

## ABERDEEN CITY COUNCIL

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COMMITTEE Enterprise, Planning & Infrastructure  
DATE 23<sup>rd</sup> February 2010  
DIRECTOR Gordon McIntosh, Enterprise, Planning & Infrastructure  
TITLE OF REPORT Low Emissions Zone Feasibility and Associated Projects  
REPORT NUMBER: EP1/10/040

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### **1. PURPOSE OF REPORT**

The purpose of this report is to approve a process for public consultation on the Low Emissions (LEZ) Feasibility Scheme and associated projects, report on the progress of establishing a Car Club for the City and appoint a Councillor to champion the CARE North project in Aberdeen.

### **2. RECOMMENDATION(S)**

It is recommended that the Committee:

- a. Approve the programme of public engagement developed with The Robert Gordon University to engage with the residents, businesses and other stakeholders with regards to a potential Low Emissions Zone and associated projects for the City Centre, which will include workshops and potentially a conference;
- b. Give authorisation for officers to proceed with a tender exercise in order to establish commercial interest and then engage a provider for a Car Club in the City; and
- c. Appoint a Councillor to represent Aberdeen City Council at the CARE North Partners meeting in mid-September 2010, to be hosted by The Robert Gordon University, represent the City on a potential Steering Group for the project and champion the Low Emissions Zone and associated projects.

### **3. FINANCIAL IMPLICATIONS**

The CARE North Project is a three year European project that is funded through a combination of the Interreg IVB programme and match funding from the Council with support from Nestrans and the Scottish Government through the Air Quality budget. The feasibility projects, including promotion, are funded through this stream.

In terms of the Car Club infrastructure, £10,000 has been applied for to the 2010/11 Nestrans budget and the Scottish Government through the Air Quality budget for 2010/11 for lining, signing and promotion of a Traffic Regulation Order. Transform Scotland has also commissioned a report investigating what financial support Local Authorities require when setting up Car Clubs. The draft report recommends that funding is made available in 2011/12 from the Scottish Government and as such this maybe a potential alternative, or complementary, source of funding if it becomes available.

Car Club spaces are usually on-street. Given the role of the Local Authority as the promoter of the scheme these spaces are usually provided free of charge. Per space there is therefore a potential annual loss of revenue to the Council ranging from £120 (if they qualify as residents permits) to £1,400 (based on current year, city centre zones). It is likely that a modest start up will result in two spaces being required on-street. As the Car Club is operated commercially outwith any service provision there should be no other on going revenue costs to the Council.

There may be potential to off-set some of the revenue implications of the free on-street parking namely through the procurement of vehicles through the Council and then lease at market rates back to the Car Club. This option has to be explored further however.

#### **4. SERVICE & COMMUNITY IMPACT**

This report links with National Outcomes 1, 6, 10, 11, 12 and 14 of the Single Outcome Agreement. In terms of 'Vibrant, Dynamic and Forward Looking' this report relates to policy commitments in Transport, Environment and Health. The Local Transport Strategy sets out a number of policies in relation to this report covering air quality, car clubs, car parking, bus improvements and improving the quality of the walking and cycling environment.

An Equalities & Human Rights Impact Assessment has been undertaken for the development of the Local Transport Strategy for which this project is a part. Depending on whether the LEZ proves feasible a further EHRIA will be undertaken on presentation to Committee.

#### **5. OTHER IMPLICATIONS**

There will be a requirement to progress a Traffic Regulation Order if the Car Club Scheme goes ahead.

