Report of the Director of Places

Decision to be taken after 31 July 2013

NORTH LINCOLNSHIRE COUNCIL

HIGHWAYS AND NEIGHBOURHOODS CABINET MEMBER

GREEN FLEET REVIEW

1. OBJECT AND KEY POINTS IN THIS REPORT

1.1 To approve the Green Fleet Review.

2. BACKGROUND INFORMATION

2.1 The council has carried out a number of cross-cutting reviews since 2011. This included the green fleet review which was completed in March 2013. The Head of Fleet Provision was responsible for completing the review.

2.2 The review has looked into all aspects of the council's vehicle operations, including the branded fleet and those other vehicles that are used to enable the council to carry out its responsibilities.

2.3 The review has identified a number of actions and recommendations. Some of these which will require further detailed investigation and analysis.

2.4 A number of the recommendations are seen as key to developing a council-wide fleet strategy.

2.5 The council has a vehicle fleet that would cost approximately £14m to fully replace. A fuel bill in excess of £1m per annum and an annual motor insurance premium of £264,000.

2.6 The review identifies seven actions.

In relation to improving data prior to introducing further changes.

1. Introduce the use of a single council wide fuel card that will enable fuel data to be electronically imported into the council system thereby generating true fuel usage information
2. Develop a cross council tele-matics system for all fleet vehicles.
3. Carry out further detailed analysis to evaluate the full potential of electric vehicles in a "real world" operation. This may require some investment into a number of trial vehicles.
4. Carry out a thorough and in-depth analysis into the use of the grey fleet to develop a strategy for reducing the environmental impact and cost of its operation, such as the increased use of pool vehicles.

In relation to managing fuel consumption and emissions:

5. A fuel champion is identified
6. Further work to establish a driver training and assessment unit is undertaken.
7. A program of limiting the top speed of all council branded fleet vehicles is introduced.

3. OPTIONS FOR CONSIDERATION

3.1 Option 1 is to agree or amend the recommendations contained within the Green Fleet review to reduce the impact of the council fleet operations on the environment. This is the preferred option.

3.2 Option 2 is not to agree the recommendations contained within the Green Fleet review.

4. ANALYSIS OF OPTIONS

4.1 The implementation of the actions contained with the Green Fleet review support a number of council Priorities including “Regenerate Our Area & Increase Prosperity” and “Provide Value for Tax Payers Money”. They are also fundamental in reducing the carbon footprint of the vehicular operations of the council.

4.2 Option 2 does not support any of the council’s priorities. Nor does it reduce the carbon emissions of the vehicle fleet.

4.3 Option 1 is the preferred option.

5. RESOURCE IMPLICATIONS (FINANCIAL, STAFFING, PROPERTY, IT)

5.1 The production of the action plan will be the responsibility of the Head of Fleet and Operational Transport, however there may be a requirement for support from within other service areas and there will be a requirement for other divisions or areas to share information.

6. OUTCOMES OF INTEGRATED IMPACT ASSESSMENT

6.1 No negative impact has been identified.

7. OUTCOMES OF CONSULTATION AND CONFLICTS OF INTERESTS DECLARED

7.1 The Council Management Team support the development of an action plan based on the above recommendations.

8. RECOMMENDATIONS

8.1 That the Cabinet Member approves the seven recommendations emerging from the Green Fleet Review and the development of an action plan to take these forward.

8.2 That the Cabinet Member receives periodic reports in the future on the progress in taking this matter forward.

DIRECTOR OF PLACES

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Background Papers used in the preparation of this report: None

North Lincolnshire Council
Fleet & Transport Division
Green Fleet Review

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EXECUTIVE SUMMARY.

The Head of Fleet Provision has looked at the factors contributing to the impact on the environment of the North Lincolnshire Council fleet operation and has identified some areas of best practice and other areas of concern. It has been identified that the operation of vehicles within the authority varies according to the requirements of the Service Area.

It has been identified that the Council needs to do more towards training drivers and managers to improve not only the green aspect of the fleet but also the safe operation of the vehicles. There is an underlying opinion that vehicle collisions will always happen and there is nothing that can be done to prevent it. Whilst it may been argued that driver training will add to the cost of the operation, properly managed and run driver training will not only save money through lower fuel use and less collisions but there is the opportunity to generate commercial revenue by offering this service to neighbouring authorities.

The reduction on the reliance of the grey fleet and the control of those vehicles that are accepted for use on Council business will also reduce the carbon footprint of the Authority. Compared with other initiatives the use of the grey fleet is not necessarily the most cost effective or green option..

The appointment of a fuel champion is suggested, with the required level of support to ensure that fuel use is monitored and managers are advised of discrepancies and abnormalities in fuel consumption figures. This will allow meaningful investigation and remedial action to take place in a timely manner.

Based on the experiences of other organisations vehicle tele-matics should be installed into all fleet vehicles. This will reduce the amount of unnecessary mileage that is driven, which not only saves money in fuel usage, but will also realise savings in tyre costs, maintenance and potential lease excess mileage charges, when the vehicle reaches the end of its life. It will also give managers the opportunity to better manage mobile staff and would support a fuel champion in identifying where training resources should be placed. A further less tangible benefit is in dispute resolution from

demonstrating that a vehicle was somewhere it should have been, or conversely, wasn't somewhere it shouldn't.

The most significant impact on CO^2 emissions is in mileage reduction. This also has the benefit of reducing fuel usage and therefore operating cost.

Some of the outline recommendations within this review will require difficult decisions to be taken, tracking all fleet vehicles, limiting speeds, and may well be met with opposition from various sectors of the workforce. However, they are decisions that are necessary if the Council wishes to reduce the emissions from its fleet operations.

CHAPTER 1: REVIEW METHODOLOGY

This review was commissioned to look into the fleet operations of North Lincolnshire Council. Its primary objective is to provide the Council with a report of the current state of fleet operations and make short medium and long term recommendations to improve our carbon footprint.

As with all reviews of this nature some of the findings will support other initiatives.

3 REVIEW PROCESS

The Head of Fleet Provision has looked at all aspects of the Council fleet including the Council branded fleet and our grey fleet.

This review looks at the vehicles and drivers that are operating directly on behalf of the Council. It does not look at the vehicle operation of any third parties operating on behalf of the council.

A number of the outline recommendations will require further analysis to quantify exactly what reductions in financial, ecological and risk terms are achievable.

DATA COLLECTION

FUEL & MILEAGE DATA

In compiling this report it has been identified that the data that is required is not easily accessible. This is because there is no single source for fuel and mileage data.

Mileage data on the grey and lease car fleet is recorded on the car plan system.

The fleet division holds fuel data on all branded fleet vehicles, but only if these vehicles draw fuel from the Council's bulk fuel stocks.

To draw fuel from the Council bulk stock requires the use of two electronic keys. One identifies the driver and the other identifies the vehicle. This allows the fleet division to apportion the fuel cost to the correct team.

This system can be overridden by the use of a "plant key". The idea being that for small items of plant, hedge trimmers, brick saws, etc there is no requirement to issue a key to every item and a department or team are issued with a plant key. The cost of the fuel drawn is charged to the user department who then post it to their own internal cost codes.

It is felt that the use of plant keys is one area of the system that may be open to some abuse.

Where branded fleet vehicles are out based (Barton, Brigg etc), fuel cards are used that are procured by operational line management. These cards are chosen on the basis of local filling station ownership.

The Barton Area team have a local Total filling station and for that reason a Total fuel card. In Brigg it is a Murco filling station and therefore a Murco fuel card. The Isle of Axholme Area team use a Jet filling station.

OTHER DATA

Financial data was selected from both the current year and where more appropriate the last full financial year.

Emissions data was taken from the National Indicator returns

CHAPTER 2: CONTRIBUTORY FACTORS

The following are contributory factors into the environmental performance of any vehicular operation irrespective of whether it operates within the public, private or third sector and as such need to be considered in any green fleet review.

Vehicle type and suitability.
Vehicle age.
Vehicle usage & utilisation.
Fuel type.
Driver education and training.
Private car use
Company car policies
Vehicle, selection and operation.
Maintenance.
Weather and geographic conditions.
Technical innovations.

Although not individually listed the above factors are covered in the following appropriate sections

Legislation
Fuel type.
Driver training.
Technical innovation
Maintenance
Private car use

BACKGROUND INFORMATION

LEGISLATION – Emissions Regulations

The European Emissions Standards define the acceptable limits for exhaust emissions for new vehicles sold in member states. The standards are defined in a series of European Union directives that progressively introduce increasingly more stringent standards.

The emissions that are regulated are;-
Nitrogen Oxides (NO^X)
Hydrocarbons (HC)
Carbon Monoxide (CO)
Particulate matter (PM)

These standards are referred to as Euro 1, Euro 2, Euro 3 Euro 4, etc and when applied to large goods vehicles the roman numerator is used Euro I, Euro II, Euro III, Euro IV. - See the following tables

Euro standards for Large Commercial Vehicles

Standard	Date	CO (g/kWh)	NO^x (g/kWh)	HC (g/kWh)	PM (g/kWh)
Euro O	1988 – 1992	12.3	15.8	2.6	-
Euro I	1992 - 1995	4.9	9.0	1.23	0.40
Euro II	1995 - 1999	4.0	7.0	1.1	0.15
Euro III	1999 - 2005	2.1	5.0	0.66	0.1
Euro IV	2005 - 2008	1.5	3.5	0.46	0.02
Euro V	2008 - 2013	1.5	2.0	0.46	0.02
Euro VI	January 2014	1.5	0.4	0.13	0.01

European Emissions Standards for Diesel Passenger Cars

Standard	Date – Type approval	CO (g/km)	NO^x (g/km)	HC (g/km)	PM (g/km)
Euro 1	July 1992	2.72	-	0.97	0.14
Euro 2	January 1996	1.0	-	0.7	0.08
Euro 3	January 2000	0.64	0.5	0.56	0.05
Euro 4	January 2005	0.50	0.25	0.30	0.025
Euro 5	September 2009	0.50	0.180	0.230	0.005
Euro 6	September 2014	0.50	0.080	0.170	0.005

Whereas the standards for large commercial vehicles are defined by engine energy output in grams per kilowatt hour, the standards for passenger cars are defined by vehicle driving distance grams per kilometre. The standards are therefore not comparable.

