

## The Continuing Role of Coal

As President Obama strives to both renew economic growth and meet climate change policy goals, the future role of coal looms large. Since World War II, coal has generated almost 50% of all electric power in the United States and is increasingly the source of incremental electricity at the global level. In fact, as recently as last Monday Steven Chu, Secretary of Energy, stated that coal **"is likely to be a major and growing source of electricity generation for the foreseeable future"**.<sup>[1]</sup>

To meet the environmental challenges of this increased utilization of coal, during the next decade the Administration seeks to begin making carbon capture and storage (CCS) deployable, affordable and widespread.

### Energy from new coal power plants

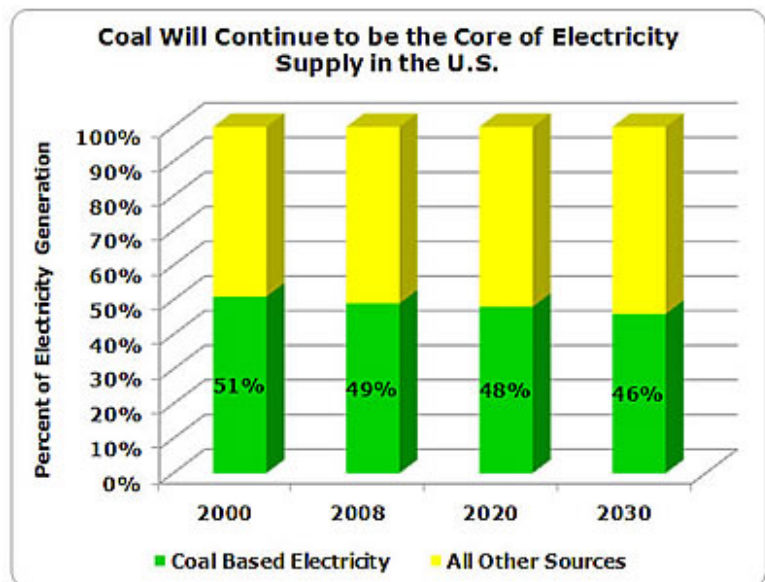
The Energy Information Administration projects that by 2030 the United States will need:

- 27,000 additional megawatts in coal-based electricity generating capacity.
- 290 additional **billion** kilowatt hours of coal based generation.<sup>[2]</sup>

### Economic impact

The role coal plays in the economy has been well documented (e.g. 3), but another important story is that ongoing construction of new coal power plants is currently producing a significant number of jobs at various sites around the country. When operational, these plants each will become an important part of the socioeconomic fabric of their communities:

- Each facility will produce over 600 MW of power, provide jobs to residents and purchase services from nearby businesses.
- In addition, these coal units are important sources of local revenue. In Texas, for example, Luminant's Martin Lake Plant provides 70% of the school district's tax base. In Missouri, donations from employees at a single coal plant are the leading contributor to Franklin County's United Way budget.



*(Continued on reverse)*

(Continued from front)

## Meeting environmental goals

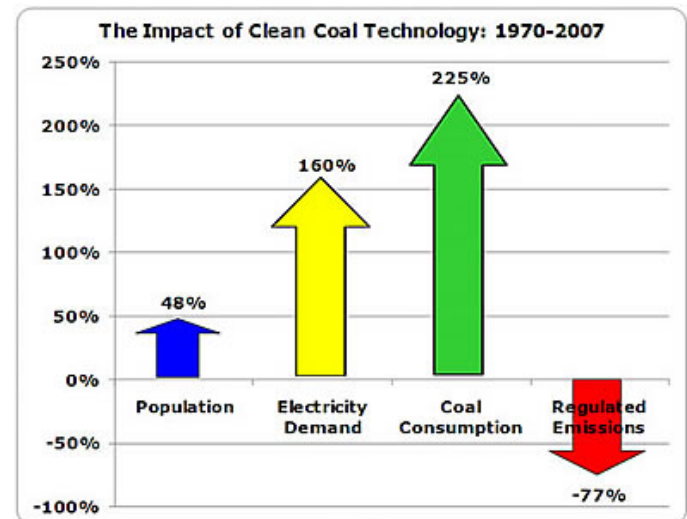
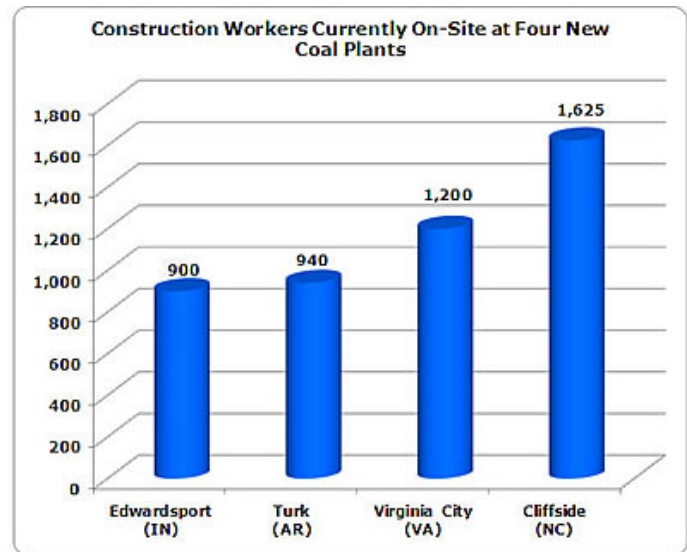
An 80% percent reduction in CO<sub>2</sub> emissions while maintaining economic growth is an important goal of the Obama Administration. The International Energy Agency has identified CCS as a "critically important technology" in attaining such goals.[4]

- Improved energy efficiency at new power plants will reduce CO<sub>2</sub> emissions by 15 to 30%. [5]
- CCS technologies are the pathway the administration has identified and to this end the Obama administration has made a \$1 billion commitment to FutureGen, a near-zero emission facility, with the goal of achieving a commercial scale power plant with CCS by 2016. [1]

Such leadership by the United States is essential to making CCS technologies available to the rest of the world. Over 1.6 billion people do not have any electricity at all and another 2 billion have inadequate access. Billions of people toil grimly in the dark. Coal is a crucial key to turning on the light. The Obama Administration clearly recognizes these global realities and believes that clean coal technologies are the pathway to improving the quality of life across the world.

### References

1. Steven Chu, U.S. Sec. of Energy October 12, 2009
2. <http://www.eia.doe.gov/>
3. Adam Rose and Dan Wei, "Economic Impacts of Coal Utilization," Penn State University, 2006
4. <http://www.iea.org/subjectqueries/cdcs.asp>
5. Scott Wiseman, "America's Coal," Indiana Energy Conference, 9/30/2009



### About Frank Clemente, Ph.D.

Dr. Clemente is a Professor at Penn State University where he specializes in research on the socioeconomic aspects of energy policy. His work has appeared in *World Oil*, *Public Utilities Fortnightly*, *Oil and Gas Journal* and a variety of other energy related media. *The materials presented here are solely the responsibility of the author and do not represent Pennsylvania State University in any manner.*

