

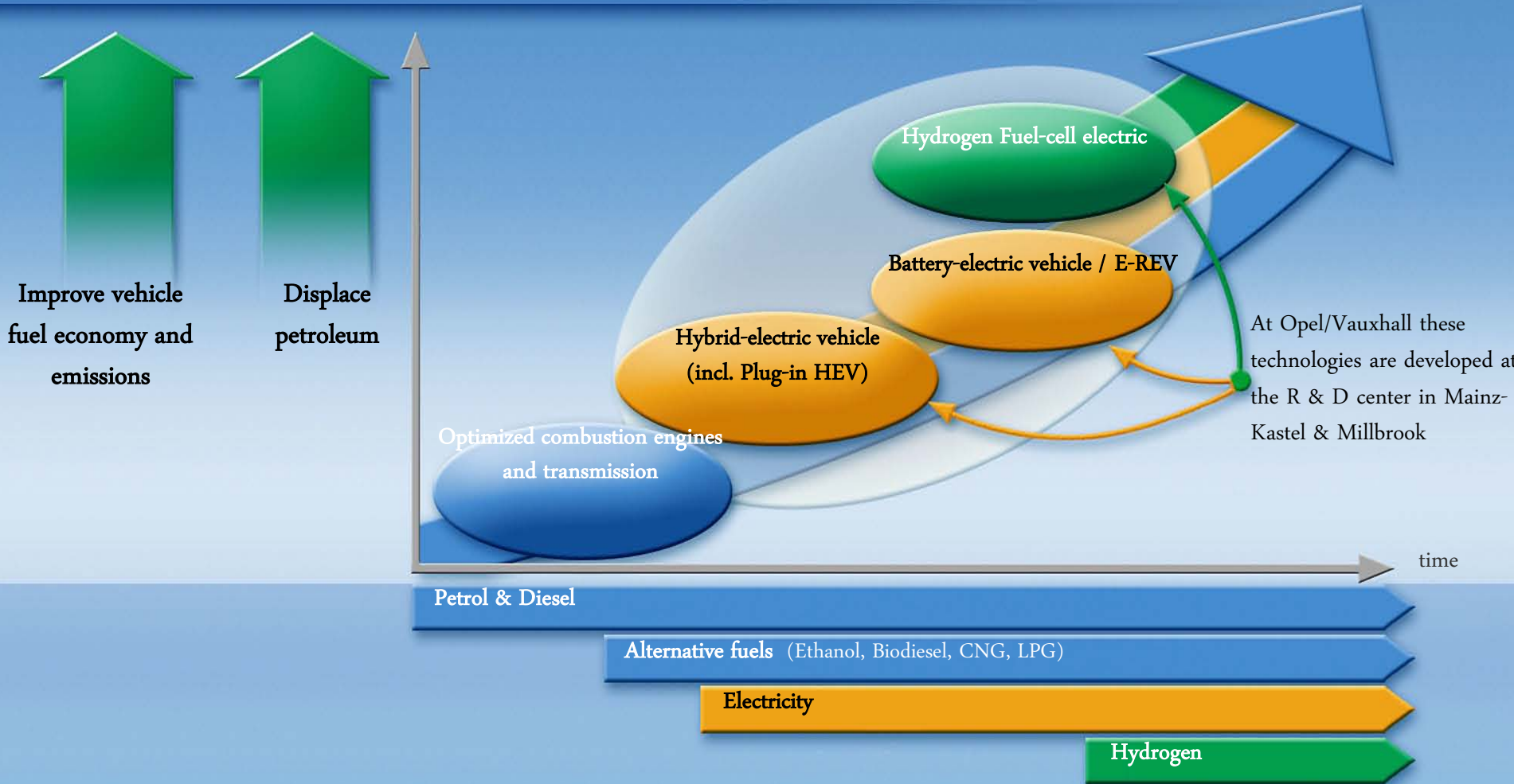
Ian Allen

Manager Environmental Strategy & Ampera

Vauxhall Ampera - Range Extender



Advanced Propulsion Technology Strategy



Independence from Petrol

**solution
essentials**

- + **safe**
- + **practical**
- + **affordable**
- + **fun to drive**

VOLTAC

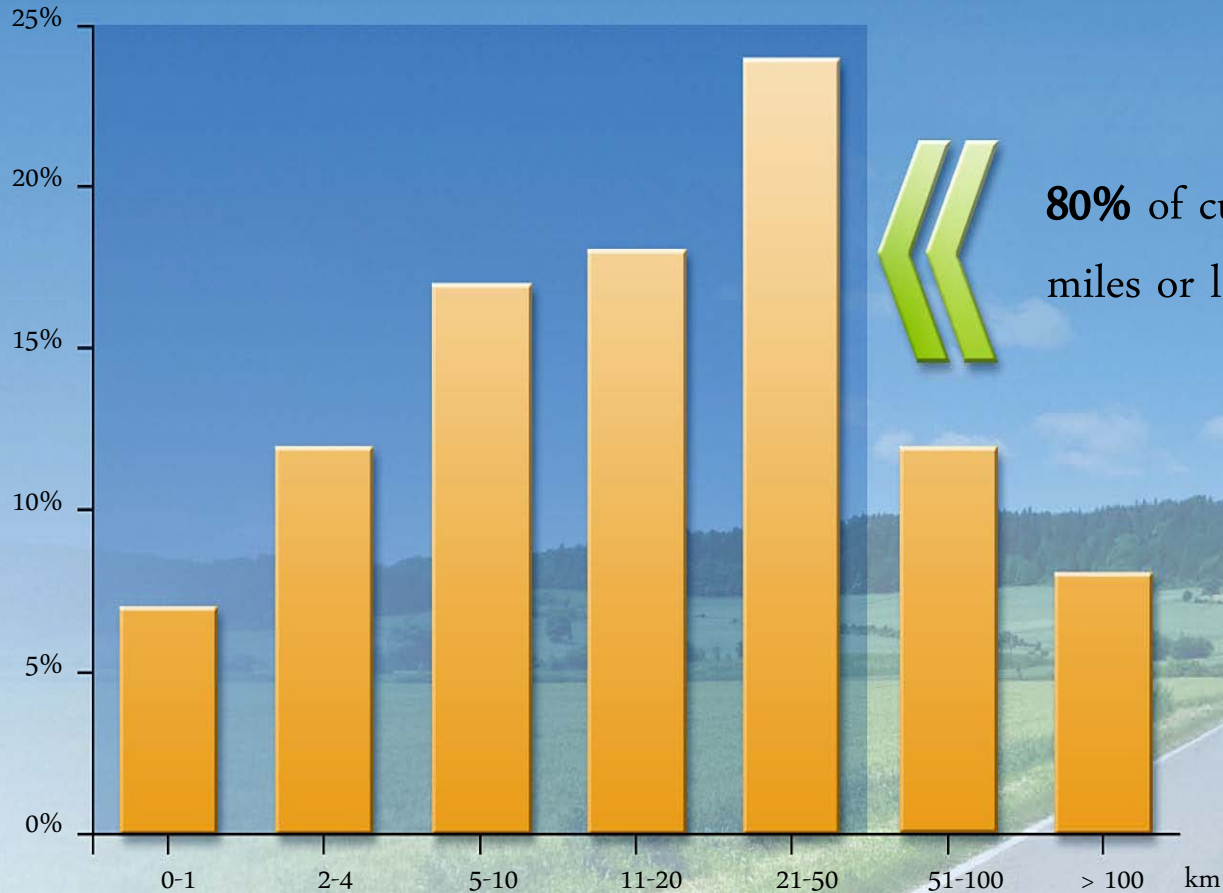


Overcoming RANGE Anxiety

EV₁



Typical Daily Commute



80% of customers commute 30 miles or less per day

Source: Mobilität in Deutschland, 2002



Extended-Range Electric Vehicle

40 miles

Battery electric drive

- Zero tailpipe emissions

+

>310 miles

of extended range driving



Successfully Establishing E-REV as a New Propulsion Category

