

# Appendix 1

## **CCBC Energy & Carbon Report - *Summary report on initiatives to date.***

The aim of this short report is to pull together in one place, all the work that the Authority has done, or is doing on energy and climate change issues. This can then be used as a basis for identifying and prioritising the work that the Council would like to do going forward..

The report is structured to identify what we have done to date, and is divided into:

- Corporate Energy Projects – Co-ordinated by Corporate Energy & Water Team
- Housing Projects – Co-ordinated by Housing and WHQS Teams
- Community/Climate Change/Other/Co-ordinated by the Policy Team ( previously the SD & Living Environment Team)

## **Section 1: What have we done to date?**

### **Corporate Energy Projects – Co-ordinated by Corporate Energy & Water Team**

#### **WHERE HAVE WE COME FROM?**

Prior to 2005 energy management within the authority lacked strategy, direction and accountability. There were many gaps in data, processes and application of energy management:

#### **Carbon Strategy**

There was no formal and agreed Carbon Reduction Strategy in place.

#### **Investment**

The invest to save scheme was established in 2004 using Salix and Caerphilly Funding.

#### **Strategic Indicator**

There was little by way of formal reporting to the Sustainable Development Advisory Panel.

There was no central record of total authority energy consumption (kWh) or costs and there was little reliable data for individual buildings due bills being issued directly

from the supplier to the individual building. This impacted on benchmarking for buildings.

There was no formal energy awareness training taking place.

There were no energy audits available for the majority of authority buildings, therefore no reference to the potential for energy saving. Building managers did not have the data required to take objectives decisions.

### **Billing**

Payment of energy bills was delegated to the building manager/head teacher resulting in poor control of payments. One school paid a credit note statement thinking it was a bill.

Individual building managers and head teachers entered into stand alone energy contracts which were not always the best available at the time. Some sites entered long-term contracts and some buildings were left on expensive out of contract tariffs for extended periods of time. One leisure centre had no formal gas supplier for eight years.

## **WHERE ARE WE NOW?**

### **Invest To Save.**

We are recognised as one of the leading participants within the UK's Salix Invest To Save scheme and we regularly perform well on various KPI's. We are Wales's top authority in carbon emissions saved in the Salix scheme, and figure highly in the national league tables.

To date we have spent £2.2M to reduce energy consumption in our buildings through invest to save and have achieved an annual energy cost saving of over £525k. In doing this we have reduced our annual carbon footprint by over 3,101 tonnes to date, of which 1,355 tonnes has been registered since the start of the carbon reduction strategy in 2009. Furthermore our carbon tax payments have been reduced considerably.

The £2.2m was spent installing as much insulation as possible in e.g. schools as well as other buildings. Other technologies include; Street Lighting control, plant room insulation; energy efficient LED lighting and controls; utilising variable speed drives on pumps; installing building energy management systems to improve heating and cooling control; installing Voltage Optimisation units and heat recovery units amongst other technologies.

Over 266 projects have been installed across authority buildings, 120 of these in schools.

We are the best performing authority in Wales and figure highly in national league tables.

## **Strategic Indicators**

After the establishment of the carbon reduction strategy and carbon management group, we now report carbon performance annually. Adjusted baseline emissions were 24,238 tonnes on 07/08 falling to approximately 16,907 (before weather correction) in 17/18. An overall reduction of circa 30%, at this point in time.

We now have one of the most comprehensive Fynnon scorecards and dashboards in the authority, supported by pinpoint reporting for individual buildings energy consumption, cost and carbon data.

We have up to date building energy benchmarks for key building types and detailed energy audits for all key buildings.

Education finance will be issued with annual energy reporting to improved accuracy it brings to their reports.

There is a statutory requirement to report carbon emissions and purchase carbon credits accurately to the environment agency under a scheme called Carbon Reduction Commitment. 2017/18 emissions were 19,063 tonnes and cost £338k.

Further legislative requirements include the generation of Display Energy Certificates and Energy Air Conditioning inspection reports.

## **Billing.**

Central collection of bills and extraction of data is fundamental to monitoring and reporting. The Energy Team now receives all electricity and gas invoices for all sites on the Crown Commercial Services Contract. We check each invoice for accuracy and pay them, with a reported administrative savings of £8 -10 per invoice. We paid circa £3.6 million in 17/18.