## 6. REPORT

### Introduction

- 6.0 Members may be aware of a report that went to the Economic Development Sub Committee 30<sup>th</sup> March 2009 entitled 'EU Funded Projects – North Sea Programme' for which approval was given for Aberdeen City Council to participate in a number of European projects. This report relates to the second project approved: Carbon responsible transport strategies in the North Sea Area (CARE North). Approval was formally confirmed by the North Sea Region (NSR) Secretariat in September 2009 allowing the project to commence.
- 6.1 CARE North's brief is to 'develop innovative carbon reduction strategies for urban transport to maintain and improve accessibility in a more carbon-responsible way, and to make the NSR a leader in carbon-efficient accessibility'. Our Partners for the project include the City of Bremen, City of Malmo, City of Göteborg, METRO (West Yorkshire Integrated Transport), the Province of Fryslân, Nestrans and The Robert Gordon University.
- 6.2 The particular work package Aberdeen City is involved in is an assessment of ecological and economic impacts / calculation of CO<sub>2</sub>-reduction for which The Robert Gordon University is the lead partner. This work package deals with the need to address climate change and CO<sub>2</sub> emissions, specifically in relation to an integrated transport strategy. Part of the work package is active engagement with communities, businesses and decision makers to not only quantify the carbon footprint of various transport projects, but to also understand what transport projects will receive public support.
- 6.3 The primary project The Robert Gordon University will study for this work package is allied to Aberdeen's submission to Interreg which is the feasibility of a Low Emissions Zone (LEZ) for the City Centre.
- 6.4 A Low Emissions Zone is a geographically defined area where the most polluting of vehicles are restricted, deterred or discouraged from access and use. The objective of a LEZ is to reduce the use and number of more polluting vehicles in a particular area by setting emission standards or criteria for vehicles entering the Zone, with the aim of improving local air quality. Members may be aware of the current LEZ which operates in London and has an associated congestion charge. Equally effective however are the non-charging LEZs which focus on buses and freight vehicles and operate, for example, in Oxford or Norwich.
- 6.5 The Low Emissions Zone study area relates to the Air Quality Management Area (AQMA) for the City Centre where road traffic is the main source of pollution, and where Aberdeen is predicted to exceed its NO<sub>2</sub> and PM<sub>10</sub> annual mean objectives for 2010 (which are mandatory limit values set under EU law for air quality [European Air Quality legislation, 1996]). On Union Street buses are the main source of the emissions, while on Market

Street HGVs are the principal source. Although cars contribute proportionately less to the total pollution, they account for around 70-80% of total vehicles, causing congestion and hence increased pollution.

- 6.6 The failure of member states to meet EU deadline dates for compliance will result in large fines. The UK government has applied to the EU for an extension to the deadline to meet the PM10 objective; however the initial EU response has vetoed the extension. An application is also to be made for an extension to the deadline for NO2 emissions. Although there is currently no financial penalty imposed on local authorities that fail to meet the objectives, it is likely that any future fines imposed by the EU will be cascaded to relevant authorities.
- 6.7 Aberdeen City Council currently has an Air Quality Action Plan (July 2006) and a revised Action Plan (see Appendix 1 for more detail) is being presented to the Housing & Environment Committee in April, which will be forwarded to April Enterprise, Planning & Infrastructure Committee for final approval. The draft Air Quality Action Plan for 2010 currently includes proposals for a potential LEZ.
- 6.8 In tandem with the LEZ Feasibility Study there are a number of other associated projects and studies currently ongoing, including the consideration of a car club, electric car bays, emissions based charging, bicycle rental, off-bus ticket machines, clean vehicle goods distribution and the feasibility for a consolidation centre which is being explored under the Stratmos project.

### **Aberdeen City Council: Progress to date**

#### **Aberdeen Car Club**

- 6.9 In October 2009 Aberdeen City Council commissioned its term consultant, AECOM, to establish whether a Car Club was feasible for the City. A Car Club is an organisation that owns and maintains a fleet of cars from which its members can book a car for however long they need it. The Club pays for all tax, insurance, servicing, cleaning and fuel, whilst members usually pay a joining fee and for each journey they make.
- 6.10 Car Clubs reap a variety of benefits, both for the individual member and within the wider community. Of particular benefit to Aberdeen City are that Car Club cars have excellent environmental credentials meaning they are lower polluting than the average car; Car Clubs essentially reduce the number of cars on the road as it is estimated that every Club car replaces at least ten private cars<sup>1</sup> – therefore helping to cut emissions and reduce congestion; Car Clubs also assist in areas where there are parking problems because the majority of users will live within 500m of the Car Club location (and give up their car or not buy); and approximately half of all Car

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<sup>1</sup> Atkins & The University of Aberdeen (2009) 'Mitigating Transport's Climate Impact In Scotland' suggests that one car club car replaces 23 cars as 14 cars are sold and 9 are not purchased

Club users are non-car owners, meaning social mobility for this group is radically improved (half of households within City Centre wards do not have access to a car).

