Summary of Presentations and Comments At the Quadrennial Energy Review

Stakeholder Meeting #3: New Orleans, LA – Petroleum Product Transmission & Distribution

Opening Remarks

The Honorable Ernest Moniz, Secretary of Energy Main Points:

- 1. This is our 3rd QER public meeting. The U.S. Department of Energy (DOE) is going out to different critical energy nodes to hear and see specific infrastructure challenges.
- 2. Would like to recognize and thank colleagues that are gathered here. The dedication across the government shows the level of significance of the QER.



- 3. This region is far and away the center of gas and oil industry. Transmission vulnerabilities, environmental risks, shifting geography of supply, workforce development are some of the topics that will be discussed here today.
- 4. The National Climate Assessment was released earlier this month. We are seeing the impacts of climate change today and need to prepare for continued changes in the near future. Warming oceans and rising sea levels combined with growth in coastal communities can lead to significant damages in the face of a major weather event. We need to prepare to minimize these risks and ensure that we keep our energy infrastructure functioning.
- 5. DOE is the agency charged under FEMA for emergency response for energy infrastructure. We will work with the Senate and the Senate Appropriations Committee to determine the best way to build the emergency response function. Hurricane Sandy was a major test case for this functionality and proved to be a major learning experience for DOE. We realize the interdependence between natural gas and energy.
- 6. Impact of shifting supplies on the region: ND and PA have stumbled on some unforeseen infrastructure challenges as they have discovered large natural gas supplies. The petroleum reserve infrastructure system has been tested to ensure that deliveries will go as planned.

- 7. Workforce Development: API and IHS project 1.3 M oil and gas jobs in the next 15 years. 1/3 of those jobs will be in this region. We need the workforce training in place to ensure that we can fill those jobs with qualified workers.
- 8. We will conclude this first part of the QER in January, please submit all comments to us.

The Honorable Mike Connor, Deputy Secretary of the Interior



Main points:

- 1. Thank you for participating in today's meeting. Obtaining input from those heavily involved in energy issues of our day is very important. Energy is the base of our economic prominence. Honored to be here today with Secretary Moniz and U.S. Senator Mary Landrieu (D-LA).
- 2. The U.S. Department of the Interior (DOI) responsible for protecting this country's natural resources. Nowhere is that more relevant than in the Gulf of Mexico region. Last year this region produced 457M barrels of oil.
- 3. Given DOI's role, it is crucial we work hand-in-hand with industry to ensure we put in place the capabilities to ensure the safety and prominence of industry and workers while also continuing to safeguard the environment for all of its uses.
- 4. There are many risks to the infrastructure in the region market, environmental, including extreme weather events. Next week marks the start of Atlantic Hurricane Season in which we anticipate 8-13 tropical storms.
- 5. 115 platforms were destroyed and 52 platforms damaged during the Katrina hurricane season. We need to continue looking at ways to harden the infrastructure against severe weather events.
- 6. Deepwater: We need to continue to be vigilant about the standards that we have in place. Need to have safe, responsible and robust oil and gas delivery.

The Honorable Mary Landrieu, Senator (D-LA) Main points:

1. Will be taking Secretary Moniz to see Port Fourchon which is an extraordinary port and a powerful engine for this country that rests on a small strip of land. Will also be visiting the new Port of Iberia, which is a fabrication port that you will hear more about today. These two ports are a good example of the "cost on call" moniker given to the region.



2. This region knows about infrastructure issues. Highway I-10 goes down to one lane even though it is one of the busiest highways in the country and is used to transport people as well as oil and gas. This region needs the I-49 south loop and LA-1 need to be completed.

- 3. Producing more and consuming less oil here at home. With Mexico and Canada coming online, as well with the possible development of the Keystone pipeline, this imbalance will increase.
- 4. The Mississippi river is tamed in its banks by the core of engineers. This river is the greatest highway system in this country and needs increased support by local and federal government. \$264B in rents, royalties and bonuses (not including sales tax) has been sent to Washington. Louisiana (LA) has gotten less than 1% of that money back. Do we think the 4.5 billion people of LA should be forced to take on the entire burden of supporting an industry that supports the world? We need to look for ways to pay for the new infrastructure to help support the people of LA.
- 5. The jobs that will come out of the increased infrastructure development will create a path for our children to reach the middle class.

Audience Questions and Answers



Question 1: Dana Days - Human Rights Advocate: Would like to see funds delivered away from traditional energy production towards renewable energy production.

