



## Natural gas: challenge or opportunity?

### PUBLIC HEALTH AND THE ENVIRONMENT MUST COME FIRST

Though the natural gas bonanza in the U.S. has the potential to reduce air and climate pollution and create jobs, there are serious questions about the environmental and public health impacts of natural gas drilling. Natural gas could be a game-changer—but only if it can be extracted safely.

“Natural gas could be a win-win, if—and this is a big ‘if’—we do it the right way.”

—Fred Krupp

### Concerns about natural gas

Natural gas is an important and increasing part of our nation's energy portfolio, especially as opposition to coal plants grows. But there is widespread concern about pollution of air and groundwater, fragmentation of forests and farmlands, and careless gas drilling operations near homes and schools. Many people simply do not believe that the resource

can be developed safely. And industry has not done nearly enough to respond to the public's concerns.

### Get the rules right to protect communities and environment

Environmental Defense Fund (EDF) helped win early victories requiring the disclosure of hydraulic fracturing chemicals in Arkansas,

### Energy panel urges industry reform

In 2011, U.S. Department of Energy Secretary Steven Chu appointed EDF president Fred Krupp to a seven-member panel charged with recommending new standards for the gas industry. The group's report called for more oversight, strong regulation of air and water pollution and disclosure of fracking chemicals. The next step is to get these recommendations implemented.



Gas drilling operation in Pennsylvania. The Marcellus Shale, which lies beneath NY, OH, PA and WV, is thought to be the largest gas reserve in the U.S.

Amy Sussman/Corbis

# ENERGY

EDF's goal is to reduce methane leakage nationwide below 1%.

Colorado, Montana, Texas and Wyoming. But many more protections are needed before natural gas can become a trusted alternative to coal and oil and a reliable on-demand backup for renewables. EDF is pushing for rapid regulatory reform in the five states above and at least nine additional states to ensure that natural gas reserves are tapped safely.

## Public health and environmental protections EDF seeks

EDF is working in the states which hold 85% of U.S. natural gas resources to enact the following regulations:

- ✓ Mandate disclosure of hydraulic fracturing chemicals.
- ✓ Modernize rules for well construction and operation and improve enforcement.
- ✓ Strengthen regulations for reducing risks from waste and water management.
- ✓ Improve regulations for lessening harm to local and regional air quality.

We will also develop and pilot innovative strategies to reduce community, landscape and habitat impacts.

## Get the science right to reduce climate pollution

Methane, the main ingredient of natural gas, is a greenhouse pollutant many times more potent than carbon dioxide. Although natural gas burns cleaner than coal, recent studies question the extent to which venting and leakage of methane during the production and distribution of natural gas undermines its potential greenhouse gas benefits. EDF's ambitious goal is to gather scientifically rigorous data about leakage rates so we can design and win the adoption of policies that yield measurable reductions in climate and air pollution.

## Engage industry to improve production practices

EDF is reaching out to leaders within the natural gas industry who understand that excellent environmental performance is a critical path to resource development. Improved performance is in industry's bottom-line interest as it will reduce the amount of wasted product lost to leaks, decrease regulatory and financial risk, and defuse community backlash by being responsive to concerns.

## Environmental Defense Fund natural gas experts



**Mark Brownstein** is chief counsel of EDF's energy program and leads EDF's natural gas efforts. Mark previously worked for a leading U.S. electric and gas utility in a variety of senior business strategy and environmental management roles.



**Scott Anderson** is EDF's point person on reducing the environmental footprint of natural gas operations and promoting safe and transparent industry practices. Prior to joining EDF as senior policy advisor, Scott served as general counsel to an oil and gas industry trade group in Texas.



**Matt Watson** is EDF's senior energy policy manager. He works with Congressional leaders, administration officials, industry partners and other NGOs on natural gas production issues. Matt previously worked on energy and environmental issues at the state and local levels in Texas.



**Ramon Alvarez** is an EDF senior scientist with a PhD in physical chemistry. He focuses on reducing air pollution, with a current emphasis on emissions from natural gas and oil production.

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