

DEVON COUNTY COUNCIL ENERGY POLICY

“Devon County Council will

- reduce its demand for energy, improve energy efficiency and utilise renewable energy where appropriate in existing and new buildings;
- reduce the need for fleet, work and school related travel and minimise the environmental impact of that which is necessary”.

DCC Environmental Policy
May 2011

STATEMENT OF COMMITMENT

Devon County Council (the Authority) consumes significant amounts of energy in its operation of vehicles, buildings, equipment and facilities, and through its commissioned services.

It is committed to responsible energy management through continuous improvement of its energy performance in order to avoid unnecessary expenditure, reduce carbon emissions, protect the environment, and meet all relevant legislative and statutory reporting requirements.

It will promote and practise energy conservation, energy efficiency and the avoidance of energy waste and will invest in sustainable energy measures whenever and wherever it is cost-effective or otherwise expedient to do so.

SCOPE

This policy is applicable to energy consumption arising from all statutory and discretionary services provided by the Authority directly or through its contractors to the communities of Devon. The Authority will encourage schools to adopt the energy management principles laid out in this policy and will continue to address energy and carbon reduction in schools through the School Maintenance Budget.

KEY AIM AND TARGET

The Authority undertakes to provide reasonable resources to develop and implement an affordable energy strategy that minimises its energy costs and greenhouse gas emissions, and deploys renewable energy where appropriate.

The specific energy target for the Authority that reflects the agreed EU targets for 2030 (October 2014) and the UK's 4th Carbon Budget for 2025 (July 2014) is an annual reduction in energy consumption of at least 2% per annum (equivalent to at least 30% by 2030 over the baseline year of 2012/13) with a commitment to provide at least 30% of the remaining consumption from renewable sources by 2030/31. This total package will reduce carbon emissions by around 50%.

OBJECTIVES

The following policy objectives will deliver the required strategic approach to energy management:

- To purchase the most cost-effective and sustainable energy and fuels.
- To ensure that energy performance is a material consideration in the commissioning and procurement of goods and services where relevant.

- To implement a comprehensive energy performance management system in accordance with the principles of ISO 50001:2011 Energy Management Systems.
- Develop a mainstream energy management function to guide/support facilities' managers and staff in managing the energy consumption in properties.
- To continue implementing a programme of asset disposals.
- To use energy performance data to identify the most cost-effective opportunities for improving the energy efficiency of the residual estate and related assets.
- To develop a corporate renewable energy strategy.
- To ensure that all new and refurbished buildings meet appropriate energy efficiency standards by integrating whole life costing and energy management into all relevant decision making, and by working collaboratively with our partners.
- To use the most appropriate investment models and resources for cost-effective projects in support of our agreed target and objectives including taking advantage of energy-related financial incentives schemes where appropriate.
- To ensure awareness of and full compliance with all relevant energy-related regulations in a timely fashion, and to document and meet all formal requirements for energy and emissions reporting.
- To investigate, market-test and adopt where appropriate alternative delivery/funding/contracting models for energy performance, management and efficiency enhancements, and for deploying renewables.
- To promote vehicle energy efficiency and reduce fuel consumption through emphasis on efficient fuel use, operation and maintenance of fleet vehicles and the acquisition of alternatively powered vehicles.
- To implement a programme to improve the environmental performance of street lighting.
- To develop policies and practices to promote sustainable business travel and commuting.

ACCOUNTABILITY AND REVIEW

The Environmental Performance Board is responsible to the Corporate Leadership Team and the Community and Environmental Services Cabinet Member for ensuring that the objectives of this policy are met. It will review progress on a trimonthly basis and will publish an annual Environmental Performance Statement that will include an energy performance report. It will also regularly review and update this policy to ensure it remains consistent with and relevant to the Authority's vision and targets.

The Head of Business Strategy and Support is accountable for leading and reporting on the implementation of the energy policy on behalf of the Authority with responsibility for project delivery with the relevant Head of Service.

APPLICABILITY

It is fully recognised that everyone in the organisation should be responsible for their own actions with respect to energy conservation and efficiency. Accordingly staff and contractors are expected to support the Authority's objectives and to cooperate actively in achieving them. In order to facilitate this process, the policy will be documented and communicated to all tiers of the Authority's management structure and across all service areas. In addition, appropriate awareness-raising and training will be provided aimed at reducing energy consumption and improving energy efficiency.

