

Energy Security in a Multipolar World – conclusions and recommendations

EPG/BIEE/UKERC
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New Thinking For Energy

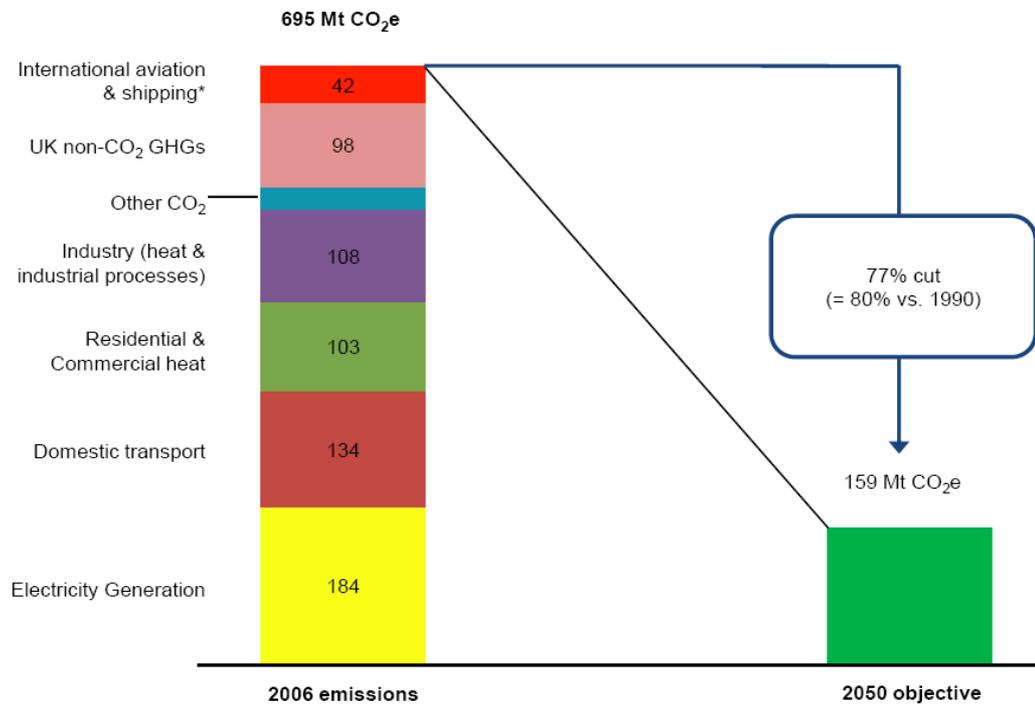


Overview

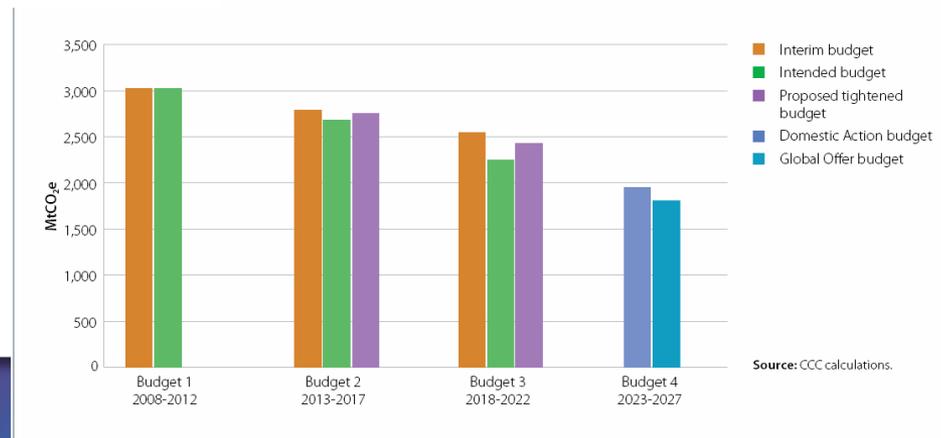
- ESMW 2008-2012
 - Final phase coincided with publication with the November 2012 Energy Security Strategy
- Provisos
 - ESMW a cluster so no one view
 - It is taken as a given that ESMW supports ‘traditional’ ES policies such as appropriate incentives for investment, infrastructure maintenance and development etc
- Climate challenges to ESMW
- What is different about ESMW?
- Conclusions
- Policy Recommendations

