

and get back with this committee.

Mr. Ratner. Sure.

[Material submitted to the subcommittee by Mr. Ratner after the hearing follows:]

Mr. Poe. All right, thank you.

Mr. Mallino. Just one. The energy sector is a good sector for the employment of union workers, there is no doubt about it. One of the reasons why we are here today is because the jobs that those energy jobs provide do give our members a number of very good, well-paying jobs.

Mr. Poe. All right. Thank you.

I am going to yield 5 minutes to the vice chairman, Mr. Kinzinger from Illinois.

Mr. Kinzinger. Thank you, Mr. Chairman.

And thank you, gentlemen, for being here.

Illinois is fighting its own issue with the area of fracking. We have, I would say, terrible leadership in the State of Illinois that is very slow to react to changing circumstances, and I think we have a real opportunity to put a lot of good folks to work in Illinois and we have a lot of laborers in my district, a lot of union members in my district that would love the opportunity to be part of this energy renaissance. If anybody in Springfield is watching, hopefully they will be motivated by this hearing.

I want to be all in on this. I lean toward favoring this. But I do have a couple of questions. And these aren't like a lot of times in this when people lead you to answers to make a point. These are actual questions I have.

When we come to a world-priced commodity on this situation, right now there is a huge disparity between obviously what we are paying for natural gas here and what it is paid for overseas. If we increase our ability to export, and over time, over the next 10 or 20 years the infrastructure is built up in a big way and we can pretty much easily get this, what is to prevent our cost of natural gas from being married up and priced on the world market and married up with what they are paying in Europe and everywhere else?

I will start with you, Dr. Montgomery.

Mr. Montgomery. What is going to prevent it is basically the cost of transportation. And we see this even in the United States where there is a difference of \$1 or so between the price of gas in Texas and the price of gas in the Northeast, and that is actually changing as we have additional supplies being produced in the Northeast so that the transportation cost is narrowing.

But unless there is some huge innovation in the liquifaction technology, we have a cost of moving the gas by pipeline from the wellhead to the liquifaction facility. To recover the cost of capital, liquifaction costs several dollars a million BTU. It is expensive moving natural gas long distances by ship because of the fact that you have to use the natural gas for fuel because it is going to boil off from the ship.

But the point is, yes, there will be something like an irreducible \$6 difference between the United States and the countries that it actually exports to because it takes that much to cover the cost of getting the gas from one to the other.

Now, if we had no capacity constraints, if we had enough capacity to serve all of the needs, we would find there would be some convergence, but that convergence would be so that the price in the receiving countries and the price in the exporting countries differed by no more than that amount. That is, the rents that are being sought now by developers who think, hey, I can pay all that cost plus make a couple dollars, that would be competed away.

Mr. Kinzinger. So we are limited by our capacity. And so again the concern was, though, is what if we get in 10, 20, 30 years where our capacity is----

Mr. Montgomery. Even if our capacity is unlimited it will still be necessary to pay that cost of shipping the gas.

Mr. Kinzinger. Gotcha.

Mr. Montgomery. And the prices can't get any closer than that.

Mr. Kinzinger. Did you want to?

Mr. Levi. I generally agree with what Dr. Montgomery has said. Some of those costs, if there is massive overinvestment, can ultimately be written off. Companies can go bankrupt and these facilities can still be operated. So in a situation where there was massive overinvestment you could have prices come closer together than the \$6 differential. It is not zero. But that is possible. The thing that mitigates against it is that these are extremely expensive facilities, they take a very long time to build. And that gives a lot of time for them to fail.

Mr. Kinzinger. Briefly another subject is just simply on the national defense side of it. What would this do in Eastern Europe if we begin exporting natural gas. Theoretically, some of it goes to Eastern Europe. What does this do with Eastern Europe, for instance, for their relationship with us versus Russia. Does it shift that balance of power at all? I guess I will look at you, sir.

Mr. Levi. I don't think it makes an enormous direct difference. I think the bigger question in Europe is whether Europeans on their own will be able to negotiate more flexible contracts with Russia. And the prospect of U.S. exports will be there as a threat if Russia wants to try and push for more favorable terms for itself, and I think that does help us and it will be appreciated.

