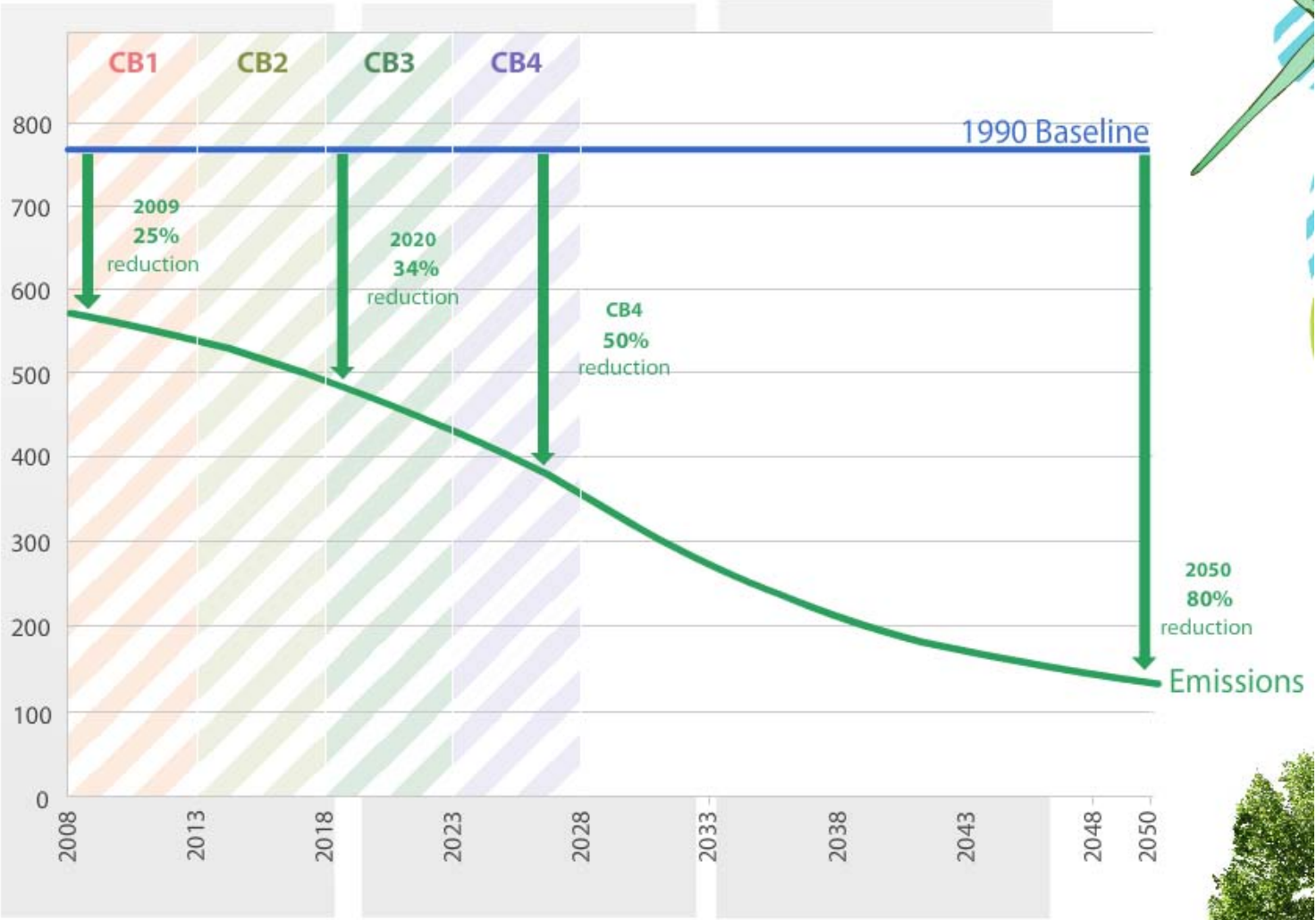


# Day 2 - Introduction

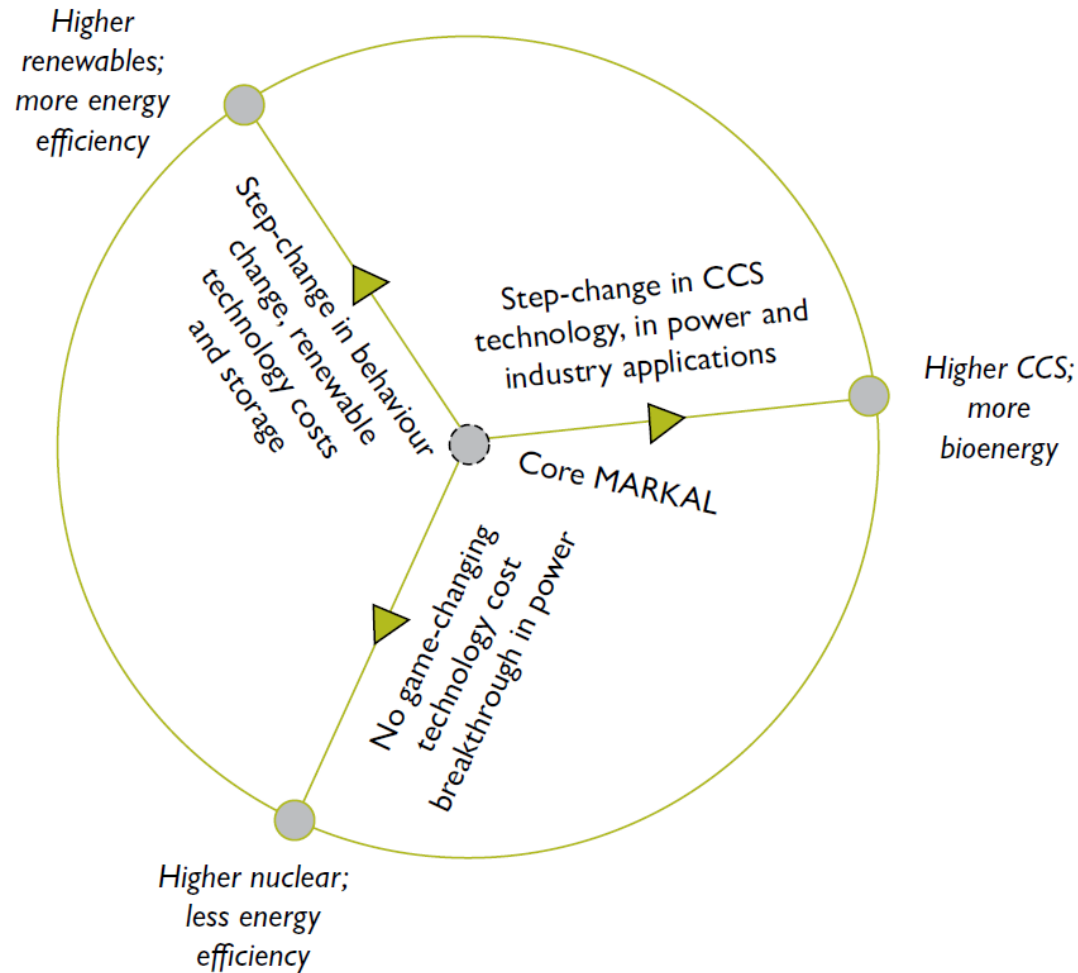
Ravi Gurumurthy – Director – DECC Strategy  
Beijing 2050 Conference