ADOPTION

This energy policy was adopted by Cabinet in October 2015.

“Cash, Kilowatts and Carbon”

An Energy Strategy for Devon County Council

1. Purpose

The purpose of this document is to outline the Authority’s energy strategy to deliver its energy policy targets and objectives.

2. Global Context

Following the latest assessment by Intergovernmental Panel on Climate Change it is clear that *“business as usual”* will raise global temperatures by 3°C to 5°C by 2100. This is generally considered to be a costly and catastrophic outcome. In order to stay below the 2°C threshold for dangerous climate change, an immediate and rapid shift away from fossil fuels to low carbon strategies based on renewable energy sources is required.

3. Drivers for Change

In addition to the need for urgent action on climate change (the *“carbon”*), the following financial drivers for change (the *“cash”* and the *“kilowatts”*) are relevant:

- **Business change to deliver imposed austerity savings** – significant reduction in local authority funding has required business contraction, the disposal of assets and staff, and increased commissioning of services.
- **Rising energy prices** - over the past decade energy prices have risen significantly and this long term trend is likely to continue.
- **Income from renewable technologies** – the use of financial incentives for renewable electricity and heat generation providing attractive return on investments (ROIs) of 5% to 12% through guaranteed income streams for 20 years.

4. Vision

To be recognised by our staff, communities, partners and peers as a major contributor to a low carbon and climate resilient Devon.

5. Scope

The scope of the strategy encompasses the functions under the financial control of the Authority i.e. corporate estate, street lighting, vehicle fleet, business miles, passenger transport, the deployment of renewables, procurement and DCC commissioned services.

6. Baselines

The core baseline largely reflects the scope of the strategy but does not include procurement or commissioned services.

Year:	2012/13
Cash:	£15.6m energy spend
Kilowatts:	123 Gigawatt hours (GWh)
Carbon:	46,574 tonnes of CO ₂ equivalent (tCO ₂ e)

Separate baselines reflecting the energy associated with DCC's supply chain based on gross operating expenditure for 2014/15 and emission factors provided by Defra are estimated to be as follows:

Carbon: 425,979 tCO₂e (including Schools/Education & Children Services)
 268,945 tCO₂e (excluding Schools/Education & Children Services)

7. Methodology

The basic way of working is to measure, monitor and manage all DCC energy consumption in accordance with the principles of ISO 50001:2011 Energy Management Systems and develop opportunities for improvement by reference to the universal energy hierarchy – first reducing demand, then improving energy efficiency and finally installing renewables.

Procurement and commissioning processes need to have regard to minimising the embodied energy of goods and services.

8. The Strategy

To save “*cash, kilowatts and carbon*” by actively promoting, funding, and implementing cost effective measures/activities that deliver the Authority's energy policy targets and objectives in accordance with the energy management principles outlined above.

9. The Strategic Elements

- **Corporate Estate** - to implement the 2012 -17 Estates Strategy for asset disposal and achieve energy efficiency improvement in the remaining estate by 25% by the end of 2017/18.
- **Street Lighting** - to complete part-night lighting and lighting management system programmes, and to implement arterial route lighting and column upgrades.
- **Vehicle Fleet** – to acquire the most cost-effective low emissions vehicles.
- **Business Miles and Commuting** – to deliver fuel savings through continued business contraction and through the use of the most sustainable travel options.
- **Passenger Transport** – to deliver fuel savings by meeting the agreed business requirement with a reducing budget.
- **Renewables** – Consider viable opportunities and develop a strategy and action plan.
- **Procurement and Commissioned Services** – Provide support to all those engaged in the procurement of goods or commissioning of services on the energy issues to be considered within these processes.

“Cash, Kilowatts and Carbon”

An Action Plan for Devon County Council

1. Governance

The energy strategy is part of the Authority’s Corporate Change Programme where it is reported on by exception. Regular informal briefings are provided to the Cabinet Member for Community and Environmental Services; other Cabinet Members are consulted as necessary. In November 2014 Place Scrutiny Committee requested a formal reporting mechanism to its Members.

Strategic Action 1 – Member Engagement.

We will

- Continue to report progress to Cabinet through the Cabinet Member for Community and Environmental Services and provide formal reports at agreed intervals to Place Scrutiny Committee on the Energy Policy Task Group’s recommendations. Progress will also be recorded on SPAR.net.

Cost implications – nil [existing resource].

