

Before splitting away from the town of Penfield, it was suggested that a center of town be established with four corners about 5 miles north of the center of Penfield. This gave rise to the Five Mile Line Road and the Four Corners.

Throughout the mid-1800's, the newly created Four Corners served as not only an important avenue for produce and goods moving north and south, but also as a vital thoroughfare for stage coaches and freight lines moving east and west. Multiple taverns and inns were built at this time and other various businesses saw their start at this busy intersection of commerce.

Along with the growth of industry in this area, came the problem of fires. To solve this dilemma, shortly after its incorporation, a much-needed volunteer fire department was organized for the people of Webster.

For many years after World War I, Webster kept its place as the primary shipping point for apple farmers across the Rochester area. At this time it boasted the world's largest basket factory and also stood as the center for the canning industry in Monroe County.

The village experienced added progress after the Great Depression and throughout the World War II era despite a steady decline in its rural agricultural lifestyle. The late 1950's saw the annexation of 182 acres to the village as well as the rise of Webster's largest corporate neighbor, the Xerox Corporation.

Today 5,500 residents call the village of Webster home. In providing an array of community services and fostering a neighborly atmosphere, the village continues various local traditions that began with its first settlers in 1812.

On behalf of the people of New York's 25th Congressional District, it is my honor to recognize and congratulate the residents of Webster on the village's 100th Anniversary.

RECOGNIZING 50TH ANNIVERSARY
OF ROSA LOUISE PARKS'S RE-
FUSAL TO GIVE UP HER SEAT
ON THE BUS AND THE SUBSE-
QUENT DESEGREGATION OF
AMERICAN SOCIETY

SPEECH OF

HON. MARTIN T. MEEHAN

OF MASSACHUSETTS

IN THE HOUSE OF REPRESENTATIVES

Wednesday, September 14, 2005

Mr. MEEHAN. Mr. Speaker, I rise in support of H. Con. Res. 208 and commend the gentlemen from Wisconsin and Michigan for bringing this concurrent resolution to the floor today.

Fifty years ago this coming December, Rosa Louise Parks inspired a town, a movement, and a Nation to hold true to the ideals and principles upon which our Nation was founded. By refusing to give up her seat after a long day of work because she felt she was being treated unfairly, Rosa Parks demonstrated the quiet strength that typified her life.

Her arrest led to the 381-day Montgomery bus boycott and to the eventual repeal of the segregation laws of the South. Her individual act of defiance is considered by many to be the beginning of the civil rights movement.

Ten years later, on August 6, 1965, President Lyndon Johnson signed into law the Voting Rights Act, which in later years was

strengthened with amendments to affirm the rights of non-Whites to vote and to be represented fairly in government. This fall, parts of the Voting Rights Act will come before Congress to be reauthorized. We must not only renew our commitment to the voting rights protected under that legislation, but look to strengthen voter rights and to improve our electoral systems. And we must forever link our current state of freedom with the sacrifice of exceptional individuals like Rosa Parks who stood up to oppression and changed history.

Let us celebrate the lifetime achievements of a truly remarkable woman. I urge my colleagues to join me in supporting H. Con. Res. 208.

PERSONAL EXPLANATION

HON. JIM KOLBE

OF ARIZONA

IN THE HOUSE OF REPRESENTATIVES

Wednesday, September 21, 2005

Mr. KOLBE. Mr. Speaker, on September 20, my vote on H. Res. 441, a motion to suspend the rules and agree to Congratulate the National Aeronautics and Space Administration and the Discovery Crew (No. 477), did not register. I voted "aye."

