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In the Matter of a Proposed Experimental Regulatory Plan of Kansas City Power & Light Company	) Case No. EO-2005-0329

RONALD D. PRIDGIN, Presiding,
REGULATORY LAW JUDGE.

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P R O C E E D I N G S

JUDGE PRIDGIN: We are back on the record. We're resuming the hearing in Case No. EO-2005-0329.

I understand when we left off yesterday that we had agreed to go out of order and take Ned Ford as the next witness. Do I understand correctly? I'm seeing some nods. Are there any housekeeping matters we need to address before we start taking more testimony?

Mr. Zobrist?

MR. ZOBRIST: Judge, I wanted to make certain that I had offered all of the exhibits that I used in the cross-examination of Mr. Helming. I know a number of them were admitted, but I think maybe one or two did not get in. I've checked with the court reporter. We do not have a thorough list at this point. But out of an abundance of caution, I would like to offer Exhibits 10 through 27 into evidence at this time.

JUDGE PRIDGIN: Mr. Zobrist, thank you. Do we have any objections to any of those exhibits?

(No response.)

JUDGE PRIDGIN: Hearing none, Exhibits 10 through 27 are admitted without objection. Thank you.

(EXHIBIT NOS. 10 THROUGH 27 WERE RECEIVED INTO EVIDENCE.)

JUDGE PRIDGIN: Mr. Zobrist, thank you.

Any other housekeeping matters before we move on to the next witness?

All right. Hearing none. Mr. Ford, if you're ready, please come forward to be sworn. We have a chair there. Things are looking up already. We didn't have a chair yesterday.

(Witness sworn.)

JUDGE PRIDGIN: Thank you very much, sir. If you would please have a seat. Ms. Henry, whenever you're ready.

MS. HENRY: I do have one housekeeping item. Most of Ned Ford's testimony will be public information, but at some point he's going to want to get into some things that were marked proprietary or confidential. So at that point will we stop and turn off the webcast, or how does that work?

JUDGE PRIDGIN: Yes. Please alert me and we will -- I will take care of that. I will let you know when we are in-camera and we can proceed without broadcasting on the web. And then I'll need you to alert me when we're finished with the proprietary so we can go back on. And if we have to do it in fits and starts, you know, we'll do it that way.

MS. HENRY: Right. Well, the vast majority is public, so we should be fine.

JUDGE PRIDGIN: Thank you.

MS. HENRY: If you think you're getting into something that might be confidential, then just stop for a moment and we'll bring it up later.

NED FORD testified as follows:

DIRECT EXAMINATION BY MS. HENRY:

Q. Please state your name for the record.

A. My name is Ned Ford.

Q. And what is your address?

A. 3420 Stettinius Avenue, Cincinnati, Ohio.

Q. Do you want to spell Stettinius?

A. S-t-e-t-t-i-n-i-u-s.

Q. Thank you. And where do you work?

A. I'm self-employed. I'm an investor.

Q. And where have you studied?

A. I have been to college briefly and didn't finish it. I have spent the last 25 years working as an advocate in the environmental movement, primarily with electric utilities. What I'm here to talk about today has -- I have no academic qualifications, but I have a great deal of experience in this field.

Q. And could you describe your experience in more detail?

A. I promote energy efficiency primarily. My interest in this case is due to the request of the local

Sierra Club group to come out and take a look at the proposed new plant and the stipulation. I have worked extensively with other similar situations where coal plants are proposed, nuclear plants are proposed. I began doing my work on this level back in 1982-'83, and in Ohio we had a nuclear power plant that was wildly out of control, economic program that had gone 20 times -- 14 times over budget, and I began to learn about ratemaking and the incentives that the utility might have to lose control of a power plant construction project.

And from that point onwards, I have been involved in discussions, conferences, publications, writing articles, reading articles. There's very active communications among people who are promoting efficiency solutions to electric utility questions, and I communicate with these people regularly. I get copies of testimony, copies of reports that have been done. It's not -- it's a very fast-moving subject, and it doesn't result in a large body of written literature.

Q. Do you have an official role with the Sierra Club in Ohio?

A. Yes. I'm the energy chair of the Ohio chapter. I've been the energy chair for at least 25 years.

Q. And what have you done in relation to

energy efficiency along with that official role?