2. Present Position

The Carbon Trust Energy Management Matrix provides a high-level assessment of strengths and weaknesses of organisational energy management. An initial assessment indicates that the Authority is doing well on Energy Policy but has significant room for improvement on all other aspects - Organising, Training, Performance Measurement, Communication and Investment.

Carbon Trust Energy Management Matrix

Level	Energy Policy	Organising	Training	Performance Measurement	Communication	Investment
4	Energy Policy, Action Plan and regular reviews have active commitment of top management	Fully integrated into senior management structure with clear accountability for energy consumption	Appropriate and comprehensive staff training tailored to identified needs with evaluation	Comprehensive performance measurement against targets with effective management reporting	Extensive communication of energy issues within and outside the organisation	Resources routinely committed to energy efficiency in support of organisational objectives
3	Formal policy but no active commitment from top management	Clear line management accountability for consumption and responsibility for improvement	Energy training targeted at major users following training needs analysis	Weekly performance measurement for each process, unit or building	Regular staff briefings performance reporting and energy promotion	Same appraisal criteria used for energy efficiency as for other cost reduction projects
2	Un-adapted policy	Some delegation of responsibility but line management and authority unclear	Ad-hoc internal training for selected people as required	Monthly monitoring by fuel type	Some use of organisational communication mechanisms to promote energy efficiency	Low or medium cost measures considered if payback is short
1	An unwritten set of guidelines	Informal, mostly focused on energy supply	Technical staff occasionally attend specialist courses	Invoice checking only	Ad-hoc informal contacts used to promote energy efficiency	Only low cost or no cost measures taken
0	No explicit energy policy	No delegation of responsibility for managing energy	No energy related staff training	No measurement of energy costs or consumption	No communication of promotion of energy issues	No investment in improving energy efficiency
Score						

3. Performance Against Carbon Trust Objectives

- **Organising**

In order to undertake effective energy and carbon management the Head of Business Strategy and Support is accountable for leading and reporting on the implementation of the Energy Policy through a new Corporate Energy Manager post. Responsibility for project delivery is with relevant Heads of Service.

Strategic Action 2 – Organising.

We will

- Recruit a suitably qualified Corporate Energy Manager to establish a cost-effective corporate energy management function for the Authority and lead and report on the implementation of the Energy Policy on behalf of the Head of Business Strategy and Support.

Cost implications – new resource required for initial implementation of two-year, fixed-term post. It is intended that this will be recouped along with salary costs through identified energy savings and renewable energy deployment opportunities.

- **Training**

In order to create an organisational culture that values the importance of energy consumption in a business and environmental context, energy awareness training for staff at all levels is necessary.

Strategic Action 3 – Training.

We will

- Deliver and evaluate appropriate and comprehensive staff training tailored to identified needs for all staff in the organisation ranging from e-learning to bespoke workshops for colleagues with key roles e.g. facilities managers, cleaning staff, procurement officers, project managers.

Cost implications – basic e-learning package being implemented within existing resources by the Learning and Development Team.

- **Performance Measurement**

Effective energy management relies on the timely collection, analysis and communication of energy data and information for the purpose of detecting avoidable waste, quantifying saving, improving budget setting, undertaking benchmarking, calculating energy and carbon reduction targets, checking bills and negotiating tariffs. In large organisations this is achieved by deploying an Automatic Meter Reading (AMR) capability on all meters and feeding those reads together with billing data from suppliers to an Automatic Monitoring and Targeting (aM&T) system.

Strategic Action 4 – Performance Measurement.

We will

- Set energy performance indicators (EnPIs) appropriate to measuring and monitoring the energy performance of the organisation.
- Purchase and implement the LASER Energy Bureau Service as the preferred energy management data collection and performance measurement system to report on the agreed EnPIs.
- Complete the AMR roll out in the corporate estate and in schools that remain on the corporate energy contract.
- Provide site managers (including school business managers where appropriate) with access to LASER Energy Bureau Service.

Cost implications – New allocation required of £8.5k p.a. required – this will cover the number of corporate estate gas and electricity meters in the Energy Contract. This expenditure will lead to the identification of cost saving opportunities.

• **Communication**

The promotion of energy awareness and performance both inside and outside the organisation is required to gain and maintain momentum. Current communication is ad-hoc with no ongoing plan in place.

Strategic Action 5 - Communication.

We will

- Provide extensive communication on energy issues within and outside the organisation.
- Communicate the objectives of the Energy Policy to all tiers of the Authority's management structure and across all service areas.

