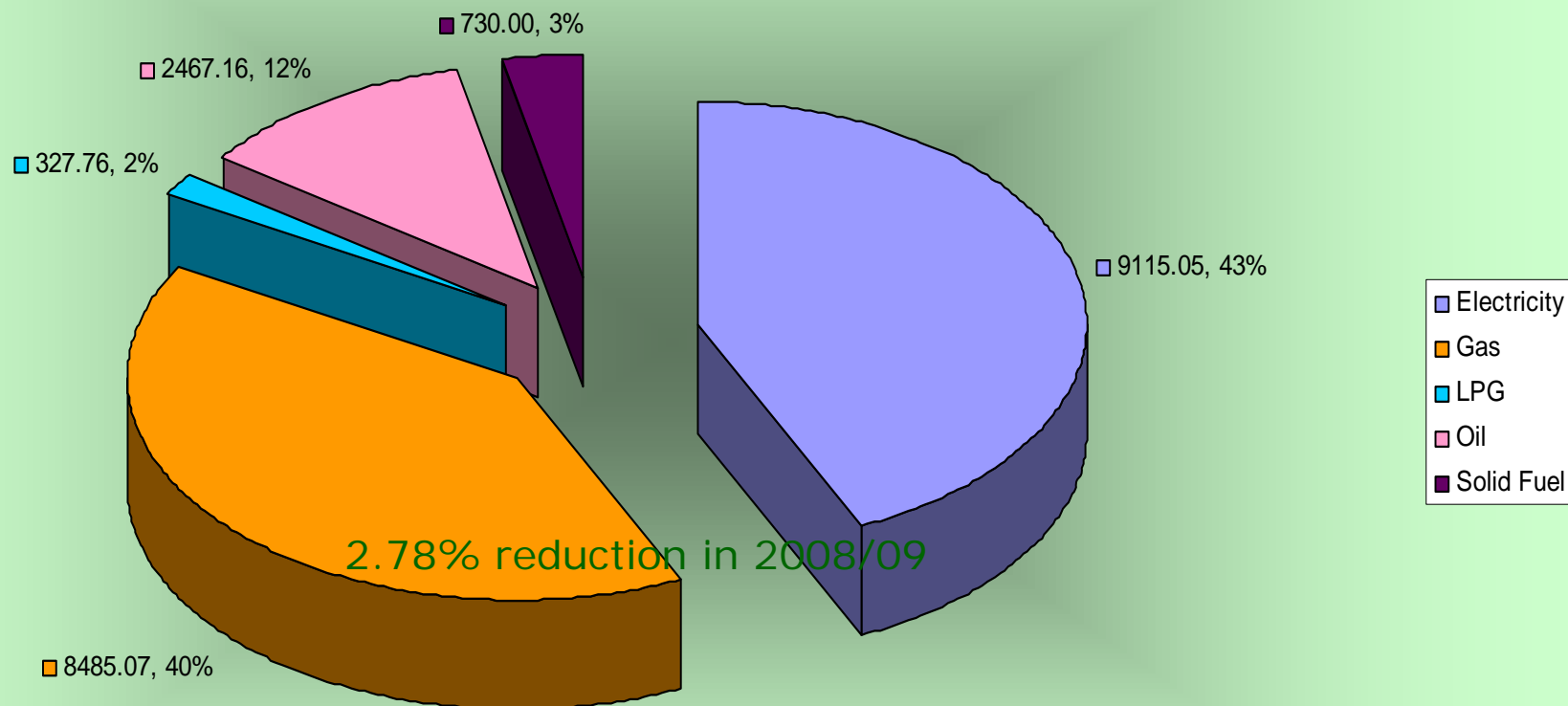
Annual Energy Consumption, kWh (non-domestic buildings)

2008/09 Non Domestic Buildings Annual Energy (kWh)



Annual CO₂ emissions, tonnes (non-domestic buildings)

2008/09 Non Domestic Buildings Annual CO₂ (tonnes)



Our Strategy

- Purchasing 'green energy'
- Reducing energy consumption in buildings
 - Lighting
 - Electrical equipment
 - Heating
- Housing - council owned and private sector
- Other energy – e.g. street lighting
- Reducing fuel consumption in vehicles
- Reducing waste / increasing recycling
- Fairtrade and local purchasing

