Securing American Energy During Insecure Times
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December 2001
Introduction

There is a new sense of urgency in our country. As determined as we are not to let terrorism change our lives, it has. After the horror of Sept. 11, we look at threats on our soil as more than an inconvenience or the stuff of science fiction and box office thrillers.

We at the Interstate Oil and Gas Compact Commission (IOGCC) are not in the business of sounding unnecessary alarms or adding to the din of those who predict the end of the world. As a coalition of governors, we encourage a reasoned debate about contributions that state governments can make to a more secure nation.

Immediately following the terrorist attacks, many parts of the country associated an imminent U.S. retaliation with a shortage of imported oil and, as a result, gasoline shortages. Lines formed at gas stations. The sense of alarm was reminiscent of the 1970s, when Americans first awakened to the fact that energy – especially transportation fuels – had a direct relationship to our quality of life. At the same time, we learned that the security of energy supplies depended largely upon the United States’ ability to keep peace in the Middle East. It is a fragile part of the world, with differences among countries that have festered for centuries.

Those are issues IOGCC governors cannot resolve. But we can call for a renewed sense of urgency regarding the country’s energy security for the domestic natural gas and oil production that serves as our only true hedge against disruptions from an uneasy world.

Protecting our country’s infrastructure to produce, find, refine, transport and distribute oil and natural gas products has long been a weakness in our security. There are steps that states can take to help provide the peace of mind that comes with knowing that there is an abundance of heating oil this winter; natural gas is available at reasonable prices; and that fuels from oil will continue to power school buses, commuters’ cars and public transportation.

This report is a first step in a proactive attempt by the governors to protect the lifelines of energy that power our country. It is important to note that this is the beginning of a lengthy process of rethinking the role of government in domestic security. There is room for help from all of us. We welcome your participation.

Christine Hansen
Executive Director
The Challenge Today

The Interstate Oil and Gas Compact Commission (IOGCC) must take the lead to develop a national energy plan that focuses on domestic natural gas and oil production as the centerpiece of the country’s energy security. It is more important now than at any time in recent history for all levels of government to examine their roles in ensuring the vital flow of energy continues to run our country.

It is almost impossible to predict the next move of terrorists. Uninhibited by traditional deterrents, terrorists strike in unexpected ways. Therefore, to effectively contribute solutions to terrorism, the issues are to identify priorities of our lifestyle that must be protected and to take reasonable precautions to protect them.

One critical element is energy. The vulnerability of the country to energy disruptions has long been recognized. It is now time for a serious debate to consider steps that will secure our energy future.

The United States can exercise limited control over decisions of oil exporting countries on pricing and production quotas. The far-reaching effects of America’s war on terrorism on major Persian Gulf producing countries are difficult to predict. With the United States importing record percentages of oil, a clear vulnerability exists. In 1973, the United States imported 838,000 barrels of crude a day from countries in the Organization of Petroleum Exporting Countries (OPEC). Today, imports top 3 million barrels a day. There are, however, steps that can be taken during times of crisis to protect access to secure sources of energy.

The IOGCC continuously has warned that declining domestic oil and gas production and the lack of a coherent national energy plan represent threats to our national security. These warnings have gone unheeded. Domestic petroleum industry infrastructure was damaged by “…the combination of cheap oil, wildly fluctuating prices and environmental concerns. And (we) watched as tens of thousands of oil wells capable of limited production were plugged and abandoned,” said David Garlick, a respected industry observer and former oil and gas director of the Texas Railroad Commission.

On Sept. 27, 2001, at the request of the governors of the IOGCC, officials gathered to explore how states might play a meaningful role in protecting oil and gas production, refining, storage and distribution systems.

Most of the constructive comments centered on protecting and enhancing domestic supply, the value of incentives and other creative regulatory management practices in increasing production, protecting infrastructure such as pipelines and refineries, and the role of technology. The following pages capture the highlights.
A Threat to the
‘Underpinning of the U.S. Economy’

The oil and natural gas industry provides almost 90 percent of the transportation energy used in the United States. These energy sources are vital and directly underpin the U.S. economy and every American’s way of life. In a recent study, the National Petroleum Council (NPC) recognized seven potential sources of threats to the country’s steady supply of energy: information technology and telecommunications, globalization, business restructuring, independencies, political and regulatory issues, physical and human factors and natural disasters. The country is perhaps most mindful at this time of physical threats to the oil and gas delivery system.

