

Cost Factors: Like coal gasification, most cost estimates for FBC show some 10 to 15% lower cost as compared to a conventional system fitted with FGD. Most such estimates have been published by proponents; in more recent cost comparisons by TVA, it was concluded that although FBC (atmospheric and pressurized operation) shows a potential saving of 9 to 14% "when uncertainties are included, the estimated cost of electricity for the three alternatives is so close that all are considered to be within the competitive range for further consideration."

It should be noted that the FBC approach was favored by some of the assumptions in the TVA study, mainly the higher energy efficiency for FBC and the relatively high energy penalties assigned to conventional systems plus FGD. For example, it was assumed that atmospheric FBC has an energy efficiency of 35.8% as compared to 31.8% for conventional boilers. In contrast, a British study shows 36.6% for FBC and 37.1% for conventional boilers. The comparative cost of FBC and conventional operation cannot be calculated accurately at the present time.

Process Choice: The recommendations in the following table are made for process choice at different required levels of emission reduction. It should be noted that these are only approximate and that site-specific conditions could well change the ranking. The rankings are judgmental in nature, based on a subjective evaluation of factors such as cost, commercial viability, control efficiency, and process reliability.

<u>Removal efficiency level, %</u>	<u>Process listing</u>
Higher than 90%	<ol style="list-style-type: none"> <li>1. Double alkali</li> <li>2. Limestone scrubbing with promoters</li> <li>3. Coal gasification (combined cycle)<sup>a</sup></li> <li>4. Recovery processes</li> </ol>
90%	<ol style="list-style-type: none"> <li>1. Limestone scrubbing with promoters</li> <li>2. Limestone scrubbing</li> <li>3. Double alkali</li> </ol>
50-90% (high-sulphur coal)	<ol style="list-style-type: none"> <li>1. Limestone scrubbing, (with physical coal cleaning where upper limit on SO<sub>2</sub> emissions applies)</li> </ol>