A. Well, in addition to the Ohio role, I'm also a member of the National Energy Committee for the Sierra Club. I run the club's e-mail listservs on energy and climate change.

As the energy chair of the Ohio chapter, around about 1992 we became involved in what amounted to a series of 25 formal interventions before the Public Utilities Commission of Ohio affecting all seven of the major utilities in the state and promoting efficiency. I was the Sierra Club's liaison to this entire project, and so I was involved in the creation of the testimony and the presentation in the courts.

Q. And to which project are you referring to?

A. Well, from 1992 to 1996 Ohio's utilities collectively spent about $140 million on energy efficiency. Every utility spent some. One utility spent almost half of that amount, so it was very lopsided. But there were citizen advisory groups, collaboratives created, and I represented the club on three collaboratives affecting four of the seven utilities.

Q. And what did you do in more detail in relation to those collaboratives?

A. Well, the companies would present program ideas and report on the evaluation of the performance of

the programs. I would have contacts with people who were doing similar work in other states, and occasionally would propose alternative programs, or in those days it was more often technology-specific-type programs where we'd call some new technology to their attention.

Q. And when you were doing those interventions, what types of documents did you look at from the coal plants?

A. We're usually working on the basis of cost effectiveness. The Ohio integrated resource planning process and the similar process in several other states would produce documentation that would give you a very clear picture of what the company's consumption patterns were, time of day, time of year.

Different load shape issues affect what products are important to control to make it more efficient. If you have a summer peaking utility, for example, you don't want to be turning off the streetlights because that's not going to affect the summer peak. You go after commercial lighting, commercial air conditioning.

I have reviewed planning forecast documentation from probably half a dozen different states.

Q. Did you review companies' IRPs in detail and other companies' documents related to that?

A. Yes, particularly the Ohio utilities. The other kind of things that we would do is share information. People would mail me their state's forecasts, and states are all over the place in terms of the sophistication of the data that they require to be reported. So I would review them and I would say, here's some questions you could look for as a means of supporting other people in the Sierra Club who had less experience than I did.

Q. And what utilities specifically did you look at in Ohio?

A. Well, American Electric Power was the largest utility in Ohio at the time, and they have two companies, Columbus Southern Power and -- the names of the companies have changed so much in the last decade, I'm spacing on it.

Q. That's all right.

A. Cleveland Electric eliminated Toledo Edison, Ohio Power. That's the -- Ohio Power is the other AEP company. Ohio Edison, and Toledo, Cleveland and Ohio Edison have now merged into First Energy. We were engaged in all those, Dayton Power & Light and Cincinnati Gas & Electric.

Q. I want to talk about the field of energy efficiency today. Could you describe what the field is of

energy efficiency?

A. Well, it's a complex, rapidly evolving field. The people that I am most interested in and fondest of are promoting utility efficiency programs because the utilities have strong relationships with their customers and we like to see that relationship used to deliver energy services.

It's a very effective match if you can get the economics lined up, and what I mean by that is that many utilities see energy efficiency as perverse to their interests because conventional ratemaking is -- it amounts to punishing the utility if they do an efficiency program well.

There are many different aspects of this whole field, all the way from Department of Energy, Oak Ridge National Labs, the research programs, down to individual states, individual consulting firms. I'm a part of a loose-knit but very effective and very active network of people who correspond on several e-mail lists. Some of these lists predate e-mail. This correspondence has been going on since the 1980s when people were making direct connections with their computers.

Q. Do those lists include -- you mean talking about energy efficiency or what do you mean by that?

A. Well, there are lists where some of the

former regulators from New England states have -- participate in giving people advice on regulatory structure. The whole decoupling issue has penetrated the utility industry in different levels across the country, and it changes the economic incentives for a utility to do efficiency. It changes the state's responsibility for making a company whole.

And these are very important issues because when a state requires its utility to spend money on efficiencies, as many states have done, the utility conducts the efficiency program and gets the cost of the program back, but they lose the sales. And if this is not compensated for, they have a disincentive to run the programs properly.

Some states have gone the whole way to full deregulation and they've taken the utility out of the equation, so to speak. There are a couple of states that have contracted directly with independent companies to run efficiency services. That doesn't strike me as being terribly appropriate here in Missouri where you seem to be a fully regulated state.