There are thousands of miles of unguarded pipelines and interconnections, many well-lit and easily identifiable refineries and other processing facilities, hundreds of oil and gas storage locations and hundreds of thousands of unmonitored oil and natural gas well sites. Each of these physical structures could be a potential target for individuals seeking to systematically disrupt the energy flow within the United States. Are states doing enough to ensure that these facilities are protected?

“Physical threats continue to be a concern to our sector because of the vast size of the oil and natural gas systems, and their importance to our nation’s economy. There is a vast oil and natural gas industry in the United States; all the infrastructure, how it’s spread out, includes thousands of systems, hundreds of thousands of miles of pipelines, etc. It’s a challenge to protect these vital energy assets,” said Bobby Gillham, manager of global security, Conoco, Inc.

“Within the oil and gas industries, companies vary greatly in size from global multinationals to sole proprietorships. Companies have varying degrees of physical or information technology security needs, and many companies have no security staff at all. Since the Sept. 11 attacks, our sector, like other critical infrastructures, has heightened both physical and information technology security. We continue to be proactive in implementing additional security measures, such as adding guards, increasing surveillance of key facilities, increasing employee access cards and control, and increasing coordination in dialogue with local, federal and state law enforcement agencies. And our sector continues to deliver sufficient supplies of petroleum and natural gas through the recent crisis,”

Excerpt, Official IOGCC
Transcripts, Energy Security
Forum 9/27/01:
Bobby Gillham

“...In late 1999, the National Petroleum Council (NPC) was asked by the Secretary of Energy to review the potential vulnerabilities of the oil and natural gas industries to attack, both physical and cyber, and to advise him on policies and practices that the industry and government, separately and in partnership, should adopt to protect or recover from such attacks. At the secretary’s request, we also looked at pipelines, which are under the jurisdiction of the Department of Transportation....

Because of the Sept. 11 attacks on our economy, I would like to address the physical security threats, and actions our industry is taking. Physical threats continue to be a concern to our sector because of the vast size of the oil and natural gas systems, and their importance to our nation’s economy. You know the vast basis for our oil and natural gas industry in the United States — all of the infrastructure, how it’s spread out, the thousands of systems, hundreds and thousands of miles of pipelines, etc. It’s a challenge to protect these vital energy assets. Within the industry, companies vary greatly in size from global multi-nationals to sole proprietorships. Companies have varying degrees of physical or information technology security, and
many companies have no security staff at all. Since the Sept. 11 attacks, our sector, like other critical infrastructures, has heightened both physical and information technology security. We continue to be pro-active in implementing additional security measures, such as adding guards, viruses that hit this country originated from an individual in the Philippines, and there is no law in the Philippines to prosecute that individual for generating the virus that so disrupted many of the businesses around the world. So, we need that kind of event....

There are also opportunities for state government and industry to work together, and I think we do in many situations. I also think that a lot of the things I am going to mention are well under way, or are in place, but we can always enhance them....

I know that most states have in place response and recovery assistance to help if there is an incident, whether it’s a terrorist incident or an explosion. That, basically, works very well in most places but we can always make it work better, and we need to work together with states and with local response agencies. Such cooperation is taking place in Salt Lake City right now, with regard to the upcoming Olympics. Agencies are practicing response to terrorist and other events, and it is a multi-state group working together to deal with this situation. So, that’s something that I think could benefit states in the future...."

Should preventive measures fail to protect vital infrastructure, is there an adequate process and do relationships exist that permit various law enforcement and regulatory officials to cooperate on dealing with resulting incidents? “Federal, state and local governments should ensure coordination of response in recovery activities for significant disruptions that require actions beyond the capabilities of individual companies. I think we all know of some incidents that have occurred – not terrorists incidents – where things could have gone more smoothly in blending of other resources that respond from state, local and federal governments. It can be enhanced,” Gillham said.

