TRANSCRIPT OF TELECONFERENCE ON

NEW ENERGY ECONOMY EMERGING IN THE UNITED STATES

By Lester R. Brown

Moderator: Ryan Cunningham
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Operator: Ladies and gentlemen, thank you for standing by, and welcome to the EPI New Energy Economy Conference Call. At this time, all participants are in a listen-only mode. Later, we will conduct a question-and-answer session, and instructions will be given at that time. If anyone should require assistance during the conference, please press star and then zero. I would now like to turn the conference over to your host, Mr. Ryan Cunningham. Sir, you may begin.

Ryan Cunningham: Thank you, and welcome, everyone. I just wanted to briefly introduce our speaker, and note that after Lester Brown's concluding remarks, there will be a question-and-answer period, followed by some concluding remarks from us to point you to some additional resources.

Our speaker today is Lester Brown, the founder and President of the Earth Policy Institute. Mr. Brown has been awarded a wide variety of awards and accolades throughout the environmental community, and has authored or coauthored over 50 books including *Plan B 3.0: Mobilizing to Save Civilization*. Lester Brown is a MacArthur Fellow, and in 1985 the Library of Congress requested his personal papers noting that his writings and work have, "… already strongly affected thinking about problems of world population and resources."

Mr. Brown is noted as one of the earliest advocates of a sustainable economy, and today he will outline his thoughts on recent key developments in the renewable energy sector in the United States, and some priorities for the renewable energy sector moving forward. And with that brief introduction, I will hand it over to Mr. Lester Brown.

Lester Brown: Thanks, Ryan. The last few decades, we've been talking about the transition, the needed transition in the world energy economy from fossil fuels to renewables, making this shift from an economy powered largely by oil, coal and natural gas to one powered largely by wind, solar and geothermal.

Things have been going sort of slow, but now they've begun to accelerate and things are happening in this field at a pace and on a scale that we couldn't have imagined even a year ago. Unless you track day-to-day events in the field, you're going to be quickly out of date on what's happening.

Let me talk first about wind energy in the United States, and specifically in Texas. Texas is one of 31 states that now have commercial scale wind farms feeding electricity into the

grid. Texas has 6,000 megawatts of wind-generating capacity online. Texas has now passed California as the leading state in this area.

We've been following the plans to develop the two transmission lines from West Texas to East and Central Texas, and from the Texas panhandle down to Dallas, Fort Worth and Houston. And that will facilitate the development of 18,000 megawatts of wind-generating capacity.

There is also now in the development stage another 20,000 megawatts of wind-generating capacity, which comes to a total of roughly 45,000 megawatts. Think 45 coal-fired power plants. When completed, these wind farms will supply enough electricity to satisfy the residential needs of 35 million people. Texas only has 24 million people, so it's obviously headed for an export situation with electricity, as it has been doing for oil over the last century.

Texas is not alone. California, which was an early leader in wind energy development, has a number of projects underway, the largest of which is a 4,500 megawatt wind farm in the Tehachapi Mountains north of Los Angeles.

But the biggest wind farm now in development in the US and in the world, and today I'm just talking about the energy transition in the US, is in South Dakota. This is a 5,050 - megawatt wind farm, the Titan Wind Farm it's called, which is being built by BP and Clipper Windpower. It's a joint venture.

To put this in perspective, 5,050 megawatts of wind-generating capacity will supply roughly five times the amount of electricity that the 780,000 people who live in South Dakota will use for residential purposes. Obviously, much of this electricity, most of it, is going to be exported, and they already have bought the rights to an abandoned railroad right-of-way across Iowa to carry this electricity into the -- feed it into the Illinois grid and the industrial Heartland.

In Wyoming, Philip Anschutz, a billionaire from Colorado, who started with oil and has moved out into other areas, is planning on a 2,000-megawatt wind farm on the -- in Wyoming near the Colorado border just west of the Continental Divide.

Along with that, he has acquired the rights to build a 900-mile transmission line, high voltage, direct current, from Wyoming to California. Wyoming is one of the most wind-rich states in the US, but it has very few people.

Anschutz is not building a 900 megawatt -- sorry, 900-mile transmission line just for the 2,000 megawatts. He obviously is planning far greater investments in the future, as are others. I think we're looking at a Wyoming with probably tens of thousands of megawatts of wind-generating capacity, most of it going to California and other points in the Southwest.