Mr. Kinzinger. And very briefly, Mr. Mallano--did I say it right? Mallino.

Mr. Mallino. It doesn't matter.

Mr. Kinzinger. Mallino. There you go.

Mr. Mallino. I butcher your name all the time.

Mr. Kinzinger. I know. Everybody does.

Hey, just quickly, you had mentioned jobs in other sectors as well. Can you just expand on that a little bit, what it means to your folks?

Mr. Mallino. And part of that is about finding kind of a sweet spot. I mean, we recognize that cheap gas can lead to a resurgence of manufacturing like we haven't seen, and while

that will help our brothers and sisters in the manufacturing sectors and in those unions, constructing those facilities will also help us. And we know that there are a number of projects on the books, or at least in the planning phases, hopefully they get on the books, to build some new chemical facilities and others that we look forward to participating in.

So literally finding the right price, whether that is through market or through whatever, is important because we should be able to export gas, but we also need to keep enough of it here that we can bring those jobs back. You know from your district and your State how important manufacturing jobs are. We are construction workers, but we want to see all sectors of the economy revitalized by this energy boon. We are an all-of-the-above union when it comes to energy. We don't think any type of energy should be advantaged over the others. We just want to see these jobs come back to the United States.

Mr. Kinzinger. Thank you. This was helpful.

And I yield back, Mr. Chairman.

Mr. Poe. Thank you very much.

We will now hear from Mr. Vargas from California.

Mr. Vargas. Thank you very much, Mr. Chairman.

My question is really about keeping natural gas cheap. I liked it when you talked about keeping it cheap. I liked that part of it. And that is my concern. If we get the idea to send it all overseas and we see it go up two, three, four times here, no one will think we were geniuses. No one will be thanking us for how quickly we went through this process, they will say what the hell did you guys do? Why did you double, triple, quadruple the cost of natural gas when it was so cheap? And that is my concern. So I want to ask you a little bit about that, if I could.

Now, I know gas a little bit better than natural gas. What is the price of gas, a gallon of gas in the United States, \$3.60, \$3.70 cents? Depends on where it is. In California it is four bucks because we have more of that EPA stuff. That is the truth. But you go to Europe, and how much is it in Belgium for a gallon of gas?

Dr. Levi or somebody who knows that?

Mr. Levi. I haven't traveled to Belgium recently. It is much more expensive because of high taxes on gasoline.

Mr. Vargas. Right. And in other places also because of transportation and other issues you have got gas that is two, three, four times as expensive, it seems, as gas here in the United States.

Mr. Levi. We are talking about natural gas now?

Mr. Vargas. No. No. No. I am talking about gasoline.

Mr. Levi. Gasoline price differences in different parts of the world are primarily due to different levels of taxation on gasoline and to some degree due to the environmental requirements, just like the difference between California and other States.

Mr. Vargas. But also production. So, for example, in Venezuela they are very cheap because that is what keeps that government afloat, right, because they have a whole bunch of it. And my concern is that right now it seems to be that we are producing a whole bunch of natural gas, and I think that that is fantastic, and I absolutely believe that we can do this

safely. I mean, I think if you have unionized labor doing it, you know, with the PLA, they always do a good job. I mean, that is just the way it is. We develop standards.

My issue is with the cost, so if you could address that a little bit more, because I think it would be a terrible mistake if we rush this thing through and all of a sudden we double it. I mean, for some States it would be fantastic, I am sure, but for my constituents, they wouldn't be so excited about that.

Mr. Montgomery. If I could just start. I think the primary determinant of the cost of natural gas is not going to be whether or not we are exporting it. It is the balance between supply and demand in the United States. And I agreed with Mr. Bryngelson, right now we have a glut of natural gas. We have more production capacity and less demand than it takes to balance the market.

And most forecasts that I look at, including the most recent ones by EIA, have the price of natural gas going up in the United States, say, roughly doubling from its lowest point over the next 10 years or so simply because of domestic supply and demand, even if we don't allow any LNG exports at all. So that is the first point. We are in a time that consumers might as well enjoy, but that it is not the way the market is going to be over the next 10 years.