Considerations:

- Enact globally consistent legislation addressing the interconnected electronic commercial marketplace.
- Create a single repository for access to threats and incident reporting.
- Enact legislation to facilitate information-sharing among energy sector components.
- View critical energy infrastructure as a single entity for purposes of designing effective security.
- Develop a means for federal, state and local governments to coordinate efforts during times of crisis.
- Permit energy companies to perform a national FBI records check of individuals during the hiring process.
- Provide incentives for energy providers and infrastructure operators to increase security at primary locations.

“All in all, we have to protect our infrastructure. It is very diverse. It’s not as protected as (electric) power is. Power has been working on power grids and locking everything together. But our resources in oil and natural gas are very diverse. They are very spread out,” creating a much more difficult challenge, Gillham said.
The Domestic Petroleum Industry: Phoenix or Dead Duck?

There remain vast untapped sources of oil in the United States. This fact is well documented in a number of state and federal publications. The country's domestic resource base, and production from low-volume, or marginal, wells in particular, has been labeled America's unheralded hedge against foreign oil imports. Each barrel of domestic production reduces the need for a barrel of imported oil. With the U.S. relying on supertankers plying potentially unsafe waters, domestic resources seem a less vulnerable, easier-to-protect, energy source.

“In recent years, nearly every discussion of the status of the domestic oil exploration and production industry includes the description of the United States as a ‘… mature producing region. As a result, the nation is increasingly depending on imports from areas with more readily accessible oil.’ To assume that foreign oil is more accessible than domestic oil seems fundamentally flawed and contrary to ensuring the nation’s energy security.” (From A Dependent Nation)

Vast amounts of natural gas and oil remain in the United States. The challenges posed by Dr. Charles Mankin, director of the Oklahoma Geological Survey and Sarkeys Energy Center, are whether the industry is up to the challenge and why states should be involved.

“One of you may remember from Greek mythology that the phoenix was a bird that rose from the ashes, stronger and more resilient than before. The industry has been through more than one of these kinds of situations before. The question arises: Is it (the industry) capable of rising again from the ashes and becoming a true phoenix? What I’m telling you is that the states have a major stake in this, and if it’s going to happen, it probably is going to happen through the states.

“One of the things that states can do better than anything else is provide information and technical assistance,” Mankin said. “One of the things we’ve been doing is producing petroleum play-based studies. We take a stratigraphic interval and we examine it. From all of the data we develop an understanding of the nature of the accumulations in that stratigraphic interval, then we provide that to operators,” Mankin said.

“Small companies and independents – the entities that are Oklahoma’s petroleum industry future – can use this informa-
tion to go beyond their conventional understanding. These play-based studies and technical workshops have been very popular and very successful. It’s one pattern that other states could adopt easily and help a lot of the small companies and independents do their jobs more successfully.”

“There are a lot of companies out there that have some really good science and technology and the state can do a lot by implementing or helping to implement the transfer of technology through workshops.”

States can also help change perceptions that “…everything has been found or there is nothing left.” Mankin said. Previous exploration efforts likely have overlooked productive zones as a result of price regulation anomalies or exploration inexperience. States can play an important role in educating operators and encouraging revisiting the geology of existing “dry holes,” especially those 15,000 feet and deeper.

Mankin also suggested that increased funding to state geological survey offices could improve access to information. In fact, the IOGCC has long supported the role of research in boosting domestic production.

Huge, government-funded research and development efforts have focused on alternative fuels with almost imperceptible results. However, federal research dollars devoted to oil and natural gas represent only slightly more than one-half of one percent of the DOE budget.

“All of you know the billions of dollars that were spent on some really exciting (alternative fuel research) things – the ‘Dry, Hot-Rock Program’ was an example. Fifteen days of basic physics would have proved that it would never work but, unfortunately, physics wasn’t applied to those circumstances. So, what I am trying to tell you is that the states have a major stake in this, and if it’s going to happen, it probably is going to happen through the states.

