

NATURAL GAS EXTRACTION: ISSUES AND POLICY OPTIONS

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SUMMARY

A dialogue among stakeholders is needed to evaluate the policy options available to respond to natural gas extraction issues. Framing the problem in an objective manner is a starting point for this dialogue.

There is public concern about how to extract natural gas resources in a manner that provides additional energy sources while maintaining and enhancing economic development and assuring the protection of natural resources for safe use by humans, flora and fauna. These concerns include how to best manage potential impacts to the environment and communities arising from the development of natural gas resources.

Governments can maintain the status quo, become more involved, or become less involved. Status quo policy involves rules across all levels of government and results reached by the market. More involvement can include higher levels of regulation, fees or taxes, oversight, research, or outright moratoria or bans. Less involvement can include lower levels of each or elimination of intervention. Maintaining the status quo will likely continue current low natural gas prices, increase gas supplies, and lead to stable or rising reliance on gas by consumers. Questions would remain as to whether energy will remain available at affordable prices. Businesses linked to the gas industry could gain, but others might be “crowded out.” Governments would feel pressure to address many gas-related issues, and would need to increase revenues or shift spending toward those ends. There would be continued uncertainty about environmental impacts. If concerns regarding environmental and community impacts prove unfounded, public costs will have been contained and economic development unaffected. If these concerns are well-founded, existing policies will be too little too late, possibly resulting in serious harm to the environment and possibly leaving bankrupt communities to deal with the consequences.

Increasing involvement will likely increase the cost of natural gas and raise energy costs generally, at least in the near term. Improvements in technology might allow for natural gas extraction with fewer real and perceived threats to environmental quality. To fund increased involvement, new or increased severance taxes could be

imposed, and these funds could address a range of natural gas extraction impacts and/or fund economic development to mitigate the “boom/bust” cycle. Research suggests severance taxes may not slow extraction rates if extraction technology outpaces the effects of the tax. There will also be barriers to economic development; for communities with few options, this could be devastating. If environmental concerns prove unfounded, many will consider the expense a waste and be frustrated at the high opportunity cost. However, if the concerns are justified over time, the benefits to the environmental assets protected could be well worth the expense.

Less government involvement will likely reduce natural gas prices and increase supply. If energy use picks up, an earlier peak in supply availability may occur, resulting in higher prices. Less government involvement could result in lower taxes and increased economic development opportunities. If concerns about environmental impacts are unfounded, there will be few or no adverse impacts to the environment and communities. However, if those concerns are justified, the environmental harm could be irreversible for centuries. The economic benefits to some communities may not justify the losses related to environmental contamination.

If consensus has been found among any of these issues, it is that much more research is needed to objectively and scientifically quantify both the environmental and long-range economic impacts of natural gas development. ●

Dozens of issues surround natural gas extraction, and many of these issues are discussed in the NARDeP Natural Gas Extraction Policy Paper and Policy Alternatives Matrix. The following is a selection of some of these issues, along with some of the policy alternatives available to address them.

Environmental Issues

General environmental	Water quality and quantity	Air	Solid waste	Liability	
<input type="checkbox"/> Moratoria <input type="checkbox"/> Increased research <input type="checkbox"/> Siting requirements	<input type="checkbox"/> Quantity & source regulation <input type="checkbox"/> Secondary containment requirements <input type="checkbox"/> Restrict frack fluid components <input type="checkbox"/> Well construction & operating requirements	<input type="checkbox"/> Fluid component disclosure requirements <input type="checkbox"/> Wastewater treatment standards	<input type="checkbox"/> "Green completion" requirements <input type="checkbox"/> Emission limits for NGE equipment <input type="checkbox"/> Closed vessel storage of fluids	<input type="checkbox"/> RCRA/CERCLA applied to E&P waste <input type="checkbox"/> NORM-specific handling requirements	<input type="checkbox"/> Limit dischargeability of environmental liability

Abbreviations: CERCLA: Comprehensive Environmental Response, Compensation and Liability Act / E&P: Exploration and Production / NGE: Natural Gas Extraction / NORM: Naturally Occurring Radioactive Material / RCRA: Resource Conservation and Recovery Act /

Community Issues

Financing governmental functions	Planning for community needs	Housing	Sociological impacts	Landowner issues	Education
<input type="checkbox"/> <i>Ad valorem</i> severance tax <input type="checkbox"/> Fixed severance tax <input type="checkbox"/> Resource trust fund <input type="checkbox"/> Voluntary mitigation fund <input type="checkbox"/> Revenue sharing among government units	<input type="checkbox"/> Stakeholder education programs <input type="checkbox"/> Public deliberation & program <input type="checkbox"/> Social activities for current and new residents	<input type="checkbox"/> Community built housing <input type="checkbox"/> Developer-built housing <input type="checkbox"/> Education efforts for local housing providers <input type="checkbox"/> Streamline approval and permitting process	<input type="checkbox"/> Community engagement <input type="checkbox"/> On-site substance abuse programs <input type="checkbox"/> Public/private partnership sexual behavior programs <input type="checkbox"/> Youth support programs for crime prevention <input type="checkbox"/> Group support / therapy programs	<input type="checkbox"/> Visual/aesthetic/noise mitigation requirements <input type="checkbox"/> Siting requirements/setbacks <input type="checkbox"/> Voluntary mitigation efforts <input type="checkbox"/> Surface damage compensation requirements <input type="checkbox"/> Landowner education programs	<input type="checkbox"/> Temp facilities / alt sched / online / home Workforce availability <input type="checkbox"/> Enhance training by public/private training programs Transportation <input type="checkbox"/> Fees / voluntary repair funds