



# EnerChem's "ClearChem™ System" for Effective Emission Control



***THE LOW COST EMISSION CONTROL  
OPTION  
FOR COAL FIRED POWER PLANTS***

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# WHAT IS CLEARCHEM(TM)

- FURNACE SORBENT INJECTION PROCESS
- PATENTED, BASED ON MICRONIZED  $\text{CaCO}_3$
- MINIMAL TUBE DEPOSITS & IMPACT ON ESP
- MARKETABLE ASH – NO POND LEACHING

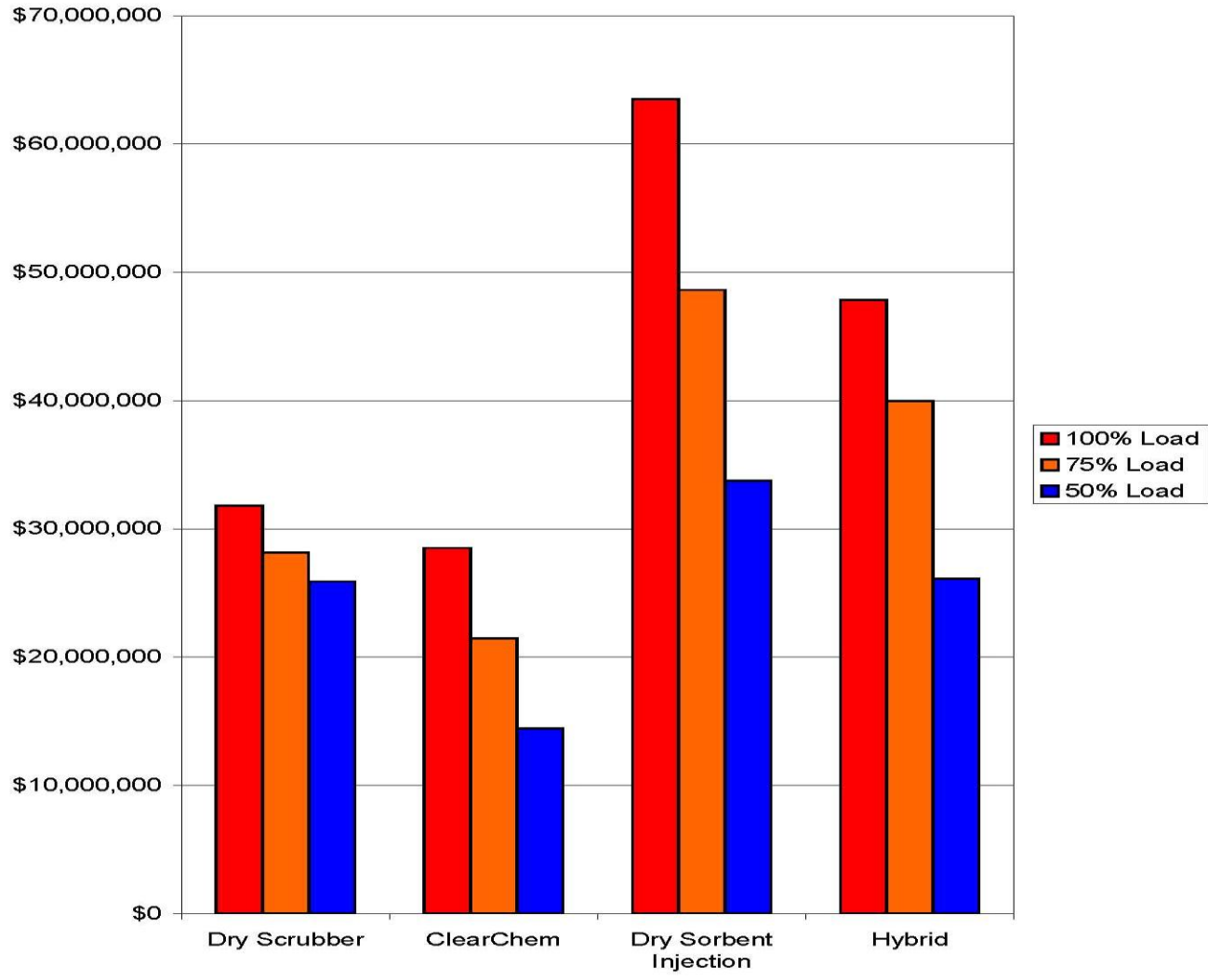


# COSTS & BENEFITS

- CAPITAL UNDER \$500,000
- OPERATING \$400 - 600/TON SO<sup>2</sup> MITIGATED
- SMALL FOOT PRINT
- EASY HANDLING
- WIDELY AVAILABLE
- SAFE REAGENT



### 10 year cost



# RESULTS

- 84% SO<sup>2</sup> CAPTURE @ CA/S =1.9
  - Lower exit temp will boost capture
- HCl capture circa 75%
- SO<sup>3</sup> VIRTUALLY ALL CAPTURED
  - Allows lower exit gas temp, heat rate, CO<sub>2</sub> release

# OTHER CLEARCHEM™ BENEFITS

- EXISTING FGD MORE EFFECTIVE
- MAKES OXIDIZED Hg CAPTURE EASY
- EXISTING  $\text{CaCO}_3$  SUPPLY CAN BE USED
- IMPROVES ECONOMICS OF  $\text{H}_2\text{O}$  RECOVERY FROM FLUE GAS





CFD modeling indicates best injection sites (2 nozzles at each of the OFA and Side Door ports). Above shows the pump skids and day tank.

