



The National Coal Council
Power for America from America

Reliable & Resilient

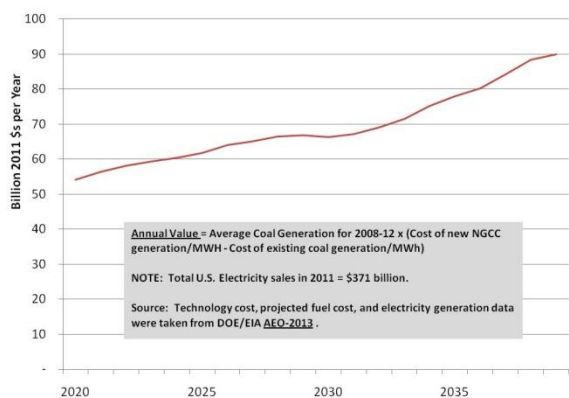
The Value of Our Existing Coal Fleet

The Role & Benefits of the Existing Coal Fleet

www.nationalcoalcoal.org/NEWS/NCCValueExistingCoalFleet.pdf



Value of Existing Coal Fleet: Electricity Cost Savings
 (20 year total = \$1400 Billion)

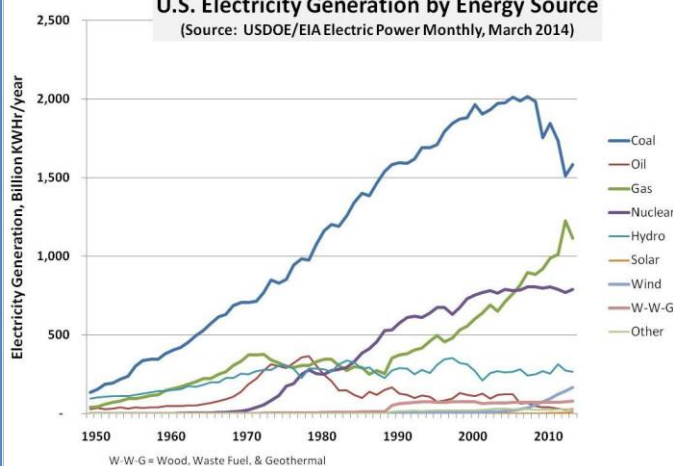


Low-cost power from the nation's existing coal fleet keeps U.S. electricity prices below those of other free market nations. If the existing coal fleet were replaced with the next cheapest alternative generating source – natural gas combined cycle power plants – a conservative estimate of the impact on the U.S. economy would be a 1.5% drop in GDP and a loss of 2 million jobs by 2040.

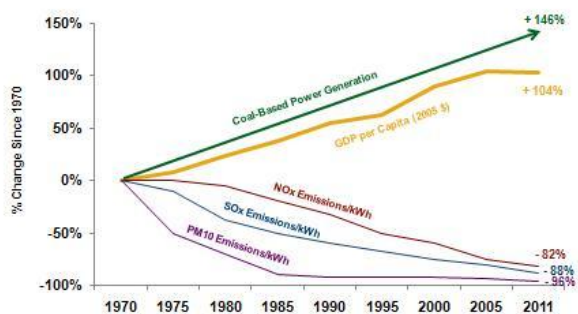
Profile of the Existing Coal Fleet

Since 1950, coal has dominated electricity generation due to its domestic abundance, accessibility, reliability, and low-cost compared to other generation alternatives. In 2013, coal continued to lead U.S. generation, producing 39% of electricity nationwide with approximately 310 GW of generating capacity.

U.S. Electricity Generation by Energy Source
 (Source: USDOE/EIA Electric Power Monthly, March 2014)



Clean Coal Technologies Improve Air Quality



Continuous technology improvements have greatly reduced emissions from the coal fleet. Since 1970, coal-based power generation has increased nearly 150% while key emissions have decreased almost 90%. State-of-the-art technologies have reduced emissions of SO₂ 88%, NO_x 82% and particulates 96%.

Benefits Provided by the Existing Coal Fleet

The U.S. benefits from having a diverse mix of fuels and technologies for power generation.

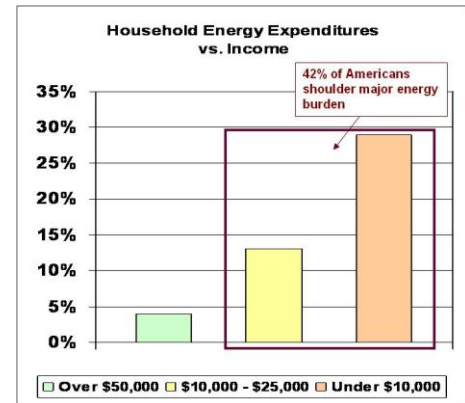
COAL FLEET BENEFITS

- Energy Security
- Fuel Mix Diversity
- Direct & Macroeconomic
- Supply & Price Stability
- Environmental
- Job Creation

Coal's low-cost and abundance (U.S. has 27% of the world's proven coal reserves) provides economic stability. In addition to serving as a crucial buffer to spiking natural gas prices, coal offers the energy security value of a power generation option that is not dependent upon real-time fuel delivery/transport and is relatively immune to terrorism.

Affordable Energy for All in a Growing Nation

The energy burdens of low-income households are much greater than those of higher income families. Families earning more than \$50,000/year spent only 4% of their income to pay energy expenses; those earning between \$10,000-25,000/year (29% of U.S. population) spent 13% on energy and those earning less than \$10,000/year (13% of population) spent 29% on energy costs.



Source: American Association of Blacks in Energy

Consumer class	Electricity Price in 2013, Cents/kWh						
	U.S.	Denmark	France	Germany	Italy	Spain	UK
Residential	12	42	20	41	32	31	24
Industrial	7	15	13	20	23	17	16

Global Competitiveness

Lower cost electricity acts as a stimulus to the economy, providing more disposable income to consumers and creating a competitive edge for U.S. manufacturers supplying global markets. European power costs are two to three times those in the U.S.

Secure Infrastructure

The U.S. coal generation supply chain is unmatched in the world. Penn State University research estimates the U.S. coal power supply chain provides over \$1 trillion in gross economic output, 7% of U.S. GDP, 6.8 million jobs (5% of the U.S. workforce) and \$362 billion in annual household income.

- 1,200+ active coal mines
- 95,000 miles of Class 1 railroads
- 12,000 miles of commercially navigable waterways
- 90,000 miners

Job Creation

Retrofitting advanced environmental technologies and enhancing efficiency at existing coal plants could result in the annual creation of 44,000-111,000 jobs, depending on the degree of efficiency improvement achieved.

NCC Recommendation

DOE should ensure that basic federal energy policy assessments, such as the Quadrennial Energy Review (QER) and the President's Advance Manufacturing Initiatives consider the impact of generation diversity and lower priced electricity facilitated by coal-fired power plants, and assess how pending coal plant retirements are likely to impact power prices, availability and reliability.