

**Report of the Chief Executive to the Chair and Members  
of the Policy & Resources Panel  
15<sup>th</sup> December 2011**

**Executive Officer: Stuart Pudney, Chief Executive**

**Presenting Officer: Dr Neville Cameron, Service Improvement Manager**

**Status: For Information**

## **Environmental Monitoring Update**

### **1 Purpose**

- 1.1 This report provides Members with an update of the business of the Environmental Monitoring Group held on 22 November 2011.

### **2 Recommendations**

- 2.1 To note the update from the Environmental Monitoring Group held on 22 November 2011.

### **3 Reasons**

- 3.1. At the Policy & Resources Panel on 28 April 2011, it was agreed a regular update would be provided of the business of the Environmental Monitoring Group. This Group met for the fourth time on 22 November 2011 and will continue to meet every two months to discuss ongoing environmental performance.

- 3.2. The meeting was chaired by the CPA Chairman, deputised by the ACO (Finance & Commissioning) with four CPA Members and strategic partners also in attendance. Steria were represented by the Interim Head of the Police Shared Business Service with the Estates Business Partner and Head of PFI Facilities Management representing Reliance.
- 3.3. The agenda encompassed:
- an update of the participation in the Public Sector Carbon Management Programme 2011/12,
  - environmental updates from Fleet Management, Estates Management (including PFI), Information & Communication Technology, Business Support and Sustainable Procurement, and
  - the implementation of a staff awareness programme.
- 3.4. The following sections outline highlighted points and actions resulting from the meeting:
- 3.5. **Public Service Carbon Management Programme 2010-11**
- 3.6. The Force & Authority are participating in the Public Service Carbon Management Programme, run by the Carbon Trust, throughout 2011-2012. The end result will be a five-year Carbon Management Plan to capture and relate year on year carbon reduction initiatives.
- 3.7. The Project is managed, on behalf of the Force & Authority, by the CPA Service Improvement Manager assisted by members of the Corporate Estates Unit, run by Reliance, who manage and maintain the Force estate, for Steria on behalf of Cleveland Police. The Carbon Trust provide a dedicated consultant to monitor progress and assist with quantifying existing and planned environmental projects - the aim being, to maximise any carbon reduction impact and provide a quick return on investment where possible.
- 3.8. The CPA Service Improvement Manager presented progress in the programme throughout October and November 2011 and provided a Carbon Footprint for the base year which is 2010-11. *(Note: It was previously reported in the Environmental Monitoring Update on 27 October 2011 that 2009-10 would be the base year. The base year has now changed to 2010-11 on agreement with the Carbon Trust.)*
- 3.9. Highlighted was the *Value at Stake* (both financial and carbon) which is the predicted reduction year on year in terms of tonnes of CO<sub>2</sub> and associated cost. This cost is calculated using spreadsheet tools provided by the Carbon Trust. The ultimate aim for the Force and Authority is to have reduced its carbon emissions from base year levels by 25% by April 2016.

3.10. The next steps for the programme are:

- to submit an initial draft of the Carbon Management Plan to the Carbon Trust by 30<sup>th</sup> November 2011 for quality audit, and
- to participate in an on-site Carbon Trust workshop on 13<sup>th</sup> December 2011 to assist with the quantification of current and future environmental projects.

### **3.11. Environmental Updates**

### **3.12. Fleet Management (Steria)**

3.13. The Interim Head of Police Shared Business Services provided the group with an update of fleet environmental activity.

3.14. In 2007, HMIC highlighted that “the use of diesel-powered vehicles (within Cleveland Police) remains comparatively low” and that “excellent forces achieve levels of more than 80% diesel-powered vehicles”. Due to the diesel replacement programmes in recent years, the Force now achieves a level of 80% with 244 diesel and 61 petrol vehicles. Diesel vehicles are now purchased as standard, unless for operational reasons a diesel vehicle is not suitable.

3.15. Operational fuel usage in 2010-11 was 992,972 litres as oppose to 1,038,409 litres used in 2009-10. This equates to a reduction of 45,437 litres (4.3%) and 111 less tonnes of CO<sub>2</sub>, according to the Carbon Trust.

3.16. As technology improves, Fleet Management will endeavour to maintain dialogue with the force users and collaborative partners regarding alternative fuel options and viability. At present, the Force has not reviewed the options of introducing electric vehicles for non response vehicles. This is due to the current lack of infrastructure and the cost to purchase, which is currently prohibitive whilst budgets are restricted.

### **3.17. Estates Management (Reliance for Steria)**

3.18. The Interim Head of Police Shared Business Services updated the group of environmental initiatives which have taken place in Force buildings during 2011-12, for 2012 and onwards. These are listed below with a summary of progress:

### **3.19. Carbon Reduction Commitment (CRC) - Annual and Footprint Reports**

On 8<sup>th</sup> November 2011 the Environmental Agency issued the first CRC Performance League Table (PLT). Cleveland Police’s position is 1301<sup>st</sup> out of 2103 organisations taking part in the scheme, placed in the lowest section of the table, along with another 803 organisations.

