



The National Coal Council
Power for America from America

Reliable & Resilient

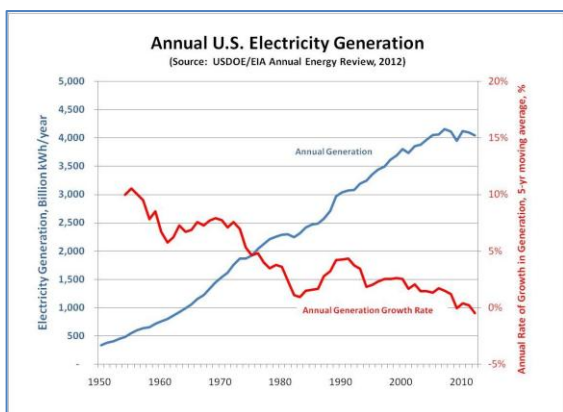
The Value of Our Existing Coal Fleet

Challenges to the Existing Coal Fleet

www.nationalcoalcoal.org/NEWS/NCCValueExistingCoalFleet.pdf



Current challenges to maximizing available future benefits from the existing coal fleet are:

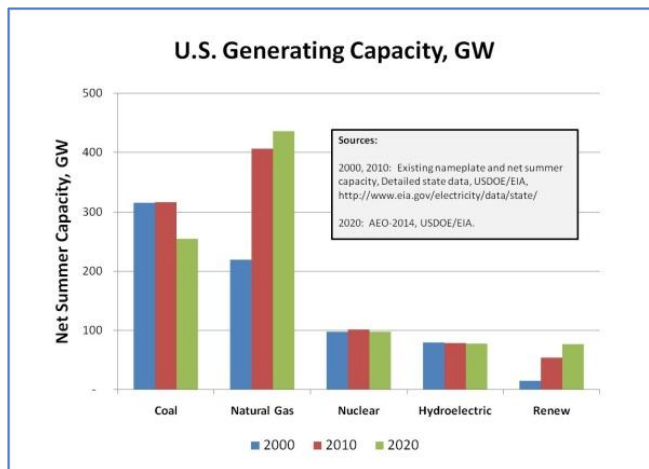
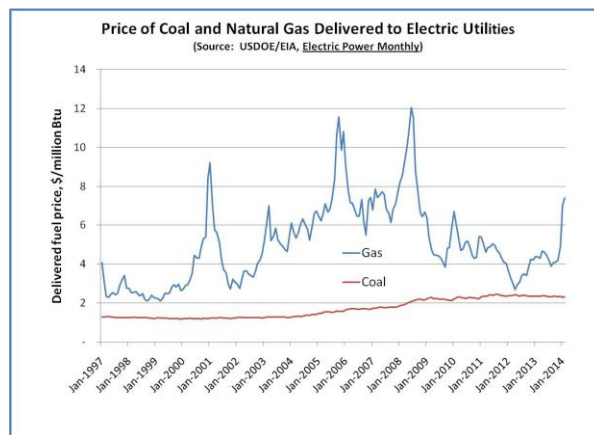


Reduced Rate of Demand for Electricity

Electricity demand has declined due to a combination of a slower growing economy, greater deployment of demand-side energy efficiency measures and a continuing shift from manufacturing to less energy intensive services. This relatively low rate of growth emphasizes the importance of policies and technologies that preserve the benefits offered by the existing fleet.

More Advantageous Natural Gas Prices [at present]

Natural gas prices of late have significantly decreased, causing greater use of that fuel. However, natural gas prices have a long history of price volatility. EIA projects gas prices will increase over 3%/year (2012-2040) vs. a 1%/year increase for coal.



Environmental Regulation

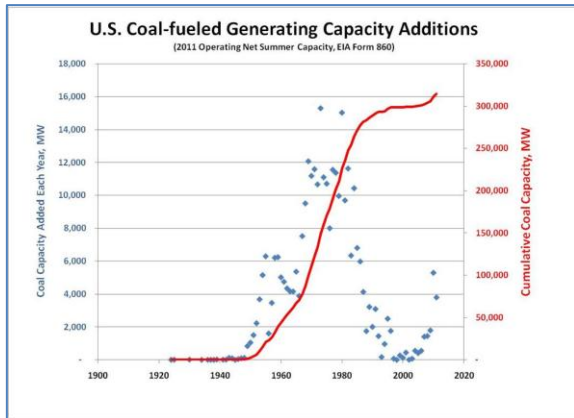
Several new and prospective environmental regulations applicable to the existing fleet will reduce operating flexibility and require implementation of very costly compliance strategies.

Cumulatively, meeting these goals will be extremely difficult and costly in the absence of CCS technology (cost to meet goals approaching 138% greater without CCS), as stated by the Intergovernmental Panel on Climate Change (IPCC). These regulations also exert operating challenges on coal plants, such as cycling, minimum load and other factors, thus causing the units themselves to operate less efficiently/economically. As a result, U.S. coal-based electric generation may decrease between 35%-98% by 2040, as compared to 2010.

New Source Review – Major Modifications

As it is presently employed, NSR is a powerful disincentive for power plant owners to add efficiency improvements to their plants and has resulted in some efficiency improvement project cancellations, the antithesis of EPA’s goal of greater pollution control. EPA has confirmed this problem exists. Current NSR rules result in higher national emissions and continued degradation of efficiency within the existing fleet.

“...EPA concludes that the NSR program has impeded or resulted in the cancellation of projects which [sic] would maintain and improve reliability, efficiency, and safety of existing generating capacity ... [resulting in] lost capacity [and] lost opportunities to improve energy efficiencies and reduce pollution.”

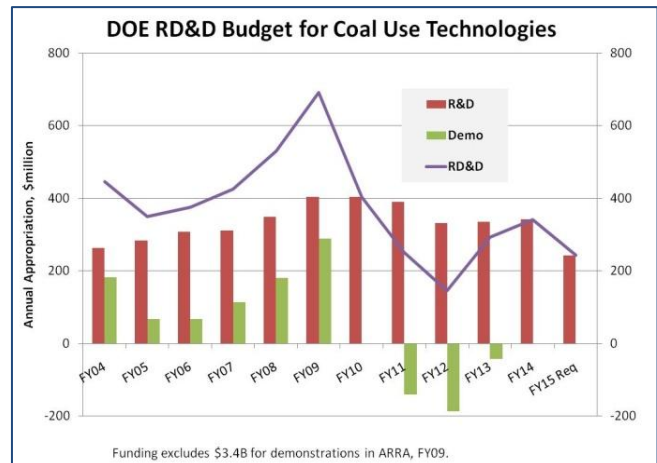


Age of the Fleet

The majority of coal generation plants are 30+ years old. While there is no fixed endpoint for the useful life of a coal power plant, large capital investments generally are not economically viable on significantly older units, particularly for “parasitic” technologies such as CCS that do not contribute to unit efficiency and economy.

Reduced Funds for Research & Development [Industry & Government]

In the face of all this, however, federal funding for coal RD&D has significantly decreased in recent years. The Administration’s FY2015 Research & Development (R&D) funding request represents a decrease of approximately 64% compared to average appropriations for the past 11 years. No demonstration project funding has been appropriated since 2009.



NCC Recommendations

- DOE should work with EPA to eliminate NSR-related barriers that disincentivize generators to pursue efficiency improvements that would otherwise reduce emissions, increase capacity and enhance plant operations.
- DOE should seek input from industry associations, such as the Electric Power Research Institute (EPRI) and the Coal Utilization Research Council (CURC), regarding priority research needs and the appropriate balance between research, development and demonstration (RD&D) of technologies relevant to the existing coal fleet.