

# Analyzing Clean Coal Combustion Technologies 2015

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## Abstracts

Coal has been the workhorse of many nations' energy needs since the beginning of industrialization after the advent of the steam pressure-based mechanics. It has contributed immensely to the world's industrial needs while proving to be a low cost energy source economically. However the past five decades have seen the nations begin to realize the environmental costs of this fuel source and this has forced industrialized nations to take a deeper look at understanding how to manage this wonderful fuel resource environmentally and determining whether Coal had even been capitalized in the most energy efficient manner till now.

The dedication of scientific acumen to development of Clean Coal Technologies is focused on the maximization of energy throughput from each ton of coal and arresting the emissions from the wastes generated.

Sequestration is the long term outlook of achieving large reductions in greenhouse emissions from coal based power generation. This technology coupled with coal gasification which delivers pure stream of CO<sub>2</sub> for capture and storage are some of the new initiatives of the future.

The past two decades have seen R&D investment in Clean Coal Technologies and has resulted in the development of more than 20 new, lower-cost, more efficient and environmentally compatible technologies for electric utilities, steel mills, cement plants and other industries. That's one technology taken from concept to implementation every year and in geological terms it is an achievement.

Since this industry has now become a viable commercial reality it makes perfect business sense to analyze the same through this report which aims at giving the analyst a complete perspective on the historical as well as present day consumption of coal in energy generation.

Aruvian Research's report *Analyzing Clean Coal Combustion Technologies* specifically focuses on the problem of managing the residual wastes from the usage of coal as a fuel and the scientific development of clean coal technology as a viable option. The report also explains the need for a stronger policy and investment support to Clean Coal Technologies and the debate on the financial costs incurred with making clean coal tick.

The processes deployed in Clean Coal Technology from washing to the carbon separation and sequestration through advanced systems which derive efficiency as well as meet environmental standards are explained in detail in this report.

Any coal project cannot be successful without the active and joint support of the government and the industry and this report provides an insight profiling of some of the programs being run worldwide on coal technologies and the development of sustainable options.

Apart from looking at the consolidation in the global coal industry, the report *Analyzing Clean Coal Combustion Technologies* also analyzes the global coal industry through production and consumption statistics, coal overall industry statistics for the years 2010 to 2014 and an industry forecast to 2019. Industry segmentation of the global coal industry is also included in the report.

Moving on to the analysis of clean coal technology, the report analyzes the various processes as well as the global market for clean coal technologies for the years 2005 till 2020. The report also looks at the global demand for clean coal, the market for supercritical pulverized coal, market for Ultra-Supercritical Pulverized Coal, the market for Pressurized Circulating Fluidized Bed Combustion, the market for Integrated Gasification Combined Cycle, along with a regional analysis of the global clean coal market.

We also include an analysis of the various upcoming and under construction coal plants across regions and by countries.

An in-depth analysis of the market for clean coal equipment is also included in our report. This section undertakes an analysis of the market for Electrostatic Precipitators (ESP), the market for Flue Gas Desulfurization Equipment, the market for NOx Equipment, the market for fabric filters, and a regional analysis. Data is analyzed for the years 2006 till 2020.

Regulatory framework impacting not only the clean coal market but the overall global coal industry is looked at in the report.

A brief profile of carbon sequestration is also included.

Major industry players that are involved in clean coal are analyzed through a corporate profile, a business segment analysis, financial analysis and a SWOT analysis. The report includes an analysis of eight major industry players.

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