URGING DEPARTMENT OF ENERGY
TO EXPEDITE ULTRA-DEEP PRO-
GRAM

HON. RALPH M. HALL

OF TEXAS

IN THE HOUSE OF REPRESENTATIVES

Wednesday, September 21, 2005

Mr. HALL. Mr. Speaker, the Congress has passed and the President has signed the Energy Policy Act of 2005, a historic bill that will put America on course for more energy independence. We now need to move as quickly as possible to increase production and distribution of energy supplies in the United States. The disruption of supplies and spiraling gasoline costs as a result of Hurricane Katrina—combined with the threat of disruption from other natural disasters or terrorist attacks—underscore the need to increase our energy supplies and reduce our dependence on foreign sources.

One provision in the Energy Act that will increase supplies is my provision for Ultra-deepwater and Unconventional Natural Gas and Other Petroleum Resources. I want to share with my colleagues the letter and attachments that I sent to Secretary of Energy Samuel Bodman last week. These provide further analysis and clarification of this program to develop the technologies needed to drill in ultra-deep and unconventional areas. This program will improve our energy and national security, increase natural gas and oil production, increase royalty revenues, and help lower energy costs for consumers. I urge the Department of Energy to take steps to implement the program as soon as possible.

Washington, DC, September 14, 2005.

Hon. SAMUEL W. BODMAN,
Secretary of Energy, Department of Energy,
Independence Ave., SW., Washington, DC.

DEAR MR. SECRETARY: I want to congratulate you and your colleagues at the Depart-

ment of Energy for your fine work in helping with the enactment of H.R. 6, the Energy Policy Act of 2005. There are many important provisions in the new law, and in this letter I want to draw your attention to "Subtitle J—Ultra-deepwater and Unconventional Natural Gas and Other Petroleum Resources."

As you may know, I first introduced this legislation in 2001 when it was included in H.R. 4, the comprehensive energy bill that passed the House that year. Since that time I have shepherded this legislation through three separate Congresses. The provision has been the subject of Congressional hearings and much legislative debate. On the way to enactment in August, the provision was passed by either the House or Senate eight times in the last four years. The final version contained in the Energy Policy Act of 2005 embodies many improvements that were made throughout this long process and the important compromises that were reached during the Conference Committee meetings this past July. Since there was no detailed Conference Committee Report to accompany the bill, I am sending this letter to provide some additional context and clarification of legislative intent for this new program.

My purpose for introducing this legislation was to enhance the ability of the Department to conduct well-funded, multi-year, resource based natural gas and oil R&D activities to accelerate the development of new technologies and increase domestic natural gas and oil production in the near and mid-term. This new program is intended to complement the work of the Department and allow the current Oil and Natural Gas Program to focus its ongoing efforts on solving the more basic production and environmental issues that challenge our collective ability to increase production and to transition to a hydrogen based energy system in the longer term. For example, the vast methane hydrate and oil shale resources in the U.S. could make a substantial fossil fuel contribution to the ultimate evolution of a hydrogen based energy system for the country. The Oil and Natural Gas Program should also continue its important work analyzing the consequences of past and potential actions by other federal agencies on domestic natural gas and oil production, conducting public interest analysis and fostering the education of the next generation of American oil and gas technologists.

This new program will receive an assured, multi-year funding source from the Ultra-deepwater and Unconventional Natural Gas and Other Petroleum Research Fund to pay for research, development, demonstration and commercial applications to create and deploy the technologies needed to bring these vital natural gas resources to the consumers of this country. This Fund and the authorities established in the law provide the tools to "the Department of Energy to work through its National Energy Technology Laboratory to accomplish these objectives and to work to develop the technologies for lowering the cost of drilling to formations in the Outer Continental Shelf to depths greater than 15,000 feet and to address the technology challenges of small producers.

It is the intention of Congress that the Department will take steps immediately to implement this new program in accordance with the schedule established in the statute. We expect that the Department will use existing program direction management funds to conduct the solicitation and select the program consortium. It is critical that this new program be implemented as quickly as possible. Most recently, the Energy Information Administration forecast that natural

gas prices in the Midwest will be 71 percent higher this winter than last. That means that gas prices during the coming heating season will top \$12. Work needs to begin immediately to accelerate the development of the new technology needed to increase domestic natural gas production to avoid such high prices in the future.