But it's an interesting model because those states that have done it are getting good results from it, too. They don't compensate the utilities for their lost revenues or they don't do it on the same scale that other

states do.

Q. And what literature is there out there that talks about energy efficiency?

A. Well, there are a few trade publications. I don't get access to the trade publications that I used to because I don't go to the utilities all the time like I used to. There's an Energy Report. There's an Energy Daily publication, Electricity Journal, the Electricity Daily. I correspond with one of the -- it's not a friendly correspondence. I correspond with one of the authors, one of the writers for the Electricity Daily. He disbelieves in climate change, and we routinely argue, test our views out.

Q. Have you read reports from other states about energy efficiency programs and their successes or failures?

A. Absolutely, every time I get a chance. There are presently about 18 states that have active efficiency programs. Even in Ohio they still have fairly reasonable low-income programs. They cut out most of the larger programs, but they've preserved the low-income programs.

In addition to the 18 states that have the active programs under some form of system benefit charge, there are five other states that have programs that are

run more conventionally, and those are -- those tend to be states that have long history with efficiency, and they found a mix that works and they like it and they don't want to change it. Florida, Texas, I think New York state is one of them.

States are spending between nearly unmeasurable amount of revenues all the way up to 2 or 3 percent of the total revenues for the electric industry on this kind of program and having consistently positive results. Some are better than others.

Q. And did you become familiar with KCP&L's plan to construct a new coal-fired power plant called Iatan 2?

A. Yes, I did.

Q. Go ahead.

A. I was -- in the course of preparing for this hearing, I was able to review -- I was able to review the documentation that was involved in the stipulation. We put in Data Requests to the company, and a few other documents came to light, the Chapter 22 of the Missouri regulatory code. I feel like I have a fairly complete knowledge of the plant and circumstances that surround it.

Q. And so you performed some evaluations of the plan to build Iatan 2 --

A. Exactly.

Q. -- based on the literature, the documents you received?

A. Right. Right. And looking at the proposal in the stipulation which is accompanying the plant, a large part of the stipulation revolves around pollution controls on existing plants. And I'm not here to quarrel about anything to do with those plans. They're legitimate and needed and we have nothing to say about them today.

The proposed plan for Iatan includes a small amount of wind and a small amount of energy efficiency, and the concern that I'm here to raise is that not only are the amounts of wind and efficiency inadequate, they are actually not as large as is required by the code.

The Revised Code Chapter 22 specifies that the utility shall evaluate a forecast that includes enough energy efficiency to defer the need for the new plant for an entire year, and the proposed amount of the efficiency is somewhere along the lines of a quarter to perhaps an eighth of that amount. So the evaluation that was done doesn't appear to have been even accurate -- adequately done, according to the statute.

Q. And do you base that on the -- on which documents that you read?

A. Well, the public documents that describe

the expected productivity of the wind and energy efficiency programs. It's Appendix C in the stipulation, the graphs that come after page 10. There are some confidential documents that also give a little bit more detail, but I don't need to bring those up at this point because they're duplicative of the stuff that is public.

Q. Is Mr. Ford speaking in the microphone so you can all hear him?

Okay. And is anyone paying you to be here today?

A. No.

Q. Did anyone pay you to conduct studies of Iatan 2?

A. No.

Q. And I want to talk about Kansas City Power & Light's claim that 500 megawatts of Iatan 2 is necessary in the 2010 to 2012 time frame. What did your studies reveal about this claim?

A. Well, Kansas City Power & Light is projecting a need for specifically 431 megawatts in the year 2010, a shortfall of capacity which would be needed to allow them to serve their customers, to serve the expected growth at that time and the 12 percent reserve margin.

It's important to understand that a 500 or

800 or 900 megawatt coal-burning power plant is a rather unwieldy tool, and if you're off on the forecasted growth of electricity by a fairly small percentage, you can wind up needing a new plant before your old one is finished or, under the circumstances, more likely having a great deal of capital tied up in a power plant that no one needs.

The beauty of the modern era that we live in is that you can work with efficiency programs and to a certain extent with the renewables to be able to time the addition of new capacity or the savings of capacity much more accurately with the actual experienced growth, and this is important.

In Kansas City Power & Light's non-confidential response to our Data Requests, we saw that the Missouri portion of the system has actually grown at a slower rate than the rest of the system. The forecasted need that arrives at this 431 megawatts of projected need in 2010 is based on the very high end of their experienced history over the last decade.