If we allow LNG exports, the exports are only going to occur if we have a willing buyer overseas. And I agree with Dr. Levi that if we have built lots of excess capacity we might find that there is a big demand for our gas. But over the next 10 years we are not going to have a great deal of capacity. We are not going to come close to the 20 TCF or two-thirds of U.S. gas production for which applications are in at DOE. The most that anyone I have talked to in the industry thinks it is feasible to do would be to build maybe a quarter of that, which means we might at most be able to export 5 trillion cubic feet out of production of 25. That leads to----

Mr. Vargas. Before I think I may run out of time, let me--I like the explanation--but let me make sure everybody agrees with you.

Does anyone disagree that exporting some of this gas is not going to cause the price to go up here? Anyone disagree with that, or does everyone agree with that? Do you agree?

Mr. Bryngelson. I agree. I think it is a small enough portion of the market you won't see the effect, and you have got enough production out there that will ramp up and keep up with this. Right now prices are lower than the marginal cost to produce on a lot of the wells. You are seeing rig counts drop, production drop, and I think the market has got to equilibrate. But there is enough supply in the stack out there to meet the demand for the exports and the domestic market.

Mr. Mallino. I was just going to say, Congressman, the one concern we have based upon other fights that we have been engaged in over job creation is that we know that some of the opponents of the export of natural gas don't really care about keeping prices cheap. They want to keep prices cheap to strand the resource, so that the resource isn't developed. And that is our concern from our perspective.

Mr. Vargas. Okay.

Mr. Mallino. We believe that natural gas can revitalize the

industry, but we don't want it so cheap that it doesn't get developed.

Mr. Levi. I think there is no question that prices would be slightly higher as a result of exports. If more people want to buy the same thing, it gets more expensive. But I don't think it is plausible that it would be three or four times more expensive because that would raise U.S. natural gas prices so much that no one would want to buy it anymore. So for exports to continue and drive prices up, U.S. prices can't get too high.

Mr. Poe. The gentleman's time has expired.

Mr. Vargas. I didn't hear the little buzzer. Sorry about that.

Mr. Poe. We don't have a buzzer. It is on silent when your side is talking.

Mr. Weber, 5 minutes.

Mr. Weber. Great. All right, I have Freeport LNG and Cheniere LNG on the edge of my district, the Gulf Coast of Texas. Judge Poe used to have it. Gentleman, which other product do we tell we don't want them shipping overseas because it might drive our prices up? Is it Apple? Is it Nike? Is it Ford? Who do we tell that to?

Mr. Mallino. We actually bring Apple in from overseas.

Mr. Weber. Well, they do have some products that they might distribute from overseas. The point is whatever the company is, I don't think we restrict any of them from sending overseas, do we, because it might drive prices up?

Mr. Bryngelson. Well, here is an interesting thing to look at. You can export the natural gas liquids you take out of the gas stream without a DOE export. The methane that is left you can't export. So to me that is a very odd situation for the same gas stream.

Mr. Weber. Right. And I happen to have a little startup company in my district called Dow Chemical, and they have come out being opposed to exporting liquefied natural gas. But we did sign on a letter that we did support it.

Mr. Ratner, you made the comments that there were a lot of plants sitting around that had been set up to import natural gas that were sitting idle now and were regearing or retooling, if you will, for exporting natural gas, and they have got hundreds of millions, sometimes billions of dollars invested. We need to get this process done and over with so that those entrepreneurs, those private industries can export that gas.

And I would submit to you, and you all can argue with me if you want, we will go down the line here, that unleashing the energy industry would be a way to get more money into our economy, to get our economy refueled, no pun intended, and to get business going again. Those jobs created, they will have a multiplier effect. Talk to your chambers of commerce. They will plow money back into the economy. They will be paying taxes. In some instances many of those people will be off of the assistance rolls, so to speak.

Would any of you all argue with that? Mister, is it----

Mr. Bryngelson. Bryngelson.

Mr. Weber. Bryngelson.