The Ultra-deepwater and Unconventional Natural Gas and Other Petroleum Resources Program has been designed to foster the development of additional natural gas from the vast resources of technically recoverable natural gas in the United States. The 2003 National Petroleum Council study on natural gas estimated that there are 1969 Tcf of technically recoverable natural gas reserves in North America—equivalent to 90 years of gas supply at current rates of consumption. The lower-48 contains 1240 Tcf, about 56 years of supply, of which only about 210 are unavailable to be developed due to moratoria or other restriction. The balance is in Alaska and Canada. Some of the Alaskan resource is technically challenged, but the predominant problem there is with price due to the high cost of pipelines to transport the gas to market. Much of the Canadian technically challenged resource would become productive with the application of the new technologies developed by this program.

It is the intention of this legislation that the Department will carry out this program through two entities:

1. A single program consortium selected by the Secretary through a competitive solicitation will administer the programmatic activities as prescribed in the law and make awards to research performers to carry out research, development, demonstration, and commercial application activities under the program; this program consortium, which will operate with significant oversight of the Department, should provide much needed industry and academic expertise to the program as well as ensure that the cross-cutting technologies for both the ultra-deepwater and unconventional onshore research are coordinated, developed and deployed. Selecting a single consortium for this program will render the greatest benefit for consumers by ensuring that R&D activities that are applicable to multiple gas provinces are well coordinated and the results of the work are effectively disseminated. Of the funds made available for this program, 75% shall be administered by the program consortium. Up to 10% of that amount should be adequate for the program consortium to administer the program. Significant authority has been provided for the National Energy Technology Laboratory on behalf of the Secretary: to issue a competitive solicitation for the program consortium; evaluate, select, and award a contract or other agreement to a qualified program consortium; and, have primary review and oversight responsibility for the program consortium. Up to 5% of program funds to be administered by the program consortium are allocated in the law for NETL to perform these activities. The review and oversight responsibility includes review and approval of research awards proposed to be made by the program consortium. NETL may use the allocated funds for program direction and to establish a site office if it is necessary to carry out the program, which I encourage; and

2. The Secretary has been provided 25% of the total funds for the National Energy Technology Laboratory to carry out a program of research and other activities, including program direction, overall program oversight, contract management, and the establishment and operation of a technical committee to ensure that in-house research activities funded are technically complementary to, and not duplicative of, research con-

ducted under this new program. While it is contemplated that the NETL may contract out some of this work, the intent of the legislation is to encourage NETL to build internal research and development capabilities with this portion of the program funds.

To ensure that this program is implemented as soon as possible, the legislation requires the Secretary to select the program consortium not later than 270 days after the date of enactment. That time line should provide sufficient time for a final contract with the selected program consortium to be completed and for work to commence when funds for the program consortium become available on October 1, 2006. In the preparation of the solicitation of proposals for the program consortium that will administer the program, I encourage the National Energy Technology Laboratory to seek broad public comment prior to the issuance of a final request for proposals.

I look forward to working with you to see that this program is successful. If it is effectively administered in accordance with the direction and timelines provided in the statute, I feel confident that it will improve energy and national security and achieve the additional natural gas and oil production, increased royalty revenues and lower energy costs for consumers as described in 2004 analysis by the Energy Information Administration.

I am attaching further analysis of the policy basis and thrust of the new program and plan to submit this letter and attachment for inclusion in the Congressional Record. Should you need additional information, please let me know. Again, I look forward to working with you on this important initiative.

With best personal regards, I am
Sincerely,

RALPH M. HALL,
Member of Congress.

Attachment.

