

Nottingham City Council

Going Ultra in Nottingham

Matt Ralfe – Innovation & Change Manager





Why Nottingham

- History of transport innovation
- Tight geography, stable politics
- £1.6 million annual fuel spend, £200k inflation
- Change manager, not fleet manager





Air Quality

- 7.1t CO₂ emissions per capita p/a
- 28,000 36,000 deaths p/a in the UK from poor air quality, 400 in Nottingham
- Commitment for 100% of our fleet to be ULEV by 2028
- Our aim is to set an example for local fleet operators by tackling the roadblocks to converting to a low emissions fleet



Snapshot

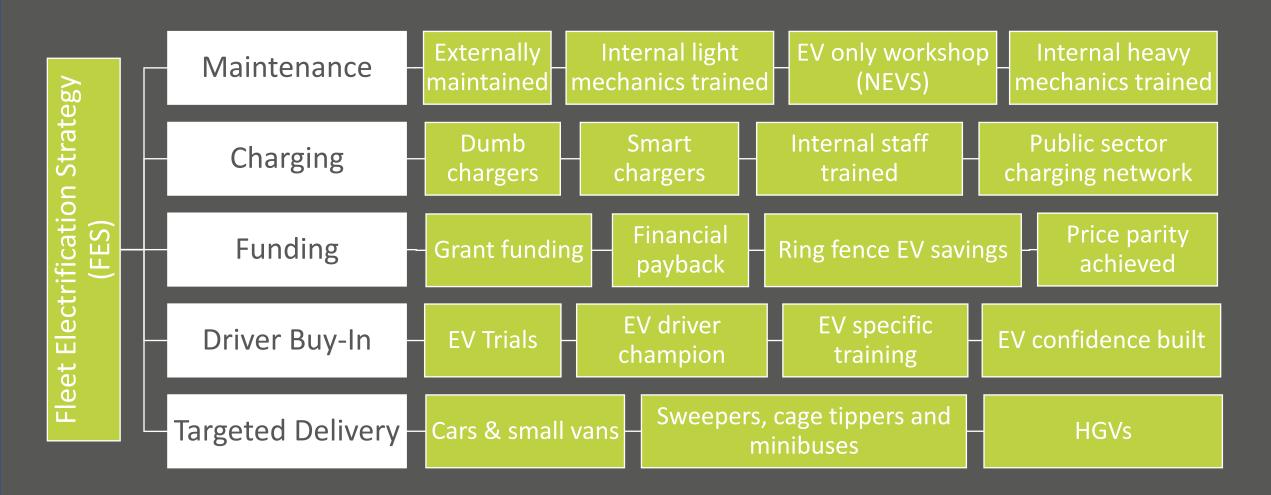
- **241** ULEVs- **51%** of fleet
 - 132 Vans
 - 54 Cars
 - 14 Cage Tippers
 - 8 Sweepers (+7 on order)
 - 6 Minibuses
 - 8 RCVs (+12 on order)







Spinning Plates





Do it now

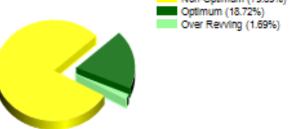
- Latest emission standards on diesel
- Route optimisation
- Fuel additive
- Telematics driver behavior
- Vehicle optimisation

(pt Period)

e Time (15.6%)

Optimum Driving (% of Driving Time)

Non-Optimum (79.59%) Optimum (18.72%)



		0 - 20
Measurable	Value	

planation for Period ption for vehicle ing actual to target 0 RPM)

Measurable	Value		
Speeding Alerts	0.00	Speeding	
Over Revving Alerts	1.01	Over Rev	
Throttle Alerts	0.40	Throttle Al	
Idle Alerts	11.19	Idle Alerts	
Acceleration Alerts	0.04	Accelerati	
Braking Alerts	0.04	Braking Al	
Fuel Alerts	0.00	Total Fuel	
Average Speed	3.67 MPH		
Maximum Speed	37 MPH		
Odometer Start Reading	38,228.82 Miles		
Odometer End Reading	38,330.46 Miles		
Brake Applications	3682		
Distance Travelled	101.64 Miles		
Syrbon (tonnes)	0.550		

ert values (except idling) are Averages P



Ene

EEDI Band

92 - 100

Infrastructure

- 144 chargers with 60 planned inc.
 40 V2G
- Load management
- Bay management
- kW to match need
- Hard/soft dig, aesthetics
- Capacity (inc. amends to site)







- Targeted delivery
- Lead times















Maintenance

- Mechanic training and tools
- Exclusively ULEV garage
- Encourage potential EV buyers & mechanics





