

Submitter's Name/Association: Sara Kendall/Western Organization of Resource Councils

Contact: Sara Kendall_____

Email: dc@worc.org_____

Phone: 202-547-7040_____

Provide an executive summary of your proposal(s). **Do not exceed the remainder of this page.**

Many of WORC's members are farmers, ranchers and rural landowners who have witnessed the surge in natural gas development activity in the Rocky Mountain West first-hand. Although WORC favors market reforms and demand reductions as first steps, we recognize that steps need to be taken to increase natural gas supply. We also recognize the critical role that Rocky Mountain gas must play in meeting the nation's energy needs.

At the same time, however, it is clear that no amount of increased Rocky Mountain drilling can solve the nation's gas challenges, and that significant growth in domestic supplies over the long term is uncertain at best, and may not even be possible. WORC also believes that new drilling often comes with steep human and environmental costs that Congress must consider as it decides what to do about natural gas supplies.

WORC supports the adoption of policies to promote renewable energy and energy efficiency because these options: are the fastest, cheapest solutions; allow rapid deployment and scalable capacity; provide proven savings the first year; and meet other policy options.

Numerous proposals have been made to spur increased natural gas production, many of which would relax environmental standards for the oil and gas industry. Yet, we have seen no evidence that such changes in environmental laws would lead to increased production. Because WORC believes that new drilling often comes with steep human and environmental costs even under current standards, we oppose policies to weaken the Safe Drinking Water Act, the Clean Water Act, and wildlife and other public resource-related protections.

Similarly, WORC believes that no matter where natural gas development occurs, it must be done right, and that the industry's failure to so is the critical environmental barrier that Congress must address. Further, we believe that the federal government has a unique obligation to ensure that the development of federal gas resources does not unduly harm split estate landowners who own the surface above federal minerals. We support specific proposals to protect water resources; balance mineral and landowner rights; ensure full reclamation and bonding; and improve inspection and enforcement efforts.

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1. Increasing Domestic Natural Gas Supply

How can we increase domestic supplies from on-shore and off-shore resources?

In responding to the problems that exist in natural gas markets, both demand and supply-side solutions will be needed. Although WORC and its member groups favor market reforms and demand reductions as first steps, we recognize (assuming estimates of future demand are on the mark) that steps need to be taken to increase supply. We also recognize the critical role that Rocky Mountain gas must play in meeting the nation's energy needs.

At the same time, however, it is clear that no amount of increased Rocky Mountain drilling can single-handedly solve the nation's gas challenges, and that significant growth in domestic supplies over the long term is uncertain at best, and may not even be possible. WORC also believes that new drilling often comes with steep human and environmental costs that Congress must consider as it decides what to do about natural gas supplies. A comprehensive and realistic analysis of supply side alternatives is needed.

First, it's important to note that there is not a supply crisis in the next decade. "With a reserve to production ratio of ten years, there is no absolute shortage of natural gas in the near term," explains the Consumer Federation of America in its recent report on natural gas markets, *Responding to Turmoil in Natural Gas Markets: The Consumer Case for Aggressive Policies to Balance Supply and Demand*.¹ "The problem is that prices have run up much more quickly than supply can respond. The short term problem is about price and its causes are controversial."

Second, the extent to which domestic natural gas supplies can be increased over the long term is uncertain. Andy Weissman, chairman of Energy Ventures Group LLC, an investment firm specializing in energy issues, had this to say about natural gas supply in a January 2004 interview²:

I believe there is beginning to be a consensus on the U.S. side of the border that there is not likely to be any meaningful increase in [natural gas] supplies at any point in the foreseeable future. This is perhaps best documented in the study completed for Secretary of Energy Spencer Abraham this fall by the National Petroleum Council...my own concern, personally, is that there ultimately could be a continuing deterioration in supplies beyond the levels projected in the National

¹ Consumer Federation of America report at <http://www.consumerfed.org/naturalgaspolicy.pdf>.

² Andrew Weissman was interviewed by Bill Powers of the Canadian Energy Viewpoint. The transcript on Financial Sense OnLine at <http://www.financialsense.com/editorials/powers/2004/0104.html>.

Petroleum Council study...The trend is certainly in that direction and I see no apparent reason to be optimistic that it will soon be reversed.

