

# ENVIRONMENT AND ATTRACTIVE CITY SCRUTINY COMMITTEE

16 JANUARY 2012

## LOW CARBON VEHICLES IN THE DELIVERY OF PUBLIC SERVICES REVIEW 2011/12: PROGRESS REPORT

### REPORT OF THE CHIEF EXECUTIVE

**Strategic Priority: SP5 - Attractive and Inclusive City**

**Corporate Priorities: CIO1 – Delivering Customer Focused Services, CIO4  
– Improving Partnership Working To Deliver ‘One City’**

#### 1. Purpose of Report

- 1.1 This report informs members of progress on the Scrutiny Committee’s Policy Review for 2011/12 into Low Carbon Vehicles – the Delivery of Public Services in Sunderland.

#### 2. Background

- 2.1 Following the initial scoping of the Policy Review on 25 July 2011, members have commenced evidence gathering in relation to Low Carbon Vehicles – the Delivery of Public Services in Sunderland.

#### 3. Current Position

- 3.1 The aim and terms of reference for the Policy Review can be found at **Appendix 1**.

##### *Project Plan*

- 3.2 At the Committee meeting of 12 September 2011 members agreed the approach to be taken in regard to gathering the evidence for the Policy Review. Attached for members information is an updated illustration (**Appendix 2**) which outlines the various activities and evidence gathering that will be undertaken throughout the review process. The plan seeks to finalise the evidence gathering arrangements in the coming months. Throughout the review process members will be provided with an up-to-date plan reflecting confirmed dates and additional information.

##### *Evidence Gathering To Date*

- 3.3 This is the third report to Committee detailing the progress of the policy review. To date the Committee has gathered evidence through:-
- The Scene Setting Presentation;
  - A visit to Smith Electric Vehicles;
  - Presentations from Nexus and Go NorthEast regarding low carbon public transport;

- A visit to the University of Sunderland's Industry Centre;
- A visit to the Skills Academy for Sustainable Manufacturing and Innovation (Gateshead College); and
- Contribution from the city's MPs.

***Skills Academy for Sustainable Manufacturing and Innovation (Gateshead College)***

- 3.4 The Committee met with Paul Gough and Dr Colin Herron on 1 December 2011. Gateshead College are investing heavily in low carbon vehicle technology. The Test Track at the Nissan plant is the only publicly accessible test track in the UK. It has been leased by Gateshead College for 20 years and the College have spent over £1m on workshops. It is keen that the Test Track be seen now as separate and distinct from Nissan, although the College continues to work closely in partnership with the company.
- 3.5 Originally built by Nissan the track is a 2.8 kilometre, oval, low speed test track with multiple variable surfaces. The track will be available for vehicle and infrastructure testing and research and testing of supporting technology.
- 3.6 The Committee learnt that the test track is becoming an option for those businesses from around the UK who require use to test technology and products. In addition the University of Sunderland competes in a Formula 1 student competition on annual basis where teams build cars to race. The test track will be used to host the competition next year which is a great achievement for the city.
- 3.7 There is an expectation that visits to the test track, Nissan and other companies in the area will substantially increase and plans for a hotel had been approved, although no further information had been given.
- 3.8 As the Committee have heard previously the College are working in partnership with the University of Sunderland to deliver degree courses. The growth of the low carbon industry has led to facilities in low carbon vehicle (LCV) development with a range of academic and research opportunities ranging from NVQ through to PHD. Opportunities for qualifications include routine maintenance and repair; hazard management; electric vehicle (EV) and battery manufacture and hydrogen safety. In addition the College is working with Nissan to deliver a programme aimed at unemployed people, whereby upon successful completion of a 5 week programme, there is a guaranteed opportunity to take the trial for Nissan for a job within the plant.
- 3.9 The newly built Skills Academy on the Nissan site is the first of its kind in the UK, which clearly puts the region in a strong position in terms of the low carbon agenda going forward. The Academy will include an Innovation Centre, which will be home to small-medium sized enterprises (SMEs), academics and research staff, the aim being to bring those working in the field together to encourage collaboration and generate commercial ideas.
- 3.10 The College was very keen to stress the importance they placed upon working with partners across the region to continue to strengthen the region's low carbon

offer and give it a unique footing in the market. Sunderland is very much a part of that, particularly as Nissan and Smith's are based in the city. The Committee referred to a previous policy review it had undertaken, in which it was identified that there was a need to showcase Sunderland more effectively, and 'badge' it in no uncertain terms as a low carbon city sitting within a low carbon region. The need for better signage and advertising of the city's brand was discussed to ensure that visitors to Sunderland are quickly made aware that they are in a city home to the automotive and low carbon sectors.