We are the central point of contact for suppliers and council officers. We ensure all sites are on appropriate contracts and arrange all connections and disconnections of supplies.

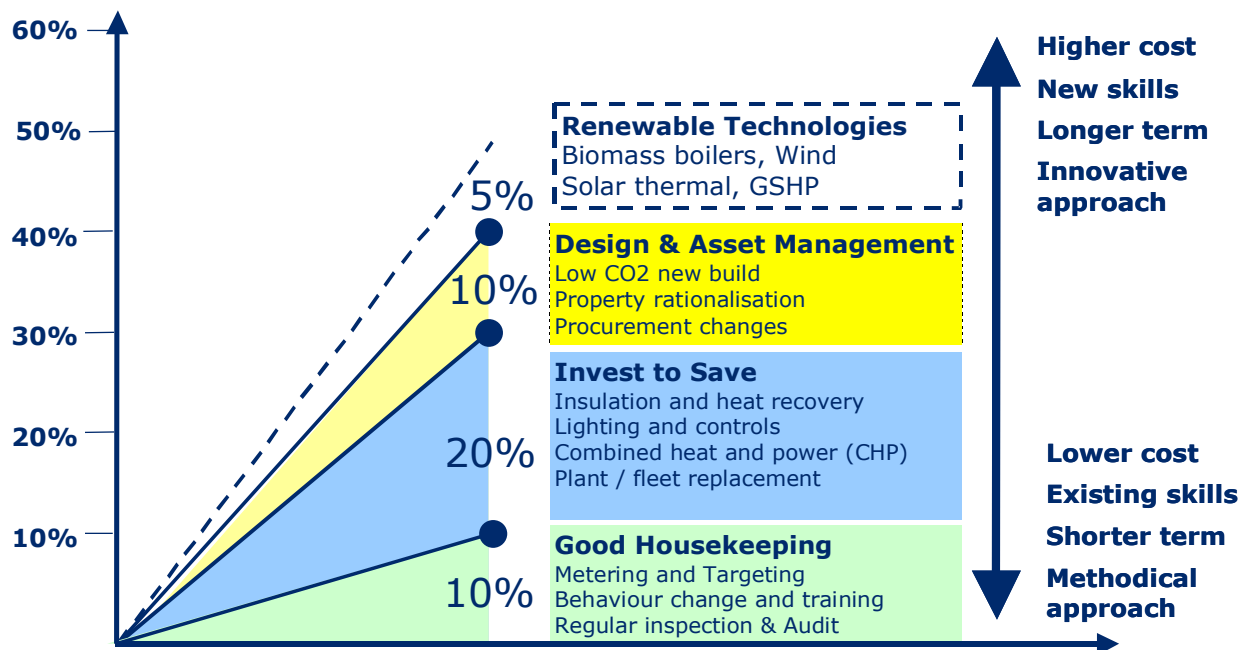
We are currently dealing with major supplier billing issues with EDF Energy and British Gas on behalf of the authority.

In 18/19 we started to receive and centrally pay some electronic water invoices for non domestic buildings, the intention being that most non domestic buildings will be billed this way by the end of the first year.

## **Carbon Strategy**

In 2009 the authority approved an ambitious aspirational Carbon Reduction Strategy. Caerphilly's target is to reduce its carbon emissions (buildings and street lighting) by 45% of the 07/08 emissions levels resulting in carbon emissions falling by 10,907

tonnes. This is a 10 year strategy that expires in 2019. The strategy focuses on four key areas and is summarised thus:



## Housing Projects – Co-ordinated by Housing and WHQS Teams

In 1997, to comply with the Home Energy Conservation Act (HECA), the Council prepared a report outlining how it aimed to improve the energy efficiency of the housing stock to all tenures by 30% within the ensuing 10 years. Whilst currently HECA still applies in England, the Welsh Assembly Government revised the original target of 30% by 2007 to 12% as set out in its policy agreement targets.

At the end of 2006/07 this Authority's progress to date was 12.01% and the Policy agreement target of 12% had been met.

The use of the Home Energy Efficiency Scheme (HEES) played a significant role in improving the energy efficiency of homes within Caerphilly CBC. Since 2003 - 3,645 households had improvements carried out at an estimated cost of £3,237,408. In addition to the HEES scheme over 2500 households had energy efficiency measures carried out via the energy suppliers Energy Efficiency Commitment Scheme (EEC).