- 6.11 Car Clubs currently exist in a number of cities around the UK. Within Scotland, Edinburgh is the closest to home, and has approximately 3,000 members and ninety cars. For a Car Club to be successful it has to be able to secure revenue income for at least 5 hours a day.
- 6.12 The main findings of the Aberdeen Feasibility report are that:
- i. The conditions for a successful car club exist in Aberdeen;
  - ii. A number of car clubs have expressed informal interest in operating in Aberdeen;
  - iii. There are a number of suitable on and off-street locations within the City for a Club car;
  - iv. Aberdeen City Council will have to provide promotional support, and will initially have to be a main customer of the scheme for any growth to occur;
  - v. A model of using pool cars will reduce initial capital investment and act as a catalyst to allow faster growth. Aberdeen City Council pool cars are appropriate vehicles which can be leased to the Car Club, block booked for ACC during the working day, and made available to members of the public outwith these times; and
  - vi. As the local authority Aberdeen City Council would need to provide the on-street infrastructure including the progression of a traffic regulation order, lining and signing (an application for funding is currently with Nestrans and the Scottish Government to cover these costs).
- 6.13 The proposed model limits the amount of investment required by the Council whilst revenue 'costs' are in the form of a loss to the annual parking income of one or two on-street parking spaces (unless the on-street space costs are absorbed by the car club as a 'resident' or 'business' parking space). Further detail on the models considered can be seen in Appendix 2.
- 6.14 There may be potential to off-set some of the revenue implications of the free on-street parking namely through the procurement of vehicles through the Council and then lease at market value back to the Car Club. The Council already has up to 7 pool vehicles available for participation in such a scheme without any requirement to purchase vehicles through procurement. This is the model the City of Edinburgh Council used to establish their Car Club, however it would have to be explored further to make sure Aberdeen City Council is getting best value.
- 6.15 Given the number of benefits, and the ability to minimise and then off-set costs to the Council, authorisation is sought for officers to proceed with a tender exercise in order to establish commercial interest and then engage a provider for a Car Club in the City.

## Public Engagement

- 6.16 As mentioned in paragraph 6.2, part of the work package is active engagement with communities, businesses and decision makers to not only quantify the carbon footprint of various transport projects, but to also understand what transport projects will receive public support.
- 6.17 As such in conjunction with The Robert Gordon University, Aberdeen City Council has drawn up an engagement profile by which they will be able to measure reactions to various proposals. A simplified table is below:

Timeframe	Method
March - May	Questionnaire to businesses, residents and stakeholders
May - August	Analysis and Focus Groups
September	Presentation of results

- 6.18 The results, findings and recommendations from the consultation will be presented to Committee in 2011 in a report produced by RGU. These results will also be used to inform the NSR Interreg programme as best practice across the EU.
- 6.19 There has already been media interest for the project, due to Aberdeen potentially being the first Local Authority in Scotland to progress an LEZ. Given the transnationality of the project and the work being undertaken by RGU, it is proposed that a steering group, with representatives from across Scotland is set up. Given that the City Council will be leading on the LEZ it is recommended a Councillor is appointed to champion the project.

## 7. REPORT AUTHOR DETAILS

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## 8. BACKGROUND PAPERS

Aberdeen Local Transport Strategy (2008-2012)  
Car Club Feasibility Study for Aberdeen (2010)

## Appendix 1: Local Air Quality Management

### Background

Local authorities have a statutory duty to review and assess air quality in their areas and predict the likelihood of exceedance of national objectives for 7 pollutants that are recognised to have an impact on human health. When the objectives are exceeded, or likely to be exceeded, the authority must declare the affected area an Air Quality Management Area (AQMA). Thereafter it must develop and implement an Action Plan to improve the air quality in the designated area. This briefing paper provides information on air quality in Aberdeen and the actions required to meet statutory duties.

### Air Quality in Aberdeen

In Aberdeen the only pollutants of concern are nitrogen dioxide (NO<sub>2</sub>) and particulate matter (PM<sub>10</sub>). These pollutants can exacerbate pre-existing cardiovascular and pulmonary conditions in vulnerable individuals, including people who suffer from asthma. Air pollution is currently estimated to reduce the life expectancy of every person in the UK by an average of 7-8 months with estimated equivalent health costs of up to £20 billion each year.

Although air quality across most of the city is good, exceedances of the NO<sub>2</sub> annual mean and 1-hour objectives occur in parts of the city. Exceedances of the PM<sub>10</sub> annual mean and 24-hour objectives, to be achieved by 2010, are also predicted. Pollution levels in the City Centre, focussing around Market Street and Union Street are particularly high. The City Centre was declared an Air Quality Management Area (AQMA) in 2001 and an Action Plan published in 2005.

More recent monitoring has also indicated that the annual mean objectives for both NO<sub>2</sub> and PM<sub>10</sub> are likely to be exceeded on parts of the Anderson Drive corridor, particularly around Haudagain roundabout, and Wellington Road (Queen Elizabeth II Bridge – Balnagask Circle). These areas were declared AQMAs in November 2008.