Irrespective of the above, the emissions standards only regulate the “dirtiness” of the exhaust emissions. They do not regulate the amount of Carbon Dioxide (CO^2) produced.

LEGISLATION - Carbon Dioxide

Because both petrol & diesel are fossil fuels they will always produce Carbon Dioxide (CO^2) when burnt and the well to wheel amounts (including the amount of carbon dixode produced in the extraction, refining, storage and transportation) are as follows

- Diesel: 1 litre of fuel will produce 2.63 Kilograms of Carbon Dioxide.
- Petrol: 1 litre of fuel will produce 2.32 kilograms of Carbon Dioxide.

Therefore to reduce the amount of CO^2 produced from fossil fuels, the Council has to reduce the amount of fuel burnt. There are a number of ways in which this can be achieved.

- Reduce the amount of miles driven.
- Improve the vehicles fuel consumption.
- Improve the drivers driving style to improve fuel consumption
- Replace the vehicle with a more fuel efficient one

Carbon Dioxide Regulation

The New Car CO^2 Regulation No. (EC) 443/2009 sets each vehicle manufacturer a European fleet average CO^2/km target phased in between 2012 and 2020.

The Van (Light Commercial Vehicle) CO^2 Regulation (EU) No. 510/2011 mirrors the above legislation with having its own overall European fleet average CO^2 target, being phased from 2014 which will see the average emissions being reduced to 175 g/km by 2017 and 147 g/km by 2020

ALTERNATIVE FUELS.

Alternative fuelled vehicles are usually described as those vehicles that do not solely use either petrol or diesel fuel. Whilst there are a number of alternatives currently available according to figures published by the Society of Motor Manufacturers and Traders (SMMT) petrol and diesel accounted for over 98% of all new car registrations in 2010

In the majority of cases alternative fuel vehicles cost more in the initial capital cost and this increase in cost needs amortising over the life of the vehicle and then compared with any reduction in fuel cost.

Liquified Petroleum Gas (LPG)

LPG vehicles are typically petrol engined vehicles that are modified or adapted to run on LPG. Whilst this fuel is cheaper than petrol it is not as efficient in terms of miles per gallon. However, overall there is a financial saving to be made. Whilst vehicles can be converted to run on liquified petroleum gas they usually retain the ability to run on petrol and are referred to as dual fuel vehicles.

There are currently only a small number of mainstream manufacturers that produce a LPG powered vehicle.

Proton offer a factory supplied petrol / lpg version of their Gen – 2 and claim savings of £500.00 per annum based on a vehicle doing 10,000 miles per year. Humberside Police have approximately 300 vehicles on their current fleet. However these are being phased out as part of a capital reduction program and are being replaced with diesel vehicles

A further number of other manufacturers including; Ford, Vauxhall, Citroen, offer LPG conversions that are done by independent companies with the approval of the manufacturer.

Compressed Natural Gas & Liquified Natural Gas (CNG & LNG)

A recent report by Leeds City Council claims that they have achieved a 49% saving in well to wheel green house gas emissions compared with their diesel powered refuse collection vehicles. This was achieved using a temporary filling station and it has been estimated that a more efficient filling station would raise the green house gas savings to between 64% and 78%. Additionally the lower fuel expenditure has returned savings in the region of £2,500 per annum.

Hybrid Technology

A hybrid vehicle is one that uses more than one source of power for propulsion. Usually these vehicles combine a battery powered electric motor and an internal combustion engine, that is used to both drive the vehicle but also charge the batteries

A key benefit of hybrid vehicles is that the vehicle is able to operate like a normal petrol / diesel vehicle and refuel at any number of filling stations but enjoy some of the benefits of an electric vehicle with reduced emissions.

Truck manufacturers are starting to develop hybrid vehicles, Volvo Truck Corporation offer a parallel hybrid truck that is capable of operating at weights up to 26 tonnes. Volvo claim it can reduce fuel consumption by up to 20% in refuse operations.

Mercedes and DAF Trucks also offer parallel hybrids in the form of 12 tonne distribution vehicles that they claim can reduce fuel consumption in the case of Mercedes by 15% and DAF by between 10% & 20%.

The main power source in all of these vehicles is a diesel engine that can run on either conventional or bio-renewable diesel fuel. It is supplemented with an electric motor that is used primarily when starting off from standstill, during acceleration and when idling.

When the diesel engine operates, it also recharges the electric motor's batteries. Whenever the brakes are applied, the resultant retardation energy is harnessed by generating more electric power that in turn is stored in the batteries. An intelligent electronic control system ensures that power is always delivered in the most optimum and fuel-efficient way.

Electric Vehicles

4 There are a number of concerns with electric vehicles. The first being the relatively low range when compared with an equivalent internal combustion engine (ICE) powered vehicle. Pure electric vehicles typically deliver a range of 100 miles between charges and then require a number of hours to recharge compared with petrol / diesel cars that deliver 500 miles from a tank of fuel and can be refilled in minutes.

5 Whilst this is a concern to those individuals or organisations that are covering large mileages or are away from base overnight, it is less so for an organisation that cover relatively low daily mileages and return to the same overnight location.

6 A second factor with electric vehicles is the higher purchase price when compared to a diesel or petrol equivalent. This is due in part to the cost of the batteries with manufacturers claiming replacement battery costs as high as £50,000.00. Part of this can offset be by the lower running costs claimed by manufacturers when comparing electricity against diesel or petrol.

7 Example 1.

Smith Electric vehicles use a number of vehicles produced by the mainstream manufacturers that they then convert to electric propulsion. One such conversion is on the Ford Transit that is marketed as the Smith Edison

Smith Electric Vehicles quote form £53,000 to £64,000 dependent on specification. In 2009, North Lincolnshire Council procured a number of Ford Transits including minibus and tipper variants for between £13,500 and £22,500 and although this included a manufacturers discount of between £3,000 and £5,000 it can be seen that there is a significant increase in front end costs for purchasing electric powered vehicles.

Because of the weight of the batteries electric vehicles have a reduced payload over their petrol / diesel counterparts which means that they need selecting based on use.

A standard 17 seat Ford Transit minibus diesel having kerb weight of 2,709 kg is approximately 400 kg lighter than Smith's electric version that has a kerb weight of 3,140 Kg.

Example 2

Tennant UK Limited, manufacture an electric sub-compact precinct sweeper (model 500ZE) that has a net purchase price to North Lincolnshire Council of £118,639.20. Tennant also produce a comparable diesel version (model 636) which has a net purchase price to North Lincolnshire Council of £47,310.14

This is a difference of over £71,000 on the purchase price taking into account the diesel usage over the vehicles 5 year life (5 years has been identified by Tennant as the life of the batteries) as being £28,000. This is based on the diesel usage of our own 636 sweeper over the last 5 years and still leaves a difference of over £43,000. Whilst Tennant may argue there will be a saving in maintenance, they offer the diesel version with a 24 month warranty, whilst the electric version is only warranted for 12 months.

Tennant were also asked to quote on a five year contract hire figure for both machines to include all maintenance. The difference amounts to the electric version costing £60,000 more than the diesel equivalent. Again, taking into account the diesel fuel

usage of £28,000, this still leaves the electric version £32,000 more expensive to operate over 5 years. This equates to a 26% increase in operating costs

It should also be recognised that whilst electric vehicles may have zero emissions at the tail-pipe, unless the power to charge them is sourced from green energy there will still be CO^2 emission from the charging infrastructure.

Currently a grant of up to £5,000 is available to anyone (including Local Authorities) looking to purchase an ultra low emissions car (£8,000 in the case of vans). This is because Government has adopted a 'technology neutral' approach to reducing vehicle emissions. The rationale is that when combined with the lower running costs of the electric vehicle, the whole life costs become more comparable. This grant is currently available for ten private cars that meet the technical requirements of the scheme and seven electric vans (Appendix II)

The Government has also launched a grant scheme to help public sector bodies install 'plug in' vehicle charging infrastructure. This could be up to 75% of the cost of installing new charging points.

All of the above demonstrates that there needs to be a more detailed analysis carried out into the use of electrically powered vehicles

8 DRIVER TRAINING.

Figures produced by SAFED suggest that organisations that adopt their safe and fuel efficient driving programme can achieve fuel savings of up to 10%.

Hull City Council claim fuel savings of 16% attributed to driver training.

Drivers who have vocational licences (typically those drivers that drive goods vehicles over 7.5 tonnes or public service type buses) are required to undergo statutory Driver Certificate of Professional Competence (DCPC) training. This training requires that all vocational drivers undergo 35 hours of approved and recognised training every five years to ensure that they are able to drive “vocationally”

This training will continue to roll on as the requirement is 35 hours every five years.

The organisation is able to tailor the DCPC training to suit its own requirements and can deliver it in house. Therefore an organisation could have a safe and fuel efficient driving course that would form part of the DCPC but any training courses must be approved by Joint Approval Unit for Periodic Training (JAUPT)

TECHNICAL INNOVATION

As vehicle manufacturers are required to provide greener vehicles so a greater emphasis is being placed on those technical innovations that reduce fuel consumption and emissions.

