



The National Coal Council
Power for America from America

Reliable & Resilient

The Value of Our Existing Coal Fleet



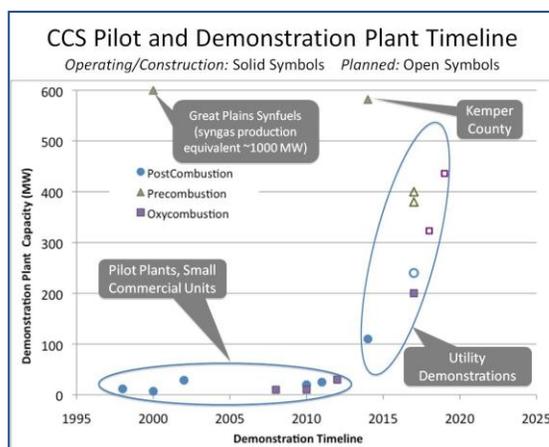
Reducing Conventional & CO₂ Emissions from the Existing Coal Fleet

www.nationalcoalcoal.org/NEWS/NCCValueExistingCoalFleet.pdf

The existing coal fleet is generally well equipped with systems designed to control emissions of PM, NO_x and SO₂. Recently proposed or adopted regulations will lead to more stringent emission requirements aimed at reducing hazardous air pollutants (HAPs), enhancing wastewater emissions, managing solid waste management and reducing greenhouse gas (GHG) emissions. DOE should lead public-private collaborative programs to ensure compliance with environmental mandates.

ISSUES

- Some of the new proposed environmental regulations require compliance in a very short time frame. There is insufficient time to launch an R&D program to address these compliance issues.
- At the same time, some of the challenges posed by emerging regulations for conventional pollutants are the result of other emission control systems. New emission streams are being generated by systems employed to capture traditional HAPs.
- Proposed standards for wastewater effluents from existing coal units are not achievable under all operating conditions using existing technologies.
- Trace contaminants in solid waste streams can interfere with the ability to recycle collected materials for beneficial use.
- Commercial scale carbon capture and storage (CCS) has yet to be demonstrated due to a number of significant technical, financial, legal and regulatory challenges. The timeline for commercial-scale projects could be at least a decade from project concept to assessment of operational data.
- Retrofitting CCS to existing power plants creates challenges far beyond those that apply to greenfield CCS applications.
- DOE's RD&D program has no financial resources to move viable CCS concepts through commercial scale demonstration.
- Approximately 12 large-scale CCS demonstration projects are needed to adequately demonstrate CCS is technically feasible and commercially viable.



NCC Recommendation

DOE should lead collaborative efforts with industry to develop technologies to meet additional requirements associated with managing wastewater effluents and secondary emissions from existing coal units. The need for accelerated solutions to managing conventional pollutants requires greater emphasis on hands-on test facilities that emulate the National Carbon Capture Center design concept.

DOE should lead collaborative efforts with industry to demonstrate at commercial scale lower cost post-combustion CCS systems with less parasitic power consumption for bituminous and subbituminous coals.