Table 1 compares the annual mean concentrations of PM<sub>10</sub> and NO<sub>2</sub> at continuous monitoring locations with the objective value over the period 2006-2008. Clearly concentrations are well in excess of the objectives in the City Centre, and possibly rising, and therefore very substantial reductions are required.

**Table 1: Annual mean PM<sub>10</sub> and NO<sub>2</sub> concentrations at Continuous Monitoring Stations 2006-2008**

Station	NO <sub>2</sub> conc (ugm-3)			PM <sub>10</sub> conc (ugm-3)		
	2006	2007	2008	2006	2007	2008
Errol Place	27	23	25	20	17	18
Union Street	49	53	54	26	19	22
Market Street	55	62	73	51	84	80
Anderson Drive	24	28	25	18	17	18

Wellington Road		40*		26*
<b>Objective value</b>	<b>40</b> (compliance required by 2005)		<b>18</b> (to be achieved by 2010)	

\* 5 months data

### Sources of Pollution

Road traffic is the main source of the raised NO<sub>2</sub> and PM<sub>10</sub> levels in Aberdeen. On Union Street buses are the main source of the emissions, while on Market Street and Wellington Road HGVs are the principal source. Although cars contribute proportionately less to the total pollution, they account for around 70-80% of total vehicles, causing congestion and hence increased pollution.

### 2010 Air Quality Action Plan

The 2005 Action Plan is outdated and requires to be reviewed to take account of new developments, new monitoring data and national policy. The review is particularly relevant as pollution levels have not decreased in recent years despite improvements in vehicle technology. As a result, the Council is developing a new Air Quality Action Plan that will cover all 3 AQMAs.

The consultant AECOM was appointed in spring 2009, using funding from the Scottish Government, to support the Council in the development of the Action Plan. Various options that could be implemented were identified and subsequently considered at a stakeholder workshop that took place in October 2009. Stakeholders included NESTRANS, bus and freight providers, environmental groups, Aberdeen Harbour Board and community councils.

AECOM are currently developing a draft Air Quality Action Plan that will be reported at the April Housing and Environment Committee. Although the AWPR and pedestrianisation of Union Street will reduce pollution levels, it is clear additional measures are necessary if national standards are to be met. The Council will be required to consider measures that may be unpopular and provide the commitment and support to ensure measures are implemented. Measures that are likely to be included within the Action Plan are:

- Road infrastructure measures (e.g. AWPR, Union St pedestrianisation and future measures)
- Planning and strategic policies
- Encouragement of modal shift (Green Travel Plans, public transport priority measures, Park and Rides)
- Additional parking controls
- Increased public awareness
- Potential for Low Emission Zones (restriction of certain vehicle types from a specified area)

The failure of member states to meet EU deadline dates for compliance will result in large fines. The UK government has applied to the EU for an extension to the deadline to meet the PM<sub>10</sub> objective; however the initial EU response has vetoed the extension. An application is also to be made for an extension to the deadline for NO<sub>2</sub> emissions. Although there is currently no financial penalty imposed on

local authorities that fail to meet the objectives, it is likely that any future fines imposed by the EU will be cascaded to relevant authorities. The Scottish Government is additionally considering a more direct approach to authorities that are not making sufficient progress in meeting statutory duties. It is therefore important that the authority develops and implements an Action Plan that will make a significant improvement to air quality, help improve the health of the citizens of Aberdeen and provide a more attractive city in which to live and work.

