

welcome



Save today. Save tomorrow.



Cities of the Future  
University of Oxford Industry Forum  
2 March 2011



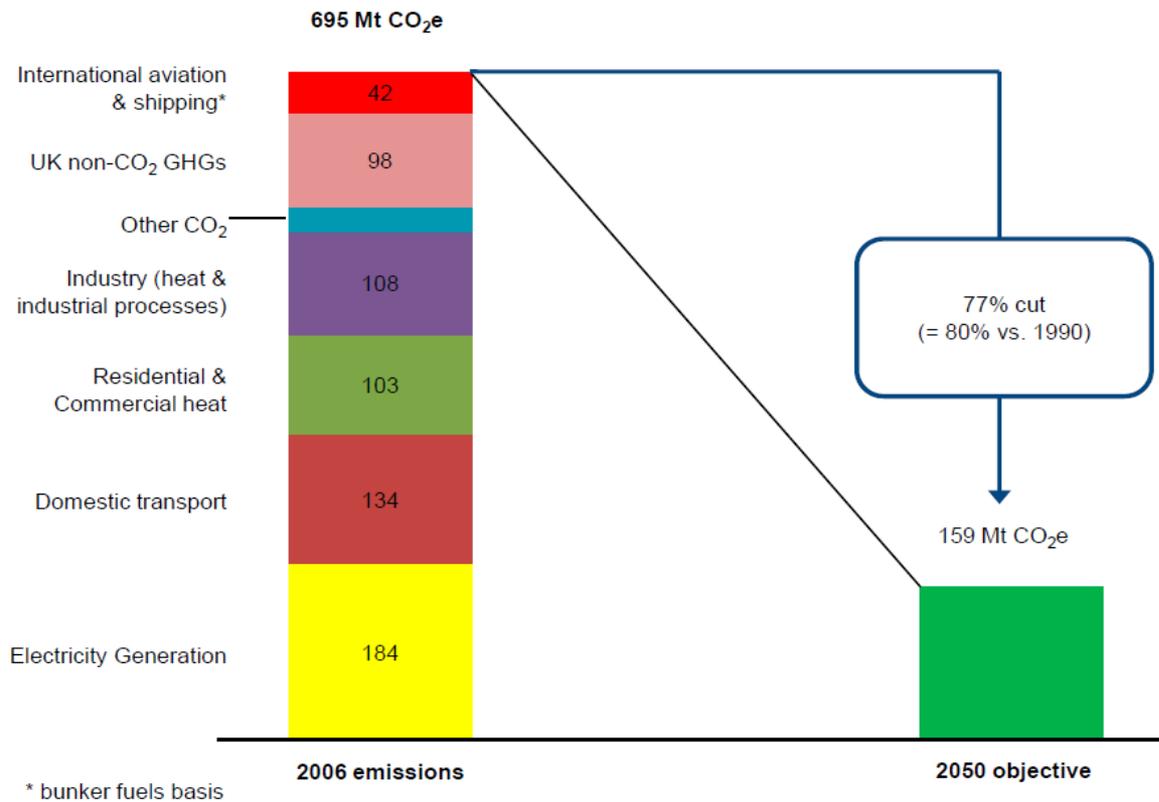
## Challenges and opportunities

Filomena La Porta, Head of UK R&D Partnerships  
R&D UK Centre, EDF

Save today. Save tomorrow.