Matthew Simmons, an energy investment banker and advisor to the Bush Administration, believes that peak oil production is close at hand, not years away, and that natural gas production may be close to peaking as well. "What peaking does mean, in energy terms, is that once you've peaked further growth in supply is over," said Simmons.³

Weissman's and Simmons' analyses suggest it will be difficult or impossible to maintain flattening supplies, not to mention significantly increase domestic natural gas supplies.

Numerous proposals have been made to spur increased natural gas production, many of which would relax environmental standards for the oil and gas industry. Yet, we have seen no evidence that such changes in environmental laws would lead to increased production. Because WORC believes that new drilling often comes with steep human and environmental costs even under current standards, we recommend against the proposals described below.

As stated in a letter from multiple organizations (including WORC) to Senators Domenici and Bingaman on January 7, 2005:

[T]he recent rise in natural gas prices has created a boom in gas drilling and leasing activity in the Rocky Mountain West.⁴ Over the past four years, the BLM has made significant changes to its internal policies to accelerate development of all federally-owned hydrocarbon minerals in the West.⁵ According to the EIA, in 2004, the U.S. Department of Interior's Bureau of Land Management (BLM) approved more than 6,000 new Applications for Permit to Drill (APDs) on public lands in the West, a one-year record.⁶ In addition to the record number of APDs, the current acreage total of leased public lands is up 16% since 2000.⁷ Further, the gas industry has not been able to keep up with the rapid pace of federal leasing and permitting activity, and so now enjoys a significant surplus of both approved APDs and newly leased public lands.⁸ In the Rockies alone,

³ On May 27, 2003, Matthew Simmons addressed the second international conference of the Association for the Study of Peak Oil which was meeting at the French Petroleum Institute via a satellite teleconference video link from his Houston offices. His remarks were recorded and transcribed by Michael Ruppert with From The Wilderness and appears on the FTW web site at http://www.fromthewilderness.com/free/ww3/061203_simmons.html

⁴ *Oil and Gas Journal*, January 26, 2004.

⁵ For examples of these policies, see 66 Fed. Reg. at 28357 (May 22, 2001); *id.* at 43586 (August 20, 2001); Memorandum to Acting Director, Bureau of Land Management, from Assistant Director, Minerals, Realty and Resource Protection (October 31, 2001); BLM, *Oil and Gas Leasing Statistics*, March 4, 2004.

⁶ *Washington Post*, September 25, 2004. The 2004 record eclipsed the record set the previous year – 4,067 permits. *Id.*

⁷ *Washington Post*, September 25, 2004.

⁸ BLM, *Oil and Gas Leasing Statistics*, March 4, 2004; The Wilderness Society, November 2004

BLM data reveal that, while more than 34 million acres have been leased to industry, only 11 million acres – or 32% – are in production.⁹

The surplus inventory of APDs and leases is ample proof that there is no need and no justification for legislative “streamlining” of agency decision-making processes or limiting public involvement in drilling and leasing decisions, as proposed by some in Congress. For example, Section 347 of H.R. 6 sought to short-change environmental review and public participation in seven areas in the Rocky Mountains that are currently contributing to the record number of drilling permits that were approved in 2004 and 2003. These drilling permit records, like the surplus permits, demonstrate the lack of “obstacles” to production and the lack of need for this kind of legislative approach.

Similarly, Section 348 of H.R. 6 attempted to require agencies to rubber stamp oil and gas development, by granting them authority to fast-track permit review and approvals without adequate consideration of environmental, economic and related concerns. Preventing agencies from balancing energy development impacts with impacts to 1) surface owners, such as ranchers and farmers; 2) local communities; and 3) local and regional economies – as both these provisions would have done – is patently unfair to those who suffer the direct and indirect effects of gas and oil production.

Surplus inventories of leases and approved drilling permits also reveal that congressional proposals to exempt drilling from existing public health and environmental laws – specifically, the Safe Drinking Water Act (SDWA), the Clean Water Act (CWA), and wildlife and other public resource-related protections employed by federal agencies – are similarly unwise and unnecessary. Such measures were included in H.R. 6, for example, at Sections 327, 328, 345 and 346, respectively.

Exempting hydraulic fracturing of underground formations from the SDWA could result in devastating impacts to water quality and public health on public, private and tribal lands. Although the industry asserts that hydraulic fracturing is a benign technique, a single operation involves injecting a wide variety of toxic, hazardous and carcinogenic materials.¹⁰ Very small quantities of these materials could contaminate underground water sources used for drinking water and irrigation.¹¹ Similarly, exempting oil and gas construction activities from CWA requirements

⁹ *Id.*

¹⁰ These include benzene, polycyclic aromatic hydrocarbons, ethylbenzene, toluene, xylene, naphthalene and MTBE.