Sen. Landrieu:

I failed to mention that in our proposed revenue sharing idea we intend to use funding into research of alternative fuels. Forestry in our state is a renewable fuel resource that we are taking advantage of. Selling wood pellets to Europe so that they can meet their 25% renewable energy requirement.

Sec. Moniz:

Renewable's and energy efficiency are a very important component of the DOE. The 2015 budget submission asks for 40% increase in energy efficiency programs (while remaining flat overall). We have doubled solar and wind over the last 5 years and will look to double again in the next 5 years. The DOE continues to look to increase cost efficiency like we have with solar and LED lighting.

We need a strong economy to help drive the energy transformation we are looking for. Even as domestic oil and gas resources have increased, we look to do that in the framework of reducing carbon emissions. 50% of carbon reduction is from the substitution of natural gas for coal. The "all of the above" approach is under the context of continuing to reduce emissions.

Panel I: Infrastructure Needs for Heat and Power



NOTE: All speaker presentations are posted on the QER webpage at: www.energy.gov/qer

Presenter Name: Mark Miller

Affiliation: President, Merlin Oil & Gas

Main Points:

- 1. Merlin Oil & Gas employs 35 -50 people, and he represents small independent oil companies.
- 2. The industry should be a good steward for the environment, and Merlin strives to be efficient and environmentally aware in all of their efforts.
- 3. There is a need to look at providing other ways of establishing energy independence for this country.
- 4. While Louisiana is the host to the strategic petroleum reserve, it is necessary to look at other ways to deal with oil and natural gas in times of crisis.
- 5. There is a huge shale revolution in our backyard, and we need to address it responsibly.
- 6. In the context of the QER, there should be a focus on strategic oil reserves, because there is a need to be strategic about how to deal with shale and pipelines, and the Henry Hub needs to be protected and bolstered.

Presenter Name: Tim Felt

Affiliation: President and Chief Executive Officer, Colonial Pipeline Main Points:

- Pipelines are cost-effective outlets to deliver the product that fuels the country's energy needs.
- 2. Safety and reliability are critical, and there are robust systems in place to ensure the safety of the infrastructure.
- 3. In dealing with extreme weather events such as Hurricanes Katrina and Rita, the industry learned how to deal with future storms, such as Superstorm Sandy.
- 4. There's a great need for additional capacity, as Colonial's pipeline is full.

5. The pipeline industry creates jobs and opportunity, and there is a need for a rate structure that will help Colonial make the necessary infrastructure investments to expand its operations.

Presenter Name: Lori LeBlanc

Affiliation: Director, Offshore Committee, Louisiana Mid-Continent Oil and Gas Association

Main Points:

- 1. Louisiana has become a leader in producing fuel for the nation, and the Gulf of Mexico attracts investment from both domestic and international energy companies.
- 2. The Gulf provides 23% of U.S. crude oil, almost 1/3 of the nation's production, and the output from the Gulf is expected to rise to 26%.
- 3. There have been 9 new discoveries in the Gulf since June of 2012.
- 4. New safety and environmental standards have been instituted to protect the safety of the workers and to ensure the highest environmental standards.
- 5. Deepwater exploration is very high tech, and provides jobs for the region, with a \$44 billion annual impact. Including the pipeline and infrastructure, it has a \$70 billion impact.
- 6. The Gulf of Mexico will remain a long term energy powerhouse, and to maintain that status there is a need to work on infrastructure, coastal restoration, and job development.

Presenter Name: Tom Shaw

Affiliation: President, Louisiana Offshore Oil Port (LOOP)

Main Points:

- 1. LOOP is a crude oil deep-water port that links world energy producers, and has \$700 million in development bonds.
- 2. In 2014, LOOP moved 1.2 million barrels a day.
- 3. The Jones Act restrictions have created a bottleneck in this industry.
- 4. The Hoho pipeline, which had been an outlet for crude oil, was reversed to deliver oil north
- 5. LOOP is very reliant on the electrical infrastructure, and while a lot has been done to strengthen it in the last few years, there are still weak spots that need to be addressed.

Panel Questions and Answers

1. What are some solutions you can offer to address the current vulnerabilities?

Miller – In regard to addressing the security issue, we should preserve our coasts to prevent interruptions in times of hurricanes.

Felt – Our pipelines are underground, so during weather events, we are not affected. Electricity is our greatest challenge. When the storms hit and the power was out, we couldn't use the pumps to operate the pipeline. We need to help harden the electrical systems so they can withstand the weather and remain operational.