Mr. Bryngelson. No, I wouldn't argue with that a bit. There is quite a bit, all the local industries, local regions will

benefit from the project.

Mr. Weber. Okay. Dr. Montgomery?

Mr. Montgomery. No, I agree completely.

Mr. Weber. We will go on. I have 2 minutes left. Dr. Levi?

Mr. Levi. Nationally there is a net benefit. Different regions will gain or lose, depending on what they do.

Mr. Weber. Is it Mallino?

Mr. Mallino. Yes, sir, we agree.

Mr. Weber. Great.

Mr. Ratner. I agree as well.

Mr. Weber. Glad to hear it. Let the record show it is unanimous.

Now, let me just say that, for Mr. Sherman's benefit, for coal, 1.07 pounds yields 1 kilowatt of energy, electricity. For natural gas, 0.00798 million cubic feet or 1,000 cubic feet yields 1 kilowatt. Residual fuel oil is 0.00184 barrels, it yields 0.8--it is 0.8 of a gallon of fuel oil. So there is your energy difference when you want to talk about where you get the most. I own an air conditioning company so we deal a lot with BTUs. When you deal with energy output and you are talking about heat content, British thermal units is the heat to raise 1 gallon of water, 1 pound per hour--1 pound of water, rather, 1 degree, 1 hour. Natural gas is a great, great fuel source, and I think you said that, Mr. Vargas, and we appreciate that.

So all in all, I think we should be moving toward exporting this, freeing them up so that our economy gets moving again. Can you give me any overriding economic reasons why we shouldn't? And I have got about 1 1/2 minutes left.

Mr. Bryngelson. No, sir.

Mr. Weber. He is easy.

Mr. Montgomery. It is a very interesting intellectual challenge, but no, I can't.

Mr. Weber. Good.

Mr. Levi. I can't either.

Mr. Weber. Great.

Mr. Mallino. Again, we just want to make sure that there is a price point for which we have encouraged domestic manufacturing. But we believe that the export and that can be done simultaneously with each other.

Mr. Weber. Great.

Mr. Ratner. As I said in my statement, I mean, there will be winners and losers in this. And so depending upon your perspective of where you are sitting will depend upon whether or not you support it.

Mr. Weber. Okay. Thank you. I yield back 47 seconds.

Mr. Poe. I thank the gentleman.

If the witnesses would bear with us, I think we are going to have another 3 minutes a round for the remaining members if they want to stay. Mr. Vargas, if you can stay. So I have a few questions as well.

Mr. Bryngelson, you work in the energy industry. I have heard anecdotal stories that the price of gas has gotten so low that people who produce, drill for natural gas, have quit drilling for gas and they have gone back to drilling for crude oil. What is your impression of that concept? Is that happening or not?

Mr. Bryngelson. Well, exactly what I hear in the industry

is that they won't drill for dry gas. Now, some of the wet gas where they can pull the liquids, your ethanes, your propanes, your butanes and pentanes where there is more value, they will drill those, but the natural gas price now is not enough to encourage dry gas drilling.

Mr. Poe. All right. My next question is, started out talking about the Department of Energy. What shall we do to move this process along? Suggestions?

Mr. Bryngelson. Well, I am a firm believer, and we saw this with the regasification projects looking to import, that the market is going to decide on these. We have seen this in other regions. Australia is an excellent one where you have multiple projects proposed. Each one gets incrementally more expensive than the last until you get to an economic indifference point.

That is what is going to happen here. You won't have an infinite number of these plants built at the same level. Liquefaction may cost \$3.00 on the first plant, it is at \$3.10, \$3.50 on the next, until you get to a point where the cost of liquefaction doesn't make sense and the market will say enough.

The problem is you can't predict which of these projects will go forward so you can't really pick the winners or losers. The market will ultimately decide. We saw that happen on the regasification side. Companies ended up with stranded assets that aren't being used. But those were on entrepreneurs, private industries. They didn't hit the ratepayers. Now they are trying to be reused.

So that is clearly my view on how this is going to work out and what the DOE needs to say is it is a market test.