Cost implications – nil [if existing communications resources used]

• **Investment**

It is clear that routinely committing in-house resources to energy efficiency in the present financial climate is unlikely. However, this should not prevent the identification of energy projects robust business cases. These opportunities should be considered alongside competing opportunities for investment from a variety of sources including DCC capital and revenue, joint ventures, the private sector and community shares.

Strategic Action 6 - Investment.

We will

- Use the most appropriate investment models and resources, including community investment, for cost-effective energy conservation/efficiency/generation projects in support of our agreed aims, objectives and targets.
- Undertake an options appraisal for a potential pilot programme of community energy investment in DCC assets.
- Quantify and report to Members the annual investment in energy projects separating out sums from existing budgets, new allocations and other sources e.g. communities.

Cost implications – New allocation(s) would be required if external opportunities were not forthcoming.

4. Performance Against the Additional Energy Policy Objectives

- **Regulatory compliance**

The task is to identify which energy-related regulations apply to the Authority and who has responsibility for regulatory compliance. In the present regimes this is likely to cover Energy Performance Certificates (EPCs) and Display Energy Certificates (DECs), incentive schemes like Feed in Tariffs (FITs) and Renewable Heat Incentive (RHI), Corporate Social Responsibility (CSR) reports and Greenhouse Gas (GHG) reporting as well as any transport and street lighting requirements.

Strategic Action 7 – Regulatory Compliance.

We will

- Ensure that we are continually aware of and fully comply with all the relevant energy-related regulations in a timely fashion by producing a legislation register.
- Take advantage of energy-related incentives schemes where it is appropriate and cost-effective to do so.
- Document and meet all formal requirements for environmental, energy and emissions reporting.

Cost implications – nil [existing resource almost regardless of cost].

- **Commissioning and Procurement**

The DCC Sustainable Procurement Matrix is used for procurements over £10k and requires that energy is a material consideration for the procurement process.

DCC's Impact Assessment Toolkit provides guidance for project managers and commissioners on minimising environmental effects of the authority's practices. This includes guidance on minimising greenhouse gas emissions.

DCC purchases energy through a collaborative contract with other public sector partners to achieve economies of scale. The contract is competitively tendered at least every 7 years. LASER will be the appointed supplier from April 2016.

New buildings aim to be designed to DEC B minimum and refurbishment projects over £250k require an energy audit so that the designers can make informed choices in upgrading buildings.

Strategic Action 8 – Commissioning and Procurement.

We will

- Raise awareness amongst commissioners of the opportunities to improve energy performance within commissioned services.
- Take into account the energy performance of procured items/services in all procurements, including vehicles.
- Purchase the most cost-effective and sustainable energy and fuels based on an understanding of organisational usage and projected future consumption.
- Ensure that all new and refurbished buildings meet high energy efficiency standards by working collaboratively with our expert partners to provide relevant and timely input to capital projects.

Cost implications – nil [existing resource as part of routine specification work and programme management].

- **Identifying Projects**

In addition to the essential management systems needed to create an effective energy management culture and system, the organisation needs to identify and deliver projects that meet the targets in the most cost-effective manner. This will require the analysis of energy data, carrying out benchmark comparison and energy surveys/audits and reviewing condition surveys/asset registers/EPC/DECs as well as preparing a clear renewables strategy as suggested by the Place Scrutiny Committee.

Strategic Action 9 – Identifying Projects.

We will

- Use all the energy performance data and other sources as required to identify the most cost-effective opportunities available to improve the energy performance of the estate and related assets.
- Determine the opportunities available to enhance our delivery of renewable energy generation and community investment in these projects.

Cost implications – nil [from existing resources with energy management responsibility]

5. Current Projects

Cost implications – nominally nil as they are “current” projects.

a. Corporate Estate

- Complete asset disposal programme commensurate with business contraction proposals and building refurbishment programme.
- Initiate a RE:FIT Phase 2.
- Identify how 25% energy efficiency improvement in the remaining estate (mentioned in the Estates Strategy) can be achieved. This might be the target for the RE:FIT 2 programme identified above.
- Progress the proposed Renewable Energy Strategy being prepared for the Authority by RegenSW.