What happened? We needed more oil and gas so exploration and development increased in spite of all those problems. We went from an average number of rotary rigs in 1973 of about 1,100 to 3,900 in 1981. The decline in production of both oil and gas, nationwide, was arrested and production actually increased in a number of states as a consequence of that. Now that doesn’t say a lot about technology. What it says is that there had been a very short period of time within which the industry moved forward, built a lot of drilling rigs and began to drill holes in the ground and produced a lot of oil and gas. It is important to remember that those discoveries that were made then are the production that we are using today. That’s something about which we keep forgetting because once discovered, the production history lasts a long time.

Redirecting research dollars – both at the state and national levels – toward oil and natural gas research and development (R&D) could have an immediate impact on improving resource recovery rates and reducing finding costs.

Such research and development is an investment in the country’s future and its energy security. Technological advance might be the most important factor in ensuring America’s nonrenewable resources are fully developed. As noted by the
Task Force on Strategic Energy Research and Development, “There is growing evidence of a brewing R&D crisis in the United States – the result of cutbacks and refocusing in private-sector R&D and reductions in federal R&D support … R&D cannot be turned on and off like a water tap.” (A Dependent Nation)

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States also play a role in ensuring that companies have access to potential resources.

States are second only to the federal government in size of mineral ownership. States control approximately 150 million acres that provide more than $2.5 billion in income. They have an economic as well as a public interest in ensuring the success of oil and gas production on public lands.

According to Pary Shofner, director of minerals management for the Commissioners of the Oklahoma State Land Office, states are exploring many options to be more efficient and to do their part to enable the industry to find prospects and develop them.

“You have to be as lenient as you can. I think our infrastructure is sorely lacking for pipelines. The states need to work with other states and the federal government to come up with safe, easily laid pipeline, so you don’t have to take two years to come up with all your permits,” Shofner said. “So if we can come up with safe places to work together, that works faster; you get the gas online much faster. Companies make their profit, and we get our income.”

Streamlining the permit acquisition process for acquiring seismic information and for drilling is another way that states can assist the industry in focusing exploration on domestic onshore reserves, Shofner said.

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Additional coordination and streamlining could help the process of constructing pipelines, thereby helping ensure adequate energy supplies. An IOGCC/NARUC (National Association of Regulatory Commissioners) work group studied the issue for a year, and encouraged states to consider special task forces to coordinate environmental permits associated with pipelines. The group also encouraged states to become

What’s the situation today? There is a temporary glut of oil on the world market. There is a temporary surplus of natural gas in the U.S. The glut in the world market, obviously, is because there is a perception that there is a significant decrease in demand. There has been a disruption in demand and as a consequence, the market operates very quickly in response to it, so world prices of oil dropped. The fundamental demand is still there. We still have a tight supply. This temporary aberration is going to disappear, and we are going to be back to normal in the not too distant future with respect to that.

We have a temporary surplus of natural gas in this country because last winter we went through a really tough time. Weather was milder this summer, it turns out, in the upper Midwest and Northeast, so there was a very significant decrease for the demand for natural gas. As a result, local storage has been filled, and we are going to have a much easier time this winter unless we have a real Arctic blizzard that descends on us for a very long time.

That is all short-term. The problem, of course, is that we’ve got a conflict going on in the Middle East and that conflict could spread and could create problems. It could place oil supplies in jeopardy. Unfortunately, in 1973, when we had the so-called “Arab Oil Embargo,” we lost 5% of our supply. And that 5% created long lines at
familiar with new, less invasive pipeline installation techniques, according to John King, supervisor of the Petroleum Engineering Section of the Michigan Public Service Commission.

In this new era where terrorism and sabotage are considerations, thought should be given to the difficulties created by the lack of redundant facilities, especially in pipelines and refineries.

Among the recommendations of the IOGCC/NARUC work group:

States should work with the federal government to conduct regional needs and pipeline/utility corridor identification. This federal-state coordination is endorsed in Executive Order 13212, issued May 18, in which President Bush created a federal interagency task force charged with “…setting up appropriate mechanisms to coordinate federal, state, tribal and local permitting in geographic areas where increased permitting activity is expected.”

States should encourage research spending, including government, university and pipeline spending, to continue the development of pipeline installation techniques to disturb less surface, complete the installation more quickly and enhance safety.