¹¹ For example, only 28 tablespoons of MTBE could contaminate millions of gallons of groundwater. BLM, Glenwood Springs, CO, Oil and Gas Draft Supplemental Environmental Impact Statement, p. L-5.

could result in pollution of lakes, rivers and streams with toxic chemicals like benzene and drilling fluids.

BLM regularly employs lease terms and conditions – typically known as stipulations – to protect wildlife and other publicly-owned resources from avoidable harms resulting from energy production. These stipulations typically affect the timing and/or location of development practices; they rarely prohibit development entirely. Although industry has claimed these stipulations are unreasonable “obstacles” to development, BLM routinely grants industry requests for waivers. For example, during the 2003-2004 winter season, the agency’s Pinedale, WY Field Office granted 133 out of 141 requests for “exceptions” to sage grouse protections. The preceding year, the same office denied only 16 of 173 requests for exceptions to those protections.

The West’s communities and residents have made significant sacrifices in order to accommodate the nation’s current energy policies. [N]atural gas production in the Rocky Mountain states *is* increasing.¹² And, given the surplus of leases and APDs, the West will continue to see increased drilling activity. The West is not unwilling to help contribute to the nation’s energy needs. However, more drilling under relaxed regulatory conditions and/or without meaningful public involvement, as contemplated by H.R. 6 in the 108th Congress, will not provide an acceptable solution.

Additionally, as the EIA has concluded, relaxing or eliminating public health and environmental safeguards, as proposed in H.R. 6, will have negligible impacts on energy consumption and/or production and will fail to reduce natural gas and electricity prices over the next twenty years.¹³ Such an approach will undoubtedly increase conflicts between the West’s communities and the oil and gas industry. Investing in renewables and efficiency in the West, in contrast, represents a true path toward achieving Congress’ laudable goal of reducing the cost of natural gas.

¹² See, e.g., *Oil and Gas Journal*, January 26, 2004.

¹³ U.S. Energy Information Administration evaluation of H.R. 6, at [http://www.eia.doe.gov/oiaf/servicerpt/pceb/pdf/sroiaf\(2004\)02.pdf](http://www.eia.doe.gov/oiaf/servicerpt/pceb/pdf/sroiaf(2004)02.pdf)

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4. Environmental

What are environmental challenges and regulatory barriers related to expanding our natural gas supply and how can they be remedied?

WORC believes that no matter where natural gas development occurs, it must be done right, and that the industry's failure to do so is the critical environmental barrier that Congress must address. Further, we believe that the federal government has a unique obligation to ensure that the development of federal gas resources does not unduly harm split estate landowners who own the surface above federal minerals.

Many of WORC's members are farmers, ranchers and rural landowners who have witnessed the surge in natural gas development activity in the Rocky Mountain West first-hand. Westerners are living with the real and significant impacts of natural gas development, and will continue to do so for decades – impacts such as domestic water wells run dry due to gas drilling activities; domestic and agricultural water supplies tainted or poisoned by drilling fluids and waste products; productive grazing land lost to drill pads, pipeline rights-of-way and supply roads; agricultural cropland damaged by wastewater; valuable hunting grounds lost to industrial development; increased community costs for maintenance of roads, bridges and other infrastructure; declining real estate values due to industrialization of their property and adjoining lands; and a general decline in the quality of life that is central to the economic vitality of the American West.

WORC believes that many of these impacts can be remedied through adoption of the policy recommendations found in the Northern Plains Resource Council's *Doing It Right: a blueprint for responsible coal bed methane development in Montana*¹⁴, and those policies described below.

Water Protection

Much of the new natural gas development in the Rocky Mountain West is coal bed methane. Up to 77,000 coal bed methane wells will be drilled in the Powder River Basin of Montana and Wyoming alone in the next decade. Along with the wells will come hundreds of millions of gallons of high sodium wastewater.

By far the most common disposal method for coal bed methane-produced water in the United States is to return the water to the ground by injecting it underground. Nationwide, 90% of all water produced in onshore oil and gas development is injected. While returning wastewater to the ground is common practice nationwide, it is rare in the

¹⁴ Northern Plains Resource Council report at http://www.northernplains.org/ourwork/documents/Doing_It_Right.pdf

Powder River Basin, where most methane wastewater is discharged untreated into unlined impoundments, rivers, or directly onto the ground, causing tremendous and often irreversible impacts to soil and water resources, and creating controversy. An estimated 8,000 impoundments will store methane wastewater in the Powder River Basin; 2,900 unlined pits already dot the region's sagebrush flats and hay meadows. Many are constructed in intermittent tributaries of the Tongue River, blocking the natural flow of rain and snowmelt to which downstream users have water rights.

