

The Cost of Power Generation 2012

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A number of general trends can be identified within the power generation market. These include the steady increase in the use of renewable sources for generation and the potential for much greater use of natural gas. A further trend that seems set to continue over the medium term is the inexorable rise in the cost of electricity, while the future of nuclear power looks increasingly uncertain.

Scope of this research

- Realize up-to-date competitive intelligence through comprehensive power cost analysis in electricity power generation markets.
- Assess power generation costs and analysis, including capital costs, overnight costs, levelized costs, and risk analysis.
- Identify the key trends that will offer the greatest growth potential and learn which technology trends are likely to have the most market impact.
- Discover how carbon costs will affect the industry, comparing renewable and conventional technologies using financial and lifecycle analysis.
- Quantify structural costs of grid extension, the effect of drivers, legislation, and tariffs, installation costs, and the cost of electricity.

Research and analysis highlights

Combined cycle gas turbine plants with carbon capture and storage (CCS) are the cheapest of the conventional base-load technologies, with an estimated cost of £900–1,000/kW.

Geothermal power in the UK is relatively expensive at £4,700/kW, which is partly a reflection of the fact that deep drilling and rock fracturing are required to exploit the resource.

Offshore wind has an estimated levelized cost of \$167/MWh. Solar pV costs fell from \$5,879/kW in 2010 to \$4,474/kW in 2011.

Key reasons to purchase this research

- What are the drivers shaping and influencing power plant development in the electricity industry?
- What are the lifecycle carbon emissions of the various power generation technologies?
- What is power generation going to cost in the future?
- Which power generation technology types will be the winners and which the losers in terms of power generated, cost, and viability?
- Which power generation types are likely to find favor with manufacturers moving forward?

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