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Local Service Board

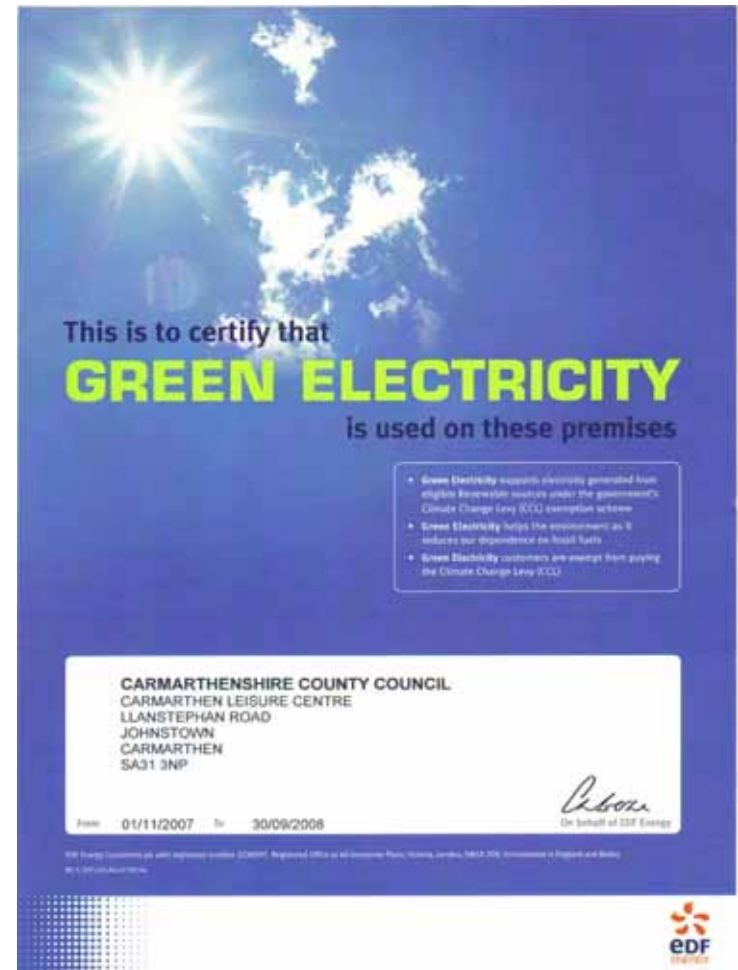
- Holding each of the partners to account on their achievement of the 3% per annum reductions in emissions
- Public Sector bodies as exemplars – leading by example
- Leading a community based campaign (on reducing waste, reducing energy consumption, buying local and fair-trade products, vehicle impacts, reducing footprint in general)
 - Public sector bodies
 - Businesses
 - Voluntary sector / community organisations
 - Households and families
 - Young people, schools and colleges
 - Local communities

Top 10 Energy Consuming Buildings

Establishments (2008/09)	Floor Area (m2)	Electricity (kWh)	Electricity (£)	Gas (kWh)	Gas (£)	Oil (kWh)	Oil (£)	Coal (kWh)	Coal (£)	Total (kWh)	Total (£)
Parc Dewi	28,397	834,419	91,120	2,422,056	66,825	468611	22121			3,725,086	180,066
Carmarthen Leisure Centre	6,735	1,055,071	108,315	2,428,327	82,632					3,483,398	190,946
Amman Valley Comp School / Leisure Centre	13,263	719,623	80,795	2,580,212	88,018					3,299,835	168,813
Gwendraeth Valley Comp School	7,059	310,121	35,044	92,466	2,774			1593603	35296	1,996,190	73,114
Coedcae Comp School	8,610	421,547	50,112	1,133,666	40,601					1,555,213	90,713
County Hall	5,681	730,462	73,123	752,209	27,101					1,482,671	100,224
Bryngwyn Comp School	8,692	297,451	35,121	938,667	34,457					1,236,118	69,578
Parc Myrddin	5,400	225,564	21,694	999,023	37,569					1,224,587	59,263
Ysgol Gyfun Y Strade	6,365	330,890	39,272	809,956	29,768					1,140,846	69,039
3 Spilman Street	3,633	906,960	85,858	85,745	3,867					992,705	89,725
Total										20,136,649	1,091,482