One such innovation is stop start technology. A significant part of urban fuel consumption is caused by engines idling whilst stationary in traffic. Stop start technology will stop the engine whenever the vehicle is stationery for more than a preset time if the gearbox is in neutral and the clutch has been released. The engine then restarts automatically when the driver depresses the clutch. It is available on many vehicles and different manufacturers have different names for the system (BMW is Auto Start-Stop Mercedes is ECO-Start). This technology is no longer confined to expensive luxury cars and is available on vans. Mercedes claim savings of up to 10% from the use of these systems.

Another area that can save fuel and therefore emissions are air management kits that are often seen on large goods vehicles. However, these have the greatest impact on vehicles that are travelling long distances at motorway speeds.

A further technical innovation used to improve an organisations carbon foot print is vehicle tele-matics. Vehicle tele-matics is the generic name given to the technology of sending, receiving and storing information via telecommunication devices in conjunction with effecting control on remote objects.

Vehicle tele-matics can be used to communicate messages between the driver and their depot. It can plot the vehicles path and raise an alert if it deviates from a pre defined route, record the fuel used and mileage travelled and monitor the driving style of any particular driver (harsh acceleration, excessively heavy braking). It can identify when vehicles are speeding. It could also be used to monitor the fuel consumption of two different drivers on the same vehicle. Tele-matics also communicates in real time and can be programmed to report by exception.

Telematics technology has allowed car clubs to emerge, such as the City Car Club in the UK. Telematics-enabled computers allow organisers to track members' usage and bill them on a pay-as-you-drive basis.

Vehicle hire companies are beginning to use vehicle tele-matics to charge organisations for car hire on an hourly usage

Telematics has also been trialed by Norwich Union within the UK for pay as you drive car insurance. The basic idea of telematic motor insurance is that a driver's behavior is monitored directly while the person drives and this information is transmitted to an insurance company. The insurance company then assesses the risk of that driver having an accident and charges insurance premiums accordingly. Trials conducted by Norwich Union in 2005 have found that young drivers (18 to 23 year olds) signing up for telematic auto insurance have had a 20% lower accident rate than the average.

Example 3

Colleagues in a Borough Council in Surrey, fitted tele-matics into 22 vehicles that are employed on parks and countryside duties and have seen a reduction in mileage of 10.53%. They have attributed this to private mileage that was being done over a weekend and outside of normal hours. They have a policy of allowing the staff to take vehicles home overnight and at weekends.

Period	Miles
01.03.09 - 31.05.09	50736
01.03.10 - 31.05.10	51748
Average	51242
01.03.11 - 31.05.11	45847
Actual Reduction	5395
Percentage Reduction	10.53%

The above table shows the reduction in mileage in 2011 for three months between March 1st and May 31st against the average recorded in 2009 and 2010.

Discussions have taken place with Neighbourhood Services Area Team Managers who feel that a Council wide approach to fitting vehicle tracking devices would prove beneficial, as they too feel that there will be an amount of mileage travelled that is down to operators making unnecessary journeys.

Example 4.

A further example has been shared by colleagues within another Local Authority who after a four month trail in 2007 on five vehicles were able to report the following

	Total Mileage 06	**Total Mileage 07**	+/-
Strimming Vehicle	2247	1686	-561
ICT	4197	4392	195
Comm Wardens	4573	4275	-298
TOTAL	**11017**	**10353**	**-664**

The above achieved a 6% saving on fuel, which in turn leads to a 6% saving on CO2 emissions

Other less tangible reported benefits

- 7 instances of speeding logged. Drivers spoken to and warned.
- 28 'outside territory' positions logged. Most were for valid reasons; a couple of individuals were questioned further.
- When vehicles were with servicing agents the Authority could check to see if the vehicles had been road tested.
- System identified a member of staff taking too long on tea/lunch breaks.
- System was able to quantify for the first time – accurately – what level of productivity operators achieve.
- Reports showing which Managers were monitoring their vehicles.
- Stopping and idling times quantified.
- Helped an Asset Manager resolve a performance issue with a member of staff. As a result of this he has been able to re-deploy and improve the service.
- Weekend operatives can be monitored remotely.
- Staff are aware that the Authority is keen to improve productivity and the tracking system provides an incentive to all, to meet that aim.
- The Authority was able to quickly locate a vehicle that was missing from a depot.
- Staff are assured that the vehicle is tracked which allays fears when lone working.
- Provides additional information for insurance companies which may lead to reductions in premiums
- The system recognises individuals/teams that perform beyond expectations and give Managers, the opportunity to recognise the effort made.

Following the trial the Authority in question have subsequently installed the equipment in all road going vehicles within their street-scene and waste management fleet including tractors, mowers, sweepers landscapes.

British Oxygen Company (BOC) discovered that two drivers driving the same vehicle over the same route had a difference of 21% in the amount of fuel used. This was identified due to the amount of time individual drivers spent in top gear and with cruise control selected.

Whilst this example may not be a relevant comparison it does show that tele-matics can be used in a number of ways to improve fuel consumption.

Top Speed Limiters

Limiting the top speed of a vehicle has also been shown to improve the vehicles fuel consumption and therefore its CO^2 emissions.

Ford state that by reducing the speed of a transit van from 70mph down to 65mph will result in between 6.44% and 10.2% fuel saving. Further, if it is reduced from 70mph down to 60mph then the reduction is between 12.72% and 19.4% (based on engine size and power rating).

The Mercedes local area engineer has suggested that a saving of 6% between a speed limiter set to 56mph and 40mph is achievable. This should be verified by a controlled exercise being carried out with a number of fleet vehicles.

With modern commercial vehicles that have computer controlled engine management systems and canbus electrics, limiting the top speed of a vehicle is a software reprogramming exercise and there are no mechanical adjustments to make.

Limiting the top speed has no impact on the acceleration or drivability of the vehicle. When the vehicle reaches the preset speed the system overrides the accelerator position and controls the engine and therefore the road speed. If the vehicle starts to climb a hill or runs into a strong headwind the speed sensors detect the fall in road speed and apply the accelerator.

The sensors and actuators fitted to modern vehicles operate in milliseconds and react far quicker than the driver is able to.

Maintenance.

Maintenance plays a significant part in ensuring that vehicles remain fuel and emissions efficient. Basic items such as tyre pressures, steering alignment or a sticking hand brake cable can all affect the fuel consumption and therefore the exhaust emissions of a vehicle.

Vehicle age.

The Society of Motor Manufacturers and Traders first began collating CO_2 emissions data for new car registrations in 1997. At the time the figures suggested that the average new car on Britain's roads pumped out 189.8 g/km of carbon dioxide.

In 2009, the average CO_2 was 21% below the very first figure in 1997, dropping below 150 g/km.

In 2009, legislation was passed which committed European car manufacturers to cut average CO2 emissions from new cars to 130g/km by 2015 and to 95g/km by 2020.

During the first part of 2011, the 140g/km average was passed (helped in part by the scrappage scheme during the 10 months up to March 2010). This encouraged consumers to trade in their older vehicles for new ones and many were lower-emitting replacements. By June 2011, the average CO_2 emission figure was recorded at 138.5 g/km.

Fuel champions.

A fuel champion can play an important part in successfully managing fuel and emission performance within an organisation. However, they need to have sufficient authority and responsibility to ensure that any fuel management programme is successfully implemented. A fuel champion could be an existing member of staff who already has other responsibilities, but they must be given the required level of resource and support to ensure that the programme is successfully implemented.

A fuel champion would ensure that an organisation remains focussed on achieving the objectives of the programme. A fuel champion would need to have certain skills knowledge and experience. Some of these are listed below:

Skills.

Understanding and analysing fuel consumption etc figures:
Problem identification & problem solving.
How to determine and compare performance from data.
Ability to work with all levels, drivers through to senior management.
Numeracy skills.
Motivational skills.
Sharing Knowledge and expertise, working in teams, networking.

Knowledge

Basic understanding of:
Vehicles and vehicle engineering.
Fuel economy issues & fuel economy software.
On-board computers.
Organisational policies.
Key elements to fuel management.
How to drive in a fuel efficient manner.

Experience

Able to drive all fleet vehicles.
Trained in fuel efficient driving techniques.

9 CHAPTER 3: PRESENT SITUATION & POTENTIAL FUTURE BENEFITS

Council Fleet Make up

North Lincolnshire Council currently operates around three hundred branded fleet vehicles. These range from small 50cc mopeds through to 26 tonne refuse collection vehicles and from ride on mowing machines to 68 seat school coaches. A full fleet listing is attached at appendix 1.

This branded fleet is supplemented by the grey fleet. The “grey fleet” is the term used to describe those vehicles that are used on behalf of an organisations business, but owned by, or leased to, or hired by the employee of the organisation. The use of these vehicles is paid for whilst on Council business by an allowance made to the owner normally on a rate per mile basis.

Hired vehicles make up the remainder of the fleet that operate on behalf of the council. The council operates a contract (framework arrangement) for the supply of short term hire vehicles.

Hire cars

It has been agreed that the provision of all vehicle hires should be arranged via the fleet provision division

Short-term hire cars are covered on the council's fleet insurance policy.

Following the award of a framework contract agreement all hire companies were instructed that the default car for North Lincolnshire Council should be in the sub 100g/Km bracket. This includes cars in Road Fund Licence band A. If a user requires a car outside of this they need to justify the reasons why. This could be further controlled by taking the decision that no cars above 100g/Km are to be supplied.