If you look at the Missouri portion only, the need there is about 75 percent of that rate, and if you look at the last five years, the Missouri portion of the system has actually reduced consumption. Net consumption is smaller today than it was five years ago.

So speaking as a supposed expert

representing citizens who are environmentalists in Missouri jurisdiction, I think there's a strong public interest to take a good look at this plant and make sure that what is being done is truly suited to the needs of the people in this community.

Having said all of that, I have simplified for my own thinking and hopefully for others that the need for Iatan 2 really amounts to a projected need somewhere between 35 and 90 megawatts per year for the next five years. Of course, this will continue after five years from now, but the projected need for the plant, the projected timing of the plant are really all we have to address right now. 35 megawatts per year would be the low end of the actual experienced growth, and 90 would be slightly over the high end of actual experienced growth.

I think it's important for people to understand that the slow-down in consumption in the last five years has something to do with the recession that we're in, and that recession has something to do with energy prices, because there's some feedback that we get if we look at a utility that has a fairly high dependence on natural gas, some of the things that might happen if they're projecting to build a new coal plant in this environment and the rapidly growing capacity of service companies, utilities, and government policies and

spontaneous individual actions to become more efficient than we are right now.

Q. I want to talk about those numbers that you mentioned, 35 to 90 megawatts. Is that your calculations and how do they compare to the company's calculations?

A. The high end of it is very close to what the utility is saying.

Q. Would --

A. Mr. Grimwade's testimony said specifically they need 431 megawatts in the year 2010 to preserve the 12 percent reserve margin.

Q. So you're getting 90 by dividing that 431 by five years?

A. Yeah. And in his calculation, there's a reserve margin requirement. Now, if you meet the projected load growth with energy efficiency, you don't have to build capacity to reserve margin, because if a high efficiency light bulb fails, the light goes off. It doesn't go back to use inefficient amounts of electricity. So efficiency is slightly attractive in terms of the megawatts that need to be achieved.

That doesn't change the economics of it, because you don't pay for that reserve margin capacity when you're calculating the cost of kilowatt hours built into the retail price of a kilowatt hour.

Q. How are you getting that figure of 35 megawatts?

A. Well, 35 megawatts would be the low end of the entire KCPL system growth for the last five years.

Q. Is 35 megawatts the actual growth based on their numbers?

A. That's an average -- based on their experienced sales, that's an average number for the last five years.

Q. So can you use that number and say what their growth would be over five years?

A. Well, about 350 megawatts. Is my math correct? It's much lower than that. It's more like 185 megawatts.

Q. Is it cheaper economically for -- let me see. What did your analysis about energy efficiency show you about whether it would be cheaper for KCP&L to use energy efficiency measures to respond to growth rather than construct a new coal-fired power plant?

A. Well, in KCPL's own analysis, they have determined that a certain amount of energy efficiency and a certain amount of wind capacity are cost effective. I see no reason to believe that increasing the quantity of wind or the quantity of efficiency is going to change that finding of cost effectiveness.

What it will do is change the need for the new coal plant. If an adequate amount is done, it defers the need for the new coal plant, and there's a high value on deferring the need for the coal plant right now. These are rapidly changing times for the whole electric industry.

I cannot dispute KCP&L's view, for example, that integrated gasification combined cycle, the IGCC plants, are new and unproven. I wouldn't advocate that this company should build one of those, but there are about 25 proposed IGCC's right now in this country, and deferring the need for the plant even a few years might give us enough experience to see whether that technology really is a valid application. There's a huge premium on IGCC if it can be made to work on a utility scale because the national average electric coal-burning plant is about 33 or 34 percent efficient, and the state of the art today is about 38 percent.

IGCC plants are reputedly able to achieve up to 50 percent efficiency. That's the same as getting almost two free kilowatts for every five that you produce from a lump of coal. And economically that has a large premium, and environmentally for carbon regulations in the future it has an extremely high value because there are not real simple ways to clean up CO2. We need to do what

we can to achieve the efficiency out of the supply side to match what we can do on the demand side.