Le Blanc –The Gulf was brought back to life as a powerful energy province. LA1 is very vulnerable, and the coast needs to be preserved. Revenue sharing is a way to fund the LA State coastal master plan.

Shaw – LOOP has a long-standing relationship with local, state and federal physical and cyber authorities, and we favor a collaborative effort on cybersecurity.

2. What can the federal government do to help? What should they be doing that they aren't already?

Shaw – Additional infrastructure should be built out going in the opposite direction from the Hoho line, and support new projects with permitting.

Leblanc – There have been some issues with clarity, consistency and transparency with new rules, so we encourage the federal government to increase collaboration with industry so that we can continue taking advantage of our energy resources, and streamline permitting the process.

Felt – Supporting permitting would be one way to help, and adding flexibility in rate structures to support investments.

Miller – We need to search for additional places to explore for oil and natural gas in a safe manner.

3. What is industry doing to shore up resiliency and reliability? What one specific recommendation can you provide in that regard?

Felt – We are doing a lot to make the system more resilient, including day to day inspections, robust safety practices, investing in new technology, increased resilience to saltwater intrusion, and continuing R&D projects. Permitting and rate structures continue to support investment, and I commend the government for their oversight. They do a good job of keeping us in line, to make sure we run our industry safely and responsibly.

LeBlanc – Oil and gas is a way of life in LA, and prevention, safety and response is what industry is doing to shore up resiliency and reliability. \$1 billion has been invested in response systems. We are working with API and other trade associations on new safety

standards, willingly, and industry has put up funds to develop LA1. We provide our fair share of revenue sharing from the Gulf of Mexico. We need a greater share from the rest of the nation that benefits from this resource.

Shaw – Industry is investing. Certainty of policy would help us be more strategic and long term in our investments. After Hurricane Katrina, DOE offered a lot of help to LOOP, and they helped us mitigate risks, deployed a 23-megawatt generator, the readiness and resources were very important to LOOP.

Miller – We have solar power remote-operated sensing devices with cameras and email alerts. The federal government should continue the interaction with private industry.

Felt – The collaboration between industry and government is really important, and it will help with jobs and infrastructure

Miller – Maybe we should consider doing it more often than 4 years.

Panel II: Impact of Shifting Supply Regions on Gulf Coast Infrastructure

NOTE: All speaker presentations are posted on the QER webpage at: www.energy.gov/qer



Presenter Name: Roy Pontiff

Affiliation: Executive Director, Port of Iberia

Main Points:

1. Initial rigs were drilled to floor 3000 feet deep. Now the industry has floating platforms can drill for gas in up to 2 miles of water.

2. Topside is the typical structure that you can find being fabricated at the port of Iberia. 1st production deck at platform. The Port has grown in size from 1500 to 15000 tons

- in size. There is a challenge to deliver these decks from the Port to the offsite drilling location.
- 3. Infrastructure has not kept up with the increased size of these facilities. 35-40M dollar projects & 90M man hours.
- 4. Between 1985-2010, we saw an increase of 6% to 81% in oil and .8% to 47.32% in gas harvested from deep-water rigs.
- 5. Louisiana's Coastal Port Advisory Authority consists of 21 coastal ports (9 in central region focus on production of drilling rigs). We need deeper ports to help support this central region and its 40000 direct jobs and 36000 indirect jobs. \$1.5 B in projects have been lost or not bid on due to insufficient water depth over the past 5-7 years.
- 6. With sufficient water depths would see a 35-40% increase in jobs and would exceed 55k direct jobs and 50k indirect jobs.

Presenter Name: Dan Borne

Affiliation: President, Louisiana Chemical Association Main Points:

- 1. 8 years ago we were shipping jobs overseas and shutting down plants. We are now bringing the jobs and plants back to the Louisiana/Texas region.
- 2. The oil and gas industry is joined by the hip to the chemical manufacturing industry.
- 3. Infrastructure issues that affect the chemical industry, many of them similar to the oil and natural gas industry are:
 - a. Roads
 - b. Highways
 - c. Ports
 - d. Railways
 - e. Bridges
- 4. We need to build up these infrastructures to support the oil and natural gas as well as chemical manufacturing industries.