Hire Companies are also now required to send a monthly report to the Head of Fleet Provision listing what cars have been hired, to which service area, at what cost, and what the CO^2 emissions have been, based on the "on to off hire" mileage and the CO^2 g/Km emissions of the car. This report will also list by exception, cars outside of the sub 100g/Km bracket.

Pool Cars

Within the branded fleet there are small number of pool cars. These are cars that are provided to divisions or teams by the fleet provision division and are driven by many members of the team on, an “as and when” basis

The average age of the pool cars are 3.96 years old and they fall within the Road Fund Licence bands B, C & F with average CO^2 emissions of 121.3 g/Km. The average annual mileage for this group of cars was 18,756 miles per car which has generated 22.70 tonnes of CO^2 per annum.

Grey Fleet

Recently, the council has revised the essential and casual user car schemes by the removal of an essential user allowance and rationalising the mileage rates paid, thereby bringing them into line with HMRC rates.

Based on information taken from the car plan system in 2010/11 the total mileage claimed was 2,994,632 miles. Based upon the current HMRC mileage rates for the first 10,000 miles per annum of 45 pence per mile this equates to £1,347,584.00

Further detailed investigation and analysis of the grey fleet operation is required to identify the most cost effective and environmentally sound method of transporting members of staff. This analysis is required to identify what journeys are being undertaken, at what times and by whom.

There should also be an analysis of the vehicles that are being used with a view to controlling the age and therefore emissions standards of vehicles used on council business

Fuels

Based on the car-plan data 31% of the grey fleet claims were made for vehicles that are diesel.

The majority of the branded fleet runs on Ultra low Sulphur Diesel to BS: EN590. With a 5% bio diesel element this fuel is known as B5. There are a small number of vehicles within the branded fleet that run on petrol, but these are being phased out through the ongoing fleet replacement program.

The largest single user of bunkered fuel is the fleet of refuse collection vehicles and although the front line 26 tonne refuse collection vehicles only make up for 16% of the vehicles that draw fuel from the council's bunkered fuel tanks and 15% of the mileage, they actually account for 45% of the fuel drawn.

The Council operated one alternative fuel car which is a 2003 first generation Toyota Prius Hybrid which has a CO^2 rating of 120g/Km.

LPG

Previously the Council has experimented unsuccessfully with liquid petroleum gas (LPG) powered small vans and a filling station that the council had at the Station Road depot was removed prior to 2004.

There are a small number of mainstream manufacturers that produce a LPG powered vehicle.

Proton offer a factory supplied petrol / lpg version of their Gen – 2 and claim savings of £500 per annum based on a vehicle doing 10,000 miles per year. Humberside Police have approximately 300 vehicles in their current fleet, although following a capital spending review these are being replaced with diesel powered vehicles.

A further number of manufacturers Ford, Vauxhall, Citroen, Saab offer LPG conversions that are done by independent companies with the approval of the manufacturer.

Compressed Natural Gas & Liquefied Natural Gas (CNG & LNG)

A small study was done in 2008 looking at the merits of compressed natural gas vehicles (CNG) and in particular CNG powered refuse collection vehicles powered from Bio - methane derived from waste.

At the time it was estimated that based on the then running cost of a diesel refuse vehicle of 90 pence per mile, a reduction in running costs of 40 pence per mile may be possible.

The above would have saved the equivalent of 850 tonnes of CO^2 per annum in well to wheel green house gas emissions.

It was felt that the production of Bio-methane from waste was not necessarily one of the outputs that was required from the waste procurement project.

Hybrid Technology

As previously stated the Council has operated one petrol electric hybrid car since 2003 and has recorded an average fuel consumption figure of 47.6 mpg over the last full year compared with the VCA published figure of 55.4 combined. This difference in this figure can be attributed to real life fuel consumption being some 15% worse than published figures (*Energy Saving Trust, Fleet Health Check*) and the operation. A hybrid is better suited to stop start urban operations that allow the regenerative braking to play a greater part than long distance motorway travel.

Electric Vehicles

The Council operate a small number of micro – pickups which are used in the main by grounds maintenance staff and are due to be replaced. Unfortunately there is no replacement vehicle available as the manufacturers have stopped exporting the vehicles to the UK.

To overcome this gap some of these vehicles could be replaced with electric vans and discussions are going on between the Head of Fleet provision and the Neighbourhood Services Area Team Managers to look at the suitability of electric vehicles for particular operations.

However these are relatively low mileage vehicles so the tailpipe emissions advantage will be small.

Whilst the low range of electric powered vehicles may be a problem the council has over 100 number of vans that do not cover more the 50 miles per day (appendix IV) and are usually returned to the same location overnight where the charging infrastructure could be installed.

There is also a consideration that the vehicle is purchased out of a capital budget, yet fuel is purchased from revenue and in effect purchasing battery powered vehicles will shift some of the operating costs into the fixed costs. This means is that if a vehicle is standing through lack of work or a seasonal change the user is still paying for “fuel” when in fact with a fossil fuel powered vehicle if it is not being used it is not using fuel.

Driver training.

Currently there is no council-wide approach to driver training and education. There are, however, a number of teams and divisions complying with certain statutory aspects of legislation.

The figures produced by SAFED which state that organisations that adopt their safe and fuel efficient driving programme obtain fuel savings of around 10% compares with the average of 8.7% that was obtained in the smarter driving pilot exercise that was carried out within Highways & Transport in September and October 2010.

A 10% saving in the annual fuel usage of the council will be in the region of 100,000 litres of fuel, yielding a reduction of 263,000kgs of CO^2. This could save the council in the region of £110,000 per annum.

The pilot training was done with members of staff that use their own vehicles on council business and therefore any savings that have been achieved will be by the individual member of staff, and not the council, as the member of staff is reimbursed for the fuel by means of a mileage rate irrespective of the fuel consumption they achieve.

Further the council does not have the ability to see if these drivers are continuing to driver smarter and reduce their CO^2 footprint, or if they have reverted to their pre-training standard. This calls into question the suitability of the pilot exercise and a more appropriate study would have been with drivers of branded fleet vehicles.

Currently drivers within the council who have vocational licences (typically those members of staff who drive goods vehicles over 7.5 tonnes or public service type buses) are undergoing ‘statutory driver certificate of professional competence’ (DCPC) training. This training requires that all vocational drivers will need to undergo 35 hours of approved and recognised training every five years to ensure that they are able to drive “vocationally”. This training will continue to roll on as the requirement is for 35 hours every five years. Advantage has been taken of some funded training that is available as part of a level II NVQ.

Drivers of minibuses are required to hold a MIDAS certificate.

Whilst the purpose of this review is to identify the green aspects of the council fleet operation it should also be noted that accident reduction also reduces the effect of the vehicle fleet on the environment and costs to the council. In 2010/11 approximately 50% of the fleet vehicles were involved in some form of road traffic collision all of which will have impacted on the environment in one way or another.

Based on approximately 100 drivers and an average DCPC training cost of £85.00 per 7 hour period, driver DCPC training will cost the Council approximately £8,500.00 per annum and whilst advantage has been taken of some Government funded training this will only contribute to 14 hours worth of training. Due to a late start the Council only has until 2014 to deliver all 35 hours (2013 in the case of PSV drivers) of training required.

It is understood that a neighbouring authority was looking at setting up an in house driver training section, as they had identified that significant savings on delivering the DCPC could be achieved. However, recent changes to the staffing structure within that authority may well have placed this initiative on hold. It may therefore be an opportune time to considering setting up this facility within North Lincolnshire Council and offering to deliver the training to neighbouring authorities in accordance with our commercial policy objectives, thereby sharing the cost.

A recent review in May 2010 carried out by Zurich Risk Engineering (The Management Services division of the Council‘s Insurance provider) recommended that driving assessments should be instigated for all drivers and further, that for “commercial vehicle drivers” there should be a two yearly retraining programme.

It is also noted in the review that if carried out and formally recorded, defensive driver training can show a fall in accident rates by approximately 50% within 18 to 24 months

The Head of Fleet Provision has produced a proposal to establish an in house driver training facility which would become self-funding and could also generate external revenue.

Vehicle selection and operation

Changes have been made that place whole life costs and environmental factors clearly in the hands of the Head of Fleet Provision who until recently had little control over vehicles that were purchased by the council and the division's function was seen as the mechanism to procure vehicles

Further to this extra vehicles or vehicles that are not like for like replacements now require approving at Director level.

It has been identified that in the past vehicles were chosen because they have the lowest capital cost and little consideration was given to the whole life costs and in particular the fuel usage. One of the reasons behind this is the need to justify that the vehicle offers best value and the easiest, although not the most accurate measure, is the front end capital cost. This has changed in recent years but the lack of available reliable data on fuel consumption and emissions is still a problem. This will improve as the data becomes more readily available.

Ignoring staffing costs, after the depreciation (or funding), in the case of most vehicles, fuel is the second highest cost in vehicle operation.

A further piece of work that is underway is a fleet replacement strategy which builds upon the points and recommendations that are contained within this report.

Technical innovations

Stop start technology

As referred to above, a significant part of urban fuel consumption is caused by engines idling whilst stationary in traffic. Stop-start technology will stop the engine whenever the vehicle is stationary for more than a preset time if the gearbox is in neutral and the clutch is released. The engine then restarts automatically when the driver depresses the clutch.

Certain fleet vehicles have been ordered with this option. However, as with all of these systems there is the ability for the driver to over-ride its operation in case of an emergency and without the correct level of driver education there is the misconception that the vehicle may not start quickly enough and therefore the system is always switched off. This further supports the argument for driver education and training.