THE ULTRA-DEEPWATER AND UNCONVENTIONAL
ONSHORE NATURAL GAS RESEARCH AND DEVELOPMENT PROGRAM

THE RESOURCE BASE AND THE POLICY

The Ultra-deepwater and Unconventional Onshore Natural Gas Research and Development Program constitutes the fourth element of a solid policy plan for increasing natural gas and other petroleum production and supply in the United States. The policy foundation for the program is found in analysis and recommendations of the National Petroleum Council (NPC), the Department of Energy (DOE), the Energy Information Administration (EIA) and the Bureau of Economic Geology (BEG) at the University of Texas. R&D experience indicates that the opportunity for dramatically increasing gas production from these resources is great. North America has substantial additional technically recoverable natural gas.

The 2003 NPC study estimated that there are 1,969 Tcf of technically recoverable natural gas reserves in North America—equivalent to 90 years of gas supply at current consumption rates.

1240 Tcf is in the lower-48—(56 years of gas supply at current consumption rates).

Only 210 Tcf is in moratoria areas or areas otherwise unavailable for development. (See Attachment A)

The balance is in Alaska and Canada.

Much of the Canadian technically challenged resource would become productive with application of the new technologies developed by this program.

While some of the Alaskan resource is technically challenged, the predominant problem there is with price due to the high cost of pipelines to transport the gas to market.

Development of additional technically recoverable natural gas requires a suite of policy actions.

Increased access to natural gas on federal lands affects about 210 Tcf.

Financial incentives can affect high cost gas resources such as Alaska, deep wells, marginal producing properties and gas pipeline infrastructure.

Regulatory streamlining can benefit new infrastructure such as pipelines and LNG terminals.

Technology development creates the means to access unconventional and ultra-deepwater resources—1240 Tcf in the lower-48.

POLICY BASIS FOR INDUSTRY, ACADEMIC AND GOVERNMENT COLLABORATION ON SUSTAINED, RESOURCE-BASED R&D

In 1999, in the report "Meeting the Challenges of the Nation's Growing Natural Gas Demand," the National Petroleum Council (NPC) made several observations and recommendations for actions in order to meet growing natural gas demand in the United States:

Two regions—deepwater Gulf of Mexico and the Rockies will contribute most significantly to new supply. (page 10)

Deeper wells, deeper water, and nonconventional sources will be the key to future supply. (page 10)

Technology improvements are particularly important given the difficult conditions accompanying new resources. (page 15)

This study assumes that technology improvements will continue at an aggressive pace. (page 16)

... an unprecedented and cooperative effort among industry, government, and other stakeholders will be required to develop production from new and existing fields. (page 10)

The government should continue investing in research and development through collaborations with industry, state organizations, national laboratories and universities. (page 28)

In response to the 1999 NPC study, the Department of Energy conducted a roadmapping exercise through a series of work shops with 159 participants that included representatives from the production and service industry, research institutions, academia, the investment business, non-governmental organizations, and government. In November 2000, the DOE published the "Offshore Technology Roadmap for the Ultra Deepwater Gulf of Mexico" which contains conclusions and workshop highlights including:

Scientific research and development (R&D) of new technologies that will lower the cost of bringing these new energy supplies to the consumer, while protecting the environment, are needed. (page 4)

The cost to design and implement an ultra-deepwater technology demonstration program is on the order of hundreds of millions of dollars. (page 4)

R&D spending by the industry is very low as a percentage of revenues compared to other industries. This is basically possible because in the global economy, industry can "coast" on older technology in other areas of the world. In newer reservoirs and easier drilling environments around the world (compared to the remaining opportunities in the United States), new technology is less in demand. The industry will develop the technology to produce in deepwater and ultra-deepwater in the United States, but absent some outside stimulus, these developments will come at a very incremental pace. (page A-1)

If there is a national interest in increasing U.S. domestic production in the near term,

then stimulus could be applied to achieve this goal. (page A-1)

. . . assuring timely development of the nation's ultra-deepwater resources requires a deliberate, coordinated, and well-financed effort on the part of industry, government, and academia to address the key technological gaps that present a barrier to this development. (page 4)