September 2012
















# Our overall goal



# The Calculator helped outline 4 ways of getting there

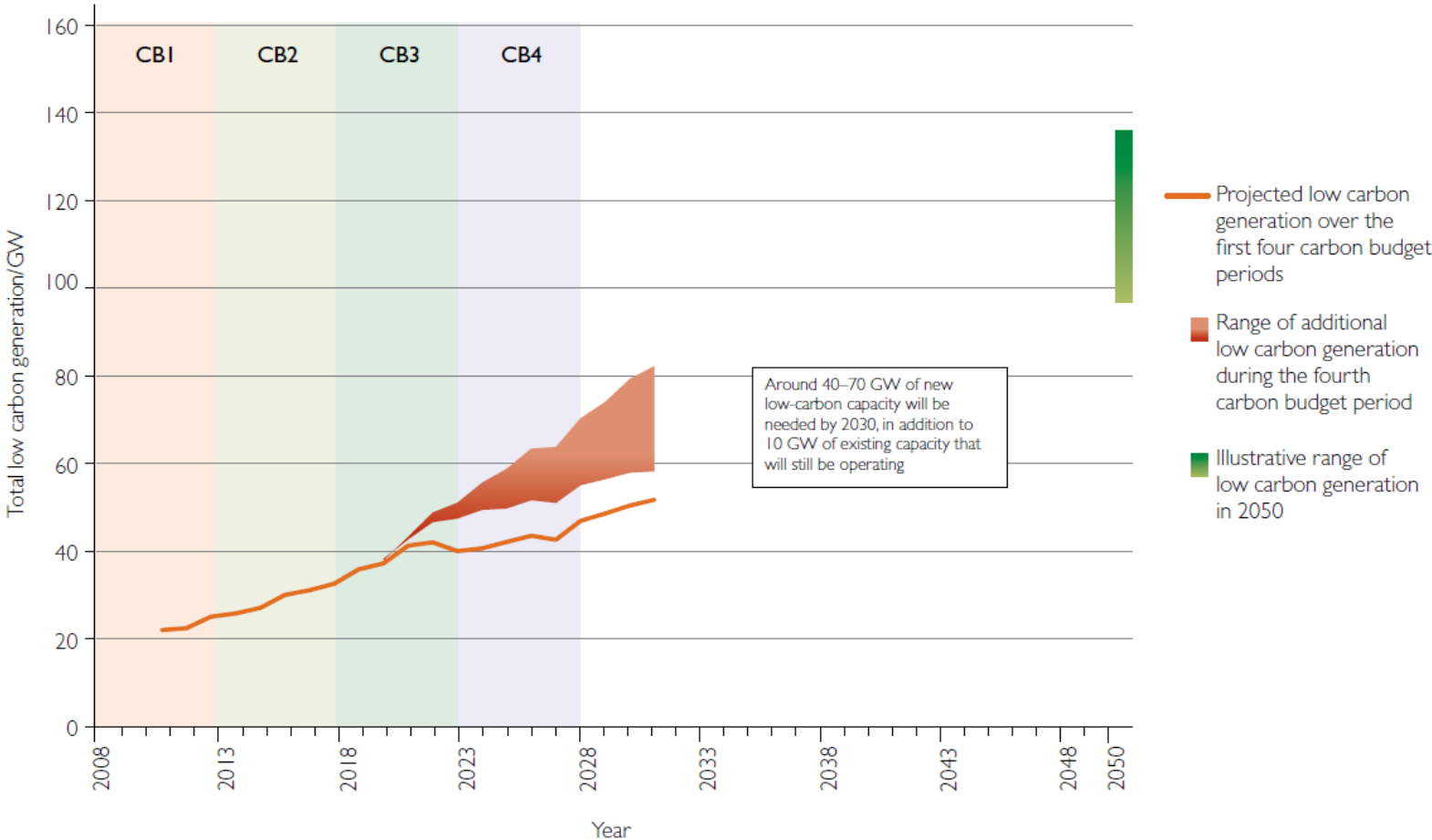


# 4 scenarios in more detail

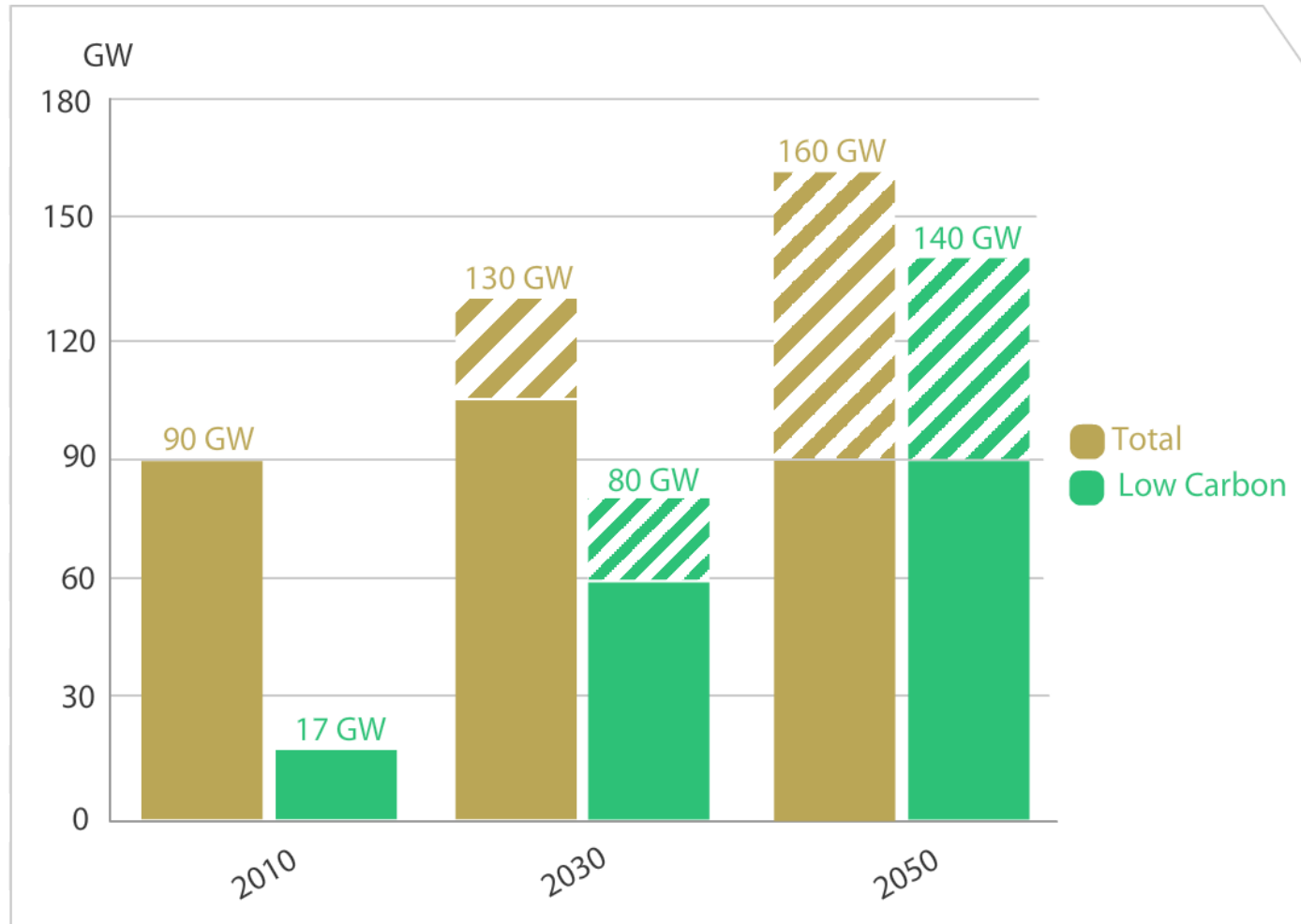
	Core MARKAL	Higher renewables; more energy efficiency	Higher nuclear; less energy efficiency	Higher CCS; more bioenergy
Electricity	<p>33 GW nuclear 18 GW wind 28 GW CCS 27 GW other renew 33 GW back-up gas</p>	 <p>16 GW nuclear 82 GW wind 13 GW CCS 14 GW solar 10 GW marine 24 GW back-up gas</p>	 <p>75 GW nuclear 20 GW wind 2 GW CCS 2 GW hydro 11 GW back-up gas</p>	 <p>20 GW nuclear 28 GW wind 40 GW CCS 2 GW hydro No back-up gas</p>
Buildings	<p>Heating mix of heat pumps, resistive heat, biomass pellets, district heat</p>	 <p>7.7m SWIs, 8.8m CWIs, 100% house-level heating systems</p>	 <p>5.6m SWIs, 6.9m CWIs, 90% house-level heating systems, 10% network-level</p>	 <p>5.6m SWIs, 6.9m CWIs, 50% house-level heating systems, 50% network-level</p>
Transport	<p>75% ULEVs, unclear on modal shift</p>	 <p>100% ULEVs, high modal shift</p>	 <p>80% ULEVs, 20% ICEs, low modal shift</p>	 <p>65% ULEVs, 35% ICEs, medium modal shift</p>
Industry	<p>Medium growth, over half of emissions captured by CCS</p>	 <p>Medium growth, 48% of emissions captured by CCS</p>	 <p>Medium growth, 0% of emissions captured by CCS</p>	 <p>Medium growth, 48% of emissions captured by CCS</p>
Bioenergy and land use	<p>~350 TWh of bioenergy, low ambition on land mgmt</p>	 <p>181 TWh of bioenergy, low ambition on land mgmt</p>	 <p>461 TWh of bioenergy, high ambition on land mgmt</p>	 <p>471 TWh of bioenergy, medium ambition on land mgmt</p>

