

# US coal peak production: Point and counterpoint

October 20 2009

---

A timely debate on "United States Coal Peak Production" will enliven the annual meeting of the Geological Society of America in Portland, Oregon, today. Highly regarded experts David B. Rutledge of the California Institute of Technology and Robert C. Milici from the U.S. Geological Survey will be keynote speakers presenting opposing views.

Coal peak production has been a seriously debated topic for the past few years outside the coal-science community. "We hope to spur science-based discussions by membership of the coal geology and geology and health communities," said session co-chair Romeo Flores. "Regardless of the magnitude of coal peak production, there will be a commensurate effect with respect to the overall environmental impact on CO<sub>2</sub> emissions from coal-fired power plants and its relation to global climate change, health, and economic growth."

Dr. Rutledge's impact on the subject of coal peak production began with a critical assessment of the world's coal reserves by the United Nations Intergovernmental Panel on Climate Change, which he estimated to be much lower than previous calculations. His newly created model, using principles from M. King Hubbert's concept of oil peak production, projects ultimate coal production to 665 billion metric tons. This amounts to 59 percent of the corresponding number of reserves, which the World Energy Council estimated as 847 billion metric tons of coal as of year-end 2005. Thus, if the lesser estimate of world coal reserves is indeed the most reliable, then the resulting lesser amounts of CO<sub>2</sub> ultimately emitted will tend to mitigate future impacts on global climate

change. The National Research Council's Committee on Coal Research, Technology, and Resource Assessments agrees with many of Dr. Rutledge's criticisms but maintains positive coal reserves scenario.

The highlight of these criticisms was presented at the 2008 American Geophysical Union Fall meeting in which he suggested that governments have overestimated coal reserves. Find more information at <http://rutledge.caltech.edu/>.

Dr. Milici and co-authors Romeo Flores and Gary Stricker (also USGS), also using M. King Hubbert's methodology for estimating peak oil production, apply several estimates of potential coal reserves to calculate peak coal production for the United States. Reserve depletion is related to economic factors rather than to physical exhaustion of the remaining coal in the ground. However, because the amount of coal in the U.S. that may be considered as a potential reserve is uncertain, they estimate that peak U.S. coal production will occur sometime between the years of 2062 and 2105. Additional digital coal resource studies are essential so that we can reduce the uncertainty in our coal reserve estimates, and make informed decision on future energy supply.

At present, most of the coal produced in the U.S. comes from several large mines in the Powder River Basin in Wyoming. As the coals reserves at these large mines are exhausted within the next few decades, coal production will be replaced either by developing new reserves locally or by the opening of new mines elsewhere within remaining large blocks of economically producible coal. As these more economically producible coal deposits are exhausted, production costs will rise until at some point other methods of producing electric power will become economically more competitive, and eventually replace [coal](#) as a primary source for electricity.

Source: Geological Society of America

Citation: US coal peak production: Point and counterpoint (2009, October 20) retrieved 25 April 2024 from <https://phys.org/news/2009-10-coal-peak-production-counterpoint.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.