

**Transforming Markets: TransportEnergy  
Low Carbon Programmes  
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Saving Trust

# EST Vision & Mission

- **Vision**

A world where sustainable energy is the choice for all individuals and organisations

- **Mission**

Our mission is to inform and transform. To turn good intentions into effective action

# EST Overview

- Established by Government following the Rio summit
- Key role in delivering the UK's climate change programme and the UK's air quality strategy
- Three Business Units:   Energy Efficiency  
                                     Renewable Energy  
                                     Transport Energy



## Goals:

Achieve the sustainable and efficient use of energy in transport,

Cut vehicle carbon dioxide emissions which are a key contributor to global warming

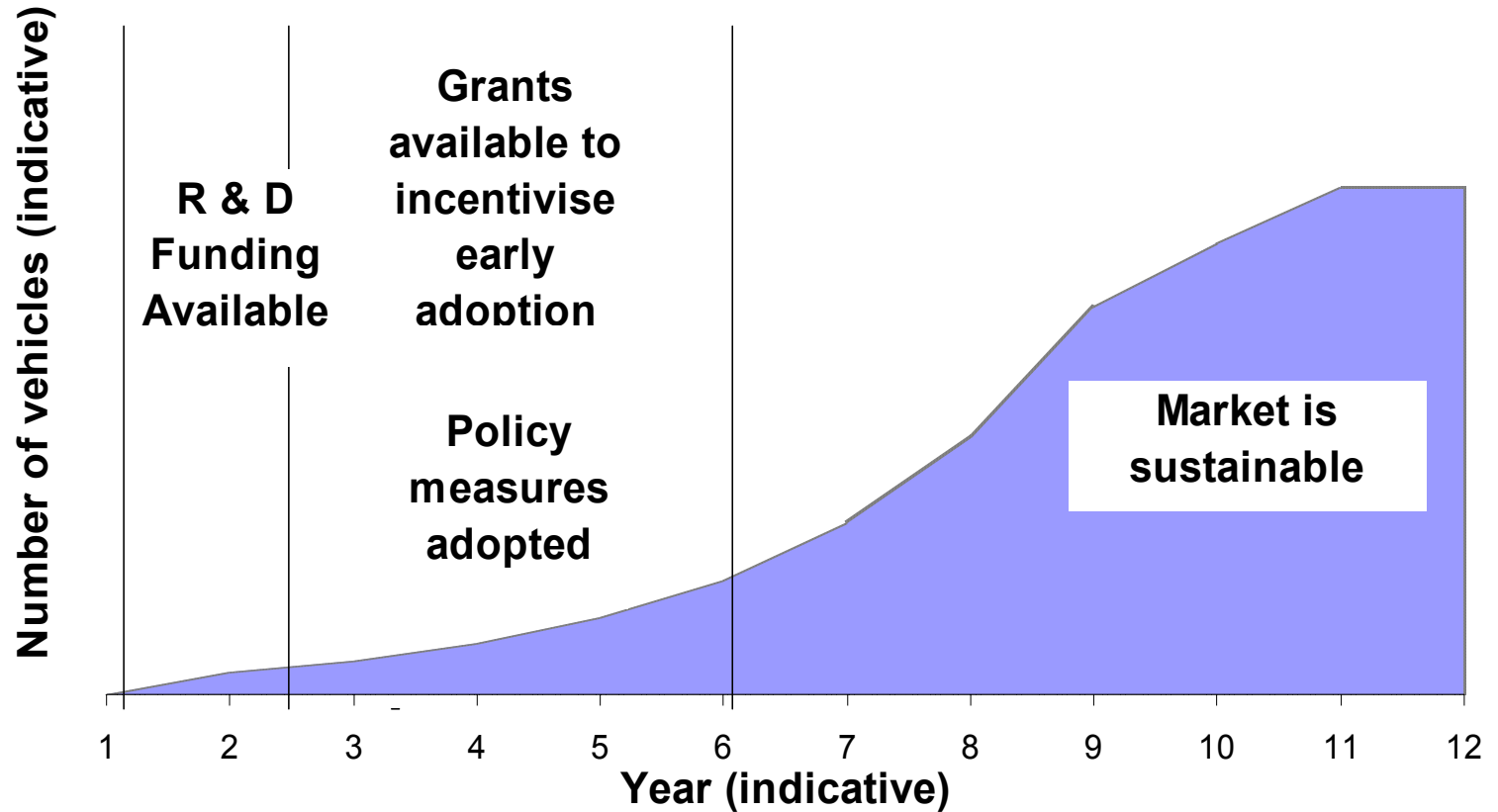
Improve air quality specifically in our urban areas through reducing exhaust pollution



