

FS1-10  
**Energy Allocation Analysis with the MARKAL Model**

Fu-Kuang Ko

Institute of Nuclear Energy Research, Taoyuan, Taiwan

**Abstract**

This paper addresses the energy allocation modeling effort and analysis undertaken at INER by using MARKAL model. The model structure, associated formulation and calibration are briefly described. The development of the demand for energy services are linked to the drivers' projections through elasticities from our analysis. The business-as-usual (BAU) scenario is simulated according to the energy allocation from the conclusion of the 2005 national energy conference in Taiwan. Scenarios with carbon emission abatement lead to changes in energy mix, in technology deployment and in electricity production compared to the BAU. Technologies such as nuclear power plants, SIGCC plants, and bioethanol-powered cars are included in this paper.