Oklahoma and Kansas, two other wind-rich states, are talking about a transmission line that will enable them to export electricity into the Southeastern US states.

In the Northeast, Maine, the Maine legislature, both Houses unanimously approved a plan to develop 3,000 megawatts of wind-generating capacity in that state. Again, that will be more than those living in Maine will need for residential purposes.

New York State already has several wind farms, is planning 8,000 megawatts more. New York is taking advantage of the winds off Lake Erie and Lake Ontario, and that's where most of the wind farms in New York State are concentrated.

We're also now looking at what I call Offshore East. In Massachusetts, as most people who follow wind know, there is the Cape Cod Wind Farm that's been in the planning stages for several years now, but it looks like the approvals are nearing completion and construction will be starting before long.

Moving south along the coast, Rhode Island is planning an offshore wind farm. New Jersey has recently announced a 350-megawatt wind farm off the Jersey coast, the first of what it hopes will be many.

Delaware has announced that it will be building a 200-megawatt wind farm 12 miles off of Rehoboth Beach, Delaware, and that wind farm can expand to 600 megawatts. That would be enough to satisfy half the residential needs of Delaware.

Oregon, 900-megawatt wind farm in the Columbia River Gorge, that will double its current wind-generating capacity.

I could go on with countless examples, but wind is moving now on a scale and a rate that we simply could not have imagined a year or so ago. The Department of Energy points out that we have enough wind energy in three states: North Dakota, Kansas and Texas, to satisfy national electricity needs. But that estimate was based on data in 1991. We now know that there is -- that with advanced design wind turbines it's far larger than that. And those three states might be able to produce enough electricity to power the entire US economy.

We're seeing similar growth in other renewable sources, such as solar and geothermal. Solar cells, solar electric cells, mostly we've talked installations. Some commercial installations grew by 45% in this country last year. We're also seeing enormous interest in solar thermal power plants, and we're seeing also rapid growth in rooftop solar water and space heaters.

With solar cells, we installed in this country a couple hundred megawatts last year. That's not huge, but it does represent very rapid growth. The biggest solar cell installation we have to date is a 14-megawatt one on the Nellis Air Force Base in Nevada. And then there are other smaller ones, probably the best known of which is Google's 1.6 megawatt solar facility at its headquarters in Silicon Valley.

But we're now beginning to see solar cells looked at on a commercial power scale in a way we've not seen before. PG&E, large utility in California, is planning an 800-megawatt solar thermal generating plant. Solar thermal generating plants use huge numbers of mirrors to concentrate sunlight on a vessel with water to produce steam. Temperatures usually go up to 750 degrees or so, generate steam and produce power.

An 800-megawatt solar cell plant would -- sorry, I switched gears here; I'm going back to solar cells. An 800-megawatt solar cell plant of the sort that PGE is developing has a peak power output of the equivalent to a coal-fired power plant.

With solar thermal, this is where we use the mirrors to concentrate sunlight and boil water or some other liquid to generate steam. We have had in California for close to two decades now a 350-megawatt complex of solar thermal generating capacity. There has recently been a completed 64-megawatt solar thermal plant in Nevada. So, we now have two of these: one large complex in California, one plant in Nevada.

There are 10 under development, and these 10 range from 180 to 550 megawatts, eight in California, one in Arizona, one in Florida. Our current solar thermal generating capacity, 450 -- maybe 450 megawatts, is going to increase over the next three years to 3,500

megawatts, an eight-fold increase. So, we're seeing enormous growth now on a scale that simply did not exist even a year ago.

We're also seeing enormous growth in geothermal energy. Today we have about 3,000 megawatts of geothermal generating capacity, 2,500 of that is in California. But there are now under development, 96 geothermal power plants in the western states of the US. In a matter of years we will see geothermal capacity double with many of the plants concentrated in California and Nevada, Oregon, Idaho and Utah. So, we're setting the stage here for what could become an enormous new source of energy.

Some general observations about this shift we're seeing, this massive movement to renewable sources of energy. One is that the new energy economy is going to be powered largely by electricity. This is true for buildings, where the lighting, the heating, the cooling will come from electricity, and it will be green electricity.

