

## European Electricity Markets

The deregulation of the European gas and electricity markets is gaining pace as European Union (EU) directives on energy are implemented. The European markets are dominated by old state monopolies, particularly in France, Portugal, Greece, and Italy. The vertical integrated character of the incumbents ties their stronghold to specific geographical areas. The opening of markets to competition both within and between countries demands a great deal of restructuring as all incumbents inevitably have to surrender market shares in their service areas while trying to gain entrance in other areas. At the same time, new entrants from the United States are assessing where to concentrate their efforts.

The gradual market opening of electricity began in 1999 and will end in a full European-wide market opening in most countries by 2005. Several countries are ahead of the minimum requirements and countries such as the United Kingdom, Germany, Sweden, and Norway (not a member of the EU) already allow free retail customer choice. As a result, the process is moving forward at various speeds in different areas of the EU. The current capacity surplus in relation to peak demand requirements, also called the reserve margin, varies noticeably across the European countries. ICF Consulting's analysis of the European wholesale power

market using its Integrated Power Model (IPM™) shows that capacity expansion should be an immediate priority in Norway, Sweden, Finland, and Ireland.

With demand growing faster than the EU average, Spain and Portugal will require construction of Combined Cycle Gas Turbine Plants (CCGTs) with a capacity of 18,000MW in the coming decade. In contrast, France, Denmark, and Switzerland have abundant capacity. Generators in these countries see electricity transmission into neighboring markets as crucial. Italy will experience a shift away from expensive, heavy fuel-oil-fired plants to less expensive and cleaner CCGTs. Stricter environmental regulations and resistance to nuclear generation will also drive the expansion of CCGT technology in countries such as Austria and Germany where there is no imminent lack of capacity.

Companies that understand the dynamics of the European markets and take an integrated approach will gain insights allowing them to pursue opportunities where they are most likely to be profitable. EU and national regulators will have to ensure that incumbents as well as new comers are provided a level playing field. On the other hand, regulated businesses will have to respond more rapidly to development and lower their exposure by looking across national borders.