Electricity from Renewable Sources

- In 2008/09, **76%** of the authority's non-domestic building electricity consumption is supplied from renewable or good quality combined heat and power sources.
- **9,460 tonnes** of CO₂ savings in 2008/09.
- Aim of ultimately procuring all electricity on a green tariff.
- Suppliers charge a premium for procuring electricity from renewable sources but can be offset by not paying the Climate Change Levy.



Energy Efficiency Accreditation Scheme

- The Council's Energy Management function has been externally verified by gaining Energy Efficiency Accreditation Scheme status in 2001 with re-accreditations in 2004 and 2007.
- Around 200 organisations have met the rigorous requirements of the Scheme, and Carmarthenshire along with Caerphilly and Neath Port Talbot are the only Local Authorities in Wales to be currently accredited to-date.
- The Council has recently been awarded the Carbon Trust Standard



Reducing energy consumption in buildings

- Electrical equipment
 - Intelliplugs (2,500)
 - Printer rationalisation (243 to 77)
 - 'nightwatchman' type software
- Lighting
 - Approx 1500 low energy bulbs replaced to date
 - 53 tonnes CO2 saved per annum
 - T2 replacement programme to come on stream shortly
- Reducing heating costs
 - Better Insulation
 - Modern boilers / heating controls

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Renewable sources - recent projects

- Solar panels (for domestic hot water) installed at:
 - County Hall;
 - Glanmarlais Care Home, Llandybie;
 - Argel Care Home, Johnstown;
- Solar panels (for electricity generation) QE High School;
- Biomass Boiler incorporated into QE High School;
- Ground Source Heat Pump Ysgol y Dderwen, Carmarthen;
- Large scale wind projects being investigated at sites across County;
- Hydro electricity project to be investigated at Pendine;
- Feasibility of a Spilman Street District Heating scheme to be investigated shortly.

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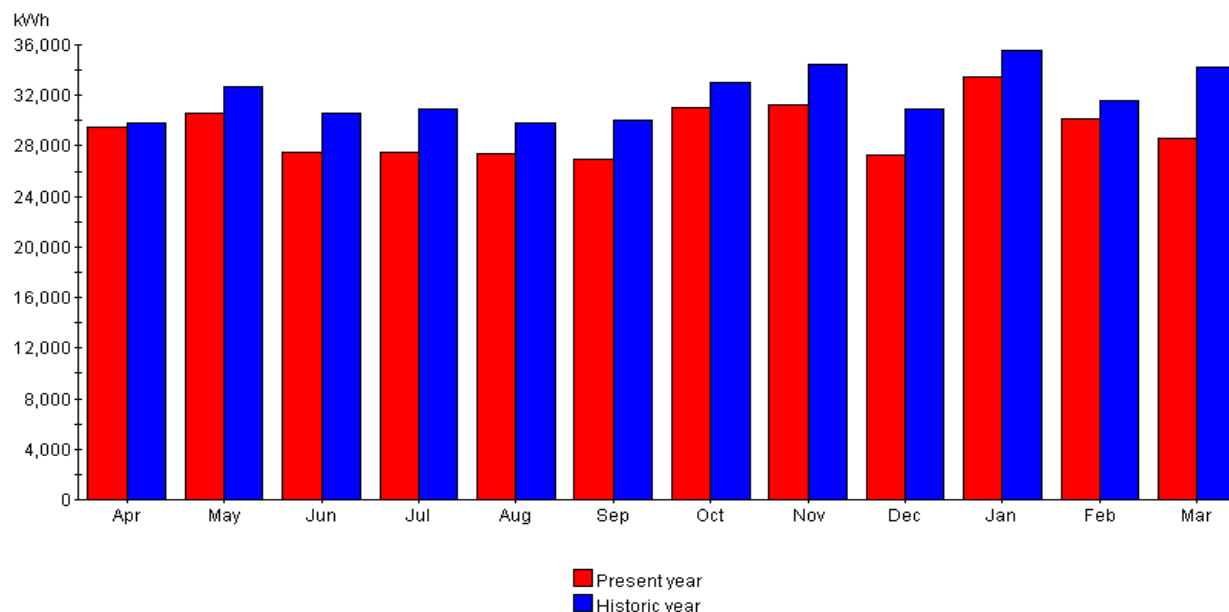
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Green Teams – Success Story!