In 2003, the Northern Plains Resource Council retained Kuipers and Associates to investigate solutions to problems associated with coal bed methane wastewater management practices.¹⁵ Kuipers and Associates' found that:

- It is practical and affordable to return methane wastewater to aquifers – either by reinjecting it into the aquifer from which it came or injecting it into other suitable formations.
- Reinjection and injection are proven technologies and absolutely affordable given current and foreseeable gas prices.
- In cases where reinjection and injection are not feasible, treating all water prior to discharge is feasible via a number of treatment technologies – particularly reverse osmosis – and affordable for the industry.

WORC endorses the following policy recommendations made by Kuipers and Associates and the Northern Plains Resource Council:

The U.S. Environmental Protection Agency must adopt the following technology-based effluent limitations in accordance with the Clean Water Act's mandate that industries use the "best available technology" to eliminate the discharge of pollutants into the Nation's waters:

- No discharge of pollutants to surface water. Companies could achieve this "Tier 1" mandate by returning wastewater to the aquifer from which it came or injecting it into other appropriate formations.
- If a company demonstrates that returning wastewater to the ground is not technically feasible for a portion of the wastewater, the company would be required to treat the water prior to discharge to achieve this "Tier 2" mandate.

Even when water is reinjected, injected or treated, significant impacts occur, such as the loss of wells, springs and access by downstream users; and contamination of aquifers by reinjected/injected water. WORC recommends adoption of the provisions in Title I of H.R. 4017¹⁶, as introduced by Representative Mark Udall in the 108th Congress. Title I would require that operators drilling for federal oil and gas resources:

¹⁵ Northern Plains Resource Council water study at http://www.northernplains.org/documents/CBM_Water_Study_Brief_11_10_04_000.pdf and http://www.northernplains.org/documents/Coal_Bed_Methane_Water_Study_8_25_04_000.pdf

¹⁶ H.R. 4017 at http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=108_cong_bills&docid=f:h4017ih.txt.pdf

- Replace domestic, agricultural or other water supplies that have been affected by contamination, diminution, or interruption proximately resulting from drilling operations (modeled after the Surface Mining Control and Reclamation Act's requirements for coal mines),
- Reinject wastewater into the same aquifer from which it was extracted or an aquifer of no better water quality, and
- Operate under water management plans that protect the quantity and quality of surface and groundwater systems, both on-site and off-site, from adverse effects of exploration, development and reclamation or provide alternative sources of water if such protection cannot be assured.

Balancing Mineral and Landowner Rights

Much federal oil, gas and coal bed methane in the West lies beneath private land. Under current law, companies that lease federally-owned oil and gas have a legal right to extract their minerals, and landowners have only limited power to ensure responsible development on their land.¹⁷ Requirements that developers consult with landowners about the placement of roads, pipelines, power lines, and noisy compressor stations, and the disposal of millions of gallons of poor quality wastewater are weak and poorly enforced. Thus, families with several generations' worth of time, money, and labor invested in their farms and ranches face serious damages to their property and way of life.

WORC recommends adoption of the provisions in Title II of H.R. 4017¹⁸, as introduced by Representative Mark Udall in the 108th Congress. Title II would help ensure responsible oil and gas development by empowering landowners to have a real say in the course of mineral development on their land. The bill would:

- Prevent oil and gas development on split estate lands until the surface owner and mineral lessee have signed a surface use agreement. If an agreement cannot be reached through negotiation, the bill provides for an alternative dispute mechanism (arbitration) to ensure fairness.
- Allow the Secretary of Interior to issue permits without a surface use agreement should the dispute resolution process fail, but the permit would have to include the same protections required to be in a surface use agreement.
- Require the Secretary of Interior to notify surface owners of leasing decisions at least 45 days in advance of the sale, and to keep landowners informed of any activity on the lease.¹⁹
- Ensure that surface owners have an opportunity to participate in bond proceedings and site inspections.

