

# Can New Nuclear Power Plants be Project Financed?

**EPRG Working Paper 1118**

**Cambridge Working Paper in Economics 1140**

**Simon Taylor**

The paper examines the possibility of financing new nuclear power stations with a widely used form of financing used in infrastructure investment called project finance. This involves the creation of a new company which owns the asset (e.g. a bridge, petrochemical plant, pipeline or power station). Banks lend to the project company and are repaid out of the revenues created by the asset. The lending is "non-recourse" to the sponsoring company (e.g. a utility company) behind the asset, meaning that if something goes wrong the utility's risk is limited to the capital it put into the new company.

The project company can sign individual contracts with all the parties involved with the asset - for construction, operation and maintenance, fuel supply and power sales. By efficiently allocating risk to the various parties, the overall risk is kept lower than in the case where a utility simply funds the new asset directly on its balance sheet. The lower risk means banks will lend a higher proportion of debt, which cuts the cost of capital and allows even very large companies to limit their exposure to the investment (a so-called "walk away" option).

The paper argues that new nuclear plants are in principle no different from many other assets which routinely use project finance. The main obstacle to its use is the poor construction record of nuclear plants. Lenders which will fund very large petrochemical plants will not currently lend to a new nuclear plant because they doubt it can be built on time and budget. Reactors currently under construction in Finland and France are indeed well behind schedule. But there are several reactors that have been built on time and budget in Asia and it is reasonable to think that project finance might become feasible before too long, at least for those reactor types that have a good construction track record (chiefly the Advanced Boiling Water Reactor).

Project finance, by creating a separate ownership company, also makes it easier to involve additional shareholders beyond the original sponsoring company. It would therefore make it easier for new nuclear stations to tap into non-traditional sources of finance such as infrastructure funds, sovereign wealth funds and institutional investors looking for long term investments, for which nuclear power is a suitable asset.

Interviews with a small selection of leading project finance banks (before the Japanese earthquake of 2011) suggest that there is no intrinsic reason why they would not lend to new nuclear, so long as it can establish itself as no different in kind from other forms of infrastructure investment.

Contact  
Publication

s.taylor@jbs.cam.ac.uk  
May 2011