PHEV

Plug-in hybrid
primary fuel: petroleum

EV

Electric vehicle
Limited vehicle range

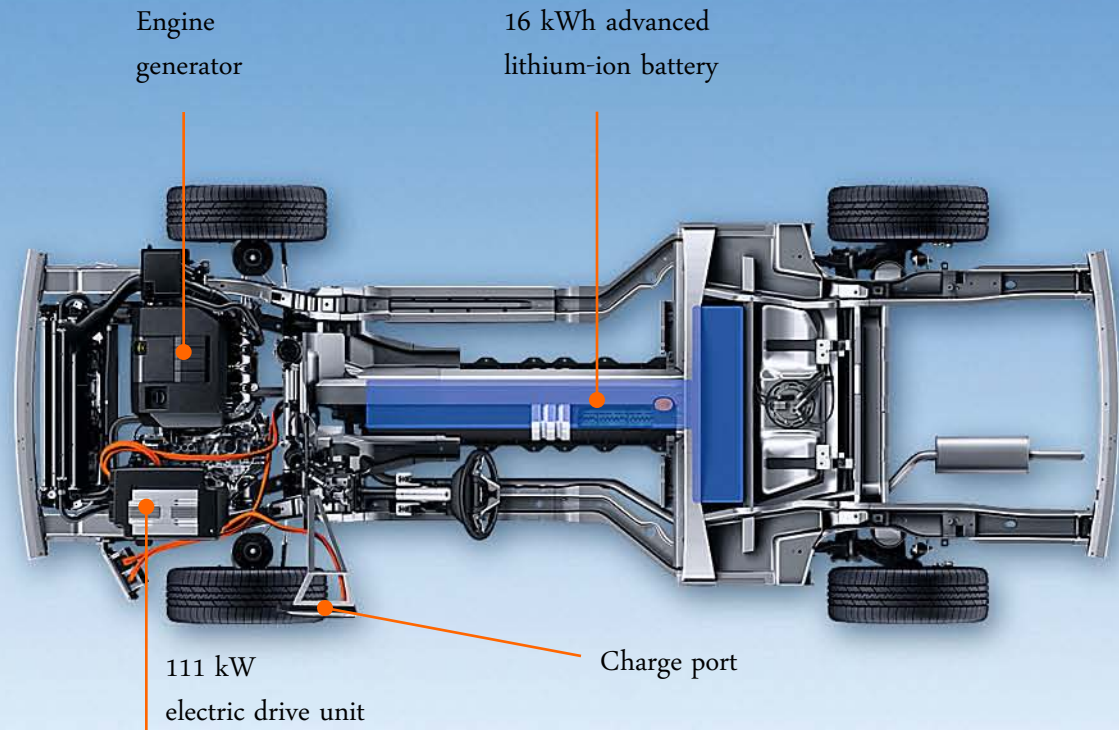
E-REV

Extended-range electric vehicle
practical zero emission vehicle



VOLTAC

- Flexible advanced propulsion system
- Enables up to 40 miles battery driving & zero tailpipe emissions
- Eliminate range anxiety of pure electric cars
- Powerful all electric driving all the time



Lithium Ion Battery

- 16 kWh (8 kWh usable)
- High energy, high power in minimized package
- Charged in approx. 3 hours @ 230 Volts
- 10 years life / 150,000m



Powerful Performance

- 111kW of power
- 370 Nm of torque
- 100 mph top speed
- Acceleration:
 - 0-60mph in about 9 seconds
 - Accelerates like a V6 250 hp diesel

Breaking

**the
paradigm....**

Now green

and

fun to drive

can go

together



Incentives

- Plug-in car grant 25% of purchase price up to £5k
- No VED
- First year Capital Allowances
- 50% discount on BIK for 1-75g/km
 - therefore 5% for Ampera
- No London congestion charge
- Plugged-in-Places



Setting a new standard for Efficiency

175mpg

<40 g/km CO₂

Measured according European Test Cycle (ECE R101)



Luton to Ellesmere Port Drive



Summary

- Not BEV nor PHEV - E-REV
- Not a concept – it's coming
 - UK launch Feb 2012
- Vauxhall at the forefront



Are you plugged in?

Arrival Feb 2012