Reclamation and Bonding

Bonds posted by companies with federal oil and gas leases cover only a fraction of the projected costs of plugging wells and restoring land, leaving taxpayers with the potential

¹⁷ *Private Surface Over Federal Minerals* at http://www.worc.org/resources/split_estate_facts_-_hr_coal_updated1.doc

¹⁸ H.R. 4017 at http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=108_cong_bills&docid=f:h4017ih.txt.pdf

¹⁹ *Setting the Record Straight* at http://www.worc.org/resources/setting_the_record_-_notice_updated2.doc

for huge cleanup bills.²⁰ This well-established fact has been reasserted by a recent Associated Press analysis of federal records.²¹ The AP found:

- The BLM has collected just \$132 million in bonds from oil and gas companies responsible for more than 100,000 wells on federal lands.
- The government estimates that it costs between \$2,500 and \$75,000 to cap each well and restore the surface area.
- In the past five years, the BLM has spent an average of \$13,066 each to clean up 167 wells where operators defaulted on their bonds – a total of \$2.2 million. At this rate, the shortfall between the bonds posted and actual cleanup costs could leave taxpayers with as much as \$1 billion potential liability if companies reneged on their cleanup responsibilities.
- This fall, the BLM shelved an eight-year effort to make moderate increases to the minimum bond requirements for oil and gas drilling on federal lands.

WORC recommends adoption of the provisions in Title III of H.R. 4017²², as introduced by Representative Mark Udall in the 108th Congress. Title III would help ensure that land impacted by the development of federally-owned oil and gas is reclaimed by companies, and not taxpayers. The bill would:

- Require reclamation of land to a condition that it is capable of supporting the same uses of which it was capable before drilling,
- Require a detailed reclamation plan as part of a plan of operations, and
- Require a full bond to cover the costs associated with reclaiming all lands.

Inspection and Enforcement

In 2004, WORC undertook a research project to analyze the inspection and enforcement programs of selected state oil and gas agencies and the Bureau of Land Management. As described in our report, *Law and Order in the Oil and Gas Fields: A Review of Inspection and Enforcement Programs in Five Western States*,²³ we found that:

- The BLM has made substantive improvements to its Inspection and Enforcement Program since 1998, but these improvements have been targeted at production inspections, rather than environmental compliance inspections.
- Although the BLM has added inspectors in the past few years, the number of inspections conducted has not increased, and the number of inspections per inspector has declined 33%.
- The distribution of BLM inspectors around the nation does not correlate with the distribution of active wells.
- The BLM's Environmental Compliance personnel spend significantly more time on non-inspection activities than Petroleum Engineering Technicians.

²⁰ *The Need for Stronger Federal Oil and Gas Bonding Requirements* at <http://www.worc.org/pdfs/energy-fs-bonding.pdf>

²¹ Associated Press at

<http://www.billingsgazette.com/index.php?display=rednews/2004/12/27/build/nation/45-bonds-oil.inc>

²² HR 4017 at http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=108_cong_bills&docid=f:h4017ih.txt.pdf

²³ *Law and Order in the Oil and Gas Fields* at <http://www.worc.org/pdfs/Oil%20and%20Gas%20Report04.pdf>

- BLM Field Offices are conducting enough inspections to inspect active wells once every 2-10 years on average and enough environmental compliance inspections to inspect active wells only once every 4-59 years.
- Neither the state oil and gas agencies nor the BLM impose many fines, nor do they issue many orders to plug wells, cease and desist operations, or forfeit bonds.

WORC makes a number of recommendations to improve inspection and enforcement, all of which could be encouraged and/or required by Congress:

- The number of inspection and enforcement staff should be adequate so that each inspector is responsible for no more than 300 active wells.
- The BLM should expand its internal review to include environmental compliance.
- All inspectors should receive adequate training and be properly certified to conduct environmental compliance inspections.
- A greater percentage of BLM environmental compliance inspectors' time should be devoted to on-the-ground inspection and enforcement activities.
- The BLM should strengthen its National Inspection and Enforcement Strategy by requiring that every active oil and gas well be inspected at least once each year for environmental compliance.
- No new drilling permits should be issued if inspection goals are not met.
- All agencies should strengthen inspection procedures, and develop standardized check lists for inspectors to use during environmental compliance inspections.
- No-notice inspections and more frequent inspections will improve conditions and compliance, reducing the impact on the environment.
- Every oil and gas well should be thoroughly inspected prior to the beginning of production operations, with special attention paid to whether or not the well is properly cemented.
- All agencies should closely track and document their inspection activities, and make all information readily available to the public.
- All agencies should have clear policies or guidelines that instruct inspectors on when and how to take enforcement actions, including how to follow up on violations when they are not resolved within the time period allowed.
- All agencies should exercise their authority to revoke, modify or suspend any permit, assess administrative penalties or seek civil penalties or criminal sanctions, and require the forfeiture of financial assurance instruments when needed to ensure compliance.
- Public access to agency information on inspection and enforcement programs should be improved, using the Colorado Oil and Gas Conservation Commission web site as a model.
- All agencies should encourage the public to report perceived violations, apprise the public of the process to be followed in filing complaints, and document and thoroughly investigate every citizen complaint. When citizen complaints are received, agencies should schedule on-site visits within 15 days and allow complainants to participate. Once on-site visits are completed, appropriate agency officials should prepare written reports of findings for the public record.