- 3.11 Gateshead College, alongside various partners, are now looking at other ideas to complement the low carbon agenda regionally including:
- The introduction of a billing system for EV drivers to use at charging points. The card will carry a £100 per year membership but this will entitle the driver to unlimited free parking of the EV. The membership will be linked to a website which will provide a comprehensive listing of all charge points within the UK, as well as the quality and usage of each;
  - Looking at the 'homes of the future' alongside Gateshead College's Construction Academy to investigate the possibility of using an electric car battery to power a home when the car is on the drive at night, in addition to the current situation whereby the car is charged overnight by the home. The use of batteries to power homes could also be an additional 'second life' use of a car battery once it is functioning at 80%, which would be particularly useful in addressing fuel poverty or providing energy to rural areas. It was clarified there is no difference in the battery life regardless of if it is used in a commercial or household vehicle. The quality of the battery determines the battery life.
- 3.12 In regard to the second life of batteries, the Committee was informed that there is a potential demand from Africa as it can produce lots of energy via solar but no means to store it which the EV battery could provide. If a strong viable market for 'second life' batteries existed, not only would this give a residual value for the owner of the vehicle (in this case the council or other public sector bodies), it would ultimately bring down the cost of an EV in the first instance, as the current cost includes the cost of disposing of the battery.
- 3.13 The Committee referred to prior evidence gathering and asked Dr Heron's views on the future use of the hydrogen cell. Dr Heron confirmed that this would mainly be used in SUVs, vans, buses and lorries, rather than small cars, and this could be an option for vehicles used to deliver public services.
- 3.14 It was asked what it was felt would be a realistic figure in regard to the number of electric vehicles (EVs) on the road and agreed with the view that due to the nature of electric vehicles, (more convenient for shorter routes and inner city driving), a successful outcome would be 10% of all vehicles on the road.
- 3.15 It is widely considered that the advent of Nissan and Renault's production of all electric transit vans will increase the accessibility and usage of the electric van in fleet services by substantially lowering the cost to purchase for fleet services, making them significantly more economically viable.

- 3.16 The Committee felt that public transport providers were unlikely to move to all electric vehicle due to the current high capital costs, however in the future buses may be installed with super capacitors, whereby the vehicle would be linked to a supercharger on bus routes to provide short bursts of energy (enough for the bus to travel to one or two stops). This technology could also be applied to the Metro which would negate the need for overhead cables.
- 3.17 The Committee were informed that Gateshead College had recently worked with the Fleet Manager for British Gas. He had been set a target by the company for 10% of all vehicles in the fleet to be all electric by 2015. It was felt this was realistic and manageable. British Gas spoke of selecting the best drivers and incentivising them to drive the vehicles in a way which will maximise range and capability.
- 3.18 The importance of Nissan and the low carbon vehicle agenda to Sunderland's economy and employment opportunities was discussed as being of vital importance to the city going forward. The production of the batteries for the Nissan Leaf (as well as plans to make the batteries for the Nissan EV Van and Renault Kangoo), would create 300-400 jobs. The Committee felt it was extremely important that the council and its partners are shown to be supporting this agenda in a very visual way, one of the ways it could do this would be to adopt EVs into its own fleet. Other areas of the region such as Gateshead and Newcastle are already showing support in this way.
- 3.19 The Committee noted its concern that EVs in the council fleet should produce savings for the organisation if this is to foster public support at a time when the council has some very difficult decisions to make regarding its delivery of services. The College confirmed there would be financial benefits for the council, but felt that these would significantly increase when newer models of EVs come on line.
- 3.20 The Committee placed a great importance on having a holistic approach to low carbon vehicles to deliver public services and felt it would be vital to encourage partners, suppliers and contractors to use low carbon whenever possible. This could possibly be stipulated through future contracts and arrangements.

### ***Further Evidence Gathering***

- 3.21 Further evidence gathering activities confirmed for January 2012 and February 2012 are as follows;

<b>Method</b>	<b>Activity</b>	<b>Location</b>	<b>Date and Time</b>	<b>Terms of Reference (Appendix 1)</b>
Formal Committee Meeting	Explore the procurement of low carbon vehicles	CR1, Civic Centre	16.01.12: 5.30pm	D, E
Formal Committee Meeting	Best Practice	CR1, Civic Centre	16.01.12: 5.30pm	D, E, F, G
Formal Committee	Cost benefit analysis - Cenex	CR1, Civic Centre	27.02.12: 5.30pm	D, E

Meeting				
Formal Committee Meeting	Low Carbon Vehicle Sector	CR1, Civic Centre	27.02.12: 5.30pm	D, G

#### **4. Recommendation**

- 4.1 That members of the Environment and Attractive City Scrutiny Committee note and comment on the information provided.

#### **5. Background Papers**

- Minutes of the Environment and Attractive City Scrutiny Committee; 25 July 2011, 12 September 2011, 24 October 2011; 12 December 2011 and
- Policy Review Progress Reports; 24 October 2011 and 12 December 2011.

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## **Appendix 1**

### **LOW CARBON VEHICLES – THE DELIVERY OF PUBLIC SERVICES IN SUNDERLAND**

#### **Overall Aim of the Scrutiny Policy Review**

To consider the city's current and future plans for the utilisation of low carbon vehicles in the delivery of public services.

#### **Terms of Reference for the Scrutiny Policy Review**

The Terms of Reference for the policy review are:-

- (a) To examine the role and responsibilities of the local authority with regard to climate change and energy;
- (b) To consider national and European policy in regard to the use of low carbon transport in the delivery of services;
- (c) To investigate the progress made to date and future plans in the council and across partners in regard to the introduction of low carbon vehicles to deliver public services;
- (d) To explore the financial and non-financial future implications of the increased use of low carbon vehicles in the delivery of council services;
- (e) To consider appropriate targets for the introduction of electric vehicles into the council's fleet.
- (f) To consider the extent of the council's role as a leader in the use of low carbon vehicles to deliver public services in the city; and
- (g) To consider to what extent future technologies will enable the council and partners to increase the use of low carbon vehicles.