## **What has been carried out within the last 5 years**

### **Strategic Energy Performance Investment Programme (Arbed)**

This programme was introduced by the Welsh Government in 2009 to bring social, environmental and economical benefits to Wales and co-ordinate investment into the energy performance of Welsh Homes. This scheme is more commonly known as ARBED which means 'Save'.

The Council was successful with a bid for an Arbed project at Fochriw. This project now completed was project managed by Melin Homes. Some 300 plus private sector and 58 council properties benefited from a mixture of measures made up from External Wall Insulation, Gas condensing boilers, voltage optimisers and positive input ventilation. The estimated value of the works is in the region of £2.5 - 3 million and was funded by the Welsh Government.

A further successful bid was submitted for upgrading the energy efficiency of 115 private dwellings at Hollybush. This entailed installing a gas main into the village and residents receiving a gas central heating installation with condensing boilers and up to date controls.

### **The Community Energy Saving Programme (CESP)**

CESP is a central government initiative that required gas and electricity suppliers to deliver energy saving measures to domestic customers in low-income areas. CESP has been designed to promote a 'whole house' approach to improving the energy efficiency of homes.

There are several CESP projects that have been undertaken within the county borough over the last 5 years. A synopsis of each scheme is as follows:-

#### **British Gas CESP Scheme:**

The council entered into an agreement with British Gas to improve the energy efficiency of council properties at Markham and Panside. The approximate value of the works is £1 million. (CCBC £600,000 & British Gas £400,000)

#### **Markham**

58 properties received external wall insulation, there were also 31 condensing boilers installed at these properties.

#### **Panside**

79 properties received external wall insulation, 18 condensing boilers were installed at these properties.

#### **SSE (Swalec) CESP Scheme**

An agreement was entered into with SSE (Swalec) to improve the council properties within the following lower super output areas. The measures carried out and programmed were:-

i        **Porset/Lansbury Park**

126 properties (wimpy no-fines) received external wall insulation; there were 1 condensing boiler/heating renewal and 45 loft insulation upgrades.

ii       **Rhymney**

168 properties received external wall insulation (Tanybryn/Maerdy View), there are also 95 condensing boiler/heating renewals and 6 loft insulation upgrades.

iii      **Gilfach**

155 properties (wimpy no-fines) received external wall insulation, there are also 6 condensing boiler/heating renewals and 120 loft insulation upgrades.

iv       **Fochriw**

96 properties (wimpy no-fines) received external wall insulation; there are also 45 condensing boiler/heating renewals and 70 loft insulation upgrades.

v        **Cefn Hengoed**

42 properties programmed to receive boiler/heating renewals and 70 loft insulation upgrades.

The estimated value of the work was £4.4 million. (SSE £3.1million & CCBC £1.3 million).

**Community Energy Saving Programme - Blackwood (SERS / British Gas)**

22 Council properties at Morrison Street and 12 properties at Attlee Road received external wall insulation. This work was funded by British Gas and carried out by SERS at a cost of £1.00 CCBC contributed £7,888 for additional work.

Estimated cost of EWI works £240,000

In addition to the above schemes there have been a number of private housing CESP projects carried out. These projects are at:-

**Brithdir & Trethomas**

SERS a local specialist external wall insulation company undertook a CESP project to private householders within Brithdir and Trethomas. Approximately 350 properties have received external wall insulation as part of this project.

**Cefn Hengoed**

EDF energy targeted the private homes within the Cefn Hengoed area. It is understood that at least 100 private sector properties received external wall insulation which included some 38 condensing boiler renewals.

### **Bryn Carno Rhymney.**

29 Private properties at Bryn Carno is receiving external wall insulation at Bryn Carno. These works were project managed by UWHA and being funded by the Welsh Government and an Energy company.

### **Energy Company Obligation – (SERS / Scottish Power)**

334 Wimpy no-fines flats in the areas below received external wall insulation. This work was funded by Scottish Power and carried out by SERS at a cost of £1.00 CCBC anticipated contribution is £41,500 for additional work.

Gelligaer = 180 flats complete 8 omitted due to 31 March deadline.