Reducing CO2 emissions

Figure 2.1 The scale of the challenge



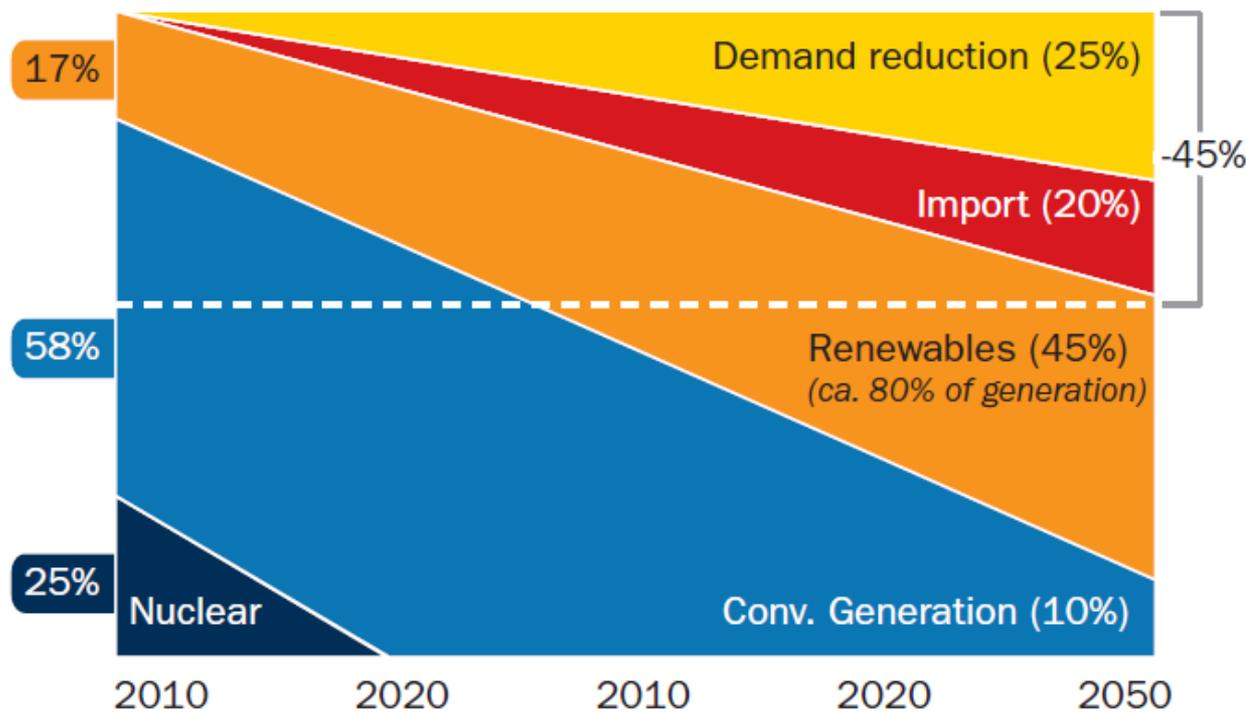
5-year carbon budgets (2008-2027)