Driver Buy In

- Research
- Buy based on data
- Start small buy in
- EV training



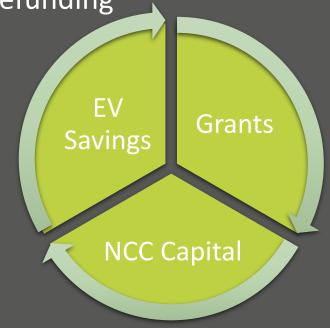
Funding

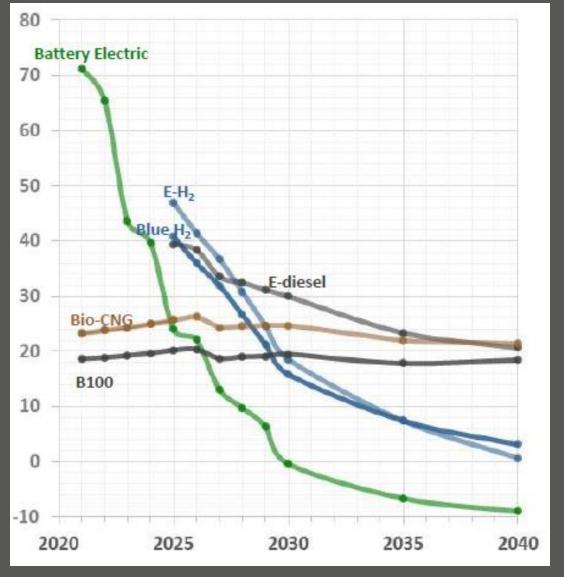
• Ring-fence savings

Total Cost of Ownership (£x)

Fund EVs by defunding

diesels





Graph credit: Renault Trucks



Business Cases

Be prepared for:

- Grants
- Budget underspend / changes
- Vehicle availability
- Political requests

Be prepared with:

- Overarching documents and approvals
- Not 1 business case but 475
- Hit list and miss list
- Indirect benefits driver, customer, political, service
- Work with the willing





More plates

- Battery storage
- Micro grid
- PV canopies
- ULEV Grey Fleet
- Electric Van Experience

- Electric handheld
- Emobiliy Centre
- WiCET
- Public network
- Shared Public Sector Network











ULEV Framework



The benefits of using our framework

- Expert, independent advice from a public sector body who are already well on their way to having an electric fleet
- Get a free consultation from us before you start on electrification – we have a multiaward winning fleet electrification strategy
- Initial help in getting the business cases completed including addressing political, financial and operational concerns by using our own, real-world data
- Reduced lead times and purchase prices
- Security that you are going to get a vehicle which is right for the job
- Increase local authority buying power

- Specifications which have been tested in a local authority environment
- Aftercare including advice on integrating the EV in to your operation
- Advice and even install of electric vehicle charge points
- Creates a network of EV authorities with shared lessons learned
- Allows a direct order to be placed or run a mini-competition to ensure the buyer gets the right vehicle for their locality's needs
- Maintenance advice from our experienced,
 IMI Level 4 qualified EV Mechanics

Our **suppliers** include































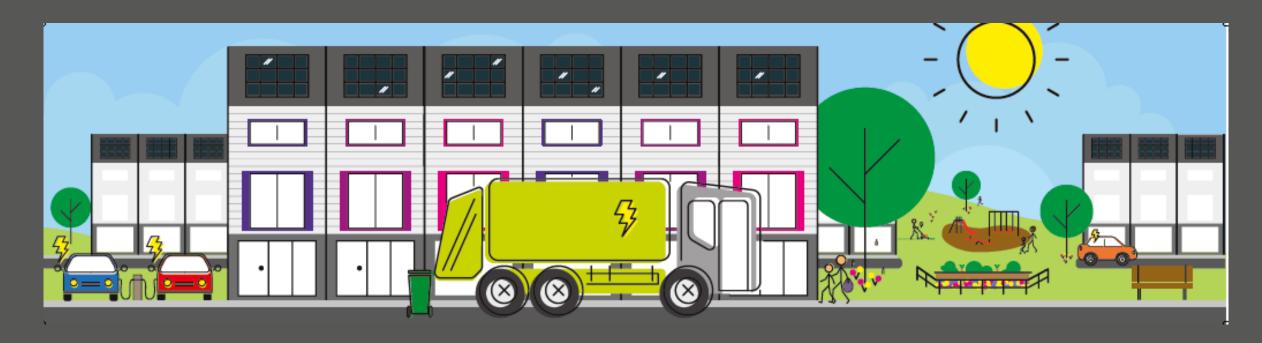












Website: NottinghamEVServices.co.uk

Email: matthew.ralfe@nottinghamcity.gov.uk

LinkedIn: Matt Ralfe