Telematics

Vehicle tele-matics and on board computers have been available since the early 1990's but within Local Authorities they are a relatively new technology. This is no doubt because the control of remote workers and the efficient use of fuel and vehicles has proven a bigger issue for the road haulage industry than for local authorities.

The refuse collection fleet have been carrying out a pilot trial of a basic tele-matics system (Masternaut) within front line refuse vehicles since October 2009. Whilst changes to the make up of the collection rounds have meant that a like for like comparison is not possible, the Wastes Services Operations Manager believes that mileage from crews deviating from their planned routes has been completely eradicated.

Consultation with the Area Team Managers has indicated that they feel that a tele-matics system that can alert them to vehicles being over or under loaded would also prove beneficial as overloaded vehicles place the council at risk of prosecution and under-loaded vehicles are not operating efficiently.

As part of a review into the winter service and in particular the operation of the highway gritters, the Highway Operations Manager and the Head of Fleet provision have identified a tele-matics system (Exactrak). This system not only allows management to track where a vehicle has been, but also provides the driver with turn by turn directions of the salting route thereby avoiding wrong turns and wasted fuel but more importantly can control the operation of the salt spreading equipment. This will therefore ensure that the correct amount of salt is spread at correct rate and pattern, achieving a saving in not only the natural resource (salt) but also a financial saving to the council in reduced wastage.

It is understood that the trial of the Masternaut system is due to end in December 2013. A decision will be needed as to whether to continue with telematics or not. If the decision to continue is taken then it is expected that a full procurement and evaluation exercise will be required and this will need to take into account what is required from any council wide system and what added value can be obtained.

Any replacement system should have the functionality to not only track vehicles but also record driving styles. This sort of information can be used to target driver training to ensure that it is delivered to the areas where there is the greatest need.

It should be further noted that while tele-matics may provide managers with information, on which action must be taken, it will not reduce mileage, speeding, fuel usage or emissions without the intervention of management

A further advantage to the council in fitting tele-matics is in dispute resolution. Previously the Authority was unable to defend a legal action which cost in the region of £15,000 when the Highway Operations Division were unable to prove a section of road had been salted. Although this particular risk has been removed with the fitting of the Exactrak system, there are other areas where the actual position of a vehicle at a certain time may be important.

There is currently a business case being developed for the fitting of tele-matics into all fleet vehicles

Top speed limiters

North Lincolnshire Council currently have a vehicle operating within the Highway Operations team that has had the top speed limited to 40 mph to see if this, impacts on the operational efficiency of the vehicle. The feedback from the Highway Operations DLO manager is that to date the operational efficiency has not been affected.

The legal speed limit for large goods vehicles (those over 7.5 tonnes) is 40 mph on all roads, with the exception of 60 mph dual carriageways where large goods vehicles are limited to 50 mph and motorways where they are allowed to travel at 60 mph. However an EU directive has superceded this by requiring that all goods vehicles over 12 tonnes gross vehicle weight and registered since 1 January 1988 be limited to 56 mph (90 kph).

There is an argument that limiting the top speed of a vehicle increases journey times. However, this needs looking at in the context of the operations that the large goods vehicles within the councils fleet carry out. They are not high mileage haulage vehicles that may be covering 100,000 miles per annum, but are low mileage vehicles involved in stop start or low speed operations (road sweeping, gulley emptying, refuse collection, street lighting and highway maintenance) travelling on roads that restricts the legal speed of the vehicle to 40 mph or lower in over 95% of the network.

Of the 890 miles of road network within North Lincolnshire, there are only 44 miles where a large goods vehicle can legally exceed 40 mph and only 24 miles of motorways where large goods vehicles can exceed 50 mph.

If large goods vehicles were restricted to 40 mph then it would take approximately 6 minutes longer to cover the 20 miles of road than at 50 mph and this assumes the vehicle travelling at a constant speed.

An analysis of 1 months data February 2013 from the Masternaut vehicle tracking system has shown that there where over 4,420 instances of vehicles exceeding the speed limit by more than 10%. This includes 1,770 instances of vehicles exceeding the speed limit by more than 15%. Vehicles exceeded the speed limit by more than 30% on 270 occasions

During the same period heavy goods vehicles exceeded the 40mph speed limit by more than 10% on 1,760 occasions and the 50mph speed limit by more than 10% on a further 151 occasions. Based on the 20 working days, on average the heavy goods vehicles that are fitted with the system exceed the 40 mph speed limit 88 times per day. Whilst these issues are being raised with local line management the Masternaut telematics system is only fitted into approximately 20% of the branded fleet.

The speed limits for vehicles are affected if the vehicle is towing a trailer and this is typically 50mph on the majority of the council network (except motorways and 60 mph on dual carriageways). Discussions have taken place and an agreement has been reached with the Area Team Managers that the speed limiter on all new vehicles that are used for towing should be set to a maximum of 50 mph.

It is anticipated that limiting the top speed of vehicles will meet with resistance from certain areas of the workforce.

CHAPTER 4: CONCLUSIONS & OUTLINE RECOMMENDATIONS

In conclusion it can be seen that there are a number of actions that the council is in a position to adopt. Whilst reducing the emissions from vehicles supports the council's priority to regenerate the area, reductions in carbon emissions can be linked directly to reducing cost and this then supports the priority to provide taxpayers with value for money.

The following recommendations are not listed in any order of priority, but are based on the current situation and reflect the areas where there are potential benefits.

- That the Council accepts the green fleet review

- In relation to improving data prior to introducing further changes.

    1. Introduce the use of a single council wide fuel card that will enable fuel data to be electronically imported into the council system thereby generating true fuel usage information.
    2. Develop a cross council tele-matics system for all fleet vehicles.
    3. Carry out further detailed analysis to evaluate the full potential of electric vehicles in a “real world” operation. This may require some investment into a number of trial vehicles.
    4. Carry out a thorough and in-depth analysis into the use of the grey fleet to develop a strategy for reducing the environmental impact and cost of its operation.

- In relation to managing fuel consumption and emissions:

    5. A fuel champion is identified
    6. Further work to assess the feasibility of establishing a driver training and assessment unit is undertaken.
    7. A program of limiting the top speed of all Council branded fleet vehicles is introduced.

Appendices

Appendix I

Full Fleet List

Registration Number	Make/Model (Description)	Vehicle Type (Description)	Fuel Type
YH04ZHK	Renault Kangoo	Car derived van	Diesel
YD54VMU	Renault Kangoo	Car derived van	Diesel
YC54CZU	Renault Kangoo	Car derived van	Diesel
YA55TXD	Renault Kangoo	Car derived van	Diesel
NX55FLR	piaggio porter pick up	SWB flat bed pick-up	Petrol
NX55FLP	piaggio porter pick up	SWB flat bed pick-up	Petrol
FX03EHY	Seat Inca Van	Car derived van	Diesel
FX03EHZ	Seat Inca Van	Car derived van	Diesel
FX06LGW	piaggio porter pick up	SWB flat bed pick-up	Diesel
FX06LGY	piaggio porter pick up	SWB flat bed pick-up	Diesel
YL06CME	Renault Clio	Car derived van	Diesel
YL06CNZ	Renault Clio	Car derived van	Diesel
YL06CMX	Renault Clio	Car derived van	Diesel
YL06CLY	Renault Clio	Car derived van	Diesel
YL06CMK	Renault Clio	Car derived van	Diesel
FV08VJO	Ford Fiesta TDCi	Car derived van	Diesel
FY58WNN	Ford Transit Connect 230	Car derived van	Diesel
FY58NGN	Ford Transit Connect 200	Car derived van	Diesel
FY58WPT	Ford Transit Connect 200	Car derived van	Diesel
FV58COU	Ford Fiesta TDCi	Car derived van	Diesel
FX09YEV	Ford Transit Connect 230	Car derived van	Diesel
FX09YFK	Transit Connect 200 SWB	Car derived van	Diesel
FY09HTF	Transit Connect 200 SWB	Car derived van	Diesel
FY09HUA	Ford Transit Connect 200	Car derived van	Diesel
FX09YGV	Ford Transit Connect 230	Car derived van	Diesel
FY09HWO	Ford Transit Connect 230	Car derived van	Diesel
FY09HWP	Ford Transit Connect 230	Car derived van	Diesel
FY09HVM	Ford Transit Connect 230	Car derived van	Diesel
FX09YBN	Ford Transit Conn T220	Car derived van	Diesel
FV09MJJ	Ford Transit	Car derived van	Diesel
FX59WLG	Ford Fiesta TDCi	Car derived van	Diesel
FX59WPN	Ford Transit 230	Car derived van	Diesel
BD02MWO	Land Rover Defender 110	Four wheel drive	Diesel

