AGENDA ITEM 13

BRISTOL CITY COUNCIL

Place Scrutiny Commission

5 February 2015

Report of: Peter Mann, Service Director -Transport

Title: Alternative Fuels Report

Ward: Citywide

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RECOMMENDATION

To review and provide views on opportunities to promote low emission technologies and fuels in Bristol.

Background

1. Road transport is responsible for 92% of the UK's domestic transport greenhouse gas emissions, largely through the contribution of cars, vans and heavy goods vehicles.

2. Under the "Driving the Future Today - A strategy for ultra-low emission vehicles in the UK", the government aims to speed up the commercialisation of ULEVs and make UK a global market leader.

3. The Government's aspiration is that by 2050 almost every car and van in the UK fleet will be an ULEV, with the UK automotive industry at the forefront of their design, development and manufacture.

4. An ULEV emits extremely low levels of carbon dioxide (CO2) compared to conventional vehicles fuelled by petrol/diesel. They typically also have much lower or virtually zero emissions of air pollutants and lower noise levels.

5. Since 2009, the Office for Low Emission Vehicles (OLEV) has considered ULEVs as new cars or vans that emit less than 75 grams of CO2 from the tailpipe per kilometre driven, based on the current European type approval test. Other definitions exist that

suggest 50g CO2/km is a more appropriate threshold.

Policy

The promotion of ULEVs is promoted in the following policies:

- West of England 3rd Local Transport Plan
- Bristol Core Strategy
- Bristol Health and Wellbeing Strategy

Current Progress on Ultra Low Emissions Vehicles

Buses

Public transport offers exciting opportunities over the coming few years in terms of advancing scale of low emission vehicles within a commercial environment.

The MetroBus programme has prescribed a minimum standard of hybrid-electric buses and is on track to see over 50 vehicles introduced on a commercial basis. This would be one of the most significant applications of such vehicles in a commercial environment in the UK.

In advance of the MetroBus project the Council was awarded £1m in January 2015 from the Department for Transport to take forward trials of hybrid-electric buses using smart geofence technology to allow them to switch automatically to zero-emission mode.

Bio-Methane is another option that has the potential to clean up tail pipe emissions. The first bus of this type is in operation by Bath Bus Company and the new Managing Director if First, James Freeman, has a track record of introducing Bio-Methane buses in his previous role running Reading Buses.

The commercial application of Hydrogen in terms of the bus market is a number of years away but we are continuing to track the progress in terms of testing, performance and cost.

Fleet Vehicles

Bristol City Council's Fleet

- Part of the Low Carbon Infrastructure Working Group chaired by The Environment Agency

- Investigating the feasibility of introducing a temporary hydrogen fuel station and converting fleet vehicles to run on hydrogen fuel

- 100 light commercial vehicles to run on a 25% biodiesel mix. One fuel bunker to be converted to 25% biodiesel with a new management reporting infrastructure

- Piloting Telematics in approx. 50 vehicles, proposal before the Business Change Board for fleet wide adoption of this technology

- Piloting the Enterprise CarShare scheme with Bristol Workplace Programme,

currently 25 vehicles based at 5 locations around Bristol. CarShare membership over 300 and growing, seeking information as to savings from grey fleet spend.

- Electric vehicle infrastructure being installed at Sandy Park, 100 Temple Street and Parkview

- 2 electric vehicles are to be stationed at Temple Street/Parkview as part of the Enterprise CarShare scheme

- Transport budgets to be centralised to fleet. Once completed a phased replacement programme to be introduced bringing in more alternative fuelled vehicles to Bristol City Council.

Wider Support to Fleet

In 2014 OLEV announced funding for government agencies to incorporate ULEVs into their fleets. This has enabled the Environment Agency, whose head office is located in Bristol, to procure a range of ULEVs. No formal timeline has been given by OLEV as to when similar funding will be to local authorities. Initial indications are that local authorities may have to wait until the end of 2015 or 2016.

Bristol City Council, through the Local Sustainable Transport Fund, has provided charge points for the Tobacco Factory, the Avon Fire and Rescue Service, Bristol Zoo, Business West, DAS, Knowle West Media Centre, Millennium Square Car Park / At Bristol, Simply Health, Southmead Hospital, The Children's Scrap Store, Portishead Police Headquarters, Harmsen Tilney Shane and Bristol Airport. The majority of these businesses have included electric vehicles into their fleets or have staff with an electric vehicle.