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5. Diversification and Conservation

To what extent and how can demand be reduced through conservation and efficiency measures and through diversification of energy sources used for electric generation, industrial and other applications?

WORC endorses and refers to the following comments, submitted in a letter from multiple organizations (including WORC) to Senators Domenici and Bingaman on January 7, 2005:

Renewable Energy, Energy Efficiency: Fastest, Cheapest, Cleanest Solution

We believe that Congress can help reduce demand for and increase supplies of natural gas, generate thousands of new jobs, and spark investment in new domestic industries in the United States by enacting federal energy policies that promote renewable energy and energy efficient technologies. Renewable energy and energy efficiency are the fastest, cheapest, cleanest way to solve our nation's natural gas shortage, and do not require the West's citizens to sacrifice our economy, our lands and our way of life for a finite amount of natural gas.

We believe that renewable energy and energy efficiency are not only the most responsible policy choice, but also are virtually the only short-term policy options available, since natural gas supply-side options take years to deliver significant amounts of new gas production.²⁴ Renewable energy and energy efficiency projects begin to reduce demand for natural gas from the moment they are put in service. According to the U.S. Energy Information Administration (EIA), since 1992, over 90 percent of the nation's growth in demand for natural gas has been due to the increased use of natural gas as a fuel for electricity generation. EIA and independent studies have found that a national 10 percent renewable energy standard could reduce gas consumption by 1.4 trillion cubic feet per year, or roughly 5 percent of annual demand.²⁵

²⁴ American Council for an Energy-Efficient Economy (ACEE), Fall 2004 Update on Natural Gas Markets, November 3, 2004.

²⁵ EIA, Impacts of a 10-Percent Renewable Portfolio Standard, SR/OIAF/2002-03, February 2002. EIA, Analysis of a 10-Percent Renewable Portfolio Standard, SR/OIAF/2003-01, May 2003. EIA, Analysis of Strategies for Reducing Multiple Emissions from Electric Power Plants: Sulfur Dioxide, Nitrogen Oxides, Carbon Dioxide, and Mercury and a Renewable Portfolio Standard, SR/OIAF/2001-03, June 2001. Union of Concerned Scientists, *Renewing Where We Live*, September, 2002. Results of the 10% by 2020 RES (no sunset) obtained through personal communication with Laura Martin at EIA, on March 7, 2002. UCS, *Clean Energy Blueprint: A Smarter National Energy Policy for Today and the Future*, October 2001.

According to a report released this month by the U.S. Department of Energy's Lawrence Berkeley National Laboratory, "studies generally show that each 1% reduction in national gas demand is likely to lead to a long-term (effectively permanent) average reduction in wellhead gas prices of 0.8% to 2%. Reductions in wellhead prices will reduce wholesale and retail electricity rates and will also reduce residential, commercial, and industrial gas bills."²⁶

The report goes on to note:

Natural gas bill savings for consumers are predicted to be sizable. For studies that evaluate national [Renewable Portfolio Standard] proposals (typically 10% or 20% RE), the net present value (NPV) of national, natural gas bill savings from 2003-2020 reaches as high as \$74 billion; nine of fifteen analyses are within the range of \$10 to \$40 billion.²⁷

Renewable Energy: Rapid Deployment, Scalable Capacity

It takes roughly nine months to construct an average, 100-megawatt (MW) wind generation facility, which, upon completion, reduces demand for natural gas by displacing demand for electricity from gas-fired power plants.²⁸ The recently-completed 162MW wind farm near Lamar, Colorado, is a good example of such a project, as are the 144MW wind farm near Evanston, Wyoming, and the 200MW New Mexico Wind Energy Center in eastern New Mexico. Additionally, unlike traditional power plants, wind farms can quickly increase their capacity to meet new demand by simply adding more wind turbines at existing facilities.²⁹

