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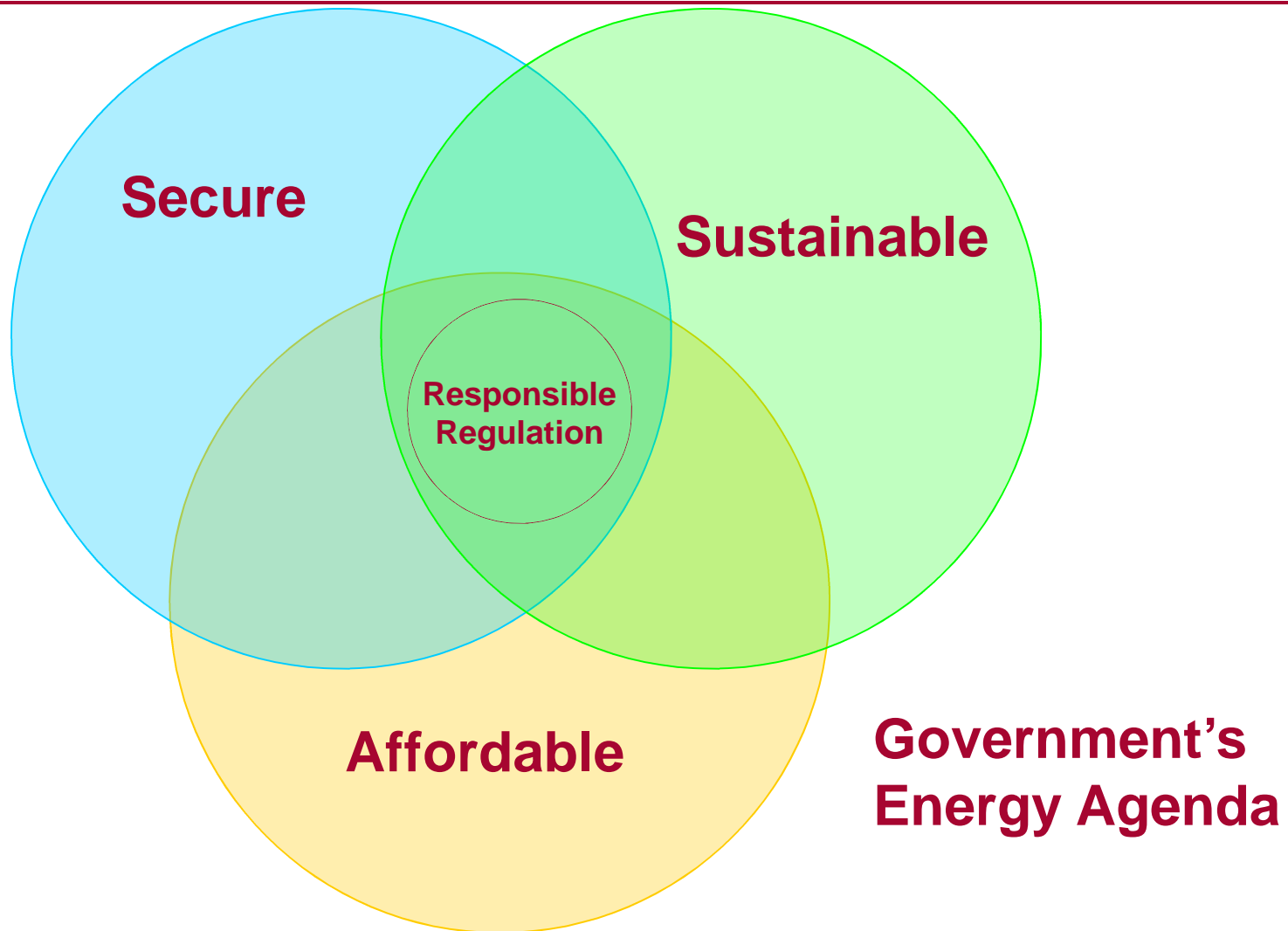
# Emerging Energy Technologies

## HSE & CCS

All Energy Conference 2010  
Taf Powell,  
Director, Emerging Energy Technologies

# Strategic overview:

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# A new energy mix (non nuclear)

