

North Tyneside Council

Report to Cabinet

Date: 11 June 2012

ITEM 7(g)(ii)(e)

Title: Reducing energy consumption, minimising energy costs and using renewable energy.

Portfolio(s): **Transport and the Environment**

Cabinet Member(s): **Councillor Ed Hodson**

Report from Directorate: **Community Services**

Report Author: **Phil Scott, Head of Environmental Services** (Tel: 0191 643 7295)

Wards affected: **All Wards**

PART 1

1.1 Purpose:

The purpose of this report is to enable Cabinet to consider proposal items 20 and 21 of the Implementation Plan agreed by Cabinet on 28th March 2012 in relation to the Council Strategic Plan 2012/2015 and the 2012/13 Budget;

Item 20 – Use renewable energy in our public buildings to minimise our costs. Support the private sector, by allowing them to take advantage of the low costs while using local companies to manufacture the components.

Item 21 – Research and develop options for renewable energy in Council and across the Borough.

1.2 Recommendation(s):

It is recommended that Cabinet:

- 1) Note the content of the report
- 2) Consider the options set out in paragraph 1.6.

1.3 Forward plan:

The report is identified in the Forward Plan for the period 1 May 2012 to 31 August 2012.

1.4 Council plan and policy framework

This report relates to Priority 4.4 of the Council Strategic Plan 2012/2015 and items 20 and 21 of the Implementation Plan agreed by Cabinet on 28th March 2012 in relation to the Council Strategic Plan 2012/2015 and the 2012/13 Budget.

1.5 Information:

Theme C of the Change, Efficiency and Improvement Programme has built on previous effective work to reduce energy consumption, minimise energy costs in the face of escalating prices and reduce carbon emissions, partly through the use of renewable energy.

Significant savings are being made and carbon consumption reduced in the Council's operations and across the Borough.

The Council's overall energy consumption has been reduced compared with the same period last year - electricity consumption is down 5%, gas is down by 13%, water is down by 24% and diesel down by 5%. Whilst these reductions include a mild winter the underlying trend is a progressive reduction.

The latest published figures (September 2011) from the Department of Energy and Climate Change (DECC) show that the Borough's carbon footprint reduced by 23% from 1.446m to 1.142m tonnes of CO₂ emissions between 2005 and 2009. North Tyneside was joint 9th of all unitary authorities across England, Scotland, Wales and Northern Ireland for reduction in CO₂ emissions.

1.5.1 The Council's approach to energy efficiency and carbon reduction

There are a number of existing plans and strategies in place which provide the overarching framework for the Council's approach to reducing energy consumption and costs and use of renewable energy particularly:

- Sustainable Community Strategy
- Council Strategic Plan 2012/15
- Climate Change Strategy

The following example actions, monitored through the Change Efficiency and Improvement (CEI) Theme C Board, have helped to deliver these outcomes;

- **Developing partnerships to reduce carbon emissions and deliver outcomes for residents of North Tyneside**

Solar Photovoltaic Panels

The Council, with its partner E.ON, have delivered the largest installation of solar photovoltaic panels on social housing in the country to date. The solar panels will save each year £130 on average for each of the 1,463 households and reduce the carbon footprint of the Borough by 1,631 tonnes of CO₂ per annum. The project also supported local employment as the arrays were installed by local companies, including Kier North Tyneside who installed 1,358 arrays.

North Tyneside Warm Zone

North Tyneside Warm Zone (NTWZ) has been delivering insulation measures in homes in North Tyneside since 2008. NTWZ has delivered over 17,800 insulation measures to over 14,300 homes. This has saved residents £2.1m per annum on fuel bills and also will save in the region of 367,000 tonnes of CO₂, over the 40 year lifetime of the measures, equivalent to 9,200 tonnes per annum. NTWZ has also generated over £3.8m in additional benefit entitlement for residents of North Tyneside.

