Policy Directions to 2050

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The Trilogy

Facts and Trends

Why?

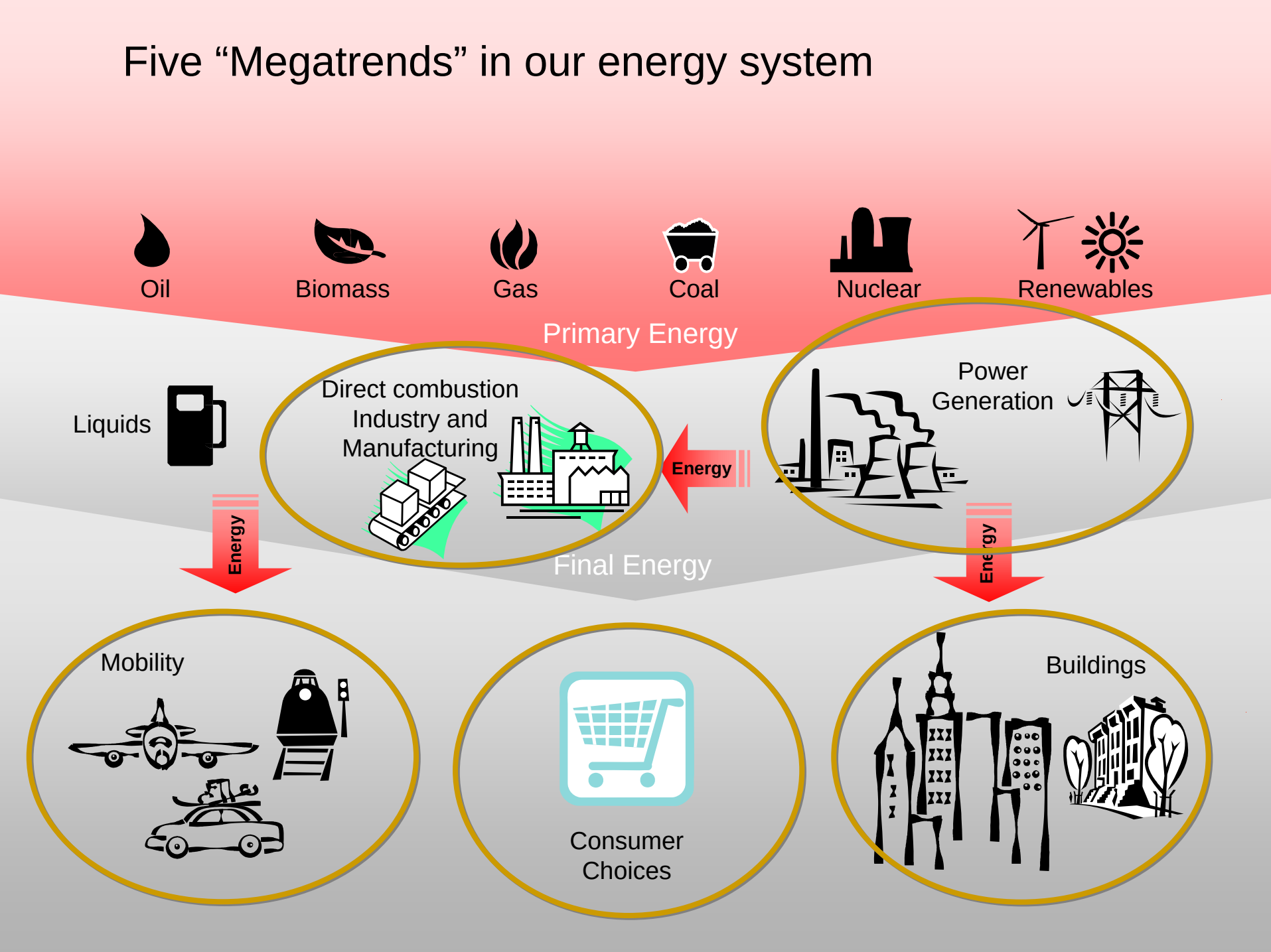
Pathways to 2050

What?

Policy Directions to 2050

How to deliver the necessary scale of change in our energy systems to begin to address the issue of climate change.?

Five “Megatrends” in our energy system



The development of energy policy

Energy policy is set at the national level. It is now one of the principal responsibilities of government.