Presenter Name: Mark Gorman

Affiliation: Executive Vice President, Operations and Business Development, Plains All American Pipeline

Main Points:

- 1. This region plays a vital role in the movement of US and Canadian energy supplies. The US is now a net exporter of petroleum products.
- 2. For the last 3 decades, the transportation, storage, and distribution infrastructure ran from the Gulf up into the Midwest.
- 3. As inland production increased, refineries inland filled up and pipelines needed to carry crude oil down to the gulf to be refined.

4. As the North American petroleum demand is expected to remain primarily flat, the Gulf Coast infrastructure will be saturated with light crudes. We must adjust to deal with the influx of this light crude oil.

Presenter Name: Karen Gautreaux

Affiliation: Director, Government Relations, Louisiana Chapter, The Nature Conservancy

Main Points:

- 1. Louisiana is THE working coast. Our nation is impacted by its vitality or decline.
- 2. We need to act to stem the loss of this coast. It is one of the richest areas of biodiversity and is known by many as the sportsman's coast. It also produces 1/3 of nation's seafood.
- 3. Mississippi river and tributary system (MRT) continues to provide protection but has impacted the surrounding regions. Marsh degradation and rising gulf sea levels are two examples of this.
- 4. Since the 1950s LA has attempted to address coastal land loss concerns. Established a coastal wetlands task force, coastal wetlands fund (voted in by LA citizens), development of plans for projects to address coastal land loss.
- 5. State's master plan (50 year; \$50 billion plan). Includes marsh creation, barrier islands, diversions, hydrologic restoration. It will provide for a sustainable coastal complex.
- 6. Need a steady and predictable revenue source for these projects. The only significant sources of funding currently are penalties levied against corporations for violations of environmental regulations.
- 7. We must investigate new partnerships. Just as this problem impact multiple groups, we must look for multilateral solutions as well.

Presenter Name: Ted Falgout

Affiliation: Coastal Advisor/Energy Consultant, Ted M Falgout & Associates Main Points:

- 8. Rising sea levels poses the largest risk to Port Fourchon. Coastal LA is experiencing a double whammy effect due to increased flow from Mississippi.
- 9. The rise in sea level jeopardizes existing coastal infrastructure and the communities that are the backbone of coastal industries. Increasing flood insurance costs are making it economically difficult for individuals and businesses in these regions.
- 10. Some of the plans that have been laid out require a sharing of revenue from offshore resources in order to have the infrastructure and communities in place to harvest them to their fullest.

Panel Questions and Answers

Question 1: What is the impact in increase of oil and natural gas coming into the region?

Falgout:

At the end of the day the pipeline infrastructure that coastal LA possesses is going to be significant to all parts of this country. We are already seeing trains bringing oil down to the many refineries in the Gulf region.

Gautreaux:

We will need to make our waterways a larger part of intermodal transportation.

Gorman:

50% of refining infrastructure is in the Gulf region. Much of the shale plate production has led to an increase in rail shipments of oil. As additional pipeline is built, the rail transport will decrease in moving light crude oil down from the Baaken.

Borne:

We will continue to receive a lot of materials and send finished products out using barges. Both the Mississippi and the east/west canals are very important for the region. Increasingly so as the rail transport rates are very high.

Question 2: What is federal government's role in this region?

Falgout:

The federal government needs to increase investments in the infrastructure that will lead to the billions of dollars in revenue as we further develop our energy resources. Reduction of earmarks has led to a decrease in funds for major infrastructure projects. There are many requests for infrastructure projects across the country and the pool of available funds is simply not large enough for all of these projects to go through.

Gautreaux:

The federal government is a good partner in protecting the LA coastline. Need to assist in finding funds and developing successful programs.

Gorman:

The federal government needs to ensure that we have a rate structure that provides adequate rates of return to incentivize additional pipeline builds.

Borne:

The federal government needs to articulate a concise national energy policy. We are heading toward increased use of renewable fuels. The bridge to any future needs to be a hydrocarbon bridge and that this is going to be propped up by natural gas. Fracking will be vital for this to occur and should not be restricted or blocked through legislation or regulation. Would like to see the same return of rates collected from oil and gas manufacturing and royalties granted to LA as is given to the rest of the nation.

Question 3: Are there public private partnerships that need to be formalized to address the challenges of the region?

Falgout:

Look for every opportunity to place a major infrastructure improvement in the hands of a public-private partnership. The federal government has not been as active in that arena.

Gorman:

Government can work with private industry to harden infrastructure and mitigate vulnerabilities. One way to do this is to increase backup generation equipment.

Borne:

Need to get local communities to begin thinking about infrastructure advances. This will help get the major infrastructure projects started and can prevent a "cannonball coming down the pipeline" issue from occurring.

