

Electric Vehicles: Initiatives in Rotherham

Current Situation

The Council operates a large number of vehicles of various types, ranging from refuse collection trucks to light goods vehicles.

Some of these cannot be replaced with electric vehicles
However, the following EV types are tried and tested:

- 17 seat all-electric minibus
- 3.5t-4.6t “Transit” van
- Refuse collection trucks (PVI operating in Paris)
- 650kg light vans
- 22 and 42 seat buses
- 2-5 seat cars

Current local uses (1)



RMBC leases a Goupil G3-2 Electric Quadricycle used in the Town Centre.

This type of use is ideal due to limited mileage, clean and quiet operation.

Although not an air quality management area, low emissions in the Town Centre are important.

Current local uses (2)



RMBC has a partnership with Morrison Plc who do repairs on council owned Properties.

Morrison will take delivery of 5 Renault Kangoo electric vans in Nov 2011. These will be used as support vehicles for their operations, as well as part of a long-term trial. Charging points will be installed.

Current local uses (3)



RMBC bought an electric bike (left) in 2004. This has been used by council officers, students on work placements as well as a PCSO based in the town centre.

As part of a “Get Cycling” initiative at Ventura in the Manvers area the council has bought a high quality electric bike (right) for potential users to “try before they buy”



Future Uses

A local lettings company is likely to be introducing an electric vehicle in support of their operations, RMBC will provide a charging point on street near to their site which will be the first in the borough!

Hopefully the first of many!

Future Uses (2)



The new council building, Riverside House will have 5 charging points for electric vehicles

Local & Regional

- Both local and county-wide initiatives are financed from the Local Transport Plan.
- Local sustainable transport projects may also be funded from developer contributions from s106 or s278 agreements.
- An example of a wider regional scheme is the pending bid for “Plugged in Yorkshire” funding from ERDF to provide electric recharging infrastructure across the whole of Yorkshire and the Humber.



Plugged in Yorkshire Expected Outputs



72 Electric vehicle recharging points at SME premises and strategic locations throughout South Yorkshire.

This would be supported by SME businesses participating in long term electric vehicle trials.

The “grey fleet” and arguments for pool cars

- The council “grey fleet” does approximately 2.5 million miles every year.
- At 40p a mile this costs approximately £1 million!
- CO2 emissions are estimated at 834 tonnes p.a.

To provide a EV vehicle fleet to cover that mileage, we could assume each vehicle could realistically travel an average of 8000miles per annum (that is 32 miles per working day - so well within range of an EV)

- This equates to around 310 vehicles.

The “grey fleet” and arguments for pool cars (2)

- This would give an immediate 40% CO2 reduction of 333 tonnes
- Assuming a lease cost of £5000 per annum per vehicle this gives a fleet cost of £1.55 million for vehicles with an approximate fuel cost total of £93,000
- Annual costs would be £1.64 million p.a. (current grey fleet costs are £1 million p.a.)

Cost vs Benefit

- The additional costs to the authority would be £640K p.a.
- The immediate benefit would be the carbon reduction of 333 tonnes.
- There may be an argument that a combination of trip reduction (30%) through other methods and a partial EV solution would produce a cost neutral outcome.
- EVs should be part of an overall sustainable travel solution to include increased public transport use, cycling and walking.

Council Fleet (1)

- The council fleet consists of a massively diverse range of vehicles, everything from street lighting hoists, through refuse collection vehicles to light vans and cars.
- Most of the vehicles are on contract hire, of the 195 vehicles which make up the fleet only 20 are owned by the council largely buses and minibuses.
- The contract hire vehicles are generally no older than 5 years which enables advances in vehicle efficiency to be delivered to operational departments.
- Based on Euro compliance older vehicles are more likely to produce high levels of CO₂
- The council fleet manager advises that commercial vehicles up to 3.5 tonnes have potential for electric alternatives. Larger vehicles are likely to be diesel/Hybrid, before larger electric vehicles become viable.

Council Fleet (2)

- If the specialised vehicles are discounted along with those over 3.5 tonnes, that leaves the following vehicles that could be readily replaced with EV equivalents.

Vehicle Type	Contract Hire
Cars	20
Small vans	30
Large vans	20
3.5 ton Tipper/variants	18

Council Fleet (3)

- CO₂ savings would be as follows (assuming that approximately half the vehicles in the council fleet could be replaced).
- Average emissions savings would be 40% if non green electricity is used.
- The savings would therefore be approximately 600 tonnes of CO₂ *per annum*.
- In conjunction with the grey fleet savings this would amount to a 24% saving of overall fleet CO₂ emissions.

Conclusion

- A large part of both the council fleet and the grey fleet could be replaced with EVs.
- The process should be inherently linked to the Council Travel Plan.
- Further more detailed study is required to determine the number and speed at which vehicles are replaced.
- Significant carbon savings are possible from both fleets (24% overall).
- A green electricity supply would further enhance the savings.

CO₂ and council vehicle operations

Period	Emission Data	Tonnes of CO ₂
2008/2009	Work Related Private Vehicle Use	961
	Fleet Transport	3,853
	Total	4,814
2009/2010	Work Related Private Vehicle Use	944
	Fleet Transport	4,246
	Total	5,190
2010/2011	Work Related Private Vehicle Use	834
	Fleet Transport	3,134
	Total	3,968

The table shows that we are already making inroads into carbon reduction, this would accelerate with the introduction of EVs.

Moving towards CO₂ reduction

Rotherham Council tackles grey fleet use

From Fleet News 23/02/2010

Local authority fleet provider TransLinc has supplied 15 fuel-efficient diesel hatchbacks to Rotherham Council as part of its move away from grey fleet vehicle usage.

The Citroen C1 1.4HDi models will be used by the council's domiciliary care teams and mean that employees will no longer be using their own cars, or short term hire vehicles, for work purposes.

The new fleet also enables the council to operate a single fuel policy, monitor vehicle usage and maintenance more effectively, and cut operating costs.

Craig Simpson, corporate transport manager at Rotherham Council, said:

"Our carer teams had previously been using grey fleet and spot hire vehicles.

"We've now streamlined this fleet by providing our own vehicles. The Citroen C1s are returning around 65mpg and 109g/km CO2 compared to around 39mpg and 163g/km for the spot hire vehicles they have replaced."

TransLinc has a seven-year contract with Rotherham Council and has so far delivered 450 vehicles, ranging from compact hatchbacks to 18-tonne commercial vehicles.

How are we measuring up?

Claimed Mileage