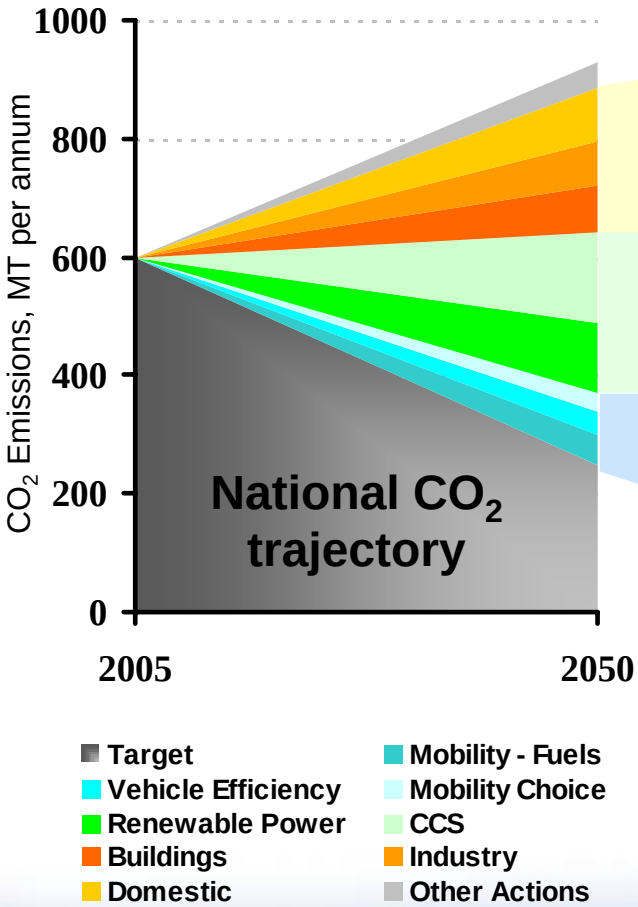
The development of energy policy is responsive to:

- Financial considerations
- Available natural resources
- Security of supply
- Environmental signals

A future framework must recognise the sovereign nature of energy policy decisions, but at the same time provide clarity, context and drive for such decisions.

Opportunity starts at the national / sectoral level

A. Opportunity Wedges (National) (Developed Country Example)



B. National/Sectoral Goals & Targets

Efficiency	Buildings Industry Domestic	xx % p.a. through to 20xx
Power Generation	Renewables CCS	xx MW p.a. by 20xx xx tonnes CO_2 p.a.
Mobility	Bio-fuels Efficiency Choice	xx litres p.a. by 20xx xx mpg by 20xx Hybrid / Diesel uptake Mass transit

C. National Policies

Buildings – adopt new country building standards, design awareness

Industry – Sectoral agreements, emissions trading, technology standards

Domestic – carbon labeling, increased product standards (e.g. standby energy)

Renewable Energy – renewables targets.

CCS – funding for infrastructure, tax cuts on capital investments, price signals for carbon via emissions trading

Biofuels – targets, support for manufacturing, CO_2 labeling

Vehicle Efficiency - support technology, incentives, sectoral agreements

Mobility Choice - consumer incentives, promote public/private partnerships for transport networks

A future framework – What is needed?

1. A long-term goal

- ✓ Established by 2010
- ✓ Described in terms of CO_2e^* emissions.

2. Technology development and deployment framework

- ✓ Expanded support for R&D
- ✓ Global standards
- ✓ Technology transfer driven by standards
- ✓ Risk management

3. Emissions management at national and sectoral level

- ✓ Bottom-up approach aligned with energy policy
- ✓ Sector by sector
- ✓ Expanded project mechanism
- ✓ Progressive inclusion of all countries

4. Linkage framework to encourage international trading

*All GHGs but as CO_2 equivalent

Thank you

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Clean development partnerships & programs

Clean development partnerships and technology programs based on standards and benchmarking can drive new technology development.

Asia-Pacific Partnership on Clean Development & Climate

FutureGen ALLIANCE

FreedomCAR & Fuel Partnership

EUROPEAN HYDROGEN AND FUEL CELL TECHNOLOGY PLATFORM

Power generation

Objectives

- Decarbonization
- GHG emissions management
- Energy efficiency
- Electricity as the preferred final energy carrier
- Investment in transmission and distribution grids

Technology examples

- Renewables (wind, solar, hydro, ocean, geothermal)
- Nuclear (3rd and 4th generation)
- Clean coal technologies (including CCS)
- Natural gas applications

Key policy options

- Technology standards
- Sector-based initiatives
- Green electricity and feed-in tariffs
- Tax incentives
- Soft loan public finance
- Renewable certificates
- Emissions trading
- R&D financial assistance