Porset Park = 40 flats complete

Pontlloftyn = 86 flats complete 8 omitted due to 31 March deadline.

Gilfach = 28 flats complete 8 omitted due to 31 March deadline

Estimated cost of EWI works £1,480,000

### **Cyd Cymru**

Cyd Cymru – is a collective energy switching scheme developed to offer people in Wales an opportunity to save money by coming together to buy fuel “in bulk”.

The scheme has been developed by Cardiff Council and the Vale of Glamorgan Council, with support from the Welsh Government’s “Regional Collaboration Fund”. Cyd Cymru was developed in the Autumn of 2013.

Caerphilly CBC signed up to the CYD Cymru Charter in January 2015 and became active in promoting the scheme just before CYD CYmru commenced with its 3<sup>rd</sup> switch. Following the successful completion of Switch 3 of Cyd Cymru can reveal the final results for numbers switching and savings made. Over 5,600 households registered for the scheme with just over 2,000 households switching (36% conversion rate). The average saving per household was just over £250 per annum resulting in savings across Wales of over £525,000.

## **Community/Climate Change/Other/ Co-ordinated by the Policy Team (previously the SD & Living Environment Team)**

### **Sustainable Development**

The Council has had a long commitment to sustainable development and to reducing its resource consumption. It approved its first sustainable development policy in 1997, and has built on this foundation. In 2008 the **Sustainable Development Strategy, *Living Better, Using Less***, was published. It sets out the approach that the Authority is taking to sustainable development and our vision for a sustainable county borough. It sets out our strategy for tackling the issues and explains how we will manage and monitor the process and how we will report on progress

Information on sustainable development and the work of the Team can be found at:  
<http://your.caerphilly.gov.uk/sustainablecaerphilly/content/welcome>



### **Future Generations Advisory Panel (Formerly the Sustainable Development Advisory Panel)**

The Sustainable Development Advisory Panel (SDAP) was set up in February 2002. In June 2016 it became the Future Generations Advisory Panel (FGAP), to reflect the new requirements of the Well-being of Future Generations (Wales) Act. It consists of 11 elected members across all political parties. It is currently chaired by the Deputy Leader and Cabinet Member for Economy, Infrastructure, Sustainability & Wellbeing of Future Generations. FGAP has a remit to look at any aspect of sustainable development within the Council, or within the wider County Borough, and makes recommendations direct to Cabinet.

### **Welsh Declaration on Climate Change.**

In April 2006, Caerphilly County Borough Council signed the Welsh Declaration on Climate Change.

### **Climate Change Challenge Week**

CCBC held a climate change challenge week held during March 2007 to raise awareness of the potential impact of climate change and encourage individuals to make a difference. Achievements during the week included:

- 4,051 pledges undertaken,
- 99 people attended workshops,
- 60 people received personal travel plans from SEWTA,
- 90 people attended the free viewings of the Al Gore film 'An Inconvenient Truth'.

### **Corporate Improvement Objectives**

In the Corporate Improvement Plan 2005 – 2008, one of the Council's 12 key objectives was "**To improve the sustainability of Council operations**". Progress on this was measured against 5 aims, which included – “To reduce our contribution to global warming and climate change” – measured by “Reduce the tonnes of CO<sub>2</sub> emissions in Council buildings”. Reducing Carbon emissions has remained a corporate priority since then.

### **Sustainable Development Charter**

In July 2011 Caerphilly County Borough Council signed the Welsh Government's Sustainable Development Charter. The aim of the Charter is to contribute to making Wales a sustainable nation by encouraging organisations to work with the Welsh Government to deliver sustainable development objectives.

By signing the charter, we committed to make sustainable development our central guiding principle, and to promote and deliver wellbeing through our decisions and operations.

## **ICT Services**

The Policy Team and Energy Management Team work closely with ICT Services on projects to reduce carbon emissions. ICT currently represents about 2% of CCBC's total CO<sub>2</sub> emissions. Within that 2%, 39% can be attributed to PCs and monitors, 23% to servers and cooling, 15% to fixed-line telecom, 9% to mobile telecom, 7% to LAN and office telecom, and 6% to printers.

The Authority took a decision to replace all CRT monitors with Flat Panel Monitors and energy efficient PCs. This process was completed for corporate buildings in 2012 and dramatically reduced power consumption with LCD display using about 60% less electricity than CRTs.