NX03UNY	Land Rover Defender 110	Four wheel drive	Diesel
YX02FVH	Iveco 50c11	Minibus LWB 17 seats	Diesel
YX02MVS	Iveco 50c11	Minibus LWB 17 seats	Diesel
YX53EEJ	Iveco 35C13	13 Seat SWB Minibus	Diesel
FJ54LLK	Iveco 40C13	Minibus LWB welfare	Diesel
FJ54LLO	Iveco 40C13	Minibus LWB welfare	Diesel
FJ54LLN	Iveco 40C13	Minibus LWB welfare	Diesel
FJ54LLM	Iveco 40C13	Minibus LWB welfare	Diesel
FJ05YHC	Iveco 40C13	Minibus LWB welfare	Diesel
FN06EER	Iveco 50C14	Minibus LWB welfare	Diesel
FN06EES	Iveco 50C14	Minibus LWB welfare	Diesel
FN06EEP	Iveco 50C14	Minibus LWB welfare	Diesel
FN06EET	Iveco 50C14	Minibus LWB welfare	Diesel
YJ56GRF	Renault Master	Minibus LWB 17 seats	Diesel
YJ56GRK	Renault Master	Minibus LWB 17 seats	Diesel
YJ56GRU	Renault Master	Minibus LWB 17 seats	Diesel
YJ56GRX	Renault Master	Minibus LWB 17 seats	Diesel
YJ56GRZ	Renault Master	Minibus LWB 17 seats	Diesel
YJ56GPZ	Renault Master	Minibus LWB 17 seats	Diesel
FJ07FZU	Iveco 45C15	Minibus LWB 17 seats	Diesel
PX08DXT	Renault Master	Minibus LWB 17 seats	Diesel
PX08DXU	Renault Master	Minibus LWB 17 seats	Diesel
FV58CSZ	Ford Transit	Minibus LWB 17 seats	Diesel
FV58KAA	Ford Transit	Minibus LWB 17 seats	Diesel
FV58KNG	Ford Transit	Minibus LWB 17 seats	Diesel
FV58JZM	Ford Transit	Minibus LWB 17 seats	Diesel
FY58WTN	Ford Transit	Minibus LWB 17 seats	Diesel
FX09YKP	MERCEDES SPRINTER 515CDI	Minibus LWB 14 seats	Diesel
FX09YKR	MERCEDES SPRINTER 515CDI	Minibus LWB 14 seats	Diesel
FX09YKS	MERCEDES SPRINTER 515CDI	Minibus LWB 14 seats	Diesel
FX09YKT	MERCEDES SPRINTER 515CDI	Minibus LWB 14 seats	Diesel
FX09YKU	MERCEDES SPRINTER 515CDI	Minibus LWB 14 seats	Diesel
FV09PFK	Ford Transit	Minibus LWB 17 seats	Diesel
FY59OKD	Ford Transit	Minibus SWB welfare	Diesel
FY59ZZC	Ford Transit 115	Minibus LWB 17 seats	Diesel
AE05DGF	LDV Convoy	Minibus LWB 17 seats	Diesel
FY59YYS	Mercedes 516 cdi	Minibus LWB 15 seats	Diesel
FY59YYT	Mercedes 516 cdi	Minibus LWB 13 seats	Diesel
LL59UAE	Ford Transit	Minibus LWB 17 seats	Diesel

LL59UAN	Ford Transit	Minibus LWB 17 seats	Diesel
LT59KYV	Ford Transit	Minibus LWB 17 seats	Diesel
LS10YOE	Ford Transit	Minibus LWB 17 seats	Diesel
LS10YLW	Ford Transit	Minibus LWB 17 seats	Diesel
LS10YNA	Ford Transit	Minibus LWB 17 seats	Diesel
LS10YSF	Ford Transit	Minibus LWB 17 seats	Diesel
FJ58FPX	Fiat Ducato Welfare Bus	Minibus LWB welfare	Diesel
X311XUG	Renault Master	Panel van LWB	Diesel
FX03CWW	Iveco 35S12	Crew Cab LWB Panel Van	Diesel
YE54VCD	Renault Master	Panel Van MWB	Diesel
YE54VCJ	Renault Master	Panel Van MWB	Diesel
YE54VBZ	Renault Master	Panel Van MWB	Diesel
YF54PXE	Renault Master	Panel Van MWB	Diesel
YC54CZX	Renault Master	Crew Cab LWB Panel Van	Diesel
YC54CZV	Renault Master	Crew Cab LWB Panel Van	Diesel
YJ05UKD	Renault Master	Panel van SWB	Diesel
YP05YAK	Mercedes Sprinter 313	Panel van LWB	Diesel
YG55YMC	Renault Master	Panel van SWB	Diesel
YH55ONT	Renault Master	Panel van SWB	Diesel
FV55DGX	Mercedes Sprinter 313	Panel van SWB	Diesel
YD06YYT	Renault Master	Panel van LWB	Diesel
YG06WSW	Renault Master	Panel van LWB	Diesel
YA06XOK	Renault Master	Panel Van MWB	Diesel
FT08LTO	Ford Transit 330	Panel Van MWB	Diesel
FX59WLN	Ford Transit 100	Panel van LWB	Diesel
LL59UBA	Ford Transit 115	Panel van LWB	Diesel
LL59UDJ	Ford Transit 280	Panel Van MWB	Diesel
LS10YSW	Ford Transit 115	Panel Van MWB	Diesel
YR07FRF	VW Transporter Caravelle	Panel van LWB	Diesel
YK04SFE	Renault Master	LWB refuse panel van	Diesel
YJ05UKC	Renault Master	C/C LWB flat bed pick-up	Diesel
YL55MZN	Renault Master	MWB tipper/pick-up	Diesel
YE06XPA	Renault Master	C/C LWB flat bed pick-up	Diesel
FT08LTY	Ford Transit 350	MWB pick-up	Diesel
FY58NNO	Ford Transit 100	LWB tipper pick-up	Diesel
FY58NPC	Ford Transit 100	LWB tipper pick-up	Diesel
FX58CYT	Mitsubishi Fuso Canter 3C13	LWB tipper pick-up	Diesel
FV09UDD	Ford Transit	LWB tipper pick-up	Diesel
FV09PHY	Ford Transit	LWB tipper pick-up	Diesel

FV09MVT	Ford Transit	LWB tipper pick-up	Diesel
FX59WPM	Ford Transit 100	MWB tipper/pick-up	Diesel
FV52BWK	Vauxhall Vivaro	Panel van SWB	Diesel
YG54WBK	Renault Traffic	Panel van SWB	Diesel
YJ05UKE	Renault Traffic	Panel van SWB	Diesel
YT55FBX	Renault Traffic	Panel van SWB	Diesel
YT55FBA	Renault Traffic	Panel van SWB	Diesel
FY59XTO	Nissan Prima	Minibus SWB welfare	Diesel
KE55JXP	Isuzu NPR70	6200kg tipper lorry	Diesel
FX07FBD	Iveco 02 Euro 4	7.5T Box Lorry with t-lift	Diesel
FX57HDV	Mitsubishi Canter 7C18	7500 kg refuse lorry	Diesel
FX57HGA	Mitsubishi Canter 7C18	7500 kg tipper lorry	Diesel
FX57HGC	Mitsubishi Canter 7C18	7500 kg tipper lorry	Diesel
FX58CYF	Mitsubishi Canter 7C18	7.5T Box Lorry with t-lift	Diesel
FX58CYG	Mitsubishi Canter 7C18	7.5T Box Lorry with t-lift	Diesel
FX58CYH	Mitsubishi Canter 7C18	7.5T Box Lorry with t-lift	Diesel
FX58CYJ	Mitsubishi Fuso Canter 7C18	7.5T gulley tanker lorry	Diesel
FV09BVJ	Mitsubishi Fuso Canter 7C18	7500 kg refuse lorry	Diesel
FV09BVK	Mitsubishi Fuso Canter 7C18	7500 kg refuse lorry	Diesel
FV09BVY	Mitsubishi Fuso Canter 7C18	Luton van	Diesel
FX59ZXV	Mitsubishi Fuso Canter 7C18	7500 kg tipper lorry	Diesel
FX59ZXW	Mitsubishi Fuso Canter 7C18	7500 kg tipper lorry	Diesel
FX59ZXY	Mitsubishi Fuso Canter 7C18	7500 kg tipper lorry	Diesel
FX59ZXZ	Mitsubishi Canter 7C18	7500 kg tipper lorry	Diesel
CX56LCF	DAF FA45.150	mobile exhibition vehicle	Diesel
FX08DCV	MERCEDES ATEGO 1218	12T TIPPER LORRY	Diesel
FX08DCY	MERCEDES ATEGO 1218	12T TIPPER LORRY	Diesel
FX08DCZ	MERCEDES ATEGO 1218	12T TIPPER LORRY	Diesel
YN06BXK	Volvo FL6 E	15000 kg sweeper lorry	Diesel
YJ07FUY	Mercedes Axor	18000 kg sweeper lorry	Diesel
FX57HGG	Mercedes Atego 1518	15000 kg sweeper lorry	Diesel
CN05GBO	Iveco Ford Cargo	18T gulley jetting lorry	Diesel
CN07AMO	Iveco ML180E25K	18T gulley jetting lorry	Diesel
FX09YKD	Mercedes Axor	18T gulley jetting lorry	Diesel
FY02HHF	Iveco Tector 75E17S	7500 kg flat bed lorry	Diesel
FX59ZYD	Mitsubishi Canter 7C18	Hoist panel van	Diesel
FX59ZYE	Mitsubishi Canter 7C18	Hoist panel van	Diesel
FX59ZYF	Mitsubishi Canter 7C18	Hoist panel van	Diesel
FX59ZYG	Mitsubishi Fuso Canter 7C18	Hoist panel van	Diesel