The transport sector, which is now largely oil, will also be fueled primarily by electricity, and this will be done using importantly plug-in hybrid cars, and in cities like rail systems that are electrically powered. And by high-speed intercity rail systems, also electrically powered. So, we're in the process of moving toward a new energy economy in which almost all the power used in buildings and the energy used for transport will be in the form of electricity.

Another interesting characteristic of the new energy era we're moving into is that whereas in the last century we sold the globalization of the world energy economy as the entire world turned to oil, much of it concentrated in the handful of countries in the Middle East.

During this century, we're seeing a reversal of that process. We're seeing the localization of the energy economy as countries throughout the world shift to renewable sources of energy, whether it's wind or solar or geothermal.

Another interesting point about the investment in wind energy in the United States is that a lot of it is oil money going into the development of wind farms. This is true in Texas where legendary T. Boone Pickens is investing something like $10 billion in a 4,000 megawatt wind farm in the Texas Panhandle. It's true of Phil Anschutz, the Colorado billionaire, who is building the large wind farm in Wyoming and the 900-mile transmission line to California. It's also oil money that's fueling the investment or accounting for much of the investment in the 5,050 megawatt wind farm in South Dakota. That's British Petroleum capital moving in there.

One of the questions is why have we seen this explosive growth in interest in renewable sources of energy in the US? And I should say that's also true for the world. One of the things obviously is oil prices, both rising oil prices and prospective future rises in oil prices. And also the volatility of fossil fuel prices, importantly, of oil and natural gas prices.

There's also an oil security element here, because oil is often coming from unstable countries, and it's anything that led to a disruption from one major supplier could be of concern.

Also, fueling this growing feeling of oil insecurity is the fact that Russia is now the world's leading oil producer, having moved ahead of Saudi Arabia. But it has announced in recent months that its oil production has started to decline and will continue to in the future.

Another driving factor is climate change, and this is especially the case for coal-fired power plants. We're now seeing active efforts to not only oppose the construction of new coal-fired power plants, but even to close existing ones.

Yet another concern that's driving this energy transition is the concern about the hemorrhaging of US dollars, $700 billion a year that could be going out of the country each year for oil imports.

The other side of the coin is the remarkable price stability of renewables. When a wind farm developer develops a wind farm, they'll often sign a contract for a fixed price, 20-year period. You can't even think about doing that with natural gas, for example, or even with coal, with the prospect of a carbon price rising as we restructure, as we move toward a carbon tax or a cap in trade system.

Another thing that's driving this process is the excitement of investing in energy systems that can basically last as long as the earth itself. When T. Boone Pickens was asked why he, an oil man all his life -- he's 80 years old now, been in the oil business for 60 years -- when he was asked why he was suddenly investing much of his fortune in wind energy, he said simply, "I've gotten tired of oil depletion curves."

And what he was acknowledging was that when you invest in the wind farm and the associated infrastructure, you are investing in an energy system that can last as long as the earth itself. I mean, obviously, you have to replace bearings in the wind turbines and a certain amount of maintenance and upkeep, but the basic system can last forever.

For the first time, since the beginning of the industrial revolution, we have the potential to build these energy systems that do not run out. And that is generating an enormous amount of excitement among investors. And also among public policymakers at both the national and the state level.

Now, the question is what do we need to sustain and to support and further accelerate this transition from fossil fuels to renewable sources of energy? One is the -- in the rescue package that Congress passed a couple of weeks ago, they included extension of tax credits and so forth for solar energy and geothermal energy that go several years into the future. For wind, the production tax credit was extended only one year. We also need wind to go several years into the future, so that not only those who are investing in wind farms, but also those who are prepared to invest in transmission lines can count on the incentives that they need.

Second thing we need to do is to devise a program to shift rapidly to plug-in hybrids, which will be coming on the market in 2010, possibly as early as 2009. The two leaders are Toyota, with a plug-in version of the Toyota Prius, which should be getting over 100 miles per gallon, and the other is the Chevrolet Volt from GM, which they estimate will get 151 miles per gallon simply because it runs most of the time on electricity.

What we need to begin thinking about in order to reduce our dependence on oil and staunch that huge capital outflow each year is devising tax incentives to retire the most fuel-inefficient vehicles on the road, SUVs and so forth, that get 10 to 15 miles per gallon, replacing them with these new plug-in hybrids that get between 100 and 150 miles per gallon, or roughly 10 times the mileage.