# What this means for a sector

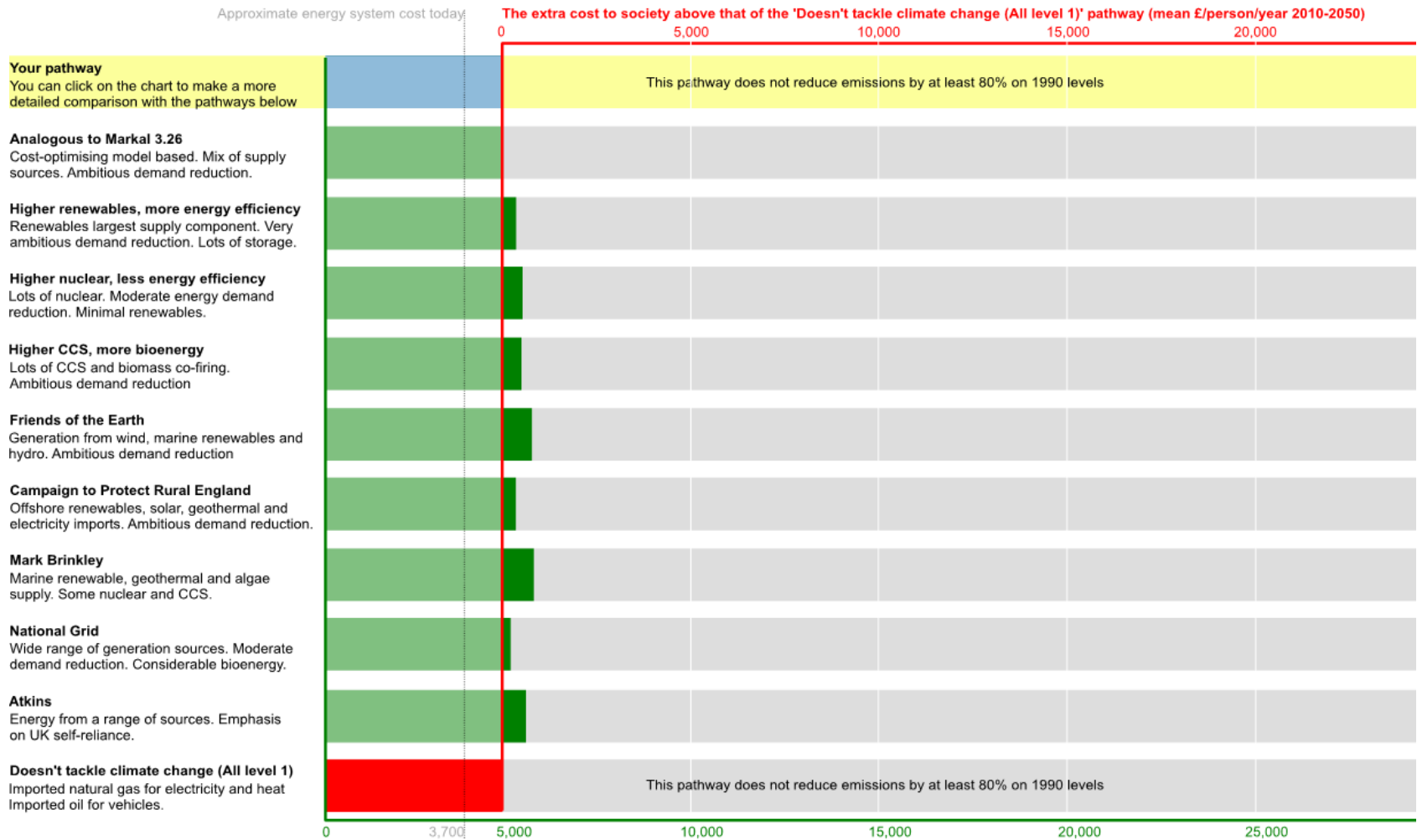
Projected deployment of low carbon generation over the first three carbon budgets and illustrative ranges of deployment potential in the fourth carbon budget period and in 2050



# Calculator showed a need to almost double electricity production by 2050



# And it showed that action was not always more expensive than doing nothing



# Nuclear or no nuclear?





## Briefing new Ministers