States should undertake a comprehensive review of policies, procedures and regulations for the siting and installation of natural gas pipelines to determine how to eliminate duplication, reduce the cost and time of review, without any compromise to state regulatory oversight.

States should consider developing a model for clear and accessible state and local regulations governing the siting of natural gas pipelines.

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Mickey Thompson, executive director of the Oklahoma Independent Producers Association, said the role of states and governors is of prime importance. “Our industry needs you now more than we’ve ever needed you and our country needs you now more than we’ve ever needed you.”

“I don’t think the problem has ever been more apparent. I think that was brought to the fore like it never has been on Sept. 11: there is a basic disconnect between our national policymakers and energy policy,” he said. “I believe now, more
than any other time in the history of this country, in these four words. ‘America needs America’s oil.’”

Thompson suggested that states re-regulate the natural gas industry to promote additional production.

“Natural gas gathering is an unregulated monopoly … Six years ago, there were nine major gatherers in Oklahoma. There was a semblance of competition in the marketplace. Today there are three, and those three have carved out territories – they’d call them niches, I’ll call them areas of domination — where they rule the roost. They decide the rate, they charge what they charge and you either pay the rate or get your gas into a main line or you shut-in your gas.”

Thompson also suggested enhancing protections for economically at-risk oil and gas wells and supported a regulatory moratorium on plugging temporarily abandoned wells if they exist on a producing lease.

“I know that would be difficult to do in some other states, much more difficult to do than it is in Oklahoma. I also know that it’s time we started doing some of these difficult things at the state level to save these wells. We did it (in Oklahoma) because these temporarily abandoned wells are assets, not liabilities.

“We believe that state regulators are our last line of defense … Regulatory common sense is important.

“The crux of it as far as I’m concerned is the public doesn’t know how important energy is. The public doesn’t understand energy,” Thompson said. “We have failed as a country, we have failed as an education system in this country, to educate people about energy … we have a country full of energy illiterates, and, as all of you have been told, we’re doing something about it in Oklahoma … Until we create a national program to educate Americans on the importance of energy, a lot of what we’re talking about here today is preaching to the choir. We’ve got to garner public support, and education is the only way that I can think of to do it … you can do it, it can be part of what every state does.”

Considerations:
- Focus on domestic supply as the most secure form of energy for the country.
- Position states as the leaders in addressing oil and natural gas issues.
- Use new technology to examine and explore old fields.
- Re-examine “dry holes” for up-hole production potential.
- Permit temporary abandonment of unplugged wells on producing leases.
- Transfer technology from companies to independent oil and gas producers.
- Create educational efforts within states to inform the public on the oil and natural gas industry.
- Streamline state processes for acquiring seismic and drilling permits.
- Improve access to information on state leases.
- Begin building redundancy in critical oil and gas facilities, such as refineries and pipelines.
- Consider re-regulating natural gas gathering.
- Ensure adequate protection is in place for economically at-risk oil and natural gas wells.
How Much Will America Pay for Cheap Oil?

At the heart of the challenge on national energy security is the lack of a national policy that focuses on domestic production as a means to become less reliant on imported oil.

For the past six years, the IOGCC has promoted its version of a national oil and gas policy. That plan focuses on domestic economic development, conservation, research to improve techniques for finding and producing petroleum, protection of the environment and public health and incentives.

Incentives, particularly those that lower expenses, have proven to prolong production from existing wells. As production declines on oil and natural gas wells, the cost increases per unit of energy produced. As profitability decreases over time, a well ultimately reaches its “marginal” or economic limit. The well is not out of oil or gas. It is simply unprofitable to operate.

State tax rates can have a direct impact on the profitability of marginally economic wells. The severance and gross production taxes were adopted by states when almost every well was a high-volume producer. Today, there are hundreds of thousands of wells producing less than 10 barrels of oil or 60 million cubic feet (mcf) of gas per day.

“The severance and gross production taxes are simply the wrong taxes,” said Garlick, the former Texas official who has authored several well-known reports on the impacts of incentives on production and economic development. “They (the taxes) are blind to profitability and they punish an industry in decline. In 1998, when oil prices were collapsing, I have no doubt that states frequently made more in taxes from some wells than their owners made in profits,” he said.