Mr. Poe. And a political question, Mr. Levi. Back in 2009, I think it was, the Russians shut off the gas to the Ukraine. I noticed it when I was there for the 13 days. I quickly left. It got cold in January. The concept, political economics if I can use that phrase, of expanding our natural gas resources to other countries, including Europe, does that help us politically, like the Ukrainians and our relationship with the former Soviet republics?

Mr. Levi. It certainly does help us. Anything that gives consumers that we are friends or allies with more options in dealing with their traditional suppliers that use natural gas to exert political leverage helps them, and if they see us helping them, they tend to appreciate that. So I think it is a pretty straightforward equation on that front.

Again, I don't think it decisively changes things. The biggest change we have seen is that the United States is not an importer. As a result, big producers, Qatar in particular, have had surplus gas, they have dumped it on to the European market, and given our European friends and allies more options with Russia. Our entering the LNG export market would help continue that trend, but the big stimulus has already happened in a significant way.

Mr. Poe. Very briefly, Mr. Ratner.

Mr. Ratner. Sir, there are just two points I would make. One is Europe has a lot of LNG import capacity. They use it to meet their peak demand in the winter, but they don't have a lot of storage, so they can't take in the gas during the rest of the season. So it is hard for them to necessarily use LNG to counter the Russians completely.

Mr. Poe. Thank you.

Mr. Bryngelson. Mr. Chairman, would you indulge me for a second because I have a good bit of information on this. Our company was set up to find new markets for liquefied natural gas and we focused on Europe and Gazprom here. And that is one small bit of the equation. Right now we are developing projects to bring LNG into Pakistan, Egypt, Indonesia, Bahrain. We are working on building one in the Emirates. We have a project in Kuwait where we are actually bringing LNG into these countries from other sources, from Nigeria, from Trinidad. It could be the U.S.

And these aren't theoretical. These are projects that exist today. Twenty-five percent of the gas on a cold winter day that goes into Argentina flows across our ships, about the same on our largest vessel we have in Brazil. We have a project in Israel. As I said, Kuwait. We have one in the U.K., we had two in the U.S.--one we have shut down. But our list goes on from here. There are markets out there we are developing and it is other peoples' LNG.

And one of the things we try to do is to see ways we can get the U.S. behind us supporting our push for a U.S. company going in and keeping things happening. Pakistan. We would love to bring LNG there and not have the Iranian pipeline built. That could easily be U.S. LNG going in there.

So these aren't theoretical markets. These are real markets we are developing today.

Mr. Poe. Thank you.

I yield to the ranking member.

Mr. Sherman. Mr. Bryngelson, you may have misspoken if you said you were going to import natural gas to Kuwait.

Mr. Bryngelson. We have actually been importing. This is our fifth year of LNG imports.

Mr. Sherman. Of taking natural gas, and instead of piping it from Qatar you are liquefying it and then taking it over to Kuwait?

Mr. Bryngelson. In our case, for that process, we are not liquefying, but our vessels deliver regasified LNG into Kuwait.

Mr. Sherman. The idea of carting coals to Newcastle is illustrated here. It surprises me that Kuwait simply wouldn't use petroleum to meet its energy needs. They seem to have a lot of it. That is an idiosyncrasy that I just want to----

Mr. Bryngelson. Certainly. Certainly I can tell you exactly why they do it, though.

Mr. Sherman. Now, the other thing I will kind of disagree with you on is, this is conjecture, and that is you put forward the idea that the cost of liquification would go up with each new plant. It is the experience of most of us that as new technologies are developed costs go down, that the tenth plant built in the United States will be better designed and have better technology. I can't see a reason why a plant built 10 miles away from another plant is going to have higher costs when it has all the experience of the older plant.

I want to get to just nail down some numbers here. Mr. Ratner, what is the cost per MCF in Texas or the hub of natural gas. What is the price now?

Mr. Ratner. The Henry Hub right now I think is about 4-something.

Mr. Sherman. 4-something. Now, we have heard testimony here that the effect of exporting would be to increase that by between 50 cents and \$1. Dr. Montgomery, Dr. Levi, I think that is consistent with your testimony. You can just nod or let me know.