KE54AHC	Isuzu 7.5T (Farid body)	7500 kg refuse lorry	Diesel
FX59ZXU	Mercedes Atego 1524	15T White Lining lorry	Diesel
FX60XYY	Mercedes Axor	18000kg rigid Hiab lorry	Diesel
FY02NKL	New Holland TCE50	Compact Tractor	Diesel
21111	John Deere 4115 comp. tractor	Compact Tractor	Diesel
HN52SOA	Pasquali 650EDS comp. tractor	Compact Tractor	Diesel
YX55HSO	John Deere 2520	Compact Tractor	Diesel
YX56JWZ	John Deere HPX 4 x 4 Gator	Agricultural tractor	Diesel
YX57HPY	John Deere HPX 4 x 4 Gator	Agricultural tractor	Diesel
FX57LDN	Aebi	Agricultural tractor	Diesel
YX58HDH	John Deere 2520	Compact Tractor	Diesel
FX10HRJ	John Deere 6330	4WD Agricultural tractor	Diesel
FX10HRK	John Deere 6330	4WD Agricultural tractor	Diesel
FX10HRL	John Deere 6330	4WD Agricultural tractor	Diesel
FX10HRM	John Deere 6330	4WD Agricultural tractor	Diesel
FX10HRN	John Deere 6330	4WD Agricultural tractor	Diesel
FX10HRO	John Deere 6330	4WD Agricultural tractor	Diesel
YJ60DFO	John Deere HPX 4 x 4 Gator	Agricultural tractor	Diesel
YX62AJY	Lewis Badger	Gravedigging 4wd Tractor	Diesel
YX62AHJ	Lewis Badger	Gravedigging 4wd Tractor	Diesel
YN62EDJ	JCB 360 JSW 160 excavator	rubber tyred 360 excavator	Diesel
YN13CNJ	Case 521F	Loading shovel	Diesel
23006	Toyota 7FDF18	Fork lift truck	Diesel
R859UWE	JCB 3CX Sitemaster Plus	Rear digger	Diesel
FX04BZS	Iveco 65C15	7.5 tonne living van	Diesel
SP61DMO	iveco 140E18 EEV	14 tonne library van	Diesel
GX05KNH	Johnston CX400	Precinct sweeper	Diesel
SN56GEK	Applied 636	Precinct sweeper	Diesel
GX07OGT	johnston cx200	Precinct sweeper	Diesel
GX07OGV	johnston cx200	Precinct sweeper	Diesel
GX07OGU	johnston cx200	Precinct sweeper	Diesel
GX07FYW	Johnston CX400	Precinct sweeper	Diesel
FX59WRP	Ford Fiesta Courier	Small 5 door saloon car	Diesel
FX59WKJ	Ford Fiesta Courier	Small 5 door saloon car	Diesel
FX59WMZ	Ford Fiesta Courier	Small 5 door saloon car	Diesel
FV05PFD	Toyota Hilux	4WD flat bed pick-up	Diesel
FY57KNA	Ford Ranger	4WD flat bed pick-up	Diesel
L1NLC	Mercedes R350 CDI 4-matic	Medium 5 door saloon car	Diesel
FR12WXA	Ford Ranger	4WD flat bed pick-up	Diesel

FR12WXC	Ford Ranger	4WD flat bed pick-up	Diesel
YG62HDE	Ford Ranger	4WD flat bed pick-up	Diesel
YG62EYO	Ford Ranger	4WD flat bed pick-up	Diesel
FT62GSY	Ford Ranger	4WD flat bed pick-up	Diesel
FY59YXA	Mercedes Axor	26000 kg 6x4 gritter	Diesel
FY59YXB	Mercedes Axor	26000 kg 6x4 gritter	Diesel
FY59YXC	Mercedes Axor	26000 kg 6x4 gritter	Diesel
FY59YXD	Mercedes Axor	26000 kg 6x4 gritter	Diesel
FY59YXE	Mercedes Axor	26000 kg 6x4 gritter	Diesel
FX60XZH	Mercedes Axor 1824	18T tipper/gritter	Diesel
FX60XZJ	Mercedes Axor 1824	18T tipper/gritter	Diesel
WN62FKE	MAN 6x4 26 tonne gritter	26000 kg 6x4 gritter	Diesel
WN62FKF	MAN 6x4 26 tonne gritter	26000 kg 6x4 gritter	Diesel
WN62FKG	MAN 6x4 26 tonne gritter	26000 kg 6x4 gritter	Diesel
YY02DKX	Vauxhall Zafira	People carrier	Petrol
YT55OSW	Vauxhall Zafira	People carrier	Diesel
FY56NHE	Ford Galaxy LX	People carrier	Diesel
FY56XYF	Ford Galaxy LX	People carrier	Diesel
FT08JDJ	Ford Galaxy LX	People carrier	Diesel
FT08LPZ	Ford Galaxy LX	People carrier	Diesel
FX59WGZ	Ford Galaxy Edge	People carrier	Diesel
FX59WJU	Ford Galaxy Edge	People carrier	Diesel
FV59AEU	Ford Galaxy 2.3 Ghia	People carrier	Diesel
FV59NXG	Ford Galaxy Edge	People carrier	Diesel
YT03MUU	mercedes vanio people carrier	People carrier	Diesel
YT03MUV	mercedes vanio people carrier	People carrier	Diesel
YK04SFU	Renault Master	Minibus LWB welfare	Diesel
YJ55FSG	Renault Master	Minibus SWB welfare	Diesel
MJ03HXE	Fiat Ducato Maxi	Dual purpose welfare coach	Diesel
MJ03HXD	Fiat Ducato Maxi	Dual purpose welfare coach	Diesel
PN06LNP	Fiat Ducato Welfare Bus	Dual purpose welfare coach	Diesel
PN06LNR	Fiat Ducato Welfare Bus	Dual purpose welfare coach	Diesel
YJ56FRN	Mercedes Vario 613D	Dual purpose welfare coach	Diesel
YJ56FRO	Mercedes Vario 613D	Dual purpose welfare coach	Diesel
YJ56FRR	Mercedes Vario 613D	Dual purpose welfare coach	Diesel
YJ56FRU	Mercedes Vario 613D	Dual purpose welfare coach	Diesel
YJ56FRV	Mercedes Vario 613D	Dual purpose welfare coach	Diesel
YN54LLF	Optare Alero	Minibus LWB 13 seats	Diesel
YN54LLE	Optare Alero	Minibus LWB 13 seats	Diesel

FD54EKX	Irisbus CC150 E24	58 seater coach	Diesel
FD54EKY	Irisbus CC150 E24	68 seater coach	Diesel
YX03KLE	John Deere X495 mower/tractor	Ride on turf care equip.	Diesel
FX05AFN	Ransome 2130 Highway	Ride on turf care equip.	Diesel
FX05AFK	Ransome 2130 Highway	Ride on turf care equip.	Diesel
FX55AKJ	Iseki SF333	Ride on turf care equip.	Diesel
FX55KFV	Ransome 2130 Highway	Ride on turf care equip.	Diesel
FX55KFU	Ransome Parkway 2250 Plus	Ride on turf care equip.	Diesel
FX55KFT	Ransome Parkway 2250 Plus	Ride on turf care equip.	Diesel
FX55KFR	Ransome Commander	Ride on turf care equip.	Diesel
N/A	Fairway 305	Ride on turf care equip.	Diesel
FX09AAE	Jacobsen T Plex Triple	Ride on turf care equip.	Diesel
FX09AAK	Ransome HR3300T	Ride on turf care equip.	Diesel
FX09AAF	RANSOME HR6010	Ride on turf care equip.	Diesel
FX09ABU	RANSOME PARKWAY 2250	Ride on turf care equip.	Diesel
FX09AAO	Ransome 2130 Highway	Ride on turf care equip.	Diesel
FX09EHR	Kubota F3680	Ride on turf care equip.	Diesel
FX09ABO	Ransome 2130 Highway	Ride on turf care equip.	Diesel
FX09AAY	RANSOME HIGHWAY	Ride on turf care equip.	Diesel
FX09AAV	Ransome 2130 Highway	Ride on turf care equip.	Diesel
FX09ABN	RANSOME PARKWAY 2250	Ride on turf care equip.	Diesel
FX09AAN	RANSOME PARKWAY 2250	Ride on turf care equip.	Diesel
FX09AAJ	RANSOME PARKWAY 2250	Ride on turf care equip.	Diesel
FX09AAU	RANSOME PARKWAY 2250	Ride on turf care equip.	Diesel
FX10JVO	Ransome 2130 Highway	Ride on turf care equip.	Diesel
FX10JVP	Ransome 2130 Highway	Ride on turf care equip.	Diesel
FX08KZA	Piaggio Zip	Moped	Petrol
YY62EWJ	Piaggio Zip	Moped	Petrol
YY62EWK	Piaggio Zip	Moped	Petrol
YY62EWM	Piaggio Zip	Moped	Petrol
YY62EWN	Piaggio Zip	Moped	Petrol
YY62NKA	Piaggio Zip	Moped	Petrol
YY62NKC	Piaggio Zip	Moped	Petrol
YY62NKD	Piaggio Zip	Moped	Petrol
YY62NKE	Piaggio Zip	Moped	Petrol
YY62NJX	Piaggio Zip	Moped	Petrol
YY62NJZ	Piaggio Zip	Moped	Petrol
YJ62EWZ	yamaha 450 quad bike	All Terrain Vehicle	Diesel
W302KJL	Seddon M26.280C	26000 kg refuse lorry	Diesel