The deployment of multi function printers (MPF's) to consolidate local printers, scanners and fax machines onto single devices began in 2008. 270 MFP's have been deployed to replace approximately 1,300 individual devices.

In December 2009, power management was introduced on all PCs and laptops.

The Authority is moving from PCs to IGel thin clients, where applicable, to reduce the support costs and also the power consumption. With this technology the devices run on approximately 12 watts of electricity rather than the 50-60 watts used by a standard PC.

## **Caerphilly Solar Schools Project**

The Caerphilly Solar Schools project was developed in 2009, delivered by the Policy Team (previously the Sustainable Development Team) and has run over 5 project phases. To date 4Kw solar PV installations have been installed on 45 schools in the Caerphilly county borough. In total £361,311 external funding has been secured to support the programme along with £100K from the Carbon Reduction Budget.

Each system has an estimated electricity generation of 3,196Kwh per school per year, estimated electricity saving of £415 per year and an estimated CO<sub>2</sub> saving of 1.9 tonnes per school per year.

Overall, for the 45 systems, this gives an estimated energy generation of 143,820Kwh per year, estimated electricity saving of £18,675 per year and estimated CO<sub>2</sub> saving of 85.5 tonnes per year.

As part of the programme a Caerphilly Solar Schools Resource pack was developed, to support schools incorporating renewable energy and energy efficiency into the

curriculum. The pack contains primary and secondary lesson plans, examples of audits and action plans and advice on energy efficiency. It has been distributed to every school in the Caerphilly county borough, with extra resources (solar PV kits) available for schools to borrow.

### **Active Travel Work**

As part of the authority's carbon reduction and active travel work, the Policy Team has established a pool bike scheme for staff, to encourage them to commute to work by bike and support the health and well-being agenda. There are currently 16 pool bikes available for staff to use based at Penallta House and Tir-Y-Berth depot.

### **Eco Schools**

Every school in the county borough is an Eco School. At present, 88% of our schools have achieved their green flag award, with 43% achieving the prestigious Platinum award (4<sup>th</sup> green flag award and highest award). The remaining 12% of schools are working towards their green flag award, with 10% having achieved the silver award and 2% the bronze award.

The Policy Team runs Eco School training covering all 8 Eco School topic areas, for teachers, Eco Coordinators and support staff.

A specific session focussed on Energy & Water. The aim was to run short sharp sessions (2hrs max) providing the attendees with the information to go away and start making a difference.

The sessions covered the following:

- Importance of topic area and reasons to take action
- Ideas for actions/projects
- No cost/ low cost/ higher cost actions
- Curriculum links and links to Literacy & Numeracy Framework
- Ideas to monitor and evaluate actions
- Benefits to the school and wider community
- Other alternatives (e.g. renewable technology)
- Links with other schemes (Healthy Schools, Fairtrade Schools etc.)

The sessions supported a variety of schools and helped them move forward on their Eco Schools award programme.

### **Wind Turbines at Oakdale Business Park**

A partnership project between CCBC, led by Economic Development, and Partnership for Renewable successfully installed 2 wind turbines on Oakdale Business Park. Planning permission was granted in 2011. Each turbine has a

generating capacity of 2 Megawatts, capable of powering 2,000 homes. As part of the project a Community Benefit scheme was established this will provide £10,000 to local projects each year of the 25 year lifetime of the scheme.

### **Renewable energy baseline for the county borough**

The Policy Team in partnership with the Strategic & Development Plan Team undertook a Renewable Energy Baseline Assessment (REBA) for the county borough to inform the preparation of the Draft Renewable Energy Assessment for Caerphilly County Borough. The REBA was carried out in accordance with the guidance contained in “Planning for Renewable and Low Carbon Energy – A Toolkit for Planners” which was published by the Welsh Government in July 2010.

The study was undertaken to inform discussions on whether or not a countywide renewable energy target or site specific provision would be appropriate in any future review of the Local Development Plan (LDP).

The report provides a series of recommendations to facilitate the development of suitable forms of renewable and low carbon energy in order to move towards a low carbon economy and thus help to tackle the causes of climate change.

