

# HOWARTH: A Credibility Gap

## Research on methane emissions from natural gas discredited by scientific community

Cornell's Robert Howarth and Tony Ingraffea, the authors of "Methane and Greenhouse-Gas Footprint of Natural Gas from Shale Formations," make inaccurate and extreme choices far outside established science at virtually every turn. The result is a report that misleads the public about important facts involving natural gas production. Howarth has since issued a follow-up report to try and justify his findings and defend himself against critics, which include colleagues from his own university within the earth and atmospheric sciences and chemical and biological engineering departments. In his latest round of activist research, Howarth continues to press his beliefs despite the continued absence of any new data or viable information. Bottom line: Regurgitating inaccurate work does not make it legitimate.

### LACK OF EXPERTISE

As an evolutionary biologist, Howarth is not credentialed to do the kind of chemical analysis required for this field of study. In fact, he was forced to retract the previous abstract for this paper because he didn't know that methane is also emitted during coal production ("I blew it" was his quote).

### FALSE CLAIMS

Howarth also made claims that most of the methane from coal mines is captured, prompting EPA's Roger Fernandez, Team Leader for Oil and Gas Climate Change Programs, to call foul. "I have to respectfully disagree on that," Fernandez said of Howarth's assertion. "There is a huge amount of methane that is vented through ventilation systems."

### WEAK DATA

Howarth admitted that the weakest part of his report was "absolutely" the data on shale plays. He even called some of his data sources "weird." Howarth uses a very limited set of data, repeatedly noting data that is "not well documented;" data where "more work is needed;" and estimates that were "uncertain." Yet he shows no uncertainty about his extreme conclusions.

### INACCURATE ON PLANT EFFICIENCY

Howarth placed the efficiency of a coal plant at up to 47 percent, while saying a gas plant tops out at about 53 percent. John Reilly, a lecturer at MIT's Sloan School of Management and some of his MIT colleagues wrote in the Huffington Post that "natural gas base-load units have efficiencies in the 40-54 percent range, compared to 30-35 percent for the current fleet of coal plants." Howarth did not include this difference, or any efficiency difference, in his assessment.

Academics from Howarth's own Cornell University as well as Carnegie Mellon, the Energy Department's National Energy Technology Laboratory, the environmental group WorldWatch Institute, MIT and IHS CERA are among groups that have taken issue with Howarth. Based on his admissions on the weakness of his data, and his clear misstatements about the science, Howarth should earn more skeptics as he continues to mislead important public dialogues about our nation's energy choices. Learn more at [www.anga.us/howarth](http://www.anga.us/howarth).