

Chemistry HELP-SHEET 14

ALTERNATIVE FUELS - a summary

Advantages Disadvantages

BIOFUELS renewable not enough supply

helps reduce waste use simple technology

METHANOL clean and complete burning toxic and can produce carcinogens

little CO produced corrodes car engines

provides less energy

NUCLEAR doesn't use carbon radioactive waste products

no sulphur dioxide waste storage problems no nitrogen oxides needs containment

FUSION uses 'limitless' water costly and uneconomic at present

WIND renewable initial expense

no pollution or waste variable and unreliable can have local sites visual impact on scenery

HYDRO ELECTRIC renewable initial expense

POWER (HEP) no pollution environmental impact on scenery

TIDAL BARRAGE renewable initial expense

predictable

no pollution or waste environmental impact on wildlife

WAVE renewable initial expense

no pollution or waste variable and unreliable

SOLAR renewable initial expense

no pollution or waste variable and low levels in UK

GEOTHERMAL almost unlimited not widely available

high initial expense

HYDROGEN pollution free (water formed) storage problems

regarded as dangerous

CHEMICAL CELLS re-chargeable weight problems

little pollution technology needs improving