### **Hollybush Sustainable Energy Study**

Heads of the Valleys funding was secured to undertake a study into energy issues for Hollybush. With 120 properties, the village was the largest in the county borough that is not connected to the gas network. The majority of properties are pre 1920 solid wall terraced properties. The study included door to door surveys collecting data on energy use, fuel type, income etc on which to base findings and recommendations.

Hollybush was one of the two successful areas in the county borough under Arbed II funding. The project involved extending the existing gas mains network to the village and to installing gas central heating to each property. Work was completed in 2014 to install full gas central heating systems for residents.

## **RDP SUSTAINABLE ENERGY PROGRAMME**

In 2011 two RDP Sustainable Energy Officers were appointed under axis 4 of the plan, which ran until the end of December 2014. The officers were based in the SD & LE Team. The main aim of their project was to engage with farm households and rural businesses to reduce energy use and promote the uptake of renewable energy. Energy costs are rising and energy security is an increasing issue.

There are approximately 320 farms in the RDP eligible wards in the County Borough; many of these are primarily hill farms. The majority of the farmhouses were built before 1900, and are considered “hard to treat” being of solid wall construction. Around 96% are off the mains gas grid, and over half of farmers believe that they spend more than 10% of their income on fuel bills.

The help provided to eligible farms & businesses was in a 3 tiered system of support:

- Level 1: Information and advice
  - Telephone and email advice on energy efficiency and renewable energy
  - Information on grants/loans, signposting to external organisations
  - Desktop solar power assessments
  - Factsheets – covering the different renewable energy technologies, including biomass, heat pumps, microhydro, solar photovoltaic, solar thermal and wind.
- Level 2. Surveys and support
- Level 3. Exemplar projects

### **Hydro Viability Overview in Caerphilly County Borough**

Established with the aim of developing micro hydro schemes within the county borough, a partnership project was established with Carbon Trust Wales.

Consultants were appointed to complete a hydro viability study and overview of the opportunities for hydroelectric generation from high head and low head systems within the county borough.

Under phase 1 of the study a high level screening study of the area was undertaken to assess the viability for low and high head hydro developments. The consultant carried out a desk based high-level assessment of all appropriate rivers and streams in the Caerphilly Borough area for hydro energy development potential. Phase 1 of the project initially identified 11 medium to high head sites and 13 low head sites.

Following further screening 5 priority sites were shortlisted for preliminary feasibility studies (initial assessments), which included head, flow rate etc and assessment of potential generation capacity.

A preliminary system design and specification for appropriate type and scale of technology was produced for 3 schemes, along with a financial appraisal of the hydro development. Advice on any planning and environmental issues associated with the development was also produced, coupled with an assessment of any existing electrical usage and infrastructure.

Business cases were prepared for each of these schemes. A scheme at Gibbs weir, on the Sirhowy was progressed to detailed feasibility but was withdrawn due to the number of risks involved in the development of the scheme. This weir has

subsequently been removed by NRW to allow salmon to navigate further up the Sirhowy. Projects at Nant y Twyn and Nant Twynyrharris schemes were not taken forward by the landowners.

### **Maes Yr Onn - Off Grid Living exemplar**

In late 2011 Caerphilly County Borough Council's RDP Sustainable Energy Team put together a partnership with the Building Research Establishment (BRE) and SSE to design and deliver a modern farmhouse and family home for the Davies family who had secured planning permission to build near Manmoel.

The site had no access to mains electricity, water, gas or sewerage services.

The solution included designing the property to minimise heat loss from every part of the building fabric, so the envelope of the building was designed as a super-insulated home. SSE's Contracting division installed all the power, heating and water supply technologies. These included:

- a 20kW biomass boiler
- a 3.9kW solar photovoltaic array linked to a battery system with a small diesel generator as backup, and
- rainwater-harvesting technology with a 5500 litre tank located in the basement plant room.

Living off grid means that the family needs to be constantly aware of their consumption to ensure that there is no wasteful use of lights and appliances. Over the past two years, Constructing Excellence in Wales and the Wales School of Architecture, at Cardiff University, have been monitoring the family's use of the various renewable energy technologies and the overall energy and water consumption.

