# Carnegie Mellon Refutes Cornell Study on Natural Gas vs Coal

A new peer-reviewed study from Carnegie Mellon University says that Marcellus gas has less impact on global warming than coal. The study, published in the Institute of Physics Aug. 5th issue of "Environmental Research Letters" is a direct refutation of the Cornell study released in April by professors Robert Howarth and Anthony Ingraffea. The Cornell study was based on sketchy data (admitted to by Howarth & Ingraffea), and pure guesswork. It made the claim that shale gas was worse for global warming and the environment than burning coal.

The Carnegie study finds that burning natural gas is 20-50 percent cleaner than burning coal when producing electricity—a conclusion most people know instinctively. It's only by doing extreme mental gymnastics that you can say burning gas is worse for the environment than burning coal.

The Carnegie Mellon study looks specifically at Marcellus and the "life cycle greenhouse gas emissions" associated with its production and consumption.

Marcellus gas is essentially no different than conventional natural gas, the study found, and 20-50 percent cleaner than coal for producing electricity.

"Marcellus shale gas emits 50 percent fewer greenhouse gas emissions than any U.S. coal-fired plant," said study co-author Chris Hendrickson. "We favor extraction of Marcellus shale natural gas as long as the extraction is managed to minimize adverse economic, environmental and social impacts."

Former DEP Secretary John Hanger lauded the new study on his blog, saying it "debunks and decimates professor Howarth's hit piece study that the NYT gas reporter and other media gave so much attention."

"By contrast," Hanger said, "the CMU study has received very little press attention so the result remains that many people think Howarth is the final word on this important matter."*

**Read the entire peer-reviewed study online here:**
**Life cycle greenhouse gas emissions of Marcellus shale gas**

*Harrisburg *The Patriot News* (Aug 17, 2011) – New shale em