Proposals for Energy Policy Change in India and UK

GROUP 1

Outline

1) Similarities between UK & India
2) India and UK Energy Mix
3) UK Policies and Proposals
4) Indian Policies & Proposals
5) India: Regional Focus: NE States
6) UK: Regional Focus: East Anglia
7) Roadmap
8) Summary

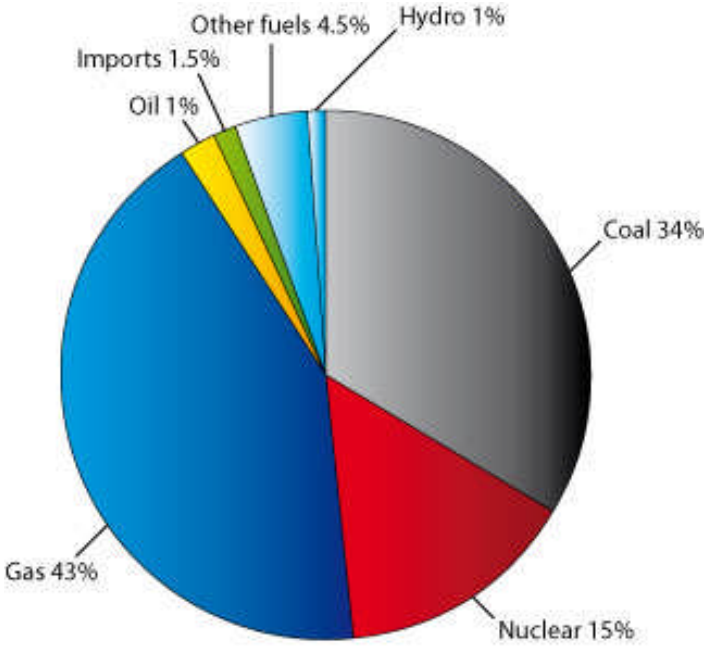
Similarities and Differences between UK and India

India and UK both respect the importance of public perception but the drivers from society differ.

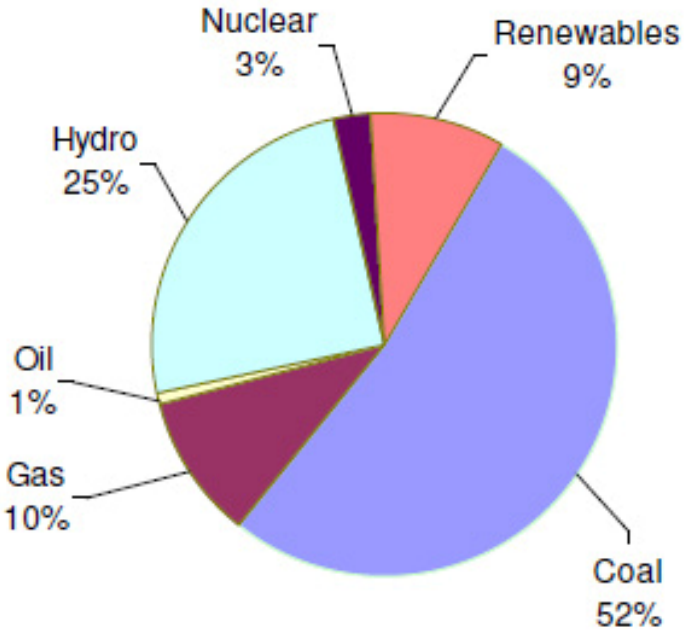
	UK	India
Public Perception	Democracy	Democracy
Economic Situation	Minimal growth	High growth
Power Generation infrastructure	Expected Supply	Load shedding developing network
Environmental Aspects	Legally binding	Good Policy Poor implementation

India and UK Energy Mix

UK



India



UK Policies

- Climate Change Act 2008 – reduce CO2 emissions by 80% by 2050 based on 1990 levels

- Improve energy efficiency

- Make more use of renewable and nuclear power (still stands post Fukushima)

- Employ CCS in all new build coal and gas power stations for 300MW power (or 25%)

Indian Policies

Indian energy polices have the following objectives,

- Energy conservation
- Improving the Energy Efficiency,
- Promote efficient fuel choices,
- Augment the role of nuclear and hydro power in India,
- Correct energy Pricing,
- Incentives for renewable energy sources like biofuels
- Increase of energy availability (electricity availability to all)

Identification of problems from Indian

Energy policies with special reference to North Eastern State

- Implementation of Govt policies in ground level for decentralisation of renewable energy.
- Thrust on R&D in in the use of indigenous renewable energy technology
- Emphasis on mini-micro-hybrid project
- Use of Biofuels like biodiesel, bioethanol etc
- Use of Biogas
- Cogeneration from waste sources
- Create awareness about the benefits and use of renewable energies
- Distribution system in case of hybrid energy sources

Proposed Policies for India

Implementing policy drivers

- Social education
- Incentives
- Pilot Programmers
- Environmental trading schemes