- 3.20. The PLT is based on 2010-11 energy data however it takes into consideration specific environmental metrics Cleveland Police had in place prior to the data being recorded in 2010.
- 3.21. Cleveland Police have seen numerous improvements in environmental activity since 2010 and is expecting to be better placed for 2011-12 data, especially in light of the Force's involvement with the Carbon Trust and the production of the Carbon Management Plan in 2011-12.
- 3.22. Installation of Voltage Optimisers  
A third voltage optimiser was installed at Redcar & Cleveland Police Headquarters on 13<sup>th</sup> November 2011. Following the installation, a series of commissioning inspections was carried out on not only the integrity of the electrical installation but also on the voltage levels present. Prior to the installation, the output voltage measured 248-249 volts per phase however once commissioned, it reduced by around 10% to 224 volts per phase. It will continue to function at this level as a result of the installation and typically will result in 8-10% savings on power output.
- 3.23. A final installation will take place at Middlesbrough Police Headquarters on 5<sup>th</sup> December 2011, pending operational requirements.
- 3.24. With the 4 units installed at each of the District Police Headquarters, annual savings of 226,824 Kg (227 tonnes) of CO<sub>2</sub> and around £33k will result (see table below).

<b>Property</b>	<b>Installation Cost</b>	<b>Annual Saving £'s</b>	<b>Annual Saving CO<sub>2</sub></b>
Middlesbrough HQ	£63,344	£20,371	136,739 Kg
Stockton HQ	£15,480	£3,221	21,622 Kg
Hartlepool HQ	£18,114	£4,081	27,392 Kg
R&C HQ	£25,028	£6,119	41,071 Kg
<b>Total</b>	<b>£121,966</b>	<b>£33,792</b>	<b>226,824 Kg</b>

- 3.25. Estates Rationalisation  
A number of leased premises have been identified for disposal as part of the *Estate Rationalisation Programme*, a Force led project headed by the Futures Team. Estimated carbon savings through energy reduction will be approximately 81,022 Kg (81 tonnes) of CO<sub>2</sub>.
- 3.26. Solar Photovoltaic (PV) System  
The Government recently announced a comprehensive review of the *Feed-In Tariffs* (FITs) scheme for small-scale low-carbon electricity generation. If implemented, it would introduce a new tariff for schemes up to 4kW in size of 21.0 pence/kWh – down from the current 43.3 pence/kWh. This would apply to any installation undertaken by Cleveland Police. Under the proposals, new

tariffs would apply to all new Solar PV installations with an eligibility date on or after 12<sup>th</sup> December 2011.

- 3.27. As it is not possible for Cleveland Police to have the system registered and installed before the 12<sup>th</sup> December deadline, the proposed installation for Cleveland Police is now unfeasible as the payback period has doubled from 9-10 years to 19-20 years.
- 3.28. No funding has been utilised as part of this project as commitment was determined upon the comprehensive review and the payback period for any capital investment.
- 3.29. Automatic Lighting Controls  
Whole life carbon costing analysis is currently being carried out on automatic lighting controls using a combination of toolkits provided by the *Carbon Trust* and the *Local Government of Sustainability*.
- 3.30. Solar Water Heating System/Ground Source Heating Pumps  
Whole life carbon costing analysis is currently being carried out to compare the financial and carbon impact of installing either solar water heating systems or ground source heat pumps using a combination of toolkits provided by the *Carbon Trust* and the *Local Government of Sustainability*.

### **3.31. PFI Estates Management (Reliance)**

- 3.32. The Head of Reliance Facilities Management (Cleveland PFI) informed the Group of the following environmental initiatives relating to Cleveland PFI properties:
- 3.33. Building Management System(BMS) Control  
Research has been carried out into the level of electricity consumed which has identified that the current tariff, paid by Cleveland Police, doubles between the hours of 16.00 and 19.30. As a result, Reliance is looking at the Building Management System (BMS) to see if modifications can be made to the settings of the buildings with the high usage recorded between the times outlined. Approximately £10k has been invested in the measures taken so far with £1.5k being directly covered by CPA. The remainder has been taken from the *PFI Lifecycle fund* to pay for BMS software changes and upgrades.
- 3.34. Network Managed Lighting System / LED Pilot  
Reliance has identified measures that can be taken to reduce electricity consumption by the use of a Network Managed Lighting System and the introduction of LED lighting. However, discussions are required with CPA to decide the viability of the possibilities due to the capital costs and payback periods (e.g. a capital cost of £36k would not be recouped for approximately eight years under current agreements).