“It has become clear, if not widely accepted, that for the producing states, the economic value of oil and gas produced far outweigh the value of the severance and gross production tax streams,” Garlick said.

“My recommendation would be for every producing state to eliminate the severance or gross production tax. The oil and gas is more important than those tax revenue streams are to your state. This is the single best step that states can take to increase profits, maximize domestic oil and gas, minimize our

Excerpt, Official IOGCC Transcripts, Energy Security Forum 9/27/01:
David M. Garlick

“...Consider our national security and what the quest for cheap energy has done to us. The recent attacks have mobilized us in many areas. The president says we will hunt down the terrorists and those who support them, no matter where they may be. Therefore, we face the following as a very real, very possible scenario: We start to seek out those who attacked us. This clearly includes the Taliban and Osama bin Laden in Afghanistan, but bombing them would have little effect on our energy future. But one of the terrorists, a guy named Mohammed Atta, the guy who flew the first plane into the World Trade Center, was known to have met with an Iraqi security agent in the spring of this year, perhaps providing a link to Iraq and the funding for this program. And so there is increasing talk of bombing Iraq again. The Iranians are known supporters of terror. Are we going to bomb them? Syria is a well known training center but very close friends with Saudi Arabia. I saw one expert on TV who said if we bomb Syria, we will lose the Saudis. Think about that a minute. Some members of the Saudi royal family are themselves strong supporters of groups that support terror. Are we going to go after the Saudi royal family? What will happen to our oil if we actually do what we have said we’re going to do? When
reliance on imports, and maximize the economic effects of oil and gas on a state economy.”

Considerations:

- Eliminate severance and gross production taxes on oil and natural gas.
- Look at other incentives to keep domestic wells producing as long as possible.

the bombs begin to fall, there will be every effort to portray these attacks within the various Arab countries not as attacks on terror but as attacks on Muslims and Islam. In effect, doing what we now have to do in order to corner terrorism will fuel the growing cries for “Jihad,” or “Holy War.” This, in turn, may lead to another Arab oil embargo from many Middle Eastern nations. How prepared are we for this embargo? ...

“We lost 687,000 barrels a day of production in this country. Where did the replacement oil come from? Think of the worst place on earth. It came from Iraq. You can see the sanctions starting in 1991. No imports from Iraq at all. Up to about 1997, when the Iraqis began to plead that they should be allowed to sell oil for humanitarian purposes. Their imports to us – these are direct to the United States; they don’t go through anybody, straight from Iraq to us – this was spotty at first. We would stop buying when Saddam stonewalled the inspectors for awhile, you know, looking for weapons of mass destruction, and then remember those guys, there was a big flap, and those guys all left, right? Never finished the job. Never got all the weapons found, all the laboratories. From this chart, it would seem clear that our punishment to Saddam for failing to obey the world’s directives was to buy his crude oil in enormous quantities. Well, it was for humanitarian reasons, right? Right.

According to a book I just read by an Iraqi who came over here – it’s called, “Saddam’s Bomb Maker” and he was a nuclear physicist working on Iraq’s atomic bomb — he routinely tested biological and chemical weapons on his own people.

While we were losing 687,000 barrels a day in production, direct Iraqi imports into the U.S. have increased 700,000 barrels a day. We have paid more than $11 billion to Saddam since the price collapse in late 1997. From nothing, we have given him $11 billion. Prior to that time, we were giving this money to people in this country. It was jobs. I don’t understand policies where we convert jobs into weapons of mass destruction to use against us.”
Conclusion:
Technology, Policy Emerge as Common Themes

During the wide-ranging discussions of that September meeting, two broad issues surfaced. The first focused on the need for a national policy that insists on making domestic oil and gas production the top priority. The second centered on the ever-growing need to develop new technology to reduce costs to the industry, to improve petroleum exploration and production effectiveness, to ensure the safe and efficient transportation of petroleum and petroleum products and to safeguard oil and natural gas infrastructure.