Expected savings from asset disposal end 2017/18

Cash	£0.483m
Kilowatts	7.530 GWh
Carbon	4,296 tCO ₂ e

Expected savings from improvement in energy efficiency in Estates Strategy end 2017/18

Cash	£0.339m
Kilowatts	5.282 GWh
Carbon	1,641 tCO ₂ e

b. Street lighting

- Completion of part night lighting programme – approximately 45,000 street lights converted.
- Complete the commissioning of the Remote Monitoring System for street lighting in Exeter – approximately 11,000 street lights converted.
- Plan and install an LED lighting solution for the high wattage lighting principally on arterial routes using DfT Challenge Fund.

Expected savings from LED project by end 2017/18

Cash	£1.134m
Kilowatts	8.575 GWh
Carbon	4,609 tCO ₂ e

c. Vehicle Fleet

- Trial lease of an electric vehicle (EV) using Government grant funding in 2015 plus a further reduction in activity commensurate with business contraction is expected.

Expected savings from EV lease by end 2017/18

Cash	£217 p.a
Kilowatts	5150 kWh p.a
Carbon	0.4 tCO ₂ e p.a

Expected savings from business contraction by end 2015/16

Cash	£0.048m
Kilowatts	0.312 GWh
Carbon	60 tCO ₂ e

d. Business Miles and Commuting

- Further reduction in activity commensurate with business contraction is expected. Short-term car hire is being reviewed and there is a possibility of including hybrid/electric vehicles in these proposals.

Expected savings from business contraction by end 2015/16

Cash	£0.372m
Kilowatts	1.033 GWh
Carbon	362 tCO ₂ e

- A County Council Travel Plan is under development during summer and autumn 2015, including the collection of baseline data.

Expected energy and carbon savings from changing commuting behaviour not yet quantified.

e. Passenger Transport

- To meet the agreed requirement with reduced funding.

Expected savings not yet quantified.

f. Renewables

- Dependent on creation of action plan.

Expected savings not yet quantified.

g. Maintained Schools

Within Scope of policy/targeting regime

- Track and quantify energy upgrades installed through the Schools' Maintenance Programme e.g. the impact of new boilers, roofs and windows.
- Continue to promote the DEC B standard for new classrooms.
- Promote and quantify the consequential improvements on projects valued at over £250k through a mandatory energy audit.
- Develop and implement innovative energy saving solutions through the special projects budget (allocated from the Schools Maintenance Budget). The initial project is likely to be a renewable solution to electric heating in schools.

Expected savings not yet quantified.

Out of scope of policy/targeting regime

- Encourage take up of Phase 1 RE:FIT for the initial 22 schools by promoting a 15 - 20% energy saving option using the Authority's £1m Energy Efficiency Savings Initiative borrowing facility.
- Develop the concept for a Phase 2 RE:FIT and an appropriate borrowing facility.
- Issue revised guidance to schools on the opportunity for 'rent a roof' investment models for the installation of building-mounted renewable energy projects.

6. Position Against Targets

Current projects are projected to deliver the savings in the table below.

Source	Expected savings	FY	Cash (£m)	Kilowatts (GWh)	Carbon (tCO2e)
Corporate Estate	Asset disposal	17/18	£0.483	7.530	4,296
Corporate Estate	Improvement in energy efficiency	17/18	£0.339	5.282	1,641
Street lighting	LED project	17/18	£1.134	8.575	4,609
Vehicle Fleet	EV lease	17/18	£0.001	0.015	1.2
Vehicle Fleet	Business contraction	15/16	£0.048	0.312	60
Business Miles	Business contraction	15/16	£0.372	1.033	362
Total			£2.377	22.747	10,969

- The projected consumption savings are equivalent to the target for FY 2018/19.
- The projected carbon savings are equivalent to the target for FY 2020/21

Future opportunities will need to be developed to be implemented by the end of 18/19 so that energy and carbon savings are delivered from the beginning of FY 2019/20 to keep the Authority's performance against the Energy Policy's targets on track.

7. Value at Stake

Based on DECC Energy & Emissions Projections (September 2014) Reference Scenario, a “do nothing” approach could result in the Authority’s energy bill rising by 30% to £20.3m by FY2030/31 due to energy price rises.

The “at least 2% energy reduction per annum” policy objective could result in a marginal decrease in the FY2030/31 energy bill (£14.7m or 6% below baseline). The cumulative value at stake over the period of this policy is £47m.

The “30% of remaining consumption from renewables” could result in the Authority’s energy bill falling by 35% to £10.1m by FY2030/31. The **cumulative value at stake** over the period of both policies is **£85m**.