<u>Private Cars</u>

Presently there are 330 members signed up to Source West. Source West (www.sourcewest.info) is the electric vehicle charging point scheme that Bristol City Council established in partnership with other neighbouring local authorities. Across the Source West sub-region over 190 electric vehicle bays are planned by the end of March 2015. Bristol City Council will have installed 100 of these bays through funding from LSTF, OLEV and Charge Your Car Limited sponsorship. This includes the installation of 4 rapid chargers (15 across the Source West network) which allow an electric vehicle's battery to be charged 80% in approximately 20 minutes. Publically accessible charge point bays are located in the majority of the Council's public car parks as well as a number of privately owned business sites.

Source West RFiD membership card is currently free to anyone living or working within the scheme's geographic area. Use of the publically accessible standard charge points is offered for free although existing parking fees still apply. A fee of £4.50 is incurred when using a Source West rapid charger. Electric vehicle drivers living or working outside the Source West sub-region are also able to access the networks' public charge via smartphone app or a pay as you go (PAYG) telephone number. Source West members can use their RFiD card to access Ecotricity's rapid chargers, Charge Your Car's network of 2,000 charge points across the UK and shortly in certain parts of Continental Europe.

Freight

The ‘last mile’ where goods travel to their final destination in the city centre is considered a significant issue in terms of air quality, congestion, noise, environment and safety of vulnerable road users.

Initially set up as a pilot, the Bristol Freight Consolidation Centre has been operating since May 2004 to help alleviate these issues. The combined operation supported jointly with B&NES has been serving Bristol and Bath since January 2011.

Deliveries are made to an out of town consolidation centre, currently located in Avonmouth, and then grouped onto dedicated delivery vehicles for onward delivery. Currently two electric vehicles are in operation, with Euro 5 specification vehicles to be used as a backup.

This operation results in a reduction of the number of delivery vehicles by 80% on average. It has directly saved some 490,000 lorry kilometres with the resulting reduction in emissions of 156 tonnes CO^2, 5,075kg’s NOx, and 148kg’s PM10’s. Businesses also have waste and packaging material collected which has meant 57 tonnes of cardboard and plastic being recycled.

Opportunities

- The Enterprise Zone offers Bristol an exciting opportunity to use freight consolidation in construction with the potential to use only ULEV vehicles to make deliveries. Pilot schemes demonstrate that by using freight consolidation, especially during fit-out where the number of trade contractors working on-site proliferates, along with the number of material types and vehicle movements, with LGVs and vans in particular, significantly fewer deliveries are made in comparison with a site that does not use a Freight Consolidation Centre. Using ULEV will help maximise benefits associated with freight consolidation.

- Bristol, alongside Turin, is leading the Arcadia consortium to secure CIVITAS funding to deliver a project 2016-2020 that will see ULEV use promoted in the Old City. A trial will identify freight needs of businesses and the freight consolidation scheme will be tailored to cater for their requirements using ULEV. If funding is secured and it is found to be successful, the concept could be rolled out to other parts of the City.

- The existing freight consolidation scheme could promote ULEVs by replacing backup vehicles with ULEVs.

Consultation

N/A

Proposal

1. On the 29th April, 2014 the government released, “Ultra low emission vehicles in the UK: measures to support use and development, 2015 to 2020”. The document

outlines the main elements of a £500 million package to support the development and use of ULEVs in the UK.

Elements of the £500m that has been allocated to date include:

- £100 million for research and development
- at least £200 million on the continuation of the Plug In Car Grant, with the grant staying at £5,000 off the price of a new ULEV (until 50,000 grants or 2017)
- £31 million grant support for other ULEV sectors, including vans
- a new £35 million cities scheme to support flagship cities in introducing innovative local incentives, such as free parking, access to bus lanes and ULEV car clubs
- £20 million to encourage a new generation of ultra-low emission taxis
- £30 million to boost the low emission bus market
- at least £32 million on new infrastructure including rapid chargers
- £4 million to ensure the UK has the gas refueling facilities HGVs need to support our freight and logistics operators in their efforts to reduce the environmental impact of their business

2. Appendix A provides further details of current OLEV opportunities.

3. Guidance stipulates need for ambition and to co-ordinate OLEV bids in addition to linking up with other funding sources bids (e.g. CIVITAS).