# The Need for Change

- Climate change
  - Kyoto target- 12.5% below 1990 levels by 2012
  - UK Target CO<sub>2</sub>- 60% below 1990 levels
- Local air quality
  - Euro standards alone are not enough
  - Targets for NO<sub>2</sub> and PM<sub>10</sub> likely to be exceeded in many areas, which has led to the establishment of 122 air quality management areas across the UK
- Powering Future Vehicles Targets
  - 10% sales of low-carbon cars by 2012 (<100gCO<sub>2</sub>/km)
  - 600 new low-carbon buses sold p.a. in UK (>30% less CO<sub>2</sub>)

# Market Transformation: Diagram



# Delivering the Powering Future Vehicles Strategy

- **PowerShift**
  - Grants for new clean vehicles and conversions
- **CleanUp**
  - Fit emission reduction equipment to older vehicles in high polluting air quality hotspots
- **New Vehicle Technology Fund**
  - Demonstration of innovation
- **Best Practice**
  - Efficient transport and travel plans
- **Cleaner Drive**
  - Reduce market barriers for clean vehicles

# New Vehicle Technology Fund

- Remit: Support the development of innovative low carbon vehicle technologies
- Grants to:
  - encourage and support vehicle technology demonstrations
  - support alternative fuel infrastructure

## NVTF: Current Activities

- Currently supporting 12 demonstrations, including:
  - Diesel/petrol/mini turbine/LPG hybrids
  - Electric tram/urban delivery vehicle's
  - Hydrogen fuel cell buses (CUTE Project)
  - Hydrogen fuel infrastructure
- NVTF grants are independent from PowerShift and CleanUp



Hydrogen Fuel Cell Bus- DaimlerChrysler Citaro Prototype: Three being trialled in London 2004-5 as part of CUTE project. See [www.cute-eu.net](http://www.cute-eu.net)

# Ultra Low Carbon Car Challenge

- Challenge is for an affordable family car, capable of being mass produced and travel 1,000 miles between refills (effectively 80 mpg) and emit 100g/km of CO<sub>2</sub> or less (well to wheel)
- Winners announced October 2003:

Company	Project Description Technology	Partners / Suppliers
MG Rover	Hybrid Vehicle	MG Rover - OEM Mira - test and vehicle systems development Powertrain for the engine
Zytek	Hybrid Vehicle	Zytek - system supplier Zebra batteries
Ricardo	Hybrid Vehicle	PSA - OEM vehicle provider Ricardo Systems design QinteQ for the electrical system drive

# NVTF Demonstration Vehicles





# PowerShift

- **Goal:**

- To create a sustainable market in the UK for cleaner low carbon vehicles
- Passenger cars, Natural Gas Heavy Duty Vehicles

- **Objectives:**

- To encourage OEM investment in cleaner vehicles
- To encourage conversions to cleaner vehicles
- To increase use of electric and hybrid vehicles

# PowerShift Grant Levels 04-05

VEHICLE CATEGORY	FUEL/TECHNOLOGY TYPE			
	LPG	NATURAL GAS	HYBRID	ELECTRIC
MOPEDS	-	-	-	£200
PASSENGER VEHICLES <=400kg UNLADEN MASS & GOODS VEHICLES <=550KG UNLADEN MASS	-	-	-	£1,000
PASSENGER CARS (EC CLASSIFICATION M1) <=3499KG GVW & CAR DERIVED VANS (EC CLASSIFICATION N1)<=3499KG GVW	£700	-	£700	£1,500
VANS < 3,500KG GVW & MINIBUSES 9-16 SEATS	£800	-	-	£1,500
HGVs 3,500 – 7,499KG GVW & BUSES 17-24 SEATS	-	£2,100	-	-
HGVs 7,500 – 14,999KG GVW & BUSES 24-35 SEATS	-	-	-	-
HGVs 15,000 – 26,000KG GVW & BUSES >=36 SEATS	-	£9,000	-	-
HGVs > 26,000KG GVW		£13,000		

# PowerShift Euro 5 Natural Gas: Additional Incentive

Vehicle Category	Additional Grant	Total Grant FY04-05 (Table 1+2)
HGV 3,500 – 7,499KG & BUSES 17-24 SEATS	£1,000	£3,100
HGV 7,500 – 14,999KG & BUSES 24-35 SEATS	£2,000	n/a
HGV 15,000 – 26,000KG & BUSES ≥36 SEATS	£3,000	£12,000
HGV > 26,000KG	£5,000	£18,000



**Petrol / Electric Hybrid – Honda Civic 1.3 IMA**





**LPG Van – Ford Transit**



**Natural Gas Truck– Scania HGV**



# CleanUp

## ■ Remit:

To reduce air pollution in urban “hotspots” by targeting high polluting vehicles

## Objectives:

- Fitting particulate traps or oxidation catalysts to diesel exhaust systems
- Conversion of diesel engines to run on LPG or natural gas
- Re-powering (replacement of an old diesel engine by a newer, cleaner one)