Panel III: Workforce Development for Economic Development



NOTE: All speaker presentations are posted on the QER webpage at: www.energy.gov/ger

Presenter Name: Earl Meador

Affiliation: Chancellor, Fletcher Technical Community College Main Points:

- 1. The energy sector has changed in that many people who worked at refineries and oil rigs learned on the job, but that is no longer the case.
- 2. There is a clear and widespread need for workforce training in Louisiana as most jobs now need at least a two-year degree in the basic safety training.
- 3. Fletcher just opened a deep-water center of excellence to train workers to work offshore.

4. We are required to adjust, change and adapt, and we work with our business and industry partners to cooperate in filling their workforce needs.

Presenter Name: Robert "Tiger" Hammond

Affiliation: President of the Louisiana State Building & Construction Trades Council and President of the Greater New Orleans AFL-CIO Main Points:

- 1. The construction industry was hit hard by the recession, and many craft professionals have left the industry.
- 2. There is a need to embrace the unmatched workforce expertise of union workers.
- 3. The Greater New Orleans AFL-CIO operates their training centers without taxpayer investment, and they work directly with industry partners to ensure that the skills in the curriculum are those needed by industry.
- 4. The Greater New Orleans AFL-CIO provides advanced training for journeyman workers with the "Earn While You Learn" program.

Presenter Name: Stephen R. Barnes, Ph.D.

Affiliation: Director, LSU Division of Economic Development Main Points:

- 1. Workforce challenges should be characterized, and that part of the local employment projections program should include forecasting employment.
- 2. During Hurricane Katrina and in the aftermath, it was realized that the standard approach to forecasting was not accurate.
- 3. The industry is facing the challenge of baby boomers retiring from the industry and the 1980's oil and gas bust leading to increasing replacement demand.
- 4. There is the added challenge of upstream growth having soaked up recent increases in workforce supply, while downstream manufacturing expansions generate a lot of demand as well.
- 5. Businesses in these sectors are going to be competing for workers in the upstream and downstream industries, which has created a workforce shortage.

Presenter Name: Ben Billings

Affiliation: President and CEO, Offshore Marine Service Association Main Points:

- 1. Maritime support requires highly specialized vessels and trained crew for offshore maintenance and supply efforts.
- 2. One of every six jobs in Louisiana relies on the oil and gas industry, and it creates thousands of good paying jobs with opportunities for career advancement.
- 3. Workforce needs of the domestic maritime industry need to be addressed.
- 4. Specialized state funding and internships provided by industry has created a one-of-a-kind degree curriculum that attracts students from all over the nation, and the industry works with veterans as well.

- 5. The "Work it Louisiana" program is addressing current employment needs in the Bayou region, encouraging students to focus on this workforce opportunity.
- 6. There is concern with the state and federal requirements to become a mariner to work offshore, and the fact that marine experience of veterans is not counted toward required sea-time. This should be changed.

Presenter Name: Mark Zappi, Ph.D.

Affiliation: Dean, College of Engineering and Director, ULL Energy Institute Main Points:

- Federal R&D funding for petroleum based technologies needs to be increased to focus on how to make it cleaner, cheaper and more efficient in order to fully develop viable energy options.
- 2. More university R&D opportunities and industry partnerships should also be made available.
- 3. There are currently not enough students graduating to meet the workforce needs, and the average age for an engineer in the energy sector is 60.
- 4. There should be a federally funded program for STEM, and a program specifically for minorities in the STEM fields, including women.

Panel Questions and Answers

1. What incentives are appropriate to draw in all levels?

Meador:

We have to look at a broad spectrum to address this need. We have given free training and no one shows up, so we are reaching out to younger people. We have to change perceptions.

Hammond:

We have a self-made mechanism as an incentive. We have raised apprenticeships from last year by 30%. We have been getting a 10% increase every year of the program. We need to change the perception of this type of work. You can earn 60-80-100 thousand dollars a year without a standard four year degree, and young people should be made aware of that.

Barnes:

Advertising the opportunity to young people is important, but we need to figure out how to unify the message to make it a clear opportunity. Subsidies or grants for public education would be beneficial, as would employer tax credits for on the job training.

Billings:

Coming out of high school after 4 or 5 years, a young person could be making a six-figure salary. It is a marketing and outreach challenge. Interest in STEM wanes over time, so we need to get into the schools early.