We might want to consider incentives at two levels: one, a stronger incentive to get the real gas guzzlers off the road as soon as possible and replace them, and the second is to, below that, all the others. I mean, there are various ways of putting this together.

But the point is, we need to be thinking not of a million plug-in hybrids on the road in the next few years, which is the goal that Senator Obama has set out, but how to shift much of the US fleet of 230 million vehicles to plug-in hybrids in the year ahead. This would help rejuvenate Detroit, obviously, and it would retain capital, keep capital at home for investment here that's now going abroad to import oil.

The third thing is, we need to begin developing a national grid. We are with electricity where we were in the 1950s with automobile transportation. And President Eisenhower launched the building of the interstate highway system, because up until that time we just had local highways and they weren't really part of a national system.

We now need the electrical equivalent of that, a plan to develop a national grid so, one, we can move electricity around and increase the overall efficiency of electrical use in the county; that is, matching up surpluses and deficits wherever they occur. And secondly, that grid needs to incorporate the transmission facilities needed to link wind rich areas with consumption centers, and solar and geothermal rich areas also with consumption centers.

And the final point is that there are many exciting things about this energy transition, but one in particular now at this time of economic crisis and rising unemployment is the potential to create jobs.

Renewable sources of energy are far more labor intensive than fossil fuels. If you've ever seen an oil refinery, for example, you see a lot of huge tanks and pipes and valves, but no people. This is not a labor-intensive industry. Solar cells and wind energy are very labor-intensive. If we can continue accelerating this shift in the years immediately ahead to renewable sources of energy, we can create thousands of new jobs every week.

If we combine this transition to renewable energy with a major effort to increase the energy efficiency of the US economy, and that's importantly weatherizing buildings, then we could be creating not just thousands of jobs per week, but potentially thousands of jobs per day. There's an enormous potential for employment in both renewable -- developing our renewable energy resources and increasing the energy efficiency of the economy. And the exciting thing is that almost all these jobs will be created in the United States. You can't outsource the weatherization of buildings or the installation of solar cells on rooftops, and so forth.

This is, to me, one of the most exciting -- this transition to renewables is one of the most exciting things happening in the world today. I've talked about it in the US. There are equally exciting things happening in other countries. I think with that, Ryan, I'd be happy to take questions.

Operator: Ladies and gentlemen, if you have a question at this time, please press the number 1 key on your touchtone telephone. You may remove yourself from the queue at any time by pressing the pound key. Again, if you have a question, please press the 1 key at this time. One moment for questions. Our first question comes from Michael Burnham with Greenwire. Your line is open.

Michael Burnham: Hi, Lester, Michael Burnham from Greenwire.

Lester Brown: Hi, Michael.

Michael Burnham: Hi. Say, I wanted to ask you, you mentioned that we need the electrical equivalent of the national highway system. Any thoughts on how much investment it would take to build this out to the capacity you're thinking is necessary to meet US electricity needs?

Lester Brown: I haven't worked out the details on that. I have seen estimates. I mean, we're talking about, probably, a few hundred billion dollars. The exciting thing is that a number of the links of this -- what would become a national grid, and particularly those links that link wind rich areas, for example, with consumption centers, are actually going to be built by private investors.

I mentioned, I mean, the longest one is the one that Phil Anschutz is planning to build from Wyoming to California, and that will cost billions. But he's prepared to invest, because if he makes the investment, he'll own the highway. He'll be the one getting the revenues from the electricity that will be transmitted in the years ahead.

There are two major lines in Texas. There's one in eastern Colorado that's being built to link the wind resources in eastern Wyoming with the larger cities. This is a north-south line going down to Fort Collins, Denver, Colorado Springs, and the Front Range area of Colorado.

I mentioned the one from South Dakota feeding into Illinois for that 5,000 megawatt wind farm there. There are lines being built from North Dakota into Minnesota, for example. Minnesota has ten times as many people as North Dakota, but North Dakota has probably as much wind as any state in the country.

And then we have Oklahoma, Kansas and I think it's called the Southwest Power Pool that they work in there, looking at a transmission line going into the eastern states, which don't have so much wind energy.

So, a lot of the pieces of this area being built. T. Boone Pickens is talking about actually building his own line from the panhandle to Dallas, for example.

