Economics and Financing

Planning and Economic Studies Section
Department of Nuclear Energy
Economic Aspects

Electricity Generation Cost

- Capital Investment
- Fuel Cost
- O&M Cost
- Financing Cost
- Off-site Infrastructure Costs
- Refurbishment/Equipment Replacement
- Decommissioning Cost
- Waste Management Cost
- Carbon Credits?
Competitiveness of Nuclear
Economic Aspects

**Macro-Economic**
- Size of National Economy (GDP)
- Saving/Investment Rate
- Public Debt
- Balance-of-Payment

**Financial**
- Capital Markets
- Access to International Capital
- Creditworthiness

**Fiscal**
- Taxation
- Repatriation Rules
Size of Economy

Gross Domestic Product (GDP) in 2008 billions dollars

60 countries
GDP < $10b

Source: IMF World Economic Outlook, October 2008
Share of Energy Investment in GDP, by Regions

Source: IEA, World Energy Outlook 2009
Debt as % of GDP

Source: OECD
Balance of payments

General government surplus as a percentage of the GDP. 2008

EU requirement: Maximum deficit of 3 per cent

Norway
Finland
Denmark
Luxembourg
Sweden
Bulgaria
Netherlands
Cyprus
Germany
Austria
Slovenia
Belgium
Czech Republic
Slovakia
EU27
Portugal
Italy
Estonia
Lithuania
France
Hungary
Spain
Poland
Latvia
Malta
Greece
Romania
UK
Ireland

Surplus
Deficit
Creditworthiness

Credit ratings

- Credit rating is applicable to both corporations and countries (called sovereign rating)

- Below investment grade rating (BBB+) increases the cost of finance and makes financing very difficult
# Size of Energy Utilities

## Market Capitalisation (2011)

<table>
<thead>
<tr>
<th>Country</th>
<th>Utility</th>
<th>Market capitalisation (USD billions)</th>
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 Keeping the Focus

Nuclear Power

Electric System

Energy Sector
...atoms for peace.