# COAL FACTS THE RELIABLE & RESILIENT U.S. EXISTING COAL FLEET

#### THE VALUE OF OUR EXISTING COAL FLEET REPORT

#### WHAT'S NEEDED TO REPLACE COAL WITH NATURAL GAS?

## 14 Trillion Cubic Ft

Of natural gas – equivalent to combined production of TX, LA, OK & Gulf of Mexico

## \$800 Billion

To build power plants, pipelines and storage infrastructure (2014 \$)

## \$11/MMBtu

\$2014 needed to replace depleting reserves of natural gas (2014\$)



NCC Report for Energy Secretary Moniz May 2014

#### **RELIABLE, AFFORDABLE COAL**

NATIONAL

The existing fleet of coal power plants underpins economic prosperity in the U.S. Coal generation has dominated U.S. electricity supply for nearly a century and continues to maintain a 30%+ share of the power market. This dominance has resulted from coal's domestic abundance, accessibility, reliability and low cost compared to other generation alternatives.

Low cost keeps U.S. electricity prices below those of other free market nations. These price differentials translate into more disposable income for U.S. consumers and a competitive edge for U.S. industry in global markets.

#### Electricity Price in 2013, Cents/kWh

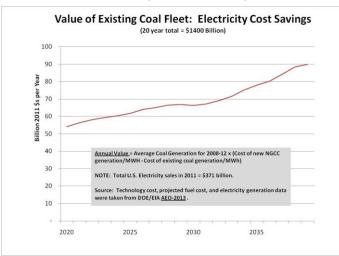
Consumer class	Electricity Price in 2013, Cents/kWh						
	U.S.	Denmark	France	Germany	Italy	Spain	UK
Residential	12	42	20	41	32	31	24
Industrial	7	15	13	20	23	17	16

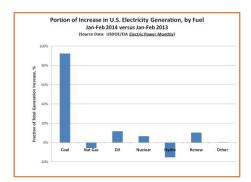
### THE COST OF REPLACING COAL WITH NATURAL GAS

If the existing coal fleet were replaced with the next cheapest alternative generating source – natural gas combined cycle plants – a conservative estimate of the impact on the U.S. economy would be:

- A 1.5% (\$240 billion) decline in Gross Domestic Product
- A loss of 2 million jobs per year

#### • An increased cost of electricity of \$90 billion/year in 2040





#### **Existing Coal Infrastructure**

Over the past 150 years, the U.S. has built a vast infrastructure for extracting, transporting and utilizing coal for electric power. The U.S. coal-fueled electricity generation supply chain is unmatched in the world.

Research at Penn State University estimated 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
- \$362 billion in annual household income

In 2013, the U.S. coal supply chain included:

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

#### Contact Us

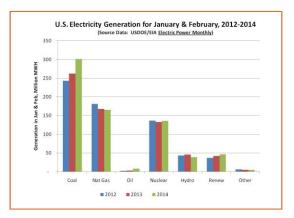
National Coal Council 1101 Pennsylvania Ave., N.W., Ste. 300 Washington, DC 20004 202.756.4524 <u>info@NCC1.org</u> www.NationalCoalCouncil.org "The value of the existing coal fleet is not an abstract concept. At a time of great stress on power demand in Jan/Feb 2014, coal produced 92% of the increase in U.S. electricity generation, relative to Jan/Feb 2013."

NCC Value of Our Existing Coal Fleet Report

#### **DIVERSITY = RELIABILITY**

The U.S. benefits from having a diverse portfolio of electricity sources. The Polar Vortex weather events of January/February 2014 demonstrated the contribution of the existing coal fleet – including units scheduled for retirement – to the reliability of the U.S. electricity grid.

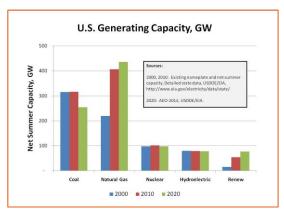
Use of these units enabled utilities to meet customer demand during a period when already limited natural gas resources were diverted from electricity production to meeting residential heating needs. Nationwide, over 90% of the increase in power generation in January



and February 2014 came from the existing coal fleet.

"We really counted on [a] combination of coal and gas and nuclear and pump storage and hydro, we needed every bit of it." Lynn Good, CEO, Duke Energy

#### Projected 2020 Energy Capacity by Fuel



The benefits derived from the existing coal fleet include the direct and macroeconomic benefit of low-cost electricity, the portfolio value of having a diverse mix of fuels and technologies for power generation, and the energy

security value of a power option that is not dependent upon real-time fuel delivery/transport and is relatively immune to purposeful attacks (terrorism).