So, it's entirely within range, if we decide we want to do it. And the return on it, and there are some studies on this, are pretty attractive in terms of what they permit us to do not only in accessing renewable sources and feeding them into the national grid, but also in being able to manage more efficiently the existing electrical generation. Because now there are a lot of case where we have surpluses in one area and shortages in another at any given point in time. But because we don't have any integrated national grid, we can't move the electricity around to take advantage of the surpluses wherever they exist.

Michael Burnham: Thanks.

Operator: Our next question comes from Steve Power with *Wall Street Journal*. Your line is open.

Steve Power: Hey, Mr. Brown, it's Steve Power.

Lester Brown: Hi, Steve.

Steve Power: I just had a couple of questions. I was just wondering what do you think about -- when you look at how oil prices have fallen, 40% since June, how does that impact the viability of some of these renewable technologies and their cost competitiveness relative to the oil? And then the second question I had was --

Lester Brown: Let me take that one first, Steve.

Steve Power: Sure.

Lester Brown: The drop in oil prices that we've seen in the last few months, obviously has a tendency to slow things down a bit, just as the rise in the number of months before that fueled the interest.

What I think we're beginning to see now, however, is people recognizing that whether oil prices are going up or down this week or this month, or what-have-you, that oil is going to be in tight supply. And so they're beginning to look ahead and think about longer-term investments.

And we see this -- I mean, interestingly, Indonesia is planning to develop 6,800 megawatts off geothermal generating capacity, and the principal entity reasonable for that is Pertamina, the state oil company. And the reason they're doing this is because -- I mean, in microcosm, their oil production is already peaked. They've now become a net oil importer, but they have an enormous wealth of geothermal energy. So, this is another example of oil money moving from oil into a renewable source of energy, and it's on a huge scale.

Pertimina could become the first oil company, either state oil company or independent, to become primarily a renewable energy company, in this case a geothermal company.

So, I think it's the long-term that's going to determine the decisions here in the long-term clearly shows tightening oil supplies and higher oil prices.

You had a second question, Steve?

Steve Power: Yeah, if I could just ask, to what extent does construction of additional transmission lines require the Federal Government to take greater steps to allow for eminent domain so that you don't get into situations where these transmissions are held up by objections at the local level? Is that a legitimate concern or is that sort of a red herring?

Lester Brown: I think it is a legitimate concern, and it was a legitimate concern in building the interstate highway system, because similar issues were involved there, of course. And I would expect that we will see, if things get held up too much, that we would see the exercise of eminent domain in order to serve the greater good.

Steve Power: Okay. Thanks a lot.

Operator: Again, ladies and gentlemen, if you have a question, please press the 1 key at this time. Our next question comes from John Rynn with *Grist* magazine. Your line is open.

John Rynn: Hi there. Hi, Lester.

Lester Brown: Hi.

John Rynn: This is John Rynn from *Grist* magazine. I'm going to try to slip in a couple of questions, if I can, too, on things that we've been concerned about at *Grist.* One of them is, do you have any thoughts on storage or other ways to get around the intermittency of renewables, because that's constantly sort of the drumbeat against them?

Lester Brown: Right. Let me address that first. It's an interesting question for more than one reason. One, I mean, when we think of wind, I mean, we know the wind doesn't blow all the time, so there is obviously an intermittency issue there. One of the advantages is with current weather forecasting, we can pretty well anticipate what things are going to be.

The second thing is that the larger the grid and the more wind farms you have, the closer you come to having a stable energy supply, and this has been modeled for the US as a country by a team at Stanford. And what they realize when they did this at the national level was that wind power becomes part of the base load, because no two wind farms have identical wind profiles.

So, the intermittency declines as you add more wind farms. And this is particularly true when you do it over a large geographic area, where you have coastal wind power and offshore wind power beginning to develop now, particularly on the East Coast and also in the Gulf of Mexico with onshore wind farms near Corpus Christi, for example, that are under development. Very large ones, by the way. So, the intermittency begins to take care of itself as you expand the grid and the number of wind farms.

It's also interesting, when you think about intermittency, that the same question does not come up with, say, nuclear power. I mean, if you build a nuclear power plant, 1,000 megawatts of generating capacity and there's an accident, you have to close the plant down, and sometimes they're closed for -- I mean, there are 54 nuclear plant closings in this country for more than a year.

