

# Classroom Guide



## The Boom (Simon & Schuster, 2014)

“The U.S. energy landscape is changing.”

That’s how the federal government begins its first-ever [Quadrennial Energy Review](#). That changing landscape is what *The Boom* is all about.

This guide is intended to help you come up with a curriculum to teach these huge changes and the impact they are having on climate change, energy consumption and our communities.

I plan to update this document regularly, adding new questions, sources of data and links. Please [email me](#) and tell me what works and what doesn’t work.

## Sources of Data

The U.S. Department of Energy operates the Energy Information Administration. Its website ([www.eia.gov](http://www.eia.gov)) is a great source of free information about domestic and international energy usage and production.

The EIA also operates a page for kids ([www.eia.gov/kids/](http://www.eia.gov/kids/)) which has some really good material and some mediocre material.

If you're willing to fork over thousands of dollars, you can get incredibly detailed information about energy prices. If not, the EIA gives you some good basic information. There are: [spot prices](#) (WTI, or West Texas Intermediate, is the most basic measure of how much crude oil costs in the U.S.); [futures prices](#) (which tells you how much an energy trader on Wall Street values crude, but this is generally a "paper" prices. The trader usually has no intention of ever owning the barrels he or she trades); and of course [gasoline and diesel prices](#). You might also check out AAA's [Daily Fuel Gauge Report](#) and [Gasbuddy.com](#).

Here are some other helpful links:

[How much oil does my state produce?](#)

[How much oil does the U.S. import?](#)

[How much natural gas does the U.S. produce?](#)

[What countries produce the most oil?](#)

[Where can I find climate and greenhouse gas emission data?](#)

## Classroom questions

The author, Russell Gold, describes the unfettered market as the “ugly beauty” of the U.S. energy system. What do you think he meant by choosing the phrase. What is ugly about it? What is beautiful? Do they balance – or is the unfettered market more ugly than beautiful?

One of the most controversial aspects on fracking is the issue of local control. Should a city be allowed to ban fracking entirely, as Denton, Texas, voted to do in 2014? Should a state be allowed to overrule cities and set statewide rules to govern where drilling pads should be located, how far from homes and schools? The State of Colorado struggled with these questions. The governor created a Task Force. The Task Forces’ final report attempts to promote oil development while protecting the environment. [The report can be found here.](#)

Should cities or states (or even the federal government) make the rules? What is lost if a city bans fracking? What is gained?

In the final chapter of *The Boom*, Gold writes about the town of Bartonville, Texas. He said the city had taken many steps to protect its residents, including hiring a part-time inspector, requiring noise-dampening walls and mandating air and water sampling before drilling begins. What other regulations can you think of that lessen the impact of drilling on a community? Is it possible to design rules that make rigs good neighbors?

About Bartonville, Gold writes that continuously updated its rules, tightening them up when loopholes appeared. “This approach was possible because the town had neither shied away from drilling nor embraced it blindly. The city didn’t want to keep out drilling...but felt it had an obligation to keep

an eye on energy exploration and insist the highest standards were met. Fracking means the promise and peril of energy production are coming back to the United States, and Bartonville was ready to play its part.” Would you want oil and gas drilling and fracking in your community? What if you were paid handsomely by an oil and gas company? What if it meant jobs and as well as fewer barrels of imported oil?

The U.S. approach to fossil fuel development is to set guidelines, allow drilling and then address problems as they arise. Think of this as the drill first and fix problems later approach. Europe, and many other places in the world, take a different approach. They require proof that a new technology will not cause public harm before companies can engage in it. Think of this as a think first and drill second approach.

Does the author take a position on which approach is better? What are the advantages of the U.S approach? What are the advantages of the European approach? Why do you think fracking was developed and took off in the U.S.?

Exxon Mobil’s CEO and Chairman, Rex Tillerson, favors the U.S. approach. “If you want to live by the precautionary principle, then crawl up in a ball and live in a cave,” he said. Do you agree?

New York State appears to favor the European approach. In December 2014, New York State decided to ban fracking. The state’s health commissioner said the science around fracking was “limited, only just beginning to emerge, and largely suggests only hypotheses about potential public health impacts that need further evaluation.” Until more is known, the state’s governor decided not to allow fracking. Did he make the right decision? [Here’s a link to New York’s report.](#)

In the aftermath of the decision, the governor was criticized for not allowing fracking. One criticism was that New York state was increasingly reliant on natural gas for electric power and home heating. In other words, the state was enjoying many benefits of fracking. Is this a valid criticism?

Students at universities across the country are calling for divestment from fossil fuels. Harvard University President Drew Faust disagreed, saying: [“The endowment is a resource, not an instrument to impel social or political change.”](#) Stanford University decided to no longer make [direct investments in coal companies](#). Should colleges (or other groups, such as churches) use their financial clout to pressure fossil fuel producers?

The drilling of the Matt 2H well on “the farm” went fairly well. There is no indication of water contamination and the land remains a beautiful place to visit. Do you think Gold’s opinion of fracking – or the book – would be different if there had been problems drilling the Matt 2H? What if there had been a well blowout, or a major spill?

To what extent should personal anecdotes and experience influence your thinking about broad social issues?

George Mitchell, the father of fracking, was a longtime believer in sustainability. But he made his money drilling a nonrenewable resource: natural gas. His son says this was a paradox. Do you agree?

George Mitchell said he didn’t invest in renewable energy because “it didn’t look very promising” at the time. Did he make the right decision? If you were in his shoes, would you have invested in renewable energy even though you thought it

was a money loser?

The book invites the reader to think about energy today – and tomorrow. What do you think the energy mix will look like in ten years, or twenty? What should it look like? Should the market or governments determine the energy mix?

What role did government and government-funded research play in the development of fracking and directional drilling. Would private industry have pursued such “blue sky” research without help from the government? Does the U.S. government or private industry deserve the lion’s share of the credit? What lessons can you draw about the collaboration of government and industry for overcoming difficult challenges?