Waste Disposal

Following the successful conclusion of the review of the Council's arrangements with SITA UK, the Council has a guaranteed diversion at least 60,000 tonnes of waste from landfill each year, up to a maximum of 75,000 tonnes from 2013. At least 45,000 tonnes of the waste will be converted into electricity at SITA UK's energy-from-waste facility at Tees Valley, with the rest recycled or composted.

Together with the kerbside recycling – around 16,000 tonnes of waste each year – only 12 per cent of the waste in the borough will go to landfill, significantly reducing the carbon footprint of North Tyneside's waste disposal.

- **Understanding and managing energy consumption**

Over 500 'smart energy meters' have been installed in Council buildings to provide accurate, regular and detailed consumption data and building managers use this to actively monitor and manage energy consumption within each building.

To further assist in the reduction in energy consumption, carbon budgets have been introduced for the top 30 consuming buildings for each utility – electricity, gas and water. This totals 54 buildings in all. A carbon budget is a 'cap' on the total emissions associated with the energy consumption of the building and is made up of kilowatt hour (electricity and gas) and cubic meters (water) usage. This innovative approach has attracted interest from other local authorities across the North East and is the subject of an Association of Public Sector Excellence (APSE) award application.

Building managers have been given carbon reduction targets to achieve through reducing their energy consumption, and are provided with information and support to deliver on these. Progress against targets is monitored through the CEI Theme C Environment Board.

- **Using energy more efficiently**

The Council has invested in energy efficiency technology in a number of buildings and schools, including energy efficient lighting, insulation and voltage optimisation. This technology has led to significant energy savings, for example, voltage optimisation and lighting improvements at the Parks Leisure Centre has produced a 17% electricity reduction.

Major financial savings have been achieved through the reduction of the Council's vehicle fleet by 25%. This has saved £0.230m in lease and maintenance costs and at the same time contributed to a 5% reduction in diesel consumption in 2011/12 which is the equivalent of 119 tonnes of CO₂.

- **Behaviour Change**

Behaviour change has been identified as an area where we can make significant progress. To date:

- Building managers have attended workshops and training sessions on reducing energy consumption.
- Over 150 Cultural and Customers Services staff have been trained in energy awareness and reducing energy consumption
- An energy management section of the intranet has been developed which includes consumption data, energy reduction information and a staff suggestion scheme

We have planned:

- Further workshops with building managers and staff training
- Development of the Intranet information and e-learning
- Delivery of staff awareness and action campaign to get everyone to think about reducing their carbon footprint.

- **Purchasing efficiencies**

The Council purchases energy through the North East Purchasing Organisation (NEPO) and therefore benefits from aggregation within a wider consortium, enabling it to secure good value for its energy contracts. Benchmarking information shows that over the past 3 years energy procured through the NEPO framework has been 7.5% lower than the average market price. The energy purchased comes from good quality combined heat and power (CHP) sources and is classed as 'green' energy. The NEPO energy contract is only available to not for profit organisations.

1.5.2 Next Steps

The significant progress outlined above will be built on and monitored through Theme C of the Change, Efficiency and Improvement Programme. We will:

- Continue to work with partner E.ON, installing solar photovoltaic panel arrays on up to 100 public buildings and schools.
- Manage the carbon budgets and introduce further reduction targets for future years.
- Deliver the Quality Homes for Older People project, reducing CO₂ emissions of the buildings by 30%.
- Deliver the schools modernisation investment programme including a number of measures that will have a significant CO₂ emission reduction.
- Develop a range of invest to save energy efficiency projects and make provision for these in the planned maintenance budget.
- Conduct an energy efficiency study on our swimming pools to identify future financial and carbon saving opportunities.
- Review the buildings that we operate from and identify any operational buildings that are surplus to requirements.
- Review the automated controls used in our buildings, including heating and ventilation, to ensure optimum efficiency settings are used.