## Appendix 2: Models for operation of Car Club & Possible Levels of Council Involvement/ Support

	Model	Description	Costs to Council	Savings to Council	Operational Viability/ Level of Risk/ Other considerations	Likely Uptake
1	Independent	Initiation by Car Club operator who identify sites, pay for parking and operate a Car Club wholly independent of Council support	None	None	Unlikely – no operator has come forward on this basis. Low Risk.	Low
2	Minor	Council identifies potential parking bays for leasing and Car Club operators are invited to pay for the bays and then operate within the City	Staff time	None	Unlikely – start up issues as Aberdeen is not currently located within operational distance of any other car club requiring further incentivisation for investment by operators and support from Council. Low Risk.	Low
3	Organic	Council identifies potential parking bays and the operator takes over management of the Council's pool vehicles on a leasing basis which are block booked during business hours and available for public rental during evenings and weekends. Car Clubs are progressed in relevant new property developments.	Staff time Progression of TRO - £1500 per parking bay Costs of corporate membership of car club	Savings to staff time for admin of existing pool cars Likely savings on pool car running costs	Likely interest. Low risk. Request currently with Nestrans for covering costs of TRO making this cost neutral. Vehicle leasing offers an income source that off-sets the membership costs. Cost neutral in terms of expenditure per vehicle.	Medium
4	Intermediate	Same as organic but the Council leases additional vehicles through its credit and then leases them at cost to the operator who utilises the vehicles full-time.	Staff time	Same as Organic Staff time through purchase of additional vehicles	Likely interest. Medium risk. Same as organic, but risk increases if Car Club too ambitious to start with and cannot cover costs.	High
5	Ambitious	Council specifies number of cars required for set up within City and invites operators to provide the service including costs for parking, etc.	Start Up Funding £6,000-£15,000 per car £1,500 per parking bay		Requires capital funding. High risk. Very similar to Independent except the Council invests heavily to ensure adoption. Potential state aid issues.	High

The minimum size of a club that most commercial operators would consider is 5 cars. The actual amount required to implement a scheme varies depending upon the potential market, the speed of development and whether the local authority supports the scheme. Given Aberdeen's location the appeal of operating a car club from start up is low, and development will likely be slow if left to its own devices. Therefore if the Council proceeds with the scheme we would need to support (*not subsidise*) the Car Club from start up.

## **Model recommended: Organic or Intermediate (pending further discussions with potential operators)**

This model consists of a number of different elements – with the potential of leasing of existing pool cars being the most complex. It should be remembered that this paper is the starting point for any discussions with Car Club providers; it does not necessarily mean that all elements will be adopted. The list below represents what the Council is prepared to consider to encourage a Car Club provider to service Aberdeen.

### *Parking Bays*

An application is currently with Nestrans for the 2010/11 capital budget, as well as with the Scottish Government to cover the cost of a TRO, lining and signing for parking bays for the Car Club cars – whoever the prospective operator maybe. There is potential to recharge the car club for these costs if necessary. It would also be possible to charge the Car Club operator for an on-street parking permit similar to residents or business permits.

### *Pool Car – Existing and Future Service Arrangements*

Aberdeen City Council currently has five Citroen C1 pool cars available for use by all Services. Three are based at St Nicholas House, one at Kittybrewster and one at the AECC. Two more pool cars, both of which are Ford Fiesta Econetics, are being purchased for 2009/10 and will be based in the vicinity of St Nicholas House, although a precise location has not yet been identified. Vehicles are currently available for the times that the cars locations reception desks are open. This is essentially Monday-Friday, 9am-5pm. Extensions to these times are allowable if there are exceptional circumstances, such as unavoidable evening work, or events at weekends. For the Car Club it is possible for the Council to block book the pool vehicles for core business hours so that they are still available to Council staff, and then make them freely available to other members outwith these times. Obviously it is still possible for Council staff to book cars out at the weekends and evenings if required for work, however they will have to work round any bookings that have been made by the public. There is no reason for any of the pool cars to be removed from their existing locations meaning that the same service is still available for all staff who currently use the pool vehicles.

### *Costs*

The average annual cost for running a pool car, including fuel, servicing, insurance, road tax and depreciation, is £2,150. This does not include staff time required to organise servicing, booking, key hand outs, basic maintenance etc. Car Club membership costs are determined locally by the operator however typical vehicle use is usually in two-part payments: vehicle hire (£2-£4 per hour) and mileage (15-20p a mile). Depending on booking and leasing arrangements with the Car Club costs for service provision for the Council can be drastically reduced or removed.

### *Leasing*

In order to reduce or cover any membership costs to the Car Club it is proposed that the Council lease the 7 pool vehicles at market rates to the Car Club. This not only offsets the costs of the Car Club to the Council, it improves the vehicle availability for Council staff and immediately provides a high number of vehicles to roll out a service to members of the public.

### *Planning*

In addition to the 7 vehicles potentially being available, suitable locations for Car Clubs will be identified within the City centre for inclusion in new developments. Initial discussions with a number of developers progressing low car housing have indicated that they would be very interested in providing car club membership/ vehicles to residents via section 75 agreements.

### *Pool Vehicle Types*

Given that the project is being progressed as part of the LEZ there is the possibility of incorporating additional types of vehicles into the Car Club. Car Club cars are already lower polluting vehicles, however there may also be a possibility to look at electric or hybrid vehicles at a future date.