

“CHINA PROMISES CLEANER ENERGY”

After many years of refusal, China, the world's biggest emitter of greenhouse gases, sets targets for cleaner energy by 2020.

This boosts investment and research into alternative fuels.

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EUROPEAN UNION (EU) COMMITMENT: “20-20-20 BY 2020”

All EU Member States are committed to:

- 20% reduction in greenhouse gas
- 20% energy from renewable resources
- 20% improvement in energy efficiency

This boosts investment & research into alternative fuels.

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“FRACKING PROVIDES CHEAP, PLENTIFUL NATURAL GAS”

Fracking is the drilling of shale rocks to release natural gas and oil.

Fracking has been linked to earth tremors and is still a fossil fuel which produces GHGs

Fracking diverts attention and research from alternative fuels and can only be a temporary fix.

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“BIOFUELS ARE DRIVING FOOD PRICES HIGHER”

Land vital for food crops in developing countries is being turned over to grow biofuels, causing food shortages & price rises. 30 million people are thought to be starving as a direct result of biofuels.

Food fuels compete with food for land
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Fibre fuels, Algal fuels and Waste Gas fuels do not.
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SCIENTISTS AGREE: “GLOBAL WARMING IS MAN-MADE”

Hundreds of Scientists now agree that the climate is warming and it's 95% likely to be caused by human behaviour.

This boosts investment and research into alternative fuels.

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US PRESIDENT UNVEILS “CLEAN POWER PLAN”

In 2015 the American President announced the plan to cut greenhouse gas emissions from US power stations by 32% by 2030.

Commitments to cleaner energy boost investment and research into alternative fuels.

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NASA EVIDENCE – “CLIMATE CHANGE IS REAL”

NASA (the US Space Agency) monitors global warming and reports that 9 of the 10 warmest years on record have occurred since the year 2000.

NASA links global warming to the rising levels of GHG.

This boosts investment and research into alternative fuels.

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HERITAGE FOUNDATION SAYS “GLOBAL WARMING IS NOT A CRISIS”

The Heritage Foundation is a US institution with great influence over American politics. It claims that “None of the scary stuff about global warming is true.”

Denial over global warming has a negative effect on investment and research into alternative fuels.

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“TWO DEGREES AND CLIMATE POLITICS”

In the 1975, Yale professor William Nordhaus suggested that global warming of more than 2°C above pre-industrial levels could be dangerous.

Finally, 40 years later, in 2015, at the United Nations Climate Conference in Paris, 195 nations agreed to limit human-caused global warming to no more than 2°C.

Commitments to cleaner energy boost investment and research into alternative fuels.

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“BRAZIL PROMISES REFORESTATION AND CLEANER ENERGY”

Brazil is one of the top 10 GHG emitters, mainly because of tropical rainforest destruction for agriculture, which would otherwise “soak” up the CO₂. In June 2015 Brazil promised to increase its use of renewable energy and restore some forests — an area as big as England — by 2030.

Commitments to reforestation and cleaner energy boost research into alternative fuels.

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“ENERGY SECURITY” (Constant supply of energy at an affordable Price)

Many factors affect our energy security including:

- Diminishing reserves - Oil is estimated to run out in 40 years
- Political unrest - Most UK oil is imported from politically
- Accidents and natural disasters

Alternative fuels allow countries to be more self-sufficient and gives them greater energy security.

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“BLACK CARBON IS CHOKING CITIES IN INDIA AND CHINA”

Black carbon, or soot, is produced by burning fossil fuels and farm waste. It contributes to global warming and causes sooty smogs in big cities particularly in India and China, where they are linked to heart and lung disease, cancer and birth defects.

Public suffering and awareness boosts investment and research into alternative fuels.

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“INDIA IS GETTING HOTTER”

Every year India experiences severe heat waves in summer, but in 2015, casualties were abnormally high with more than 2,300 deaths.

According to a United Nations study, India is getting hotter and this is linked to an increase in GHG.

Public suffering and awareness boosts investment and research into alternative fuels.

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“CLIMATE CHANGE BOOSTS SUMMER FLASH FLOODS IN THE UK”, SAYS MET OFFICE STUDY

Flash flooding in Britain has had devastated many UK communities in recent years and a recent Met Office study suggests global warming is at least partially to blame.

Public suffering and awareness boosts investment and research into alternative fuels.

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“NASA STUDY FINDS GREENHOUSE GASES INCREASE THE RISK OF MEGADROUGHTS IN THE USA”

Droughts are a regular event in North America, where they cause forest fires and crop failure, but a recent NASA study suggests they are getting worse and more frequent due to greenhouse gases.

Public suffering and awareness boosts investment and research into alternative fuels.

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“PETROL PRICES FALL”

Current low petrol prices may seem like good news for the motorist, and indeed in the short-term we all benefit. However in the long-term we are wasting a precious resource by burning it as well as producing greenhouse gases.

Cheap oil diverts attention and research from alternative fuels and can only be a temporary fix.

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“UK GOVERNMENT COMMITS TO SCIENCE”

We all pay tax and some of this is used by the government to fund scientific research. In recent years the science budget has been protected allowing research to continue.

**THROW THE DIE TO SEE HOW MANY NEW SCIENTISTS
YOU CAN EMPLOY TO FURTHER YOUR RESEARCH**



“TWO HEADS ARE BETTER THAN ONE”

There are many examples to show that scientific collaboration gets results more quickly. e.g. “The Human Genome Project” involved scientists from 6 countries and took only 13 years to identify all the genes needed to make a human.

CHOOSE A COLLABORATOR, THEN THROW THE DIE TO SEE HOW FAR YOUR RESEARCH PROGRESSES