The project has been hailed as an exemplar in sustainable low carbon living, and has won several high profile accolades including the top prize at the Royal Town Planning Institute Wales awards. In June 2014 the project was visited by one of the most senior UK representatives in the European Union, Shan Morgan, UK Deputy Permanent Representative to the EU. She was very impressed with the project and in particular was interested in how the technology could be replicated in properties both on and off the grid to encourage people to change their behaviour and use energy and water more sustainably.

## **CLIMATE CHANGE ADAPTATION**

During 2011 the Authority started the process of developing a Climate Change Adaptation Plan. The SD & LE Team engaged with a broad range of Council Service Areas to begin the process.

Part 1 involved the development of a Local Climate Impacts Profile (LCLIP). A database of extreme weather events between 2003 and 2013 was collated by reviewing local media reports.

Meetings were undertaken with 43 senior officers covering each of the 18 Service within the Authority. One hundred and twenty eight impacts were identified, of which 33 were rated as a high priority for further assessment.

The study made a total of 14 recommendations, divided into two areas:

- Existing work and reviews where consideration of climate change adaptation issues should be included. This includes 5 recommendations under 3 headings:
  - Strategies and Plans
  - Review of policies and procedures
  - Financial considerations
- Specific additional work on climate adaptation issues. This includes 9 service specific recommendations

## **LIVING ENVIRONMENT PARTNERSHIP / GREENER CAERPHILLY**

The Policy Team supported and co-ordinated the work of Greener Caerphilly, previously the Living Environment Partnership, on environmental issues, including climate change, in the county borough.

The Team now supports the Public Services Board, Well-being Plan Action Area “To protect and enhance the local natural environment”

**Well-being Action Area - To protect and enhance the local natural environment**  
This is one of the 5 themes of the Well-being Plan. It was agreed as a priority based on the findings from the Caerphilly Well-being Assessment. It includes 3 priority areas of activity:

- Protect, enhance and promote our natural environment, including encouraging and supporting community involvement

- Identify and remove the barriers to people accessing green spaces
- Increase the contribution that the environment makes to the health and well-being of residents

### **Caerphilly Climate Change Strategy**

The Living Environment Partnership played a lead role in co-ordinating a partnership approach to tackling climate change. The Partnership's Climate Change Working Group developed the Climate Change Strategy for the county borough, which was formally launched at the Standing Conference in November 2009. Since then work has been ongoing to raise awareness of the issues and to develop projects in response to the issues.

### **Climate Change Commitment**

A Climate Change Commitment was developed as an innovative way of engaging with individuals, organisations and businesses to enable them to reduce their greenhouse gas emissions and take simple steps to save energy, reduce the amount of fossil fuels used, and lower the climate change impacts of everyday activities.

The pledges had 3 levels. Level 1 activities were simple changes in behaviour such as switching appliances off rather than leaving them on standby. These small steps only require simple changes that little or no financial investment. Level 2 pledges include using public transport more often or improving the insulation in a house. These actions require more effort and may include some financial investment. Level 3 actions which include installing renewable energy generation equipment or having UK only holidays require more commitment and investment.

Over the 3 years that the commitment was promoted 5,635 residents made a commitment to combat climate change.

### **Climate Change Woodlands**

The Climate Change Woodlands concept was developed as a public engagement tool. It linked with the Climate Change Commitment scheme, and enabled signatories to make a pledge to do their bit to tackle climate change and plant a tree as a long-lasting and publicly-visible sign of that commitment and to help absorb carbon dioxide and reduce their local contribution to global climate change.

In total 12 Climate Change Woodlands have been planted across the county borough.

### **Electric Vehicles and Charging Infrastructure**

The Policy Team are leading on the authorities electric vehicle work. To date the following has been achieved.



In September 2018 the CCBC Electric Vehicle Strategy and Action Plan was approved by Cabinet. The strategy sets out the proposed approach to supporting the installation of electric vehicle infrastructure to maximise the economic, social and environmental benefits and opportunities that electric vehicles provide, and for electric vehicles to be a fundamental part of the council's own fleet.

As part of the work to deliver the Strategy Action Plan, the Caerphilly Policy Team are leading on a Gwent Regional Electric Vehicle Charge Point Feasibility Study to identify sites suitable for EV charging across the Gwent region, linking to the OLEV On Street Residential Charge Point Fund and the OLEV Workplace Fund. The study involves all 5 Gwent local authorities and the 4 PSB Partners (ABUHB, SWFRS, Gwent Police and Natural Resources Wales).

