HYDRAULIC FRACTURING:
STATES TAKE ACTION

JACQUELYN PLESS, ENERGY POLICY SPECIALIST, NCSL
UNIVERSITY OF MICHIGAN—SHALE GAS AND FRACKING: ISSUES FOR STATE
AND LOCAL GOVERNANCE
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OVERVIEW

- What is fracking?
- Why now?
  - Economic impacts
  - Environmental concerns
  - Domestic natural gas outlook
- State legislative overview
WHAT IS NCSL?

- Bipartisan organization
- Serves the 7,382 legislators and 30,000+ legislative staff of the nation's 50 states, its commonwealths and territories
- Covers all topics, not just energy
- Activities:
  - Research and information on topics of interest to the states
  - Technical assistance and training
  - Opportunities for policymakers to exchange ideas
  - Lobbying at the federal level for states' interests
What is “fracking?”

- Oil and gas extraction method
- Hydraulic pressure is used to create fractures in shale rock
- Pressurized liquids are pumped underground to help release trapped gas
- Allows for commercially viable access to previously inaccessible unconventional oil and gas resources, such as shale gas, which is making up an increasingly large portion of energy supply in the U.S.
Why now?

- **Technology advances** – the combined use of hydraulic fracturing and horizontal drilling significantly enhances natural gas recovery
- Increased *public concern* as industry expands into (often densely populated) regions where the process is unfamiliar
- Natural gas industry offers tremendous economic benefits to state and local economies
U.S. NATURAL GAS PRODUCTION, 1990-2035
(TRILLION CUBIC FEET)

Source: U.S. Energy Information Administration, Annual Energy Outlook 2012 Early Release Overview
ACTIVITIES BEFORE, DURING, AND AFTER DRILLING GENERATE SIGNIFICANT ECONOMIC IMPACTS

Economic Contribution: the sum of direct contribution, indirect from the industry’s suppliers, and induced economic contributions resulting from further spending

- Job creation
- Capital expenditures
- GDP and tax revenues
- Lower natural gas and electric power prices
- Increased domestic energy security
PUBLIC HEALTH AND ENVIRONMENTAL CONCERNS

- Water
  - Water contamination linked to natural gas operations (spills and leaks)
  - Managing wastewater
  - Water withdrawals

- Air quality
  - Methane and benzene emissions

- Vegetation and wildlife

- Seismic Activity
At least **158 bills in 26 states** have been introduced this legislative session that specifically address hydraulic fracturing.

Hydraulic Fracturing Legislation in 2011-2012

Source: NCSL research as of November 17, 2012
Hydraulic Fracturing Legislation in 2011-2012

As of May 9, 2011

Source: U.S. Energy Information Administration based on data from various published studies.
Trends...

- At least 9 states have proposed chemical disclosure requirements
- At least 8 states have proposed casing integrity, well spacing, setback, water withdrawal, flowback, or waste regulation requirements, or other measures to protect water resources
- At least 11 states have proposed legislation to impose new or amend existing severance taxes
- At least 8 states have proposed hydraulic fracturing suspensions, moratoria or studies to investigate potential impacts of fracking
At least 9 states already have disclosure requirements of some form and at least 14 states considered related bills.
Mechanical Integrity Tests or Casing Requirements

- Above-ground spills, leaking drill casings, and wastewater mishandling may cause groundwater pollution, according to University of Texas research.

- Possible solutions: more stringent regulation of drill casings or other mechanical integrity measures
  - **Illinois H.B 3897** would require integrity tests of casings or other mechanical testing prior to fracking
  - **New York’s A.B. 6540** would require certificates of competence to use a derrick or other drilling equipment
  - A few bills were introduced in **Pennsylvania** that address casing requirements
Wastewater Transportation

- Spills can occur during waste transportation
  - Pennsylvania’s H.B. 1741 would require vehicles to display a placard on the outside of the vehicle indicating it is carrying hydraulic fracturing wastewater
Treating and Disposing Waste

- States are addressing waste treatment and disposal in a variety ways, partially due to unique geological factors
  - Illinois’ H.B. 3897 addresses disposal and reuse of well stimulation fluid that is recovered during flowback; S.B. 3280 addresses storage of such fluids
  - New Jersey’s A.B. 575 and S.B. 253 would prohibit treatment, discharge, disposal or storage of wastewater in the state
  - New York’s A.B. 6488 would require treatment works to refuse industrial waste from fracking operations that contain high levels of radium
Well Location Restrictions