According to data on wind energy compiled by the U.S. Department of Energy (DOE), Union of Concerned Scientists (UCS), and the American Wind Energy Association (AWEA), each megawatt of installed wind generation capacity reduces demand for natural gas by 17 to 25 million cubic feet per year.³⁰ Using this data, an average, 100MW wind farm

²⁶ U.S. Department of Energy, Lawrence Berkeley National Laboratory, "Easing the Natural Gas Crisis: Reducing Natural Gas Prices Through Increased Deployment of Renewable Energy and Energy Efficiency," January, 2005, p. 13.

²⁷ Ibid.

²⁸ Interwest Energy Alliance. U.S. DOE, LBNL, "Easing the Natural Gas Crisis," page 11.

²⁹ Interwest Energy Alliance. Construction of the 162 MW wind facility at Lamar, CO began in June, 2003 and was completed in early December, 2003.

³⁰ U.S. DOE/LBNL, "Easing the Natural Gas Crisis," pp. 28-34. Estimates for a 100MW wind facility, at an average generation capacity factor of 35 percent, yields 306,600Mwh/year. Multiply this amount by heat rate of a natural gas power plant and mix of gas and coal displaced (range = 9,000 Btu/kWh for older plants, to 7,500 Btu/kWh for newer combined cycle plants). Gas displacement ratios are higher in areas that have focused new capacity on gas generation in recent years, e.g. California. Assuming a gas displacement ratio of 75%, 306,000Mwh x 75% x 7,500 Btu/kWh = 1,724,625 million Btu. Divide by 1,000 to get cubic feet of gas saved.

reduces demand for natural gas by 1.7 to 2.5 billion cubic feet (bcf) per year.³¹

The Battelle Pacific Northwest Laboratory has estimated the total theoretical potential for wind in the U.S. is about 40 times annual U.S. consumption.³² A substantial amount of this potential is located within five miles of existing transmission facilities, an important factor in considering the economic viability of the resource.³³

Seven western states – Arizona, Colorado, Montana, Nevada, New Mexico, Utah and Wyoming – have substantial amounts of this wind energy capacity, as well as other renewable energy resources. According to “A Balanced Energy Plan for the Interior West,” policies that support increased utilization of renewables and efficiency could increase the region’s installed renewable energy capacity by 15,410 MW by the year 2020.³⁴

Energy Efficiency: Proven Savings in First Year

Real and proven efficiency options also exist. For example, enactment of aggressive energy efficiency tax incentives incorporated in two bi-partisan bills in the 108th Congress, S. 2311/H.R. 4206, would yield annual savings of more than three trillion cubic feet of natural gas once fully phased in, or over ten percent of national consumption. Similarly, new efficiency standards for commercial air conditioners, residential furnaces and boilers, and electric distribution transformers could readily save 6.4 trillion cubic feet of natural gas over the next 20 years.³⁵

Moreover, economic incentives for energy efficiency start making contributions very rapidly. For example, if S. 2311/H.R. 4206 were enacted at the beginning of 2005, there would be a noticeable impact on gas prices in the winter heating season. These and other efficiency measures would help consumers in the short term much more than supply-side measures. Thus, according to the Consumer Federation of America, vigorous efforts to improve efficiency should be the first policies pursued, because even small reductions in natural gas consumption can drive down prices substantially.³⁶ Further, as the American Council for an Energy

³¹ Ibid.

³² “An Assessment of the Available Windy Land Area and Wind Energy Potential in the Contiguous United States,” Pacific Northwest Laboratory, August 1991. PNL-7789

³³ Julie P. Doherty, “US Wind Energy Potential: The Effect of Proximity of Wind Resources to Transmission Lines,” Monthly Energy Review, Energy Information Administration, February 1995.

³⁴ Western Resource Advocates, “A Balanced Energy Plan for the Interior West,” May 2004, at <http://westernresources.org/energy/bep.html> .

³⁵ NRDC, Managing America’s Natural Gas “Crisis,” www.nrdc.org/air/energy/fnatgas.asp

³⁶ Consumer Federation of America, “Responding to Turmoil in Natural Gas Markets: The Consumer Case for Aggressive Policies to Balance Supply and Demand,” December 2004, pages 28 and 11. DOE/LBL study, page 13.