Q. And is Iatan risky for the consumers?

A. I believe it is. As I said before, it's a potential mismatch with actual experience. If they don't have the high end of the growth that they project, they're going to wind up with a $1.5 billion plant and no customers, a very expensive wallflower. You can't deny the possibility that we might have some revolutionary positive change in the economy and exceed their high end and the plant will be on time and under budget and ready to go, but they'll need another plant right away.

This is a power plant that, according to the documentation that I've been able to put together, the company says will require something less than a 15 percent rate increase but more than 9 percent rate increase for 100 percent of the customers, only serving 15 percent of them or so. So it's more expensive capacity than anything that exists today, and that rate increase is where I like to take my closest look because the efficiency strategy is not free. It poses great impacts, too.

But if you look at the rate impacts and you compare them and you compare the whole effect on revenue requirements, you can see that the efficiency strategy is far preferable from the point of view of the customers

and, if the ratemaking is handled properly, from the point of view of the company as well.

Q. What would an efficiency strategy be in detail down to light bulbs, refrigerators?

A. Well, I didn't come here to design a program for KCPL. As a matter of fact, I'm not able in the time that I had available to me to examine this company and its needs, I was not able to determine enough about load shape to be able to specify what kind of programs should be done.

There's some generalizations that could be made. They seem to have an array of residential and small commercial programs that are not bad. There's some educational programs that are probably a waste of time because you can never measure the performance of an educational program, but they're directed at very inefficient savings. The most -- the most economically efficient savings come from large commercial and industrial programs.

The trends over the last 20 years has been away from technology's prescriptive programs to integrated programs which really do wholesale system audits for businesses and go after a combination of needs, because any business might be into something unique, might have an assembly line that could be changed out, and the utility

doesn't know the business nearly as well as the business does.

But if the utility says we're prepared to do a certain amount of cost sharing provided there are some real energy benefits here, then the company can say, well, we weren't thinking about doing this for five years, but we'll do it now if you can do that cost sharing with us.

Q. And what is the cost per kilowatt hour of the -- that the studies have shown when they use efficiency programs, that it costs?

A. The national average for the last 20 or 30 years has been slightly under 3 cents per kilowatt hour for program costs. That includes the capital for the hardware, whatever is being installed or cost shared, and the utility's administrative costs for delivering those services.

Some of the very strong programs that I'm most interested in, California and Vermont to name two, they seem to be going a little over 3 cents per kilowatt hour, but at the same time they're shaving whole percentage points off their electric consumption.

And the value of that is, to put it in simple words, in a PowerPoint presentation a commissioner from California, I think his name is Rosenfeld, he said

that this state has been spending slightly more than 1 percent of its revenues for 25 years. It's been doing this longer than any other state or jurisdiction where the utility is a privately owned, investor-owned entity. There's a whole separate dialog about publicly-owned utilities I don't think we'll get into.

But California's spending 1 percent of its state electric revenues on efficiency for 25 years has resulted in $16 billion per year worth of savings. The Commissioner said that the savings were offset by $4 billion in costs. So I'm not quite sure how that works out, because the PowerPoint presentation didn't make it explicit.

But if you have a net benefit of $12 billion a year in California and the state spends $32 billion a year on electricity, that's a sizeable fraction of their total costs. And this is the real ideal of a strong efficiency program because you don't see huge savings overnight. You can't just turn on 500 megawatts worth of efficiency, but if you do it aggressively and consistently for a long time over the course of 5 or 10 or 15 years, you've avoided some new capacity additions and the savings to all ratepayers are enormous.

Q. And what has the state of Vermont found out about that?

A. Well, Vermont is a fully deregulated state, and their utilities for the most part generate power outside of the state border. So they don't have some of the misconceptions or even correct conceptions about the home business effect of spending money on utilities. And they have a systems benefit charge that is gradually increasing.

A valid comparison between Vermont and the proposed efficiency program and stipulation for KCP&L is that they started in year 2000 spending 1.8 percent of their revenues, which has risen to over 3.6 percent of their state revenues. Apparently the state and an independent nonprofit corporation that was set up to administer the efficiency programs have some deal that if there's a high end to it, it's very high, and they're going to keep on saving money as long as it's spent productively and results in real savings.

They do compensate the utilities for lost revenues on their distribution system, but they don't compensate the utilities for other forms of lost revenues that other states may do. In Ohio, our loss revenues compensation was out of control. It was too large, and the utilities actually loved the programs, but the state decided to kill them.