## CleanUp Grant Values / £ (As of 1 April 2004)

Type	<3,500 kg	3,500 - <7,499kg GVW	<7,500 – 13,999kg GVW	=>14,000 – 27,999kg GVW	=> 28,000kg GVW
SCRF	**	**	**	£7,125	**
EGRF	**	**	£5,950	£6,650	**
SCRF upgrade	**	**	**	£3,375	**
EGRF upgrade	**	**	£3,150	£3,150	**
DPF Retrofit	**	£1,500	£2,100	£2,300	£2,600
DPF OEM Line Fitment	**	£1,200	£1,650	£1,900	£2,050
CAT	£150	£200	£300	£400	**
Diesel re-powers	£2,500	**	£6,000	£7,500	**
LPG Taxi conversions	£5,250	**	**	**	**
Natural Gas re- powers	**	**	**	£12,000	**



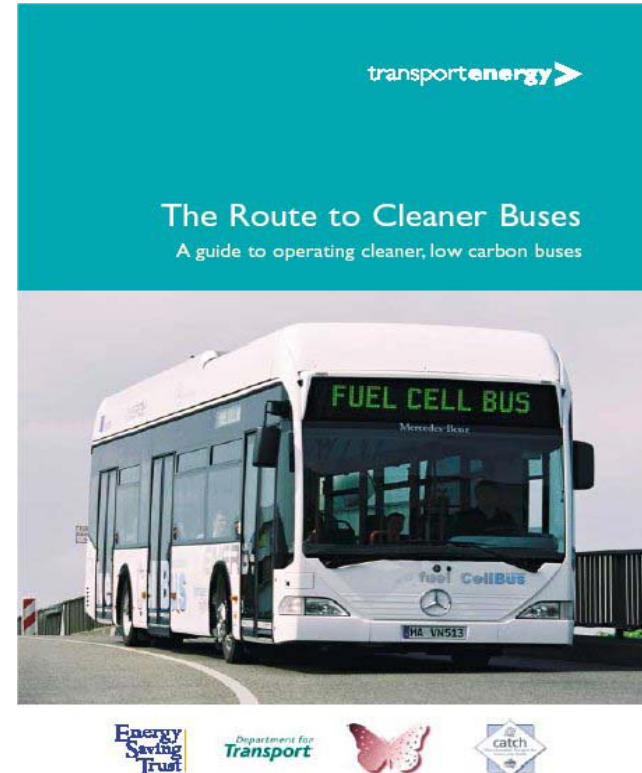
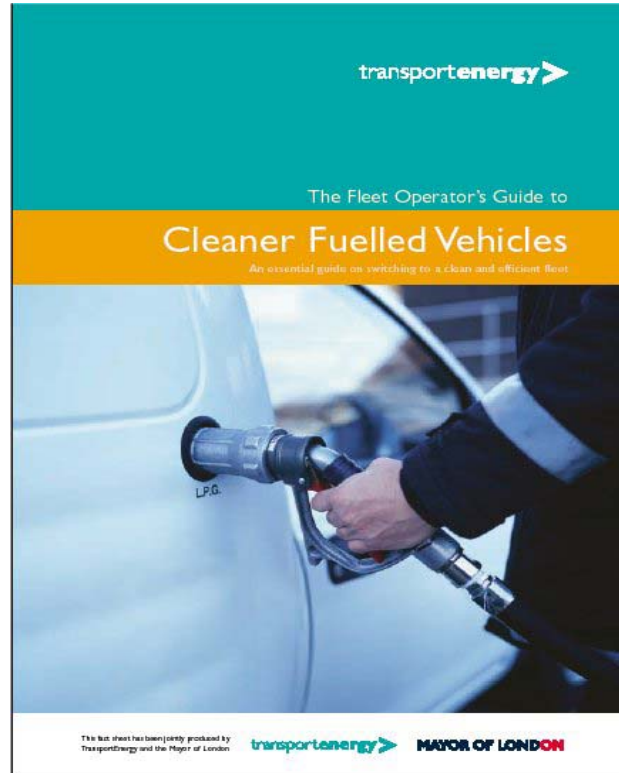


**London Bus With Particulate Trap**

# Best Practice Programme

- **Travel plans**
  - Package of measures to reduce single-person car travel to work
- **Cars and vans**
  - "Green fleet management"- improving fuel efficiency and minimising vehicle use
  - "Motorvate" – membership programme- offers range of fleet services, driver training, consultancy, benchmarking
  - Free health check – 2 days consultancy
- **Road haulage**
  - Fuel management and improved logistics efficiency

# Some of our publications



# -TransportEnergy Budget 04-05

Programme	Budget allocation (£m)
PowerShift Grants	7
CleanUp Grants	7
New Vehicle Technology Fund (inc ULCCC)	5
Low Carbon Bus	0.75
BestPractice Programme	0.75
Accreditation Testing & Administration	5.5
<b>TOTAL</b>	26

## For more information

### TransportEnergy

- [www.transportenergy.org.uk](http://www.transportenergy.org.uk)
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- E-mail: [transportenergy@est.co.uk](mailto:transportenergy@est.co.uk)