Mr. Levi. At the high end.

Mr. Sherman. Okay.

Mr. Levi. I think we don't know how much capacity will be built.

Mr. Sherman. So if we are going to go back to our constituents, it is 50 cents or \$1, although it is really not a quarter of the cost they are paying, because most of what they are paying is for the shipping, the billing process, the utility, et cetera.

Mr. Levi, if it was \$1 per MCF, on a basis of \$4, what am I going to pay extra for cooking, 10 percent more or 20 percent more?

Mr. Levi. I will be pleased to do the math and get back to you.

[The information referred to follows:]

Written Response Received from Michael A. Levi, Ph.D., to Question

Asked During the Hearing by the Honorable Brad Sherman

You are correct: the ultimate impact on delivered natural gas prices would likely be 10 percent or less.

Mr. Sherman. That really is a question about what percentage of what I pay my gas company is for the gas at the Texas price and what percentage--I don't know if Mr. Ratner----

Mr. Levi. I can give you one estimate from a study that I published last year looking at what would happen to household bills if prices went up by \$1, and what I found was that for the lowest 10 percent of household income earners, it would increase annual bills by about \$50 a year if you combined electricity and home heating costs, and for sort of the median user it would be about \$100 a year at that upper range.

Mr. Sherman. And those median users tend to live in the colder parts of America where an awful lot more natural gas is used. And I don't think it would be that high in our area. And then I think the testimony has been that the cost to liquify and ship combined is roughly \$6 an MCF, is that correct? I am seeing one panelist nod.

Mr. Bryngelson. Yes.

Mr. Sherman. I see another. Okay. So basically our manufacturers would have a \$6 cost advantage on a product that costs \$4, so they would be paying less than half of what the rival manufacturer would pay.

Finally, and I know nobody has commented on this, when fracking technology hits the Eurasian landmass, is there going to be a lot more natural gas there so they won't need ours? Dr. Montgomery?

Mr. Montgomery. I spent the beginning part of last week at a conference that was dealing exactly with this issue, and I am not sure I would call it a consensus, but the strong opinion of geologists and production companies and oil field services companies was not likely; that China has a very different kind--I mean, you can call it shale, but shale covers a

multitude of sins--that it is a very different kind of resource than the U.S. There has only been, like, 20 wells punched there into shale to test it. And so the opinions ranged from we simply don't have any evidence that it is there to what we do know----

Mr. Sherman. That is China. Russia already creates a whole lot of natural gas. When they get our fracking technology, can they double or triple their production?

Mr. Montgomery. Russia, less clear. They apparently do have resources that are susceptible to fracking.

Mr. Sherman. Okay. I yield back my negative time.

Mr. Poe. Mr. Weber, do you have some more questions?

Mr. Weber. I do. And I am sorry, I never turned my mike off.

China, you mentioned 20 holes, Dr. Montgomery. I have heard that China is beginning to discover shale plays out in the western part of China but that they don't have infrastructure out there and it is not near their population centers. So their challenge is to be able to get that infrastructure in place and to get that natural gas to where the people can use it as quickly and as affordably as possible.

What kind of window do we have for our exporters to really get out there and seize on this market opportunity? Would you say 1 year, 2 years, 3 years, 8 years? Any guesses, Mr. Bryngelson?

Mr. Bryngelson. Well, my view on timing is not so much driven by the shale gas plays because a lot of the customers we deal with, potential customers, are looking for diversity of supply just as much as they are anything else in sourcing from the U.S. I think it is more of an issue of how quickly the other projects move along, and our biggest competitive threats are places like Mozambique and Tanzania with large finds there and the Eastern Mediterranean. So in my view this is something in the next year to 18 months this gets decided, if not before that. So we don't have a lot of time.

Mr. Montgomery. In our analysis we did not include a lot of increased demand for gas from China, so I guess in that sense we were assuming that China would in one way or another either satisfy its needs or be able to get gas more economically from elsewhere. So I am not sure that that is the market that is going to be driving the growth of U.S. exports.

Mr. Weber. You don't think it plays.