The Caerphilly Policy Team are also leading on the Gwent Regional Fleet Review, involving all 5 local authority partners and 3 PSB Partners (ABUHB, SWFRS and Gwent Police). £75K funding has been secured from the Welsh Government Decarbonisation Team to deliver this project.

The project aims of the Gwent Regional Fleet Review are to:

- Undertake individual and a strategic overview fleet reviews for each eight Gwent Local Authorities and PSB Partner, breaking down current vehicle usage and quantify the benefits and any potential issues of introducing ultra-low emission vehicles (ULEV's) into their fleet (i.e. identifying opportunities for replacing existing fleet with more efficient ULEVs)
- Undertake a grey fleet review to identify the potential savings by introducing ULEV pool cars/ vans into the fleet.
- Contribute to cleaner air for communities in Gwent
- Combine with the EV Feasibility infrastructure review, to encourage ULEV visibility to help nudge communities to transition to a cleaner mobility environment.

In 2017 the Policy Team installed 6 electric vehicle slow charge units at Penallta House and 5 slow charge units at Tir-Y-Berth Depot. These are designed as slow overnight charge points and were required to allow different services to trial electric vehicles. These charge points were also designed and installed to support the electrification of the Meals Direct Fleet, which was initially planned for 2017.

In August 2018 the Policy Team worked with Facilities to install a fast charge unit, dedicated for fleet vehicles at Penallta House. The fast charge unit is currently used by the Leader of the authority, for the hybrid vehicle.

Several types of electric vehicles have been trialled over the past two years by various services and individual users, all of which have been successful.

The Gwent Regional work is linking with Cardiff Capital Region City Deal (CCRCD). The Gwent Region is leading the way on this area of work, but they are sharing their resources with the CCRCD to help them catch up. We are looking to hold a regional Electric Vehicle dissemination and 'have a go' event towards the end of May to give potential users, including taxi's, businesses etc. the opportunity to try an electric vehicle.

The Policy Team and Procurement Team are working with Tusker, the CCBC Car Salary Sacrifice Scheme to promote electric vehicles to staff. As part of this work Tusker are offering free home charging units in May/ June 2019 for employees who purchase an electric vehicle during those two months. They are also looking into providing a demo vehicle for CCBC staff to use to try before they buy. We are waiting for more information on this.

The Policy Team have also taken delivery of an electric bike to support staff commuting sustainably and possible over longer distances. The bike also gives staff a chance to try before they buy as part of our sustainability and well-being for future generations agenda.

## **Section 2: What are we currently doing?**

### **Corporate Energy Projects – Co-ordinated by Corporate Energy & Water Team**

See section above

### **Housing Projects – Co-ordinated by Housing and WHQS Teams**

#### **Arbed scheme at Phillipstown.**

This is the third successful Arbed project that Caerphilly has been successful with a bid. Currently works are on site undertaking external wall insulation and voltage

optimisers to approximately 400 Private & Council properties at Phillipstown at an estimated cost of £2.5 million.

### **Energy Company Obligation (ECO)**

Framework agreement in place to undertake external wall insulation and loft insulation within specific lower super output areas, although CCBC will contribute funding to the scheme the cost of the works will be subsidised via the carbon savings generated. This framework has 2 energy suppliers Eon (rank 1) and SSE (rank 2). This agreement is in place until end of March 2017.

### **What works are proposed**

2015 -16 Wimpy No-fines = 191 properties to receive external wall insulation. Properties with less than 200mm loft insulation will receive loft insulation upgrades.

Further investigations will be undertaken to evaluate if properties at Lansbury Park & Trecenydd Caerphilly would qualify for ECO funding and be programmed for 2015 /16 – 2017.

### **Welsh Government Warm Homes Project**

A bid has been submitted to the Welsh Government Warm Homes project to improve 178 (primarily private sector) homes within several LSOA areas that have not benefitted from previous schemes. The bid was submitted in June 2015 and it is anticipated that the Welsh Government will confirm the successful project bids in September 2015. The potential value of this bid is around £2.4 million and all works would need to be completed by end of March 2016.

### **Cyd Cymru**

Switch 4 registration opens on 7th September and promotional activities by Cyd Cymru are currently being considered.