- Well setbacks or location restrictions can help create buffers between drilling and public drinking water resources

- **New York’s A.B. 4237 & S.B. 1230** would prohibit drilling within 10 miles of the NYC water supply infrastructure

- **Pennsylvania’s H.B. 230** would prohibit drilling within the surface or subsurface area of, or using hydraulic fracturing or horizontal drilling within, 2,500 feet of any primary source of community water
Water Withdrawal Monitoring

- Hydraulic fracturing may lead to competition for scarce water supply in some regions.
  - California A.B. 591 (failed—adjourned) would have required the amount and source of water used to be recorded
  - New York’s A.B. 6426 would require permits for water withdrawals of more than 5,000 gallons
Water Quality Monitoring

- Water quality monitoring may help improve knowledge of how hydraulic fracturing affects water supplies and quality
  - New York’s S.B. 3483 and A.B. 7986 would require groundwater testing prior to and after drilling wells for oil and gas
Drilling Moratoria

- Some state legislators are aiming to delay fracking operations until more is known about effects
  - Michigan’s H.B. 5150 would prohibit fracking under certain circumstances until a specified advisory committee makes recommendations
  - New York imposed a moratorium and is conducting studies on impacts
  - Vermont enacted H.B. 464 to prohibit fracking in the state
31 states have oil and/or gas severance taxes
At least 11 states considered legislation to impose new or amend existing oil and gas severance taxes
In 2010, more than $11 billion was generated in the U.S. from severance taxes
Severance taxes accounted for 10.5 percent to 74.3 percent of total state tax revenue in 6 states

Source: NCSL research as of Feb. 15, 2012
Recently Enacted Legislation

- **Idaho**—H.B. 464—imposed restrictions on ability of localities to regulate oil and gas
- **Indiana**—H.B. 1107—required adoption of rules addressing reporting and disclosure
- **Kansas**—H.B. 2526—allowed a commission to promulgate rules addressing disclosure
- **Louisiana**—H.B. 957—required disclosure of the composition of fracking fluids
- **Maryland**—H.B. 1123—established a presumptive impact area
- **New Jersey**—S.B. 2576—imposed a one-year moratorium on fracking (passed but then vetoed)
- **Ohio**—S.B. 315—addressed horizontal well production training and employment
Enacted Legislation (cont.)

- **Pennsylvania**—H.B. 1950—addressed disclosure, impact fees, and more.
- **South Dakota**—HCR 1005—urged Congress to clearly delegate responsibility to regulate to the states
- **Tennessee**—HR 98—encouraged meeting to propose regulations and protect water
- **Utah**—SCR 12—urged Congress to clearly delegate responsibility to regulate to the states
- **Vermont**—HB 464—prohibited fracking
Pennsylvania’s Act 13

- Local ordinances
- Impact fees
- Well location restrictions
- Well reporting

Controversial...
What’s Happening in Michigan?

- Governor Snyder’s recent remarks
- H.B. 5565—would require authorization from the DEQ for hydraulic fracturing treatments
- H.B. 5150—would prohibit fracking under certain circumstances
- H.B. 5151—would provide for a study of hydraulic fracturing by the DEQ
- H.B. 4736—would create a presumption of liability for contamination of groundwater caused by chemicals
CONCLUSION

Natural gas development offers tremendous economic benefits, and states are working to ensure that the resource is developed safely.

- Fracking is a hot issue in state legislatures, especially in densely-populated regions where the practice is unfamiliar.
- Hottest legislative trend has been increasing transparency through fracking fluid chemical disclosure requirements.
- States are also considering mechanical integrity requirements to prevent spills and leaks.
- Severance taxes generate revenue, and states are addressing severance tax rate structures in various ways.
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CONTACT DETAILS AND RESOURCES

Jacquelyn Pless, NCSL
Phone: 303-856-1509
jacquelyn.pless@ncsl.org

Key NCSL Resources:

- Publications
  - *Natural Gas Development and Hydraulic Fracturing* (June 2012)
  - *Oil and Gas Severance Taxes* (February 2012)

- Database of state energy legislation:
  http://www.ncsl.org/issues-research/energyhome/energy-
  environment-legislation-tracking-database.aspx

- NCSL Energy Program homepage:

NCSL is always seeking public and private funding partners for collaborative research and outreach initiatives.

We also offer no-cost technical assistance to legislative entities upon invitation.

Please contact us if you’re interested.