Back to the Vermont example, when they

wrote the report that I have, which would be lovely to enter into the record if there's an opportunity to do that, the spending at 3.6 percent of revenues is six times on a percentage point basis than year five of KCP&L's proposed efficiency program. So KCP&L starts off with a very small amount and winds up at one-third of the level that Vermont started at in the year 2000.

Q. And you're saying that to make an efficiency program work, you need to have what kind of a start in spending?

A. Well, I wouldn't -- again, I wouldn't pick the number, but you have to have an intention of getting to savings that are pertinent on the scale to your experienced load growth. If you're experiencing 35 megawatts worth of load growth and you propose an efficiency program that only is going to eliminate 7 megawatts per year, it's clearly inadequate.

If I were asking Kansas City Power & Light or the Missouri regulators to approve a program that was wildly expensive compared to anything that has ever existed, I'd be on pretty thin ice, but this has been done and it's been done well for over a quarter of a century.

Prior to the late 1980s, most of the energy efficiency programs in this country were conducted by publicly owned entities, from very small ones all the way

up to Tennessee Valley Authority, Bonneville Power Authority. The director of the Tennessee Valley Authority once said that they had eliminated the need for four nuclear power plants with high efficiency lighting and air conditioning.

Some of the utilities did this in a crisis mode. At one time there was a large bond default out in the Washington public power system. They had $14 billion worth of nuclear power plants and never managed to finish any of them. They went into a crisis mode where the Bonneville Power Authority was giving away high-efficiency refrigerators for a couple of years. And it worked for them.

When the crisis was over, when they got a better match between load and capacity, they let the programs fall back by the wayside, which as California's example shows, is not the right thing to do, because there's a tendency for utilities and regulators and the public to ignore the importance of doing these programs when the need for capacity addition is not imminent. And then you get to the point where the new capacity addition is imminent and you haven't done the programs and people say, well, we can't start them fast enough.

I'm trying to provide examples of states that have started them fast enough, and more to the point,

if we don't achieve 35 or 60 or 90 megawatts worth of saved energy per year over the next five years, those savings are still very valuable.

If a utility like Kansas City Power & Light is using a large amount of natural gas to provide service, the saved energy can be used to turn the natural gas plants off. The typical -- I mentioned earlier that the typical program cost was about 3 cents, and that compares with a typical cost of a new coal-burning power plant of about 5 cents. Neither of those prices are pertinent to the ratepayer, because the ratepayer pays retail price for electricity. And if a program that costs 3 cents save a kilowatt hour, that kilowatt hour is priced somewhere between 7 and 9 cents, that's a pretty healthy savings.

To make it work for Kansas City Power & Light, there's going to have to be something more than just the compensation for the program costs and some carrying charges. There has to be something to reward the company, to make it interested in making these programs work well. Since Kansas City Power & Light seems to be coming in for rate cases every two years for the next six years, there are many opportunities do that.

And one of my recommendations is that the company work very fast and very hard with its customers and with the Commission to come up with a realistic

compensation mechanism that will share the net savings, the difference between that 3 cents and that 7 or 8 or 9 cents, because that savings is more than adequate to allow the company to have a real rate of return that is even as much as 100, 150 basis points above what they're getting right now, and still be enormously less expensive than building Iatan 2.

Q. And can you talk about risk in connection with natural gas for a moment?

A. There are a number of different risks. The thing that stuck in my mind was the company's response when asked about climate change legislation. They said, well, what we put into our economic models was more natural gas. If there's climate control legislation, if there are any restrictions on CO2, that's not going to be a very healthy strategy, because you're going to have every utility in the country trying to use more natural gas at the same time.

Natural gas is a fairly small part of the nation's electric generation fuel. I think it's somewhere in the neighborhood of 4 to 6 percent -- it might be a little higher than that right now -- of all electricity comes from natural gas. However, that small percentage for the electric industry is a huge percentage. It's upwards of 30 percent of the natural gas used in this

country, and I think everybody has realized by now that fossil fuel prices are highly sensitive to changes in the consumption rate. And what we're seeing right now are the highest natural gas and oil and coal prices rising based on a sort of a return from a sort of unhealthy economy.