### **3.35. Information & Communication Technology (Steria)**

3.36. The Interim Head of Police Shared Business Services updated the group of the following environmental projects within Information and Communication Technology.

#### **3.37. Server Virtualisation**

This is an ongoing program of the replacement of physical servers with 'virtual' servers. As a result of installing software centrally rather than on individual units, the number of servers will reduce by 90%, providing indications of savings in the region of £27,000 per annum. There will also be reductions in associated power and use of air-conditioning within the Police Headquarters Data Centre.

#### **3.38. Automatic Remote Closedown of Non Essential Computers**

In any organisation, there is always an amount of wasted electricity associated with non-essential computers which are left idle for long periods or remain in a 'logged in' status out of hours. Energy and carbon savings can be made if these computers are automatically or remotely powered down. Applicable software is available within the current Force framework to assist with this issue, however this project requires further work to determine which machines will ultimately be affected by its implementation. Machines in critically strategic policing areas which require 24/7 access would be excluded from any adopted policy. The discussion on implementation of automatic remote shutdown is ongoing.

#### **3.39. ICT Sustainability / Biodiversity**

Steria Sustainability Consultants recently attended a presentation on *Biodiversity* given by the British Computer Society under the *Living Green* practice. It discussed how information technology can make work more efficient thereby reducing carbon emissions and how it can help preserve the richness of life on earth, and biodiversity.

3.40. The presentation provided some applicable ideas, demonstrating what systems thinking and information technology have a lot to offer. Steria will look to see what lessons can be gained from this initiative that may be used to assist with the environmental strategy within Cleveland Police.

### **3.41. Business Support (Steria)**

3.42. The Interim Head of Police Shared Business Services provided an update of Business Support environmental activity. To date, 2011-12 levels of *Grey Fleet* (i.e. use of staff vehicles for business purposes) are lower than 2010-11 levels for the same period. This is in part due to the introduction of a new IT system which requires users to re-register their vehicles in order to recoup mileage. Analysis is currently underway to record, analyse and improve on business

travel vehicle usage as well as on public transport travel such as air and rail travel.

### **3.43. Sustainable Procurement (Steria)**

3.44. The Interim Head of Police Shared Business Services provided an update of sustainable procurement activity within Cleveland Police. The Procurement Team produce a quarterly ethical procurement report for ACO (Finance & Commissioning). This report covers the three strands of sustainability which includes Diversity and Equality, Environmental and Economic Development. The Government aspires to award 25% of available public sector contracts to Small to Medium Enterprises (SME), under their Transparency in Government Procurement and Contracting Plans. Where appropriate, Cleveland Police's procurement activity follows achievable guidelines regarding social and economic development.

### **3.45. Environmental Staff Awareness**

3.46. No matter how many effective environmental projects are implemented in an organisation, if there is no mechanism in place to promote energy awareness, key objectives may not ever be met. According to the Carbon Trust, an organisation can reduce their carbon emissions by up to 10%, simply by embedding "good housekeeping". The following areas were assessed and discussed for implementation to assist the carbon reduction process:

- Staff Engagement/ Generating Ideas for Energy Reduction / Incentives
- Organisational Buy-In
- Internal Competition (e.g. Energy Consumption League Tables)
- Communication
- Appointing Green Champion / ECO Reps

3.47. The Carbon Management Team will assess the best methods for how these areas will be addressed with the aim to roll out an awareness programme during 2012.

### **3.48. Next Meeting of the Environmental Monitoring Group**

3.49. The next meeting of the Environmental Monitoring Group will take place on 24<sup>th</sup> January 2012 with an update of activity provided at the Policy & Resources Panel on 16<sup>th</sup> February 2012.

## **4. Implications**

### Sustainability

- 4.1 Care for the environment and the reduction of carbon emissions nationally will continue to be high on the priority list of any UK Government.
- 4.2 it is therefore essential for the Force and Authority to measure, improve and maintain any reduction in carbon emissions gained through the formation of the Environmental Monitoring Group.

### Financial Implications

- 4.3 There are financial implications as a result of projected energy usage reporting through the Carbon Reduction Commitment Energy Efficiency Scheme however this has been built into estates revenue budgets for 2011-12 and 2012-13.

### Diversity and Equal Opportunities

- 4.4 There are no diversity and equal opportunities implications.

### Risk Management

- 4.5 The main risk to the Authority is the inability for environmental performance to improve, as this could result in penalty costs for excess carbon usage in future years via the Carbon Reduction Commitment.

### Human Rights

- 4.6 There are no human rights implications in this report.

## **5 Conclusions**

- 5.1 The Environmental Monitoring Group is key to enabling the delivery of reduced carbon emissions year on year for both Force and Authority.
- 5.2 The scope of the business will ensure that holistic scrutiny is applied to the effects that the day to day business of Cleveland Police and its Authority have on the environment.

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**Stuart Pudney**  
**Chief Executive**