Shale Gas - NOT the Economical “Transition Fuel”

Replacing the United States’ major use of other fossil fuels with shale gas is impractical, if not impossible:

- Replacing coal would require a **64% increase** in gas production in the lower 48 states over 2009 levels.
- Replacing heavy vehicles with gas-based fuels would require a further **24% increase**.
- Replacing vehicles such as cars would require another **76%**.
- Production would have to increase from 17,000 wells in 2011-12 to **30,000 to 40,000 per year** by 2035.
- The construction cost of new electrical generation facilities to replace coal plants, needed pipelines, infrastructure, and storage facilities, etc. is estimated at **$700 billion**.

**Assumptions about the economics of shale gas must be rethought:**

- The industry overstated production prospects in order to attract investment.
- Shale gas production is not equally strong throughout the shale fields. The best sites were drilled first and initial encouraging results were extrapolated to areas with less promise.
- Shale gas well production **declines between 63-85%** in the first year compared to 25-40% for conventional wells.
- There are nearly 500,000 gas wells in the U.S., double the 1990 total, but production per well has **declined 50%** in that time.
- Some producers project a 40 year life span for wells. There is far too little history of shale gas production to support these claims.
- The federal Energy Information Administration’s figures suggest that gas prices will remain **at or below the marginal costs of production** for several years.

**Shale gas is not a solution to emission concerns related to climate change:**

- A 2011 Cornell University study (Howarth, et al) concluded that shale gas emits **30% higher** levels of methane than conventional gas.
- Even though it burns more cleanly, compared to coal, **shale gas has at least a 20% larger footprint over the next 20 years**, due to needed production infrastructure, pipeline issues, etc.
Rather than serving as a transitional fuel to reduce climate change, shale gas may instead exacerbate the problem over the next few decades.

Real Solutions:

- **Conservation** - reduction in demand. **There is no fuel on the horizon that will support the U.S. to the end of the century while maintaining current usage patterns.**
- **Efficiency** - only 32% of the energy currently used to generate electricity is actually delivered to customers. In an age of expensive energy, we must improve this rate.
- Require **retrofits** and shut down old and inefficient generation facilities
- Make conscious decisions about **distributed generation** so that far less energy is lost in transport to users.
- **Invest in alternative energy** as if we truly mean to employ it, rather than continuing to invest in schemes to enable more use of fossil fuels.