This is just growth. There are international things going on, but right now we're basically buying North American natural gas. We're not importing very much. So what is happening in the United States is a function of the marketplace here. And if you had even a 4 or 5 percent across the board increase in natural gas consumption due to a mass response that that was the way to reduce CO2 emissions, the price would go through the roof. The roof we've already gone through would be far below where we're at right now.

Q. And how dependent is KCP&L on natural gas?

A. I can't answer that question because I know what percentage of their capacity is natural gas, but I don't know what their mix of generation is. It is a very high percentage relative to most other utilities, and some of their non-confidential testimony underscores that. Mr. Grimwade's testimony specifically mentions that they have a high dependence on natural gas. They're very sensitive to natural gas prices.

Q. And can you talk about combined heat and

power? What is it?

A. Combined heat and power is very tricky to explain because it is almost always a unique solution for an individual challenge. It is -- in my mind it's a form of efficiency, but I want to discuss it separately from the end use efficiency that I'm most interested in because the barriers to combined heat and power are quite different. Often you have state laws that regulate whether or not individual companies can generate their own power. Combined heat and power is what used to be called cogeneration, but the term cogeneration is coopted by anybody who wanted to put a diesel generator in their backyard. Combined heat and power actually means using the power to generate electricity, and then using the waste heat for some other process.

There are endless examples of people actively working on heat recovery from the compression and decompression of natural gas for transmission. You can recover heat from both ends of the cycle and use it to produce electricity. We had a company called Trigen, which is one of the nation's leaders in combined heat and power, got an award from the U.S. Climate Challenge Program because they run 40 coal-burning plants and produce twice as many kilowatt hours as the national average per pound of fuel used, because these plants are

all doing extra duty work. Rochester, New York, Kodak City is run by combined heat and power plant.

A lot of the old midwest cities that have those 1920s vintage steam heat systems connect a number of old office buildings have taken -- they put a small natural gas power plant in the downtown area, generate electricity with it. They use the waste heat to produce the hot water to heat the buildings in the wintertime. And in the summertime they use chillers and put cold water in the same pipes. I think Cincinnati, Louisville, Columbus, and at least two other cities around my part of the country do that.

They're all customized and unique applications, and what happens is when the utility is inclined to solicit relationships with customers who have opportunities for combined heat and power, they show up in very large numbers. California did something kind of like a lesson not to emulate in the 1980s. They had some horrendously expensive nuclear power plants that were running over 18, 20 cents per kilowatt hour for delivered capacity, and the Commission said, well, if you're willing to pay this much for a new power plant of your own, you should be willing to pay two-thirds of that much to somebody else who will generate power.

They ordered the companies to buy power

from third-party providers. They did not put a ceiling on what the companies were required, so the California companies were displacing their own capacity with these third-party programs. The lessons to be learned are if you offer a cooperative relationship with a third-party generator who has a combined heat and power opportunity, they will show up. And be careful what you ask for because you might get it.

Q. And would KCP&L -- are you suggesting they build a combined heat and power plant?

A. I'm suggesting that they examine the circumstances here in Missouri and in the surrounding area that interfere with the spontaneous development of combined heat and power, because it is being interfered with one way or another. I do not know what the regulatory conditions are. I don't know what the legal restrictions on people who might do this are. But you can see, if you go from state to state, there are huge variations in the amount of combined heat and power being used, and this basically has to do with the presence or lack of a supportive environment.

Q. Can you turn an existing coal plant into a combined heat and power plant?

A. Yes, you can. It helps if it's a small coal plant because a very large coal plant produces so

much waste heat, it's hard to find a group of industrial customers who can use it. But many of the combined heat and power plants in operation today are old coal plants that have been retrofitted. The CEO of Trigen left the company about four years ago and he has now bought up all of the old generators that were used to produce steel around Chicago, and he's converting them all into combined heat and power plants.

One of the undercurrents in this efficiency discussion is there's a tremendous amount of economic development that occurs when you steer towards efficiency. It's really not another cost. It's a diversion of money that we would otherwise spend on the more expensive and less rewarding power plants. You save money directly because the efficiency uses electricity, but you also keep the money that would otherwise be sent out of state and out of region to buy fuel or to reward corporate shareholders. You keep it in the local community. And that respending is tremendously valuable for any community.