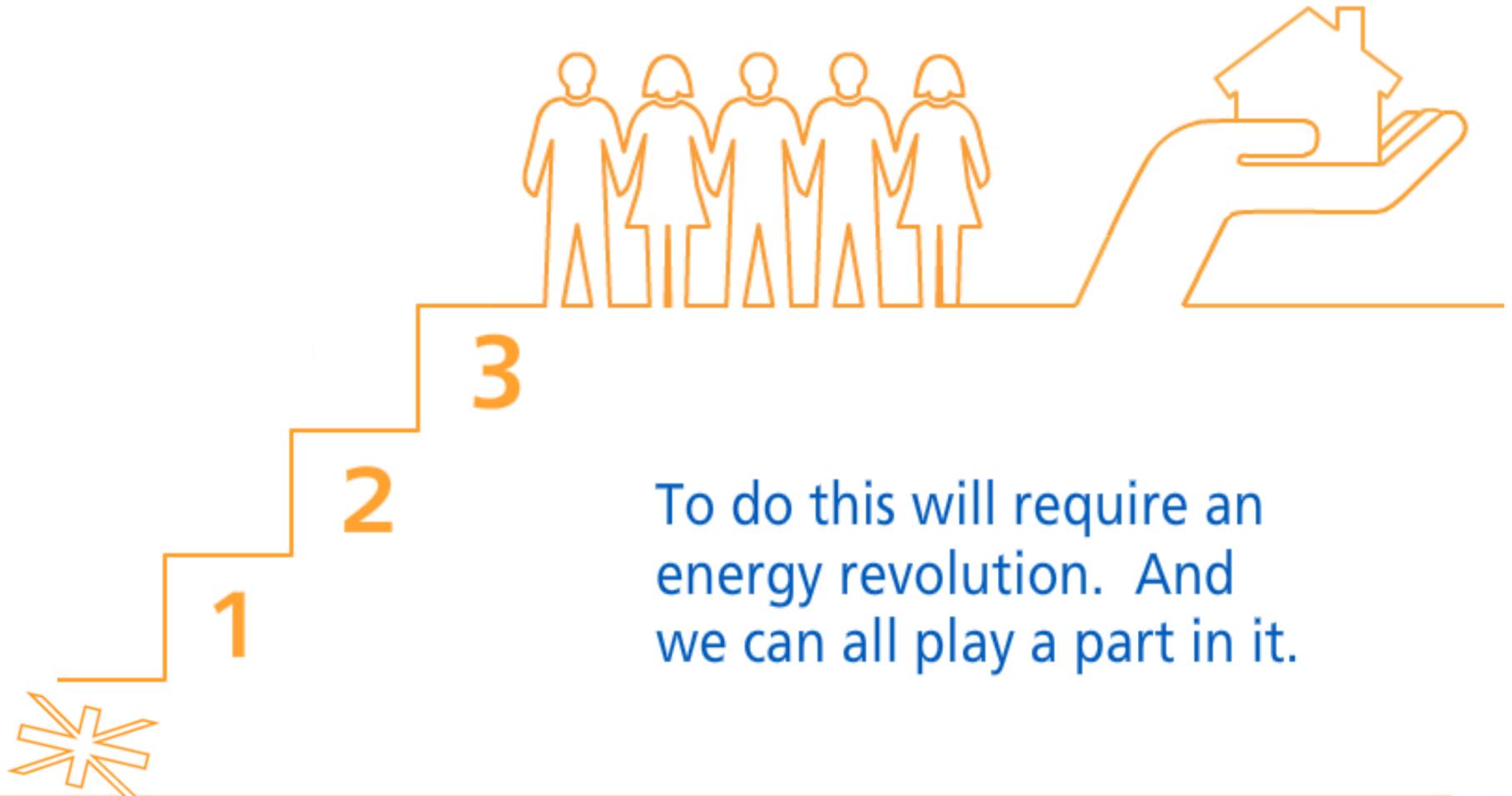
# An Energy Revolution!



Source: UK National Atmospheric Emissions Inventory (2008).



# What steps must we take?



To do this will require an energy revolution. And we can all play a part in it.

# And a journey: Step 1

## Step 1 Decarbonising our generation

60%

1 In 2007 we pledged to reduce the intensity of carbon dioxide emissions from our electricity production by 60% by 2020.

2 We are the largest producer of low-carbon electricity in Britain with 15 nuclear reactors at 8 locations, and we aim to life extend their operation.

