



Global IGCC Power Markets and Strategies, 2007–2030

December 2007

Study Highlights:

IGCC Power Market Drivers

Regional Analysis

- North America
- Europe
- Asia Pacific
- Rest of World

Competitive Technology Analysis

- IGCC vs Oxyfuel Combustion and Post-Combustion Capture
- Carbon sequestration challenges
- Gasification Technology Comparisons
- Carbon Capture Strategies

Strategy Profiles

- Utilities
- IPPs (Large and Emerging)
- Developers
- Turnkey IGCC Plant Providers
- Gasification Vendors
- Gas Turbine Vendors

Cost Analysis

- Production Costs
- Investment Costs
- Carbon Capture Costs

Market Share Analysis

- IGCC Power Plant Market Share by Plant Type and Region
- Installations by vendor, customer
- Supply chain analysis
- Product & Technology Strategy Analysis

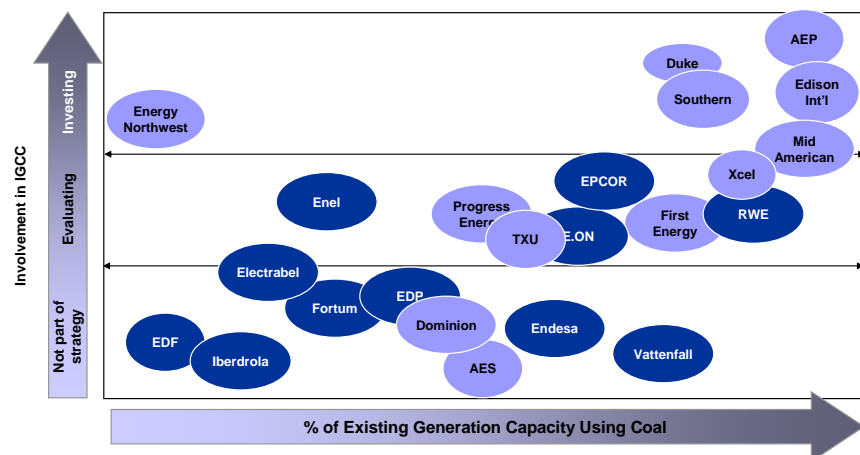
Market Forecasts to 2030

Tightening emission standards, evolving carbon policies and the entry of credible turnkey suppliers is driving widespread interest in coal-based IGCC Power Generation. Nearly 4,000 MW of IGCC projects are currently operating in the US, Europe and Asia and over 50 IGCC projects totaling over 25,000 MW have been announced or are in planning worldwide.

EER's new study, *Global IGCC Power Markets and Strategies 2007-2030* is the most comprehensive market study available on coal IGCC as a generation option for the global power sector. The study provides in-depth analysis of power market environments and the strategies of key players across the value chain.

- **Coal dominant utilities, large IPPs and upstream energy producers are emerging as early adopters of IGCC:** In North America Utilities AEP, Southern Company and Duke, have all initiated coal IGCC projects, while IPPs including Hydrogen Energy, NRG and Edison Mission are also active players. How are the carbon management strategies of utilities and IPPs evolving, and how is this impacting their adoption of IGCC?
- **The US market is clearly leading the way** with 27 projects in 16 states at some stage of development with a combined capacity of more than 15,000 MW. How will IGCC development differ in Europe versus the US and other key developing power markets?
- **IGCC has emerged as the most popular technology for commercial deployment of carbon capture and sequestration, but still faces significant uncertainty.** The next 5 years will be crucial for establishing IGCC's reliability to engender customer confidence and to drive down costs. Will other carbon capture alternatives such as oxyfuel and post combustion capture technologies emerge as viable competitors? What are the economics of IGCC and what is a realistic timeframe for substantial growth?

Exhibit 5-8: Status of Utility Involvement in IGCC



Early adopters of IGCC aim to hedge emissions risk of coal dominant generation portfolios and leverage competencies with coal procurement and plant operation

Source: Emerging Energy Research

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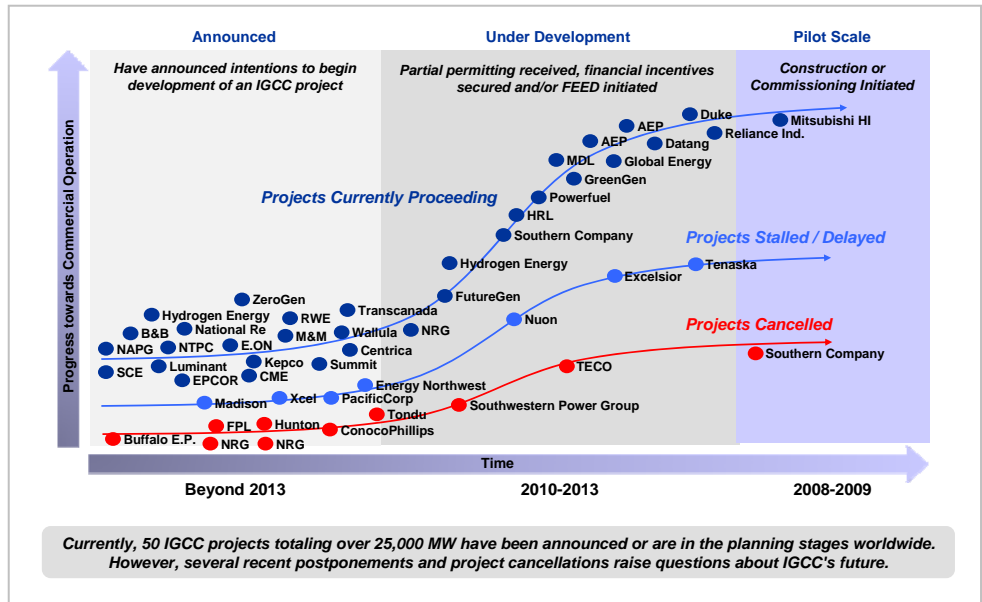
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Source: Emerging Energy Research

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