W301KJL	Seddon M26.280C	26000 kg refuse lorry	Diesel
FX51GVC	Iveco Ford Cargo 130E-18	13000 kg Refuse Lorry	Diesel
YJ54PZA	Seddon Atkinson M526260CDD	26000 kg refuse lorry	Diesel
YJ05SZK	Seddon Atkinson M526275NDD	26000 kg refuse lorry	Diesel
FX05DKO	Leyland Daf FALF55.220	15000 kg refuse lorry	Diesel
YJ55MYB	Seddon Atkinson M526275NDD	26000 kg refuse lorry	Diesel
FX07CGF	Mercedes 2629LL	26000 kg refuse lorry	Diesel
FX07CGE	Mercedes 2629LL	26000 kg refuse lorry	Diesel
FX57HDA	Mercedes 2629LL	26000 kg refuse lorry	Diesel
FX57HDC	Mercedes 2629LL	26000 kg refuse lorry	Diesel
FX57HDE	Mercedes 2629LL	26000 kg refuse lorry	Diesel
FX57HDF	Mercedes 2629LL	26000 kg refuse lorry	Diesel
FX57HDG	Mercedes 2629LL	26000 kg refuse lorry	Diesel
FX57HDH	Mercedes 2629LL	26000 kg refuse lorry	Diesel
FX57HDJ	Mercedes 2629LL	26000 kg refuse lorry	Diesel
FX57HDK	Mercedes 2629LL	26000 kg refuse lorry	Diesel
FX57HDL	Mercedes 2629LL	26000 kg refuse lorry	Diesel
FX57HDN	Mercedes 2629LL	26000 kg refuse lorry	Diesel
FX57HDO	Mercedes 2629LL	26000 kg refuse lorry	Diesel
FX57HDU	Mercedes Econic 1824LL	18000kg refuse lorry	Diesel
FX08DGZ	Mercedes 2629LL	26000 kg refuse lorry	Diesel
FX58CYL	Mercedes 2629LL	26000 kg refuse lorry	Diesel
FX58CYO	Mercedes 2629LL	26000 kg refuse lorry	Diesel
FX58CYP	Mercedes 2629LL	26000 kg refuse lorry	Diesel
FX58CYS	Mercedes 2629LL	26000 kg refuse lorry	Diesel
NX09CZN	Iveco 06 Euro 5	14000kg Refuse Lorry	Diesel
FY59ZBE	Mercedes 2629LL	26000 kg refuse lorry	Diesel
FV59XAW	Mercedes 2629LL	26000 kg refuse lorry	Diesel
FV59XAX	Mercedes 2629LL	26000 kg refuse lorry	Diesel
FX60XZK	Mercedes 2629LL	26000 kg refuse lorry	Diesel
FX60XZL	Mercedes 2629LL	26000 kg refuse lorry	Diesel
YP59HFZ	Mercedes 2629LL	26000 kg refuse lorry	Diesel

Appendix II

Electric Vehicles Eligible for the Government Grant

10

Mitsubishi i-MiEV

Smart fortwo electric drive

Peugeot iOn

Nissan Leaf

Tata Vista

Citroen CZero

Toyota Prius Plug-in

Chevrolet Volt

Vauxhall Ampera

Electric vehicle comparison chart

Car	Type	Range (Miles)	Full Charge	Power Unit	weight	Seats	Top Speed	SRP	Available
Mitsubishi	Electric	80	6 Hrs	47kW	1105KG	4	81MPH	£28,990	Jan 2011
Smart	Electric	84	8 Hrs	30kW	952KG	2	62MPH	£16000	Jan 2011
Peugeot	Electric	9	6 Hrs	47kW	1120KG	4	81MPH	Lease only	Jan 2011
Nissan	Electric	10	8 Hrs	90kW	1620KG	5	93MPH	£28990	Mar 2011
Tata	Electric	100	8 Hrs	50kW	1291KG	4	65MPH	£28600	Mar 2011
Citroen	Electric	80	6 Hrs	47kW	1105KG	4	80MPH	£31000	Early 2011
Toyota	Hybrid	N/A	N/A	60kW	1420KG	5	112MPH	£31000	Eary 2012
Chevrolet	Hybrid	N/A	N/A	111kW	1720KG	4	100MPH	£30000	Eary 2012
Vauxhall	Hybrid	N/A	N/A	111kW	1720KG	4	100MPH	£33995	Eary 2012

Source, www.government-grants.co.uk/electric-car-grants.

Appendix III

Fleet Vans & Minibuses averaging less than 50 miles per day

Registration Number	Fleet Number	Make/Model (Description)	Average annual mileage
FX03EHY	01501	Seat Inca Van	701
W415 HEE	02042	Land Rover Defender 90	1077
T64GFP	78074	Citroen Relay 1400	1141
V422EJU	78078	Citroen Relay 1400	1334
FX06LGY	01505	Piaggio Porter pick up	1355
FX09YGV	01520	Ford Transit Connect 230	2115
FV52BWK	06070	Vauxhall Vivaro	2479
LS10YNA	03394	Ford Transit	2550
YT03 MUU	70027	Mercedes Vaneo	2560
FX03EHZ	01503	Seat Inca Van	2669
FX09YBN	01524	Ford Transit Conn T220	2746
YJ05UKE	06091	Renault Traffic	2877
FY09HWO	01521	Ford Transit Connect 230	2885
YL06CLY	01509	Renault Clio	2886
FV58COU	01515	Ford Fiesta TDCi	2992
LL59UBA	04223	Ford Transit 115	3366
FY09HTF	01518	Transit Connect 200 SWB	3439
FY09HUA	01519	Ford Transit Connect 200	3466
FY09HVM	01523	Ford Transit Connect 230	3845
YT03 MUV	70028	Mercedes Vaneo	3912
YC54CZX	04208	Renault Master	3972
FX03EJA	01502	Seat Inca Van	4219
FX09YFK	01517	Transit Connect 200 SWB	4232
FX59WLN	04222	Ford Transit 100	4472
LS10YSF	03395	Ford Transit	4518
YP05YAK	04211	Mercedes Sprinter 313	4688
NX55FLR	01499	Piaggio Porter pick up	4824
YC54CZV	04209	Renault Master	5059
FV55DGX	04214	Mercedes Sprinter 313	5137
YF54PXE	04207	Renault Master	5147
YG06WSW	04218	Renault Master	5238
FX06LGW	01504	Piaggio Porter pick up	5254
FY58WNN	01512	Ford Transit Connect 230	5413
FT08LPZ	70022	Ford Galaxy LX	5488
YG55YMC	04212	Renault Master	5506
BD02MWO	02041	Land Rover Defender 110	5676
FX59WMZ	48127	Ford Fiesta Courier	5719
YL06CMK	01510	Renault Clio	5816
LS10YLW	03393	Ford Transit	5876
FV52OFN	01472	Vauxhall Combo Merit	5985
FX58CYT	05130	Mitsubishi Fuso Canter	5986
LT59KYV	03391	Ford Transit	6047
YX02OBT	70011	Vauxhall Zafira	6109
YA55TXD	01498	Renault Kangoo	6244

NX55FLP	01500	Piaggio Porter pick up	6273
YB55RYW	01497	Renault Kangoo	6289
LL59UDJ	04224	Ford Transit 280	6325
FY09HWP	01522	Ford Transit Connect 230	6327
FX03CWW	04168	Iveco 35S12	6367
FV09UDD	05131	Ford Transit	6602
FY58NNO	05128	Ford Transit 100	6650
YE06XPA	05124	Renault Master	6665
FT08LTO	04220	Ford Transit 330	6722
YH55ONT	04213	Renault Master	6793
YA06XOK	04219	Renault Master	7021
FX09YKT	03381	Mercedes Sprinter 515CDI	7115
YE54VCD	04203	Renault Master	7224
X311XUG	04157	Renault Master	7366
FY58NPC	05129	Ford Transit 100	7449
FV09MVT	05133	Ford Transit	7461
YL06CMX	01508	Renault Clio	7520
FV09PHY	05132	Ford Transit	7555
FY56NHE	70019	Ford Galaxy LX	7586
YJ05UKC	05121	Renault Master	7617
FY58WPT	01514	Ford Transit Connect 200	7731
FT08LTY	05126	Ford Transit 350	7763
YY02DKX	70012	Vauxhall Zafira	7919
FT08JDJ	70021	Ford Galaxy LX	7930
FX09YEV	01516	Ford Transit Connect 230	7948
PN06LNR	78088	Fiat Ducato Welfare Bus	8357
LL59UAN	03390	Ford Transit	8415
YJ56GRK	03364	Renault Master	8483
FX09YKU	03382	Mercedes Sprinter 515CDI	8501
YJ05UKD	04210	Renault Master	8763
YJ56GRF	03363	Renault Master	8819
YL55MZN	05123	Renault Master	8876
YE54VCJ	04204	Renault Master	8945
LS10YOE	03392	Ford Transit	8968
MJ03HXD	78083	Fiat Ducato Maxi	8993
FY58NGN	01513	Ford Transit Connect 200	9013
FY56XYF	70020	Ford Galaxy LX	9255
BL53EWO	78086	Fiat Ducato Welfare Bus	9477
FX59WKJ	48126	Ford Fiesta Courier	9746
FV09MJJ	01525	Ford Transit	9793
FY57KNA	49054	Ford Ranger	9875
T65GFP	78075	Citroen Relay 1400	9962
MJ03HXE	78082	Fiat Ducato Maxi	9998
FX59WPM	05134	Ford Transit 100	10237
YE54VBZ	04205	Renault Master	10249
FY59YYT	03388	Mercedes 516 cdi	10508
YF06WNC	05125	Renault Master	10523
T67GFP	78076	Citroen Relay 1400	10740
YJ56GRX	03366	Renault Master	10976
FY59XTO	06095	Nissan Prima	11020
FJ07FZU	03369	Iveco 45C15	11166
YX53EEJ	03346	Iveco 35C13	11230
FV05PFD	49053	Toyota Hilux	11233
FV08VJO	01511	Ford Fiesta TDCi	11281
YK04SFU	76014	Renault Master	11836

V421EJU	78079	Citroen Relay 1400	11927
FN06EEP	03361	Iveco 50C14	12602
YL06CME	01506	Renault Clio	12668
YL06CNZ	01507	Renault Clio	12846
FY59ZZC	03385	Ford Transit 115	12977