

8 possible wedges of the stabilisation triangle

Wedge Type	<i>A wedge of emissions savings would be:</i>
<p>Increased Efficiency & Conservation in transport Make cars more efficient, reduce the number of miles traveled by the world's cars</p>	<ul style="list-style-type: none"> • achieved if the fuel efficiency of all the cars projected for 2055 were doubled from 30 mpg to 60mpg • achieved if the number of miles travelled by the world's cars were cut in half
<p>Fuel Switching Replace coal electric plants with natural gas-powered facilities</p>	<ul style="list-style-type: none"> • 1400 large (1 billion watt) natural gas plants displacing similar coal-electric plants • bringing one Alaska pipeline on line every year for 50 years • 50 large LNG tankers docking and discharging every day
<p>Carbon capture and storage CO₂ emissions from fossil fuels are captured and stored, rather than vented to the atmosphere</p>	<ul style="list-style-type: none"> • 3500 projects of the size of In Salah pilot development which currently stores 1m tonnes of carbon per year (each need to last through to 2054) • Increase the scale of hydrogen production by a scale of ten • Over 50 years, capture the CO₂ emissions from 180 coal-to synfuels facilities
<p>Biofuels Use more ethanol based fuels derived from crops</p>	<ul style="list-style-type: none"> • planting an area the size of India with biofuels crops
<p>Wind Increase wind electricity capacity to replace coal-based electricity</p>	<ul style="list-style-type: none"> • scaling up current capacity by a factor of 30 – this would require covering an area in wind turbines approximately 4 times that of the UK
<p>Solar Use more solar panels to replace coal-based electricity</p>	<ul style="list-style-type: none"> • an area of solar panels covering area 230 times the area of London (1/12 size of UK)
<p>Nuclear Add to the current global nuclear capacity to replace coal-based electricity</p>	<ul style="list-style-type: none"> • tripling of nuclear power plants from today's 400 to 700 more in the next 50 years
<p>Natural sinks Increase the natural capacity of the eco-system to absorb carbon emissions</p>	<ul style="list-style-type: none"> • halting global deforestation in 50 years would provide one wedge of emissions savings • planting new forests that would cover a total area of the size of the United States or 25 times that of the UK