Efficient Economy (ACEEE) has documented, cost-effective, consumer-friendly programs that expand efficiency and conservation have dramatic impacts in terms of savings and price that begin in the first year and continue to pay off in subsequent years. Recent experiences in California and elsewhere prove these projections.³⁷ According to a University of California study, investments in these kinds of measures also generate as much as three times as many jobs per megawatt as fossil fuels.³⁸

Renewables & Efficiency Meet Other Policy Objectives

In addition to their effects on the natural gas market, renewable energy and energy efficiency have substantial benefits that will help Congress achieve another important policy objective. The recent increase in natural gas demand, as many in Congress have properly noted, was due largely to government policies that encouraged use of natural gas for power generation in order to improve our nation's air quality and reduce the negative impacts of energy production on public health. Because renewable energy and energy efficient technologies produce few air pollutants, they are also consistent with these goals.

³⁷ ACEEE, supra note 1.

³⁸ Daniel M. Kammen et al, "Putting Renewables to Work: How Many Jobs Can the Clean Energy Industry Generate?" Renewable and Appropriate Energy Laboratory, University of California, Berkeley (http://ist-socrates.berkeley.edu/~rael/renewables_jobs.pdf)

Submitter's Name/Association: _Sara Kendall/WORC_____

6. Tax Incentives

Could tax incentives help increase supply and/or reduce demand of natural gas?

The energy bill from the 108th Congress would have given away more than \$37 billion in tax incentives and subsidies to the oil, nuclear and coal industries—more than twice the amount allocated for renewable energy and energy efficiency. Of this total, almost half (43%) of the tax breaks and subsidies would have gone to the oil and gas industry.

The Section 29 tax credit is one example of a tax incentive that is ineffective and wasteful. This credit, which applies to gas resources considered too uneconomical for commercial development, is one of the most expensive energy incentives on the books, and will cost taxpayers \$2.8 billion over the next five years, according to the Joint Committee on Taxation. Provisions in energy tax package from the 108th Congress would extend the life of the credit through 2007, as well as expand the types of fuels that can qualify for the credit, at an estimated cost to taxpayers of more than \$2 billion over ten years.

The majority of the Section 29 tax credit's benefits have gone to the coal bed methane industry, one of the most profitable and rapidly expanding energy sources in the United States. In the next ten years, the Bureau of Land Management projects that the CBM industry will drill more than 50,000 new wells in the Powder River Basin of Montana and Wyoming alone. Industry representatives and analysts have repeatedly indicated that this growth and profitability can occur without increased tax incentives.

Submitter's Name/Association: _Sara Kendall/WORC_____

8. FERC and EIA Natural Gas Market Data

Is storage and market information adequate to ensure well-functioning natural gas markets?

WORC and its member groups have serious concerns about the degree to which inadequate storage and market information and price manipulation may be distorting gas markets and impacting gas prices. We have a long history of working to challenge the manipulation of livestock markets, and we would not be at all surprised to see that energy markets are similarly warped.

Enron springs to mind when issues of energy market manipulation arise, but the problem is much deeper. For example, since December 2002, the Commodity Futures Trading Commission has charged 22 companies and three individuals with attempting to manipulate the energy marketplace by lying. Some of these companies have “knowingly reported trades that did not occur, reported certain actual trades at false prices and/or volumes, and did not disclose other actual trades,” in an attempt to benefit their trading positions. These illegal practices undermine natural gas pricing indexes, which are used to price billions of dollars of natural gas transactions annually.

And of course who hasn't read about the clerical error, compounded by a federal agency's inability to correct it for more than week, that caused the pre-Thanksgiving run-up in the price of natural gas futures contracts that could cost consumers as much as \$1 billion.

The above examples highlight the importance of ensuring that markets are free of manipulation. WORC and its member groups believe that strong measures are needed to ensure confidence in natural gas markets, such as policies to ensure transparency of market supply, to prevent manipulation of prices and to secure adequate stockpiles of natural gas as the peak season approaches. While these policies will not increase supply or reduce demand, they could lower prices. We recommend adoption of the measures described in the Consumer Federation of America's recent report, *Responding to Turmoil in Natural Gas Markets: The Consumer Case for Aggressive Policies to Balance Supply and Demand* under “Reducing the Turmoil” in Section V.³⁹

³⁹ Consumer Federation of American report at <http://www.consumerfed.org/naturalgaspolicy.pdf>