The United States is vulnerable to interruptions in energy supply. The key to minimizing that possibility is increasing awareness at all levels of government and industry that more must be done to protect the entire energy supply chain, beginning with the resource. This, plus a reasoned effort to inform, not scare, the public could serve as the starting point to provide a more secure energy future.
Biographical Sketches

Bobby Gillham

Bobby Gillham is Manager of Global Security for Conoco Inc., a fully integrated oil and natural gas company, headquartered in Houston, Texas. Conoco has operations in over 40 countries and is a Fortune 100 company. Bobby has responsibility for protection of all personnel and assets of the corporation. The Conoco Global Security Function has personnel assigned to Conoco businesses throughout the world.

Prior to joining Conoco, Bobby served as a Special Agent with the Federal Bureau of Investigation (FBI) from July 1968 until his retirement in April 1993. Bobby worked in several positions in the United States, including two management positions at FBI headquarters, Washington, D.C. In 1982 Bobby was appointed to the FBI senior executive ranks, and served the last eleven years of his FBI career managing FBI regional field divisions, including divisions headquartered in Savannah, Georgia; Dallas, Texas; and Baltimore, Maryland.

Bobby serves on the boards of the International Security Management Association and the Energy Security Council, and is a member of the American Society of Industrial Security. In addition, he serves on a terrorism advisory group of the U.S. Department of Energy (DOE). Mr. Gillham also works with a team of other security professionals advising the National Petroleum Council and the DOE in a study of the vulnerabilities and threats to the United States Oil and Natural Gas infrastructures. He currently serves as Chairman of the founding board to create an Information Sharing and Analysis Center (ISAC) for the Oil and Natural Gas Industries. Additionally, he serves on a committee of the U.S. State Department and British Commonwealth Foreign Office, working with Human Rights and Labor Organizations and other oil, natural gas and mining companies, dealing with security and human rights issues in foreign countries.

Bobby is a native of Atlanta, Georgia, and a graduate of Georgia State University. He has attended graduate level studies at the University of Southern California.

Charles J. Mankin

Charles J. Mankin is director of Sarkeys Energy Center and the Oklahoma Geological Survey.

A native of west Texas, Mankin received his bachelor's and master's degree from the University of Texas, Austin. After receiving his Ph.D. in 1958, Mankin was a postdoctoral fellow at the California Institute of Technology.

He began his career as an assistant professor of geology at the University of Oklahoma and a part-time geologist with the Oklahoma Geological Survey in 1959. In 1963, he was appointed director of the school of geology and geophysics and served in that role until 1977.

In 1967, Mankin was appointed director of the Oklahoma Geological Survey, and served as
Biographical Sketches

Charles J. Mankin (continued)
executive director of the Energy Resources Institute from 1978-87. He was named director of the OU Sarkeys Energy Center in 2000.

He is a member of numerous earth science organizations and has served as president of the Association of American State Geologists, the American Geological Institute and the American Institute of Professional Geologists.

He currently serves as vice chair of the Royalty Policy Committee for Minerals Management Service, is a member of the board of directors for the National Institute for Global Environment Change and is a trustee for the AIPG Foundation and the Drake Well Foundation.

Pary G. Shofner
Pary G. Shofner is director of minerals management for the State of Oklahoma Commissioners of the Land Office, where he has worked since 1983.

Shofner’s previous experience includes John A. Taylor, Hiawatha Oil Co., Inc., Samedan Oil Corporation, Michigan Wisconsin Pipeline Co. and Amoco Production Co. He graduated from Oklahoma State University in 1974 with a bachelor's of business administration.

Shofner has been an IOGCC appointee since 1984 and served as chairman and co-chairman of the Public Lands Committee. He previously served as chairman of the Oil and Gas and the Energy Committees of the Western States Land Commissioners Association, and was appointed to the Royalty Policy Committee of the Minerals Management Advisory Board, Department of the Interior. He also is member of the Oklahoma City Petroleum Landmen Association and the American Association of Professional Landmen.

Mickey Thompson
Mickey Thompson is executive vice president of the Oklahoma Independent Petroleum Association (OIPA). He has directed the affairs of the OIPA since 1991 and served two years as OIPA's lobbyist in 1988-89.