Year on Year Consumption Report Ty Elwyn - Electricity

Present Year : Apr 2007 - Mar 2008

Historic Year : Apr 2006 - Mar 2007



- Electricity at Ty Elwyn has fallen by **8.39%** since the introduction of the power down devices. This has saved 32,000 kWh which is equivalent to 13.75 tonnes of CO₂.

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Reducing CO₂ emissions in the Council's housing stock

THE CARMARTHENSIRE HOMES
STANDARD – IMPROVING THE QUALITY
OF OUR HOMES AND ENVIRONMENT
AND PROMOTING SUSTAINABLE
COMMUNITIES



"Sustainable Development provides a framework for redefining progress and redirecting our economies to enable all people to meet their basic needs and improve their quality of life while ensuring that the natural systems, resources and diversity upon which we depend are maintained and enhanced for our benefit and for that of generations."

Cynnal Cymru: The Sustainable Development Forum for Wales.

£230 million scheme

Long term impact on health to be measured

Carbon reduction measures include loft & cavity wall insulation, replacement windows and energy efficient boilers.

Average savings to tenants of some £400 off their annual energy bills.

Whole Council housing stock carbon emissions:

2007/08 – 45,116 tonnes

2008/09 – 41,539 tonnes

2009/10 - 39,900 tonnes (target)

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Reducing CO₂ emissions in the county's private housing stock

To-date, some 1,000 cavities and 800 lofts insulated.



6,400 tonnes CO₂/year will be saved through cavity wall insulation, and 480 tonnes CO₂/year through loft insulation. This will increase significantly as scheme rolled-out to the rest of the housing stock.

Pilot scheme to install air source heat pumps for customers who do not have access to mains gas. The first of these has recently been fitted in a home in Cross Hands. Savings can be considerable – as much as £800+ per year.

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Reducing fuel consumption in vehicles

- Fleet mileage

2008/09: 7.2 million miles
5,475 tonnes CO₂

- General business mileage

2008/9: 5.8 million miles
2,300 tonnes CO₂

Reducing waste and increasing recycling

- 2004/05 – 24%
- 2009/10 – 42%



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Fairtrade and Local Purchasing

- Carmarthenshire recently awarded Fairtrade county status
 - Schools projects
 - Council buildings and facilities
- Local purchasing (Platinum Corporate Health Standard)
 - Reducing air miles
 - supporting local employment
 - Fresh produce / healthy eating

WHERE NEXT?

- **LSB led Community based campaign**
 - What are the key messages for each target audience?
 - How do we best get the message across?
 - What do we expect to achieve and how can we measure / gauge it?
 - ***Byw Sir Gar*** – harnessing the enthusiasm of communities – Ferryside pilot

WHERE NEXT?

- **Carbon Reduction Commitments and a 3% reduction in emissions per annum**
 - What actions are required to meet the 3% reduction
 - More Projects (e.g. insulation, heating controls, double glazing, new boilers, etc. etc.) – what are the costs and savings?
 - Culture – what more can the Green Teams do to encourage behaviours which reduce consumption?
 - More ambitious ideas? e.g. Agile Working – reducing the number of workstations – and the floorspace required

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WHERE NEXT?

- **Self generation**

- Partnership for Renewables – developing small scale wind power on council owned land
- New build – good design (re insulation, natural light, heat gain etc.) and more use of ground source heat pumps, wind and PV cells?

- **Vehicle Usage**

- 10% reduction target for business miles this year
- What else?

Our strategy (2)

- Two key ingredients
 - Concentrating on the biggest users / areas with greatest potential (the 80:20 rule)
 - Changing behaviours – a key role for the 'Green Teams'