Zappi:

We go to high schools a lot to explain what engineers do and highlight the value that engineers bring, and we make it exciting. The College of Engineers has got to rethink how to teach engineering. There needs to be more hands-on experience.

2. What kind of partnerships are you doing in the industry, and at the state and federal level?

Zappi:

We have a strong partnership with industry, there are internships, we interact with other universities, and the ultimate role for federal partnership is collaborative work between national labs and students.

Billings:

The program is working with the states and industry; we also work with the federal government with advisory committees and the Coast Guard. It would be great to partner on veterans outreach and education working more closely with the federal government.

Barnes:

As we have been studying the industry, the breadth of this challenge has been revealed, and it is very broad. There has to be a significant role for the federal government ensuring that the challenge is being addressed across states.

Hammond:

We can reach out to the network to bring in thousands of workers within weeks.

Meador:

Fletcher has a partnership with BP, who has provided a \$5.1 million donation to help start the Center of Excellence. At our reserve campus we received a 1.1 million dollar donation from the river region petro chemicals industry. Veterans should be able to get credit for their sea time, which would be helpful in closing the employment gap.

3. What are your recommendations for the QER taskforce?

Zappi:

DOE should support students at the undergrad and graduate program with industry.

Billings:

I would focus on the veterans' initiative, the military service branches should communicate, and there should be a framework that should be in place for veterans leaving military service. We need to do it with an eye to what employers are looking for in the new workforce.

Barnes:

Be targeted and efficient. We need to make sure that we don't overinvest in some areas while others are lacking. We need to determine what the mix of workers that we need looks like.

Hammond:

We need to make sure that school kids know that this industry is an option. Developing a school where you could study four days and work the fifth to get hands on experience would be very beneficial. We need to be able to reach out to other states.

Meador:

Senator Landrieu is looking at workforce development and through her support came the cooperation agreement between universities. Pell grants require 600 hours minimum training.

Public Comments

The public is allowed to sign up to provide comments, and each commenter is allowed three minutes in which to make them. Each commenter was asked to approach one of the standing microphones as their name was called, introduce themselves, their organizations and make their comments. On the stage representing the DOE were Dr. Karen Wayland, Deputy Director of the DOE Office of Energy Policy and Systems Analysis (EPSA). Senior Advisors in EPSA were also listening to public comments and included Larry Mansueti, Matt McGovern and John Richards.

DOE encourages everyone to file written comments at QERcomments@hq.doe.gov to ensure a wide variety of public input into the QER process.

Public Commenter Name: Henri Boulet Organization: Director, LA Highway 1

State: LA

Commenter's Main Points:

- 1. Highway LA1 has developed into the nation's poster child for outdated infrastructure. It sits perilously close to sea level which continues to rise.
- 2. Highway LA1 has been deemed "critical." The U.S. Department of Homeland Security has come out with studies that show that LA-1 could be washed away from the

"perfect storm." The National Oceanic and Atmospheric Administration's studies show that rising sea levels alone could render this road useless.

Public Commenter Name: Jeff Petrash

Organization: National Propane Gas Association

State: DC

Commenter's Main Points:

- 1. Petroleum transmission infrastructure starts in the Gulf Coast, but is the backbone of the Midwest, Mid-Atlantic, Southeast and Northeast.
- 2. What goes on in the pipelines is a black box, would like more transparency in this area.
- 3. Thinks that FERC should regulate petroleum pipelines much the way that transmission lines are monitored and regulated.

Public Commenter Name: Sydney Coffee

Organization: Senior Advisor, America's Wetland Foundation

State: LA

Commenter's Main Points:

1. Would like to see increased partnership between industry and other organizations to reach consensus on issues that face the region.

Public Commenter Name: Tony Glasco Commenter's Main Points:

- 1. Item #4 in the DOE background memo on this QER public meeting dealt with resilience. We need to ensure that our coastlines are protected in order to ensure the reliability of the infrastructure in the region.
- 2. Should provide incentive to install CHP systems.

Meeting Conclusion

DOE's Dr. Karen Wayland expressed appreciation to everyone who took the time to present their views and participate in the process. She



announced the next QER meeting, which will take place in San Francisco, CA on June 19 and will focus on the nexus between the water and energy industries.

To provide written comments to the process please see: QERComments@hq.doe.gov.

Dr. Wayland mentioned that the panelists' written statements from the meeting will be posted on the web within the next 24 hours.

She recognized the hard work of her staff, thanked the panelists and attendees, and the she adjourned the meeting.