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1.CCS

2.Gas storage

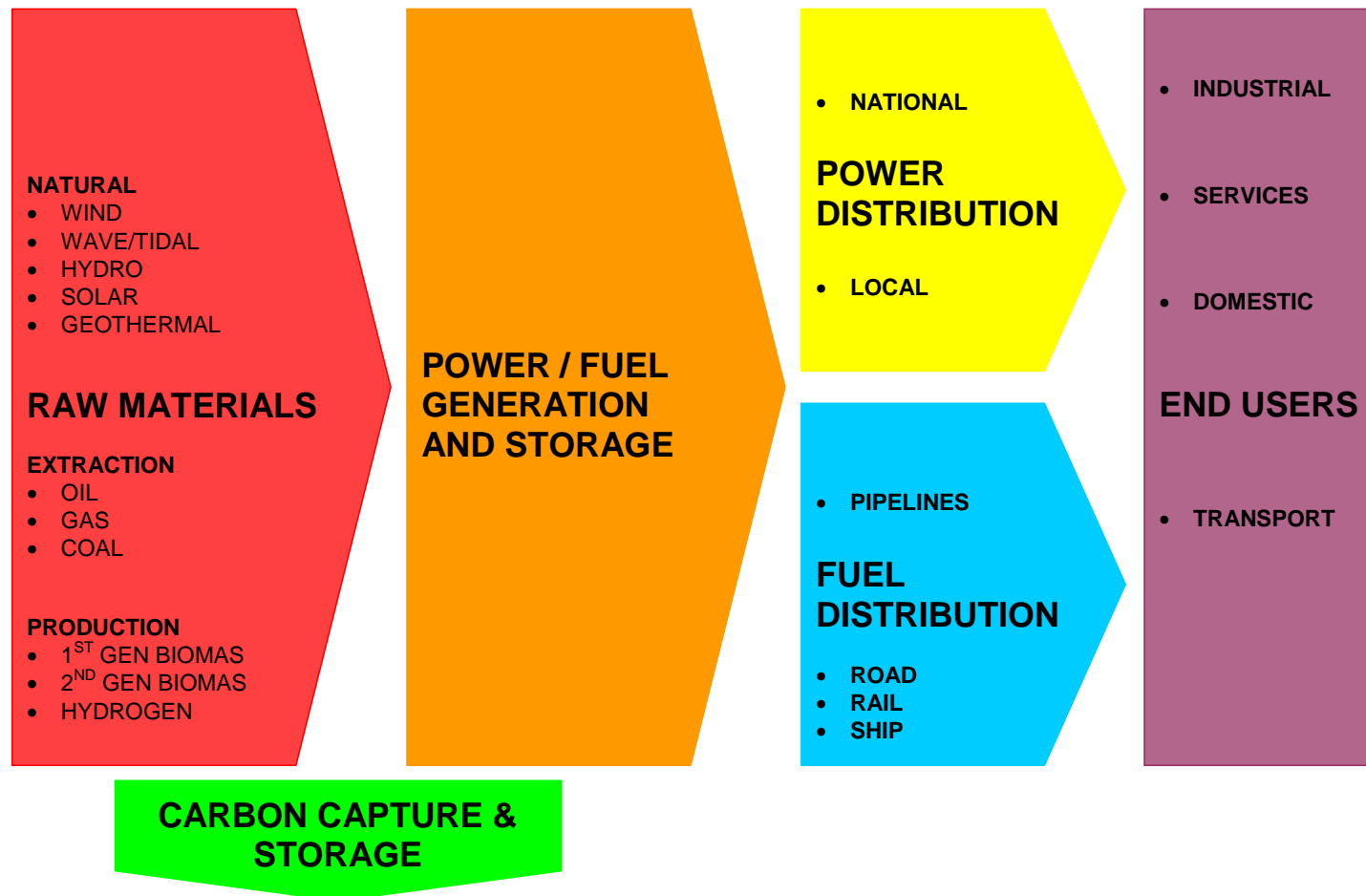
3.Renewables inc biomass

4.Distributed Generation

5.Clean Coal Technology

6.Distribution & Transmission

# The Energy Sector



# Common challenges across the emerging energy sectors

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- **Engineering unknowns**
- **Availability of appropriate standards/guidance**
- **Anomalies in the regulatory regime resulting in inconsistency**
- **Diverse range of duty holders**
- **Competency and skills (industry and regulators)**
- **Interface with other regulators/government departments**
- **Challenges with public acceptance at a local level**
- **Infrastructure challenges**

## Key Message

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**HSE is an enabling regulator,  
working in the public interest to  
facilitate the safe introduction and  
expansion of the new energy  
technologies**

# A responsible enabling regulator

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- Expertise & pragmatism; using different levers for securing H&S outcomes
- Sufficient foresight to ensure that H&S issues are adequately addressed without falling on the critical path
- Sufficiently engaged with OGD's and early enablers (CCSA?) at early stages to manage consequences further down the line
- Does not take on industries problem-solving role but works to facilitate a solution where necessary

## Meeting the CCS challenges - 1

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- **Working closely with DECC's new OCCS on enabling approaches, & to support pilot schemes;**
- **engagement with the professional institutions and the sector skills councils to identify realistic options for producing the skilled workforce for the future energy economy;**
- **Developing a cross-HSE capability to support the CCS sector, and environmental partners**

## Meeting the CCS challenges - 2

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- **active with UK regulators, with EU, with other North Sea partners, and more widely (e.g. International Energy Agency (IEA) and the Global CCS Institute) to secure a consistent regulatory approach to regulation of CO<sub>2</sub> that is sensible and not competitively unfavourable to the UK;**
- **Promoting a joined up approach to whole CCS process chain, including interface management**

## **Meeting the CCS challenges - 3**

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- **working closely with DECC & with ‘bidder’ consortiums in the Government competition for the UK's first full scale CCS power plant to ensure regulatory and process safety issues are dealt with efficiently (and HSE costs recovered)**
- **working with early enablers to identify gaps in the science and encouraging collaboration**
- **Supporting Environment Agency & Scottish Environment Protection Agency in verifying CCS technology as ‘proven’**

## **EET outcomes**

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**By 2011 we aim to deliver**

- **A coherent organisational strategy for HSE's regulation of the (non nuclear) emerging energy technologies**
- **Guidance to enable HSE divisions to plan and deliver against this strategy**

**..for HSE to be an effective regulator of emerging energy technologies**

## Contact us

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