4. Bristol City Council will lead on a joint West of England OLEV bid. A Steering Group will be created with appropriate internal and external partner representation (e.g. First Group, Business West)

5. Work will be coordinated with Bristol Green Capital 2015 and other related work and bids used to lower emissions in the city.

6. The first phase of this work will identify a narrative and strategy for alternative fuels in the city region. Emerging principles include:

    a. Investment in alternative fuel technology must address both air quality and CO2 reduction challenges
    b. The choice of fuels and technology will be taken on a case by case basis depending on the mode of transport considered and the outcomes desired.
    c. There is a preference to invest in technologies and fuels that are commercially viable, offer good value for money and deliver benefits
    d. There is a preference to promote mass take up and roll out of a proven technology rather than smaller scale investment in unproven/expensive technology
    e. Innovative and unproven technologies will be considered carefully as part of limited pilot projects that will raise the profile of the City Region and increase likelihood of success in future funding opportunities.
    f. Support will primarily be targeted to reduce emissions associated with business travel, car clubs and buses.
    g. Initiatives will be considered favour ably if they both reduce emissions and deliver economic benefits to the city region

7. In relation to the Go Ultra Low City Scheme an outline “screening” proposal needs

to be submitted by 20th February 2015 and should we be successful then a full business case is required by 31st August 2015..

8. We will also be pursuing the opportunities for investment for buses and taxis. Officers are attending workshops organized by OLEV in advance of the guidance being issues in March 2015 on how we can bid or support private operators drawing down monies from these sources.

9. We are keen to get input from the Scrutiny Commission on both the initial submission but also to understand how the Commission may wish to be involved in the development of the full business case (should we be shortlisted and invited to submit).

Other Options Considered

N/A

Risk Assessment

N/A

Public Sector Equality Duties

N/A

Legal and Resource Implications

N/A

APPENDIX A – OLEV OPPORTUNITY SUMMARY

OLEV Component	Summary	Who & How much	Deadlines
Go Ultra Low City Scheme	Bid for a share of £35m available to the 2 to 4 cities that commit to supporting a step change in ULEV adoption in their areas through measures like access to bus lanes, ULEV car club support, and infrastructure for residents, parking policy and changing their own fleets. These cities will lead the way in increasing uptake through improving the offer to businesses and consumers and will become international exemplars.	Open to all Local Authorities £35m available – may be divided equally amongst 2-4 cities Capital funding but open to innovative solutions for resource funding that supports capital	**Notice of Application** – 31st Dec, 2014 **Workshop** – Jan 2015 **Screening bid** – 20th Feb 2015 **Screening Success –** Mid-Mar 2015 **Final Bids** – 31st Aug 2015 **2-4 winning city announcement** – September/October, 2015
Ultra Low Emission Vehicle Taxi Scheme	£20m available to local authorities who commit to supporting a step change in cleaning up the taxi fleets in their areas through the introduction of ULEV taxis. Taxis can be significant contributors to air quality problems, due to the stop start nature of their driving and their high mileage in urban areas. Targeting improvements to taxi fleet emissions will make a significant improvement to local air quality. Two main themes for bids 1) top up grants for purchase of ULEV taxis; 2) Charging infrastructure.	Open to local authorities UK wide No bid ceiling £20m over 2015-2020	**Workshop** – Jan 2015 **Bid Launch** - March 2015 **Closing Date** – Sep 2015
Low Emission Bus Scheme	£30m from 2015 to clean up bus fleets through deployment of low emission buses in order to influence purchase decisions and speed up the transition to a low emission bus fleet. This could put over 1,000 new low emission buses onto the roads in the UK. Both buses and infrastructure covered.	Bus operators & Local authorities in England and Wales £30m over 3 yrs No announcement yet of bid ceiling	**Workshop** – Jan 2015 **Bid Launch** - March 2015 **Closing Date** – Oct/Sep 2015
Hydrogen Stations	£3.5 million of funding to be matched by industry for 4 to 7 new hydrogen refueling stations in the UK. This will include mobile stations as well as those on stand-alone sites and integrated into conventional petrol forecourts. £2 million of funding for public sector fleets to encourage deployment of around 40 hydrogen FCEVs in focused geographical clusters.	Unknown	Unknown