Source:
Committee on Climate Change 2008
and 2012, www.theccc.org.uk

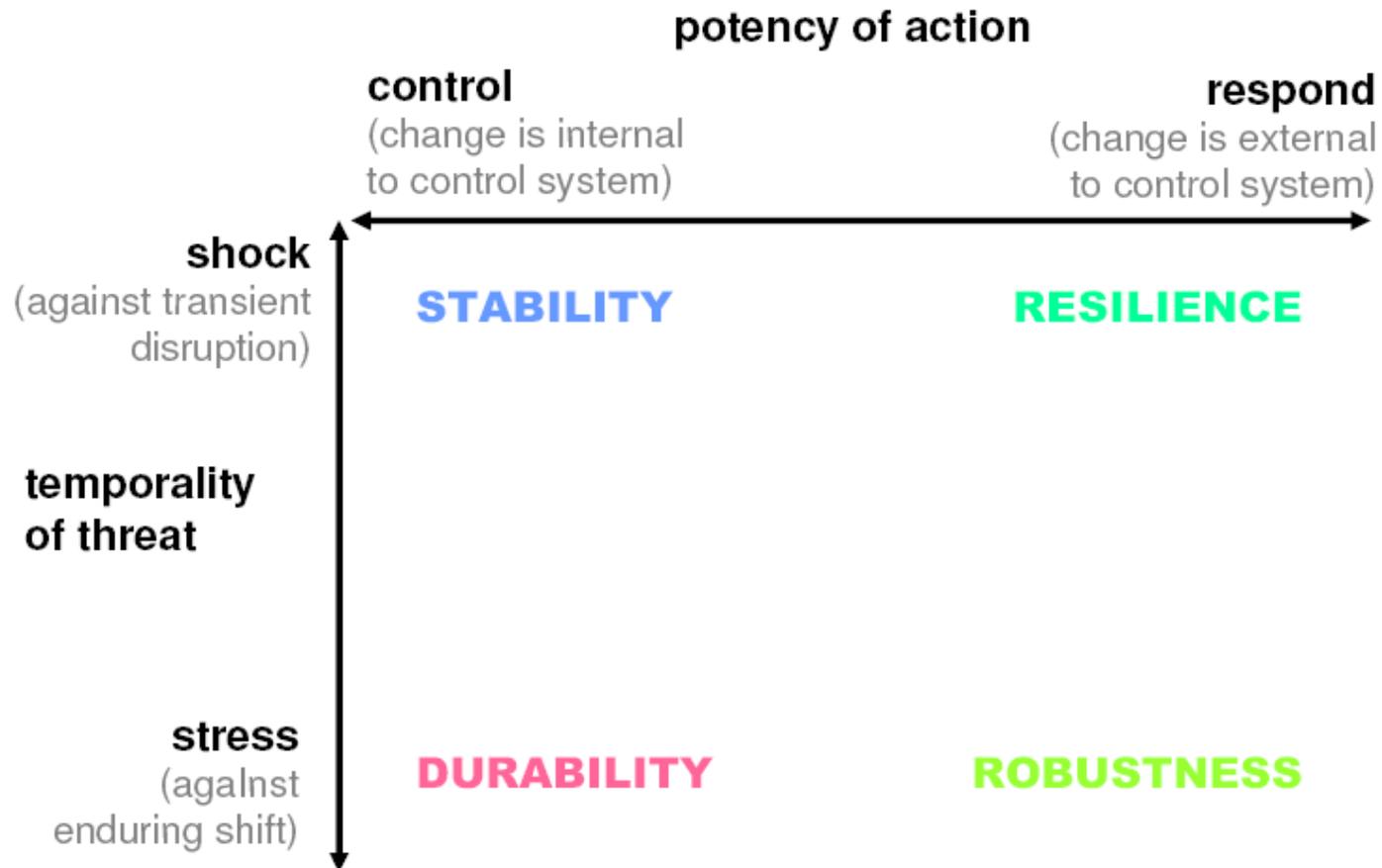
Many pathways to a sustainable future but all with different energy security implications

German energy concept (short bridge)



Source: EWI/Prognos/GWS study

ESMWs way of thinking about ES



What is different about ESMW?

