

### Economics of new reactors

There have been many studies carried out examining which electricity generation technology has the lowest cost for new plants. The key factors are construction costs, the level of fossil fuel prices (particularly crucial for gas-powered plants) and the costs of financing to be competitive. It is essential that nuclear plants minimize their construction costs and project schedule length in order to optimize their overall generation costs, particularly in locations where there is easy access to cheap gas or coal.

#### OECD electricity generating cost projections for year 2010

	NUCLEAR	COAL	GAS
Finland	2.76	3.64	-
France	2.54	3.33	3.92
Germany	2.86	3.52	4.90
Switzerland	2.88	-	4.36
Netherlands	3.58	-	6.04
Czech Rep	2.30	2.94	4.97
Slovakia	3.13	4.78	5.59
Romania	3.06	4.55	-
Japan	4.80	4.95	5.21
Korea	2.34	2.16	4.65
USA	3.01	2.71	4.67
Canada	2.60	3.11	4.00

US 2003 cents/kWh, Discount rate 5%, 40 year lifetime, 85% load factor. Source: OECD/IEA NEA 2005.

### Affordable, reliable low-carbon generation

Investors in new nuclear plants need to take a long-term view. Before a plant comes into operation and generates electricity very cheaply for up to 60 years, there is an initial period of planning, licensing and construction requiring a substantial investment. Balancing out the risks and rewards of such long schedules and allocating them to the party best placed to take them on is the proven route to success in nuclear projects. There are now clear indications that many countries and their electricity companies are convinced that new nuclear build is a highly economic option to satisfy their rising needs for power.

In competitive electricity markets, it is essential that nuclear reactors demonstrate their economic credentials.

The economics of nuclear are determined by the following factors:

- Fuel costs are relatively low (by comparison with coal, oil or gas-powered alternatives)
- Construction costs are relatively high, by comparison with large scale fossil fuel plants
- Project schedules can be long, meaning that the rate of interest charged on borrowed funds is a very important factor in determining the overall cost.



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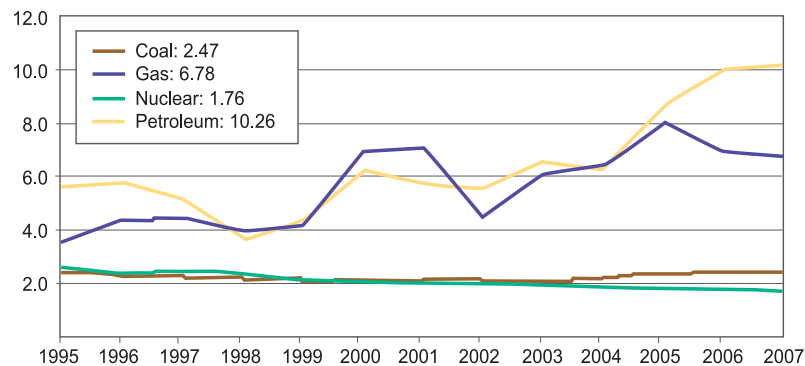
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## Economics of currently operating reactors

The nuclear reactors currently in operation around the world produce electricity very competitively and are now generally earning very good profits for their owners. Once a nuclear plant is up-and-running, production costs are very low. Only renewable energy technologies (which have zero fuel costs) are comparable to nuclear on this basis.

### U.S. Electricity Production Costs

1995 - 2007, in 2007 cents per kilowatt-hour



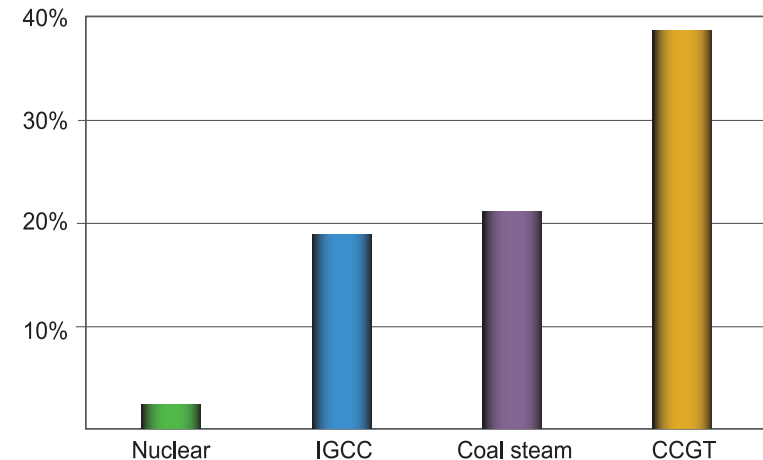
Production Costs = Operations and Maintenance Costs + Fuel Costs

Source: Global Energy Decisions

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In particular, fuel costs for nuclear plants are a small component of overall generation costs, which has been a key advantage of nuclear in times of rapid fossil fuel price escalation.

### Impact of a 50% increase in fuel costs on overall generating costs



Source: OECD/NEA 2006