Now, how do you do that with that intermittency? Do you build two nuclear power plants so you have a second one to fall back on if the first one should fail and be closed for an extended period of time? The answer is no.

It's a matter of load management, and that's how you deal with intermittency either on a predictable small scale or on an unpredictable large scale, like a nuclear plant going down.

John Rynn: Well, actually, if I could have a follow-up. Some people have said that the grid in a way should be managed by some central authority in order to -- because we'll need more sophisticated load management if we have a truly national wind/solar-based grid. Does that sound like something that we would need?

Lester Brown: Well, clearly, two things: one, the larger the grid, the greater the potential for taking advantage of surpluses in the system, wherever they exist. But the second is, we now have a number of new technologies that enable us to build a far more sophisticated grid both in terms of load management, but also in terms of individual consumers being able to program their electricity consumption to take advantage of surpluses or cheaper power when it exists. For example, programming your dishwasher so it doesn't run after dinner but at 3 a.m. in the morning, that kind of thing.

So, I mean, the grid as it exists today, which is a lot of pieces of grids all over the country, is really -- was put together much over a century ago and it's not exactly cutting edge technology. And we haven't really brought new information technologies to bear on this sector as we have in communications, for example.

So, there's a lot of potential there for much more efficient, more sophisticated technology and management of the grid.

John Rynn: And I was wondering if I could ask something that's a big concern is, do you have any words of wisdom about whether the financial crisis will make it more difficult to expand the renewable energy economy?

Lester Brown: That's a question a lot of people are asking. I mean, the financial crisis is going to make new investments of all kind I think more difficult. But this is a case where if we were to -- one of the equivalent of Roosevelt's WPA Program to hire people in various public works, building schools or dams, or what-have-you, to create jobs, this is where the jobs of the future are for this country. It is no longer an information technology, it's certainly not in fossil fuels. It's in renewable energy. This is the great growth industry of the 21st Century.

So, that's -- when we begin looking at the need to create jobs and to create jobs at the local level, and create jobs in this country, jobs that can't be outsourced, renewable energy and energy efficiency are at the top of the list of things to do. So, that would be a very useful thing to do, and that was one of the plusses of having so many of the tax credits included in that bailout bill and extending them in the future. That's going to provide some real incentives, particularly in solar and geothermal, to expand investment.

John Rynn: Well, thank you very much.

Lester Brown: Uh-huh.

Operator: Again, ladies and gentlemen if you have a question, please press the 1 key at this time. I'm showing no further questions.

Lester Brown: I had one other point I wanted to make, if there are no more questions. This is Les Brown.

Ryan Cunningham: Go ahead, Lester.

Lester Brown: Yeah. Just one point. One interesting new, sort of legal development has come from the UK. There were some months ago six Greenpeace activists who invaded a coal-fired power plant and did -- managed to do a fair amount of damage. I think it was 50,000 pounds or maybe $70,000, something like that. And they were arrested and they were prosecuted in court recently.

But the thing that was so interesting about this is that the legal precedent that was used to find them innocent. And their defenders argued that there is, in British law, at least -- this is not the correct legal term, but one of -- it's the last damage approach.

For example, if your neighbor's house is on fire and you want to get some hoses in to try to put it out and you break the door down, you're not liable for the damage to the door, because you're sacrificing small damage to avoid large damage.

That argument was used in regard to coal-fired power plants, because though the Greenpeace activist did damage to the plant, they were trying to avoid damage to the planet, much larger scale damage. And I mention it because it's an interesting and in some ways fascinating precedent that the court established there.

Ryan Cunningham: Okay. If there are any further questions, please press 1 now and we'll take those. Are there any other questions?

Operator: There are no further questions.

Ryan Cunningham: Okay, great. Well, then, as a conclusion I would note that as of 12:00 this afternoon, so in about 15 minutes, a statement from Lester, an update basically summarizing today's call will be available on the Earth Policy Institute website, which is www.earthpolicy.org. No hyphens or anything, just earthpolicy.org., along with some additional information. If you would like a transcript of this call, one has been prepared or will be prepared, along with a digital recording. And if you'd like that, please contact me, Ryan Cunningham, and my telephone number is 202-295-0164. Again, for a transcript or digital recording, please call me, Ryan Cunningham, at 202-295-0164.

Thank you all very much for attending the call and please follow-up with me as I noted. Thank you very much.