1.6 Decision options:

The Implementation Plan agreed by Cabinet on 28th March 2012 in relation to the Council Strategic Plan 2012/2015 and the 2012/13 Budget included the following proposals;

Item 20 – Use renewable energy in our public buildings to minimise our costs. Support the private sector, by allowing them to take advantage of the low costs while using local companies to manufacture the components.

Item 21 – Research and develop options for renewable energy in Council and across the Borough.

The following decision options are available for consideration by Cabinet:

Option 1

Note the report on the work undertaken to date to reduce energy consumption and minimise energy costs in Council buildings and continue to allocate the existing resources and monitor the progress made through the CEI Theme C Board.

Option 2

Grant delegated authority to the Head of Environmental Services, in consultation with the Cabinet Member for Transport and the Green Environment, to carry out additional research on the use of renewable energy in Council buildings and across the Borough with a budget of £0.025m, in accordance with proposal item 21 of the Implementation Plan agreed by Cabinet on 28th March 2012 in relation to the Council Strategic Plan 2012/2015 and the 2012/13 Budget.

1.7 Reasons for recommended option:

There is no preferred option. Cabinet is requested to consider and make a determination as between the options set out above.

1.8 Appendices:

None.

1.9 Contact officers:

Phil Scott, Head of Environmental Services. Tel: (0191) 6437295
Catherine Lyons, Senior Manager – Waste and Environmental Sustainability. Tel: (0191) 6437780
Paul Nelson, Environmental Sustainability Manager. Tel: (0191) 6436467
Alison Campbell, Finance Business Manager, Tel (0191) 643 7038

2.0 Background information:

Council Strategic Plan 2012/15 and 2012/13 Budget – Implementation Plan – Reports submitted to Cabinet on 28 March 2012, 16 April 2012 and 14 May 2012.

PART 2 – COMPLIANCE WITH PRINCIPLES OF DECISION MAKING

2.1 Finance and other resources

The alternative 2012/13 budget agreed by Council on 1 March 2012 includes growth of £0.025m to fund research and develop options for renewable energy in the Council and across the borough.

If option 1 is agreed and therefore no decision is made to carry out the research and develop options for renewable energy as proposed in the alternative budget, the Council budget for this area would under spend by £0.025m. Unless an alternative proposal is agreed, any such amount would be added to the Strategic Reserve and its future use will be determined in accordance with the Reserves and Balances Policy.

If option 2 is agreed to carry out additional research on the use of renewable energy in Council buildings and across the Borough, this will be funded from the growth of £0.025m included in the 2012/13 Council budget proposals.

2.2 Legal

There are no legal implications arising from this report. As any projects are developed or progressed legal advice will be provided as appropriate.

2.3 Consultation/community engagement

Consultation on the significant progress outlined in section 1.5 has been carried out through the CEI Theme C Board, including Cabinet Portfolio holder.

Extensive consultation on the delivery of the Solar PV project was conducted. The Council:

- Worked with involved tenants to shape the project and ensure that customers concerns were identified and addressed throughout.
- Raised awareness of the project through articles in the North Tyneside Homes newsletter, articles in the local press and frequently asked questions on the Council's website.
- Appointed a team of Customer Liaison Advisors to tell tenants about the benefits of solar panels and support them through installation.

2.4 Human rights

There are no human rights implications arising from this report.

2.5 Equalities and diversity

There are no equality and diversity implications arising from this report.

2.6 Risk management

There are no risk management implications arising from this report.

2.7 Crime and disorder

There are no crime and disorder implications arising from this report.

2.8 Environment and sustainability

Actions taken to reduce energy consumption, minimise energy costs and use renewable energy are detailed in section 1.5 of this report.

PART 3 - SIGN OFF

- Chief Executive X
- Strategic Director(s) X
- Mayor/Cabinet Member(s) X
- Chief Finance Officer X
- Monitoring Officer X
- Strategic Manager for Policy and Partnerships X