Mr. Levi. I tend to agree Japan and Korea are more likely large markets. No one is going to build a multibillion-dollar facility on an expectation that they will make money for a year or 2. If they are doing it, it is because they hope to make money over a decade or more.

Mr. Weber. Well, and supply their people with gas, obviously.

Mr. Levi. Yes. And so the focus will be on this long-term payoff. The near-term question is, can you get those Japanese and Korean contracts, because for a lot of producers that is what their bankers want to see.

Mr. Weber. That is the window.

Mr. Ratner?

Mr. Ratner. The only thing I would add regarding China, I mean, they are the only country that I have heard could rival

the U.S. as far as quantity, but getting the gas out is going to be a lot more difficult.

Mr. Weber. That is their challenge.

Mr. Ratner. Yeah. And besides the infrastructure, there is no water out in western China to frack.

Mr. Weber. All right. Thank you. I yield back.

Mr. Poe. Thank the gentleman.

Mr. Vargas from California.

Mr. Vargas. Mr. Chairman, thank you very much. Now that I get to go after my good friend from Texas, I can brag about a California company in San Diego, and that is Sempra, Sempra Energy, a very responsible company, very responsible both environmentally and I think with its workers it has done a pretty good job. And I know that they are looking at this opportunity, and I got a chance to speak to them about it.

The issue, though, that now does concern me is the math, the math part. And the reason the math concerns me is because it doesn't get really cold in California but it gets really hot, and as my friend Sherman told me, of course, we use that to fire up our electrical plants and produce energy.

So I think that is one of the things that I think we have to nail down the math to figure out how much is it going to cost us if we do export it. I mean, there seemed to be some agreement there are going to be winners and losers. I just hate to be on the losing side of things. When I was in California the Democrats were on the winning side. Here we are on the losing side. So that is why it makes a difference.

And I would like to know the math a little bit, and I hope you guys do work on that. Thank you.

Mr. Montgomery. Could I just comment on that, because we did have a lot of math in our report. And I think you are absolutely right that natural gas prices are very important for electricity prices in California. Pretty much natural gas prices California electricity. But we did take that in account, at least in the work that we were doing because we have a comprehensive model.

But I think I did a disservice in the way I wrote the report we did for DOE in talking about winners and losers in terms of consumers and producers, because it is always going to look like there is a loss if you only look at one slice of the economy whenever you are talking about a trade issue, because the benefits that we get from trade are those that come from our export earnings, but they are also because those mean that we can import more things that we can----

Mr. Vargas. You know, I am familiar with that. I went to school in Boston, I went to law school, and I got a chance to go to Worcester, and they would probably argue that some of the exports there hurt them because they had all those facilities. If you go there now there are old brick buildings with nothing in them.

Mr. Montgomery. Well, that is another case. But the point being that we need to look at a comprehensive picture. My opinion now is that the winners and losers are shareholders in companies that are going to be producing natural gas, building the infrastructure in natural gas, and the workers in those industries. The losers are largely going to be shareholders in some chemical industries and some other energy-intensive

industries. Somebody who has a Standard & Poor's 500 portfolio is going to come out ahead because quantitatively the gains on the gas side are going to be----

Mr. Vargas. Right. I know my time is probably over. But it is the \$100 more per resident in California that I am concerned about.

Mr. Montgomery. Yes, but a lot of those California residents are going to be participating in their other sources of income in the gains that come from trade. That is the picture that needs to go together.

Mr. Ratner. If I could add just one quick comment to that, one thing to keep in mind, whether exports are allowed or not--well, if exports aren't allowed and the manufacturing renaissance happens, that will be an additional source of demand which will also drive domestic prices up. So there is no reason necessarily to believe that if we don't allow exports that prices are going to stay low. There have been a lot of projects that have been announced and if those get built the increase in demand will also raise prices domestically.

Mr. Vargas. Thank you, Mr. Chairman. I know I went over. Thank you, sir.

Mr. Poe. I thank the panelists for being here--your information was very valuable--and also to our committee members. So the committee is adjourned. Thank you very much.

[Whereupon, at 3:45 p.m., the subcommittee was adjourned.]

A P P E N D I X

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