In 2008 we provided 50% of Britain's low carbon electricity

3 We will build a new low carbon nuclear fleet, to produce 50TWh of power by 2030 without the CO<sub>2</sub>.

4 We are committed to on and offshore wind projects, partnering with EDF Energies Nouvelles.



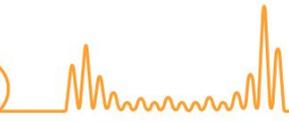
# Step 2

**Step 2**  
Helping our customers  
to change – at home  
and at work

1 We're helping customers to use energy more efficiently.



2 We're helping customers to understand and control their energy consumption with display devices and smart grid.



3 We're making home electricity generation a reality.



# Step 3

## Step 3 Decarbonising heating

1 We're helping our customers to reduce the amount of heating required by improving home efficiency.

2 We're providing renewable technology combined with low carbon electricity to decarbonise hot water heating.



# Step 4

## Step 4 Decarbonising transport

1 We're providing public infrastructure and charging bays for electricity powered vehicles.

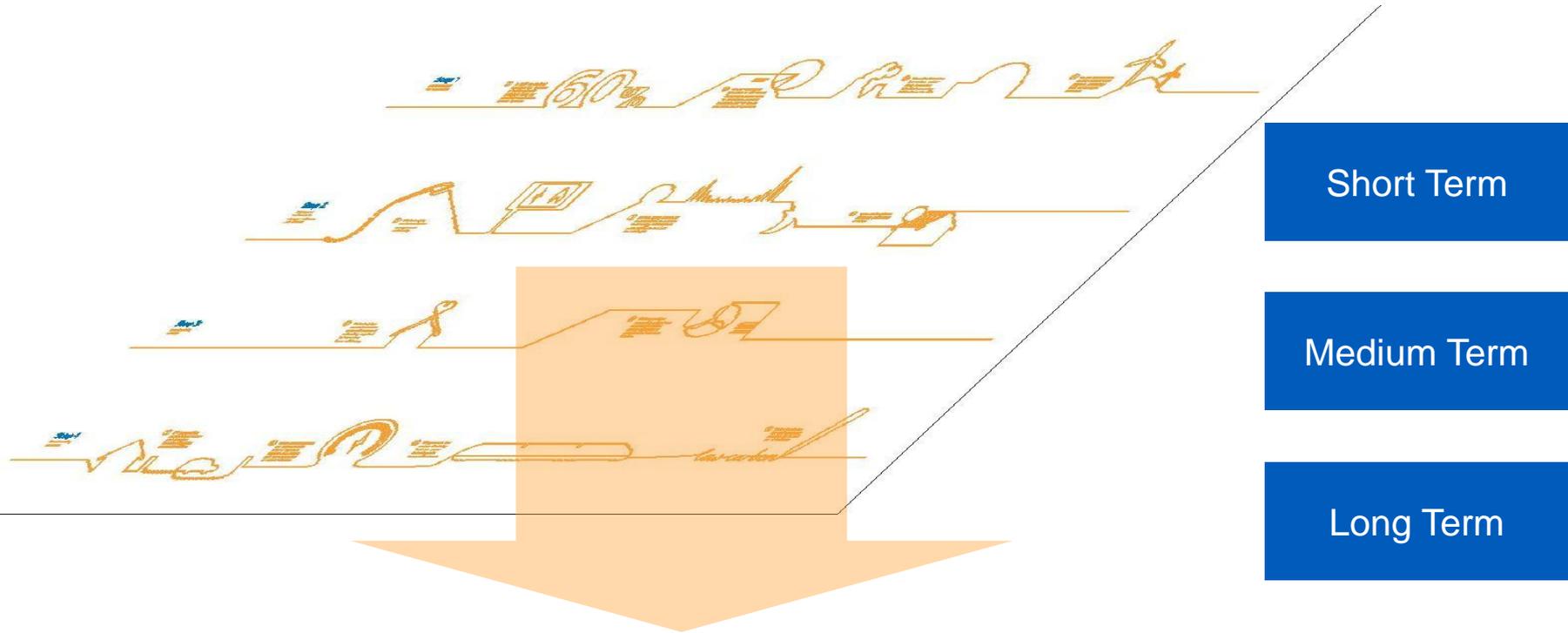
2 We're partnering with car manufacturers such as Toyota to improve the design and user experience of electric vehicles.

3 We generate low carbon electricity that can power Britain's public transport network.

4 We're developing low carbon energy solutions for in and out of the home.



# With solutions to be found



# Short term: R&D activities, EV example

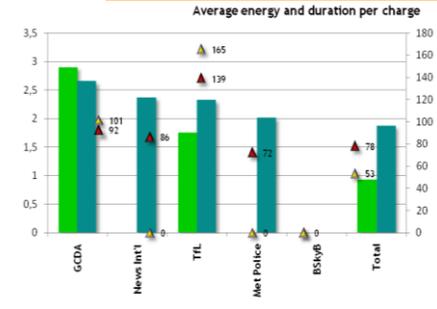
## IDENTIFICATION SYSTEM



## CUSTOMER BEHAVIOUR



## DATA ANALYSES



EDF ENERGY

UK TRIALS



## SAFETY TESTS PLUG



## WEB SITE



## EMC TESTS

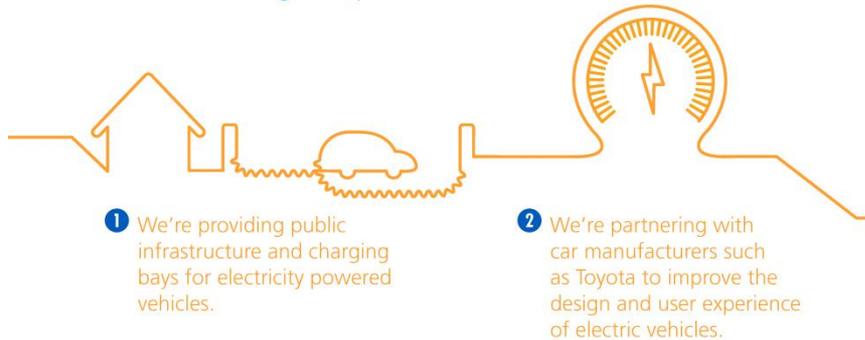


## CHARGE POINT TESTS



# Medium - Long Term: R&D activities, EV example

## Step 4 Decarbonising transport



- Infrastructure for mass deployment
- Vehicle to home
- Vehicle to grid
- ...



thank you