Additional policy

- Stricter Protection of agricultural food supply
- Market growth through bio-energy
- Micro-generation – Small privatized
- Development of hybrid technologies
- Increased R&D into larger scale low CO_2 generation (localized approach)

Policy recommendations for North East India

Social education:

Importance of educating and promoting the use of green technologies, as well as the initial benefit of the use of nuclear power within India

Incentives:

Currently large amount of policy in India, however implementation is slow. Important to correctly encourage policy implementation

Pilot Programs:

Promotion of the benefits of policy through social education combined with visible rural trial runs of projects such as bio-energy micro generation

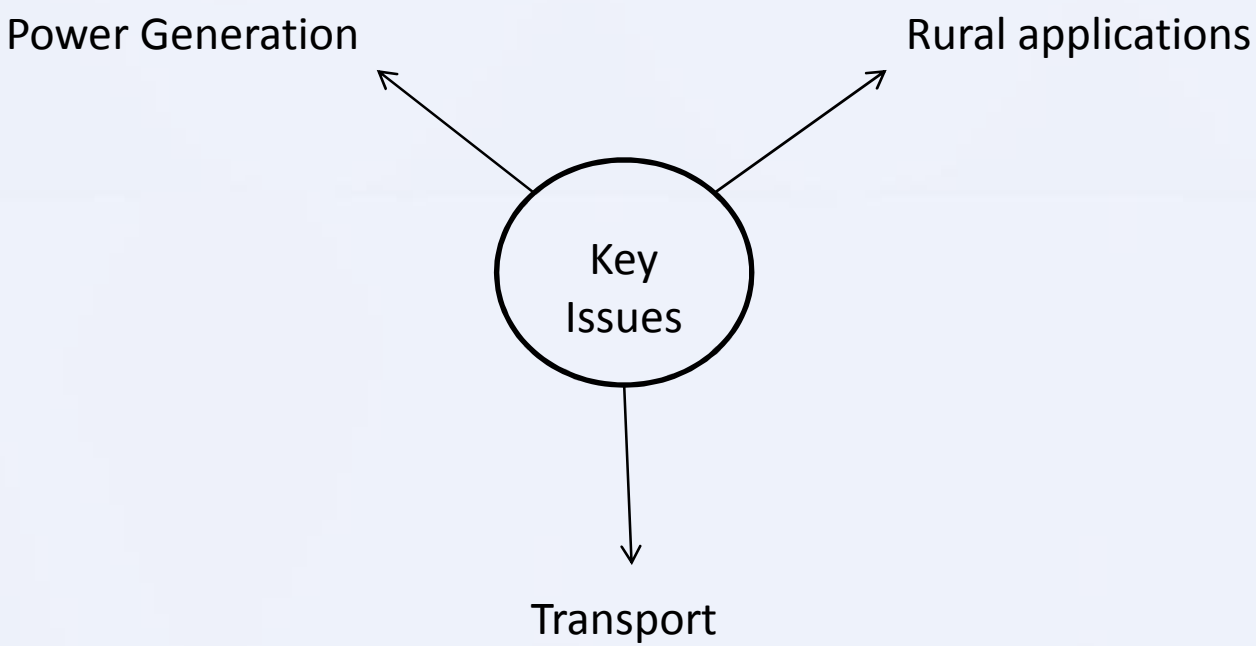
Policy recommendations for North East India

- Micro generation – Small privatized
- India currently has target the supply of electricity to all homes.
- Initially this could be accomplished faster through the use of bio-energies and micro-generation, while R&D is being developed for the next stage of greener technologies.
- Development of hybrid technologies
- Hybridation of fossil and bio-energy generation e.g. biomass gasifier/diesel generation
- Increased R&D to explore the indigenous natural resource

Policy recommendations for East Anglia, UK

- Promote micro generation – community-scale biomass CHP using agricultural waste from surrounding agriculture
- Enhance use of tidal and wave energy given reliability, and proximity to coast
- Continue use of nuclear power given presence of Sizewell B
- Financial incentives for nuclear power
- Better cooperation between industry and government
- Continued investment and research in new technology (e.g. tidal) – resale potential.
- Social Education

Policy recommendations for East Anglia, UK



Timeline

UK

Wind

Efficiency

Enhanced energy storage

Combined Heat & Power

Tidal

Nuclear

CCS

India NE region)

Biomass/ Biofuels

Efficiency

Hydro (mini-micro hydel)

Solar
(thermal and photovoltaic)

Wind

Enhanced energy storage

2030

Summary

- India and UK need to adopt a mix of energy sources

- Chronology should be chosen carefully to meet energy demands at low cost

- Fossil energy technology innovations are likely to be made at later stages (closed cycles, efficient processes)

- Policies needed:
  - efficiency improvement
  - focus on renewable energy available
  - implementation of nuclear power (UK only)

- Training and education for individuals to make efficient use of energy

- Focus on reducing CO2 emissions from centralized industries

- Financial incentives:
  - Costs for renewable energy needs to be reduced
  - Proposal of CO_2 credit scheme in India