- About a 1000 people involved, multiple meetings over 4 years, idea was to bring different views of ES together
- ESMW has taken British energy policy goals; progressive energy policy arguments and analysis; and the implications of climate change science to determine a logical and self-interested energy security policy for Britain
- Proviso, that ESMW is a cluster and so do not all have the same views but concluded
 - Energy security, climate and affordability agendas have to come together
 - Consider that individuals and communities can have impact on energy (in)security
 - Argue that reducing total energy demand and increasing resilience and flexibility of energy system is important
 - Supply chains differ in their (in)security

Book Chapters

1. Introduction
2. Energy Security: geopolitics, Governance and Multipolarity
3. The Energy Security-Climate Nexus and the Environment
4. Energy Security policy in Britain: Markets, Complexity and Challenges
5. Demand and Energy Security
6. People and Communities in Energy Security
7. Infrastructure, Investment and the Low Carbon Transition
8. Supply Chains and Energy Security
9. EU Energy Security and Its Impact on the UK
10. Measuring Energy Security
11. New Challenges

ESMW Conclusions (1)

- 1. The existence of a multipolar world fundamentally changes British energy security risks and threats, including the geopolitical context that Britain exists within*
- 2. Our energy security is highly dependent on international trends and markets.*
- 3. British ES policy requires both internal and external facing policies and the latter have to be adequately resourced*
- 4. The British model of reliance on international markets is not accepted by all countries, many of which have variable models of capitalism and we have to understand them.*
- 5. The interaction between energy security and climate change is at the heart of the new energy security agenda, and more needs to be understood about this ie (in)security of decentralisation; prosumers etc*
- 6. A low carbon system is not immune to energy security concerns / risks.*
- 7. There are some 'no regrets' policies and strategies to strengthen energy security that are compatible with low carbon transitions – energy efficiency being the most important*

ESMW Conclusions (2)

8. *On the other side, 'win wins' - the climate environment nexus - is not as clear cut as is often discussed*
9. *The way we view energy security and its key actors needs to change. The agreed focus and breadth of energy security issues has to widen – in other words the agreed need of British energy security policy for certain sectors (ie for whom and of what) has to alter.*
11. *Appropriate institutions and governance are vital for energy security, and those in place today are not adequate.*
12. *This new energy security policy should be viewed as an opportunity for Britain.*
13. *The energy world is changing for several reasons and energy policy, and energy security policy within it, have to reflect the new circumstances.*

Policy Responses

Energy Security Strategy

- Resilience Measures
- Energy Efficiency
- Maximising economic production of our oil and gas reserves
- Working to improve reliability of global markets
- Reliable networks
- Decarbonising our supplies

ESMW

- Has to be clear line of responsibility for ES
- Demand at centre of EP
- ES has to encompass CC, environment and affordability issues
- Competition, markets AND regulation matters
- Needs to take account of different perspectives of ES
- Longer term, strategic oversight of energy
- Dashboard approach to indicators – keeping track
- + other ESS

Dashboard – ballpark keeping track of potential ES issues

- On whole, we accept the ESS indicators
- ESMW has additional ones such as those which track energy efficiency; the numbers of fuel poor; the standard of the housing stock; graduate numbers with particular low carbon skills and so on
- Some energy security policies are more difficult to link to indicators although possible, for example FCO encouragement of international CC governance
- Composites (ie indicators which have a value as a result of linking a number of indicators in some way) are naturally more opaque and care must be taken to keep them transparent

Dashboard and Frameworks

Indicators and Composites

Energy Security Strategy

- Electricity, Gas and Oil capacity
- Electricity, Gas and Oil diversity
- Electricity, Gas and oil reliability
 - short term capacity margins
 - Forecast prices
 - For oil, spare opec production
- Demand side response

ESMW

- ESS indicators
- Reserve to production ratios for oil, gas and coal
- Oil refinery capacity and margins
- Carbon content of total energy
- Energy intensity by GDP
- Total energy use
- Total energy use per capita
- Trends of fuel poverty
- Trend of poor Quality Homes (SAP D and below)
- % of energy demand available for DSR
- Number of graduates for X Skills

Composites

- System Diversity
- Supply Country Risk
- Supply chain resilience