Prior, he was publisher of The Ada (OK) Evening News in 1990 and 1991, and was managing editor of that newspaper from 1979-81 and sports editor from 1973-77. He served as director of university relations at East Central University from 1981 to 1987.

The Ada native also has worked in banking, real estate, insurance, television and radio and was twice named Oklahoma's top editorial writer.

Thompson earned a bachelor's degree in English from East Central University and is a member of the Board of Regents for Oklahoma Colleges.
Biographical Sketches

David M. Garlick
After completing his master’s degree in science education, David Garlick worked as a programmer at the data processing division of the University of Texas at Austin. In 1978, he became director of data processing at the Railroad Commission of Texas, then became director of planning and administration of the oil and gas division in 1981. In 1990, he became director of oil and gas, then served as the director of policy and research from 1996 until his retirement in 1997.

The incentives Garlick wrote or implemented at the Railroad Commission are credited with adding billions of dollars to the Texas economy, and he received the Hearst Award in 1996 for adding at least $1 billion to the oil and gas industry.

Garlick developed the first major program to address plugging abandoned wells and cleaning up the oil field and his staff plugged more than 10,000 abandoned wells while he served as director of oil and gas.

He has authored several articles and three books, two for the IOGCC. He also has chaired two IOGCC committees and served on the National Petroleum Council study of marginal wells.
Policies and Principles

Voice of the Governors: IOGCC has been, for more than 65 years, the vehicle for oil-and gas-producing states’ governors to effect national energy policy.

States’ Rights: IOGCC works to maintain the rights of the states to regulate their individually unique oil and natural gas industries.

Sound Regulation: IOGCC promotes and advances the conservation of oil and natural gas in an environmentally responsible manner by the states.

Technology: IOGCC provides a forum for advances in technology for application by the oil and natural gas industry and the states through education.

Education: IOGCC communicates the importance of oil and natural gas resources through various public and private energy education programs.

Cooperative Efforts: IOGCC coordinates and cooperates with federal and state government agencies as well as international affiliates and private organizations to pursue its goals and objectives.
About the

INTERSTATE OIL and GAS COMPACT COMMISSION

The Interstate Oil and Gas Compact Commission (IOGCC) represents the governors of 37 states — 30 member and seven associate states — that produce virtually all the domestic oil and natural gas in the United States. Five international affiliates have been accepted into the IOGCC in recent years.

The organization's mission is to promote the conservation and efficient recovery of domestic oil and natural gas resources, while protecting health, safety and the environment.

Since its creation in 1935, the IOGCC has assisted states in balancing a multitude of interests — maximizing domestic oil and natural gas production, minimizing the waste of irreplaceable natural resources, and protecting human and environmental health — through sound regulatory practices. The IOGCC plays an active role in Washington, D.C., serving as the voice of the states on oil and natural gas issues and advocating states’ rights to govern the resources found within their borders.

For more information about the IOGCC, please call 405/525-3556, visit the World Wide Web at www.iogcc.state.ok.us, or send electronic mail to iogcc@iogcc.state.ok.us

Member States
Alabama (1945)
Alaska (1957)
Arizona (1955)
Arkansas (1941)
California (1974)
Colorado (1935)
Florida (1945)
Illinois (1935)
Indiana (1947)
Kansas (1935)
Kentucky (1942)
Louisiana (1941)
Maryland (1959)
Michigan (1939)
Mississippi (1948)
Montana (1945)
Nebraska (1953)
Nevada (1955)
New Mexico (1935)
New York (1941)
North Dakota (1953)
Ohio (1943)
Oklahoma (1935)
Pennsylvania (1941)
South Dakota (1955)
Texas (1935)
Utah (1957)
Virginia (1982)
West Virginia (1945)
Wyoming (1955)

Associate States
Georgia (1946)
Idaho (1960)
Missouri (1995)
North Carolina (1971)
Oregon (1954)
South Carolina (1972)
Washington (1967)

International Affiliates
Alberta (1996)
Egypt (1999)
Republic of Georgia (2001)
Newfoundland and Labrador (1997)
Nova Scotia (1997)
Venezuela (1997)