Investment in technology for ultra-deepwater development will require collaboration across all areas of a single company and between companies. This collaboration must be pervasive . . . between oil and gas companies and their service providers; . . . governmental agencies, and non-governmental organizations; . . . and investors. (page A-2)

Employing new technology is a significant barrier in and of itself. In ultra deepwater, the initial technology deployment represents a multi-million dollar investment. The risks and costs for failure of initial deployment are high. (page A-5)

A "high-intensity" approach to design and commercialization is required to reduce the new technology deployment time frame or the cycle time. (page A-6)

Public funds for demonstration and/or testing will accelerate technology commercialization. (page A-7)

During the roadmapping process, stakeholders stated that "evolutionary elements of technology development must be tied together in a way that brings a revolutionary result." A critical point is that no single technology was identified as holding revolutionary potential. It is the integration of individual components of technology into a coherent and well-executed development process that will improve the efficiency of deepwater development to make it competitive with other provinces. It will take major technology advances on multiple fronts in exploration, production, drilling, flow assurance and infrastructure to achieve the revolutionary results . . . (pages 14-15)

In its report "Economic Analysis for a National Ultra-deepwater and Unconventional Oil and Gas Supply Research Fund" (June 2003), the Bureau of Economic Geology (BEG) at the University of Texas concluded that a well funded, resource based R&D program could substantially increase natural gas and oil production in the U.S. The results of modeling a program roughly twice the size of the program in the House bill indicate that this R&D work would yield a relatively rapid increase in oil and gas production on Federal lands currently available for leasing, resulting in a cumulative increase in Federal oil and gas royalty receipts of \$12.4 billion over the next 10 years (and increasing thereafter). In developing its report, the Bureau of Economic Geology analyzed the experience of several successful R&D efforts. The attached charts illustrate the results of that analysis. (See Attachment B)

There is ample experience with the unconventional gas resources to provide clear examples of the potential for successfully increasing natural gas production through the implementation of a sustained, industry-led, well funded, resource-based, collaborative R&D project. The GRI/industry coalbed methane collaborative R&D program is especially noteworthy for transforming coalbed methane from a nuisance or hazard of coal production into a natural gas resource. Before the mid-1980's, there was no coalbed methane production. Now, coalbed methane constitutes more than 10 percent of domestic natural gas production.

A more detailed profile of the GRI/industry coalbed methane R&D program (see Attach-

ment C) reveals the following: the program cost about \$140 million (\$70 million GRI/\$70 million industry) over 10 years; production began to increase shortly after the start of the program and annual production of coalbed methane continues to increase and currently supplies around 10 percent of U.S. domestic annual production. Among the more important technologies that resulted from the program are the application of hydraulic fracturing to coalbeds, the capability to make accurate resource estimates, gas desorption understanding and cavity completions. Other examples of successful R&D programs in fields where production has steadily increased are the Barnett Shale in Texas and Michigan's Antrim Shale. Coalbed methane research programs now exist in at least 13 countries worldwide.

"Balancing Natural Gas Policy." the 2003 report of the National Petroleum Council says, "Technology is a critical driver for the growth of the gas industry in North America. This is dictated by the nature and complexity of the undiscovered resource base, which is generally characterized by deeper drilling, deepwater, and nonconventional reservoirs. Continued development of improved exploration and development technologies and cost reductions for drilling and platform construction will be critical to improving the economics of future gas supply." (Chapter 9, page 303) The attached chart indicates that technology advancements represent two of the top three most effective ways to increase gas supply and lower energy costs to consumers. (See Attachment D)

According to an EIA analysis of the H.R. 6 Conference Agreement in the 109th Congress, the program will yield net natural gas supplies of 3.8 trillion cubic feet over the EIA reference case and 850 million barrels of oil. In addition, EIA notes that "dedicated funding outside the annual appropriations process implies relatively low funding-related uncertainty for this program" and ". . . the new R&D program would increase the technological progress of the affected resources by 50% of its value in the [EIA] reference case." Further analysis indicates that federal royalties paid on the incremental supplies resulting from the R&D investment will pay for the program. (See Attachment E)

