

**OECD Nuclear Energy Agency**

**WORKSHOP ON ADVANCED REACTORS  
WITH INNOVATIVE FUELS**

**Barriers and incentives to introducing new reactors in the  
deregulated electricity market**

by

W L Wilkinson

**Abstract**

After a long period of stagnation, there is now a realistic prospect that a revival of nuclear power build is imminent in the USA and possibly also in the UK. New reactors will need to compete in electricity markets which are being progressively deregulated. This is a very different situation to the one which prevailed when the existing reactors were built. There are strong incentives to pursue new reactors, but there are also difficult barriers to overcome. This paper considers these barriers and incentives in relation to both the evolutionary plants that are most likely to be built in the immediate future and also to more advanced plants that will hopefully follow. While those evolutionary designs currently positioned for new build have been developed specifically to address the needs of utilities, for many of the advanced concepts that will be presented at this Workshop there is a large gulf separating the aspirations of the researchers and the needs of utilities. This gulf will have to be bridged if any such designs are eventually to be deployed commercially.