



Achieving Energy Security in a Carbon Constrained World

Center for Strategic and
International Studies

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Rob Church

Components of Security

- Physical Supply Security
- Price Security
- Economic Stability
- Environmental Sustainability
- Social Acceptability

Renewable Energy Sources & Uses

Sources

- Solar
- Wind
- Hydro
- Geothermal
- Biomass

Uses

- Electricity
- Transportation fuel
- Thermal

Renewable Electricity – Wind, Solar, Hydro, Geothermal, Biomass

Physical Supply Security	
Price Security	
Economic Stability	
Environmental Sustainability	
Social Acceptability	 -

Renewable Transportation Fuel – Biofuel, Electricity

Physical Supply Security	
Price Security	?
Economic Stability	 -
Environmental Sustainability	?
Social Acceptability	

Renewable Thermal – Solar, Biomass

Physical Supply Security	
Price Security	
Economic Stability	
Environmental Sustainability	
Social Acceptability	

Renewable Energy

- Can be a big part of the solution – resource base is vast
- Not a panacea
- Costs are declining as scale is achieved
- Commercial success is a private sector not government program
- Stable government policy is essential