CONCLUSION

The Ultra-deepwater and Unconventional Onshore Natural Gas Research and Development Program fulfills the recommendations of the National Petroleum Council that "The government should continue investing in research and development through collaborations with industry, state organizations, national laboratories and universities." The program is designed for the purpose of assuring a well-funded and sustainable program of collaborative research to more quickly develop the technologies to develop our ultra-deepwater and unconventional natural gas resources—our largest domestic resources. The program design is based on analysis of R&D programs that have already been completed and have yielded large increases in natural gas production. According to analyses by the Bureau of Economic Geology and the Department of Energy's Energy Information Administration, the program will increase natural gas and oil supplies, lower costs to consumers, increase royalty revenues for the states and return enough additional royalty revenue to the Treasury to more than repay the cost of the program.

INCREASED RESEARCH AND DEVELOPMENT SPENDING FROM SECTIONS 941 TO 949 OF THE CEB

Two types of uncertainty characterize the effects of proposed authorizations of Federal

R&D investments. First, the timing and level of the net change in Federal R&D spending is often different from the authorized amount. Second, a statistically reliable relationship between the level of R&D spending for specific technologies and the actual outcome of that R&D has not been developed. Even if both of these uncertainties were resolved, the analysis is complex because the levels of private sector R&B expenditures are usually unknown but often far exceed R&D spending by the Federal Government. Consequently, EIA cannot provide an estimate of the impact on technological change of an increase in Federal R&D spending. However, EIA can provide the results of a sensitivity case using an assumption of the technological impact that increased spending on R&D might have.

Sections 941 to 949 of the CEB calls for the allocation of \$150 million annually into a fund (the Ultra-Deepwater and Unconventional Natural Gas and Other Petroleum Research Fund) for Federally sponsored R&D. The money is to come from Federal royalty payments that are allocated in each fiscal year from 2004 through 2013 and would not go through the annual appropriations process. The R&D is to be targeted for the development of ultra-deep (greater than 1,500 meters water depth) offshore, unconventional natural gas, and other petroleum resources. Unconventional natural gas and other petroleum resources are "natural gas and other petroleum resources located onshore in an economically inaccessible geological formation including resources of small producers."

Dedicated funding outside of the annual appropriations process implies relatively low funding-related uncertainty for this program. However, the uncertainty in relating increased Federal spending to technological progress remains important. Experts in the Department of Energy's Office of Fossil Energy (FE) believe that the new R&D funding would increase the technological progress for the affected resources (ultra deep offshore oil and gas and unconventional gas production) by 50 percent over its value in the Reference Case. They arrived at his conclusion by verifying that the proposed additional R&D funding would bring total Federal R&D spending back to the levels represented in the Reference Case of AEO1997 which used the same rates. The CEB case with the added FE assumptions regarding accelerated technological change due to the Section 941-to-949 programs, referred to as the FE/CEB case, was run to assess the impact of the assumed accelerated technological change on oil and gas supply and prices.

The pattern of natural gas wellhead prices and production in the FE/CEB case is as expected. Successful R&D increases supply from the ultra-deep and unconventional resources and lowers wellhead prices throughout the forecast. Natural gas wellhead prices are as much as \$0.30 per mcf lower than in the Reference Case and as much as \$0.20 per mcf lower than in the CEB Case.

Between 2009 and 2025, cumulative crude oil production from the ultra-deep offshore is over 850 million barrels higher than in the Reference Case and over 800 million barrels higher than the CEB Case. Cumulative natural gas production is 3.8 tcf higher than in the Reference Case and 3.2 tcf higher than the CEB Case. It is important to note that the technological improvements assumed for this case would also have an impact in producing areas outside the United States, which would potentially affect world oil markets.