I don't have a direct reference to the studies that I've seen. Dr. Skip Latner is working for the United States Environmental Protection Agency right now. He's done work along these lines. He's done a number of employment impact studies. And typically the

way he looks at things, the efficiency program operation is about on par with the jobs that are created by building fossil plants, but the secondary spending, the respending of the saved dollars creates on the order of five to eight new jobs for every job that exists in either choice of the power plant production or the efficiency avoidance of power.

Q. And if KCP&L designed a strong efficiency program, would it -- do you believe that wind energy would need to play any part in it?

A. I'm not a strong advocate of wind. I think KCP&L has correctly determined that it is cost effective compared to Iatan 2. I certainly believe that the potential for wind is greater than 100 or 200 megawatts of installed capacity, and I agree that there are concerns about the availability factor. So wind should be a part of the plan, but what part it plays would be best determined by a careful matching of the company's real needs for capacity.

When they say they need a 500 megawatt or 431 megawatt new coal plant, that really doesn't answer the question of whether they need base load capacity or peak capacity or intermediate level capacity, whether it's needed at certain times of the year or certain times of the day. So I have not been able to get in that level.

And the point that I make first and foremost is that whatever those needs really are, you can tune an energy efficiency program very precisely to what you're trying to do to the load shape.

Q. And could you discuss a little bit more about revenue erosion, what is it and how could the company prevent it?

A. Well, as I said, roughly 3 cents per kilowatt hour of savings -- of expenditure on an energy efficiency measure, the program costs are included in that. The utility avoids fuel costs. That's not an out-of-pocket expense, so there's no lost revenues there, but they have not only to maintain the existing transmission system, but they have to improve it. So there is a lost function of revenue there.

The kilowatt hour price, the retail price has that built into it, and when you save the kilowatt hour, that bit of revenue is gone. The company is also earning typically -- I don't know what KCP&L earns, but typically they earn about 14 percent of their total expenses come back in terms of rate of return, and that is lost.

There would be the need for a close discussion and analysis to determine what all the factors are, whether they'd want to reward the company generously

now to give them an incentive to do this efficiency program rapidly or hold hostage the prospect of reduced or increased rate of return after a few years based on what the performance is.

Those are all legitimate questions and they have always been part of this discussion. It's not typically something that the average environmentalist or even the average utility employee is closely familiar with, and the issues are complex and need to be handled with precision.

Q. In states where they have rewarded companies for using energy efficiency, would they keep -- what would they do with that 14 percent return rate in comparison to the lost -- to the kilowatt hour that's not being spent, how would they reward them for the saved one, the percentage?

A. I'd say there was about 18 states that are using some sort of system benefit program, and then there's five or so states that are using conventional compensation. Conventional compensation is, at the time of your rate increase you examine the efficiency program, you see what its costs are and what the savings are, and you make a specific adjustment to the rates of return to repay the costs and to give an incentive for every kilowatt hour that is saved.

That formula sounds kind of simple, but when you have this huge question looming over you of whether or not you're going to raise everyone's rates by 9 to 15 percent if you don't do this right, there are other things that enter into that equation. There is the whole prospect of saving every customer on the system that 9 to 15 percent rate increase.

So it makes sense to me, and I think it makes sense to the regulators in certain states, that you not only compensate them on a per kilowatt hour for saved energy and there's -- depending on what kind of program it is, you can go into the energy saving and the capacity saving and the time of day and time of year and calculate all those things out, but there is a real rate of return question that should be handled properly to align the interests of the customers and the company.

Q. And when the rates go up due to energy efficiency, if you choose a higher percentage, what happens to the customers' bills?

A. Well, in the very near term -- this is a "what if". If Kansas City Power & Light decided to do the avoidance of 90 megawatts -- the number I used was 82 megawatts of capacity each year for the next five years, they would need a rate increase of about $61 million. I think that's 6 percent. That's really

huge, and I think it's probably twice what is actually needed, maybe more than that.

But take this as an example. You'd have a 6 percent rate increase now. During the course of these five years, you'd be delivering about $120 million worth of saved energy every year, so there would be immediate benefits to the ratepayers as a group. That benefit is somewhat distorted because the people who get the benefit are the people who cooperate with the programs and have the efficiency products installed in their homes and businesses. Many people have said that that distortion is improper, but this is a beautiful example of how proper it is, because those people are helping make everybody else's rates lower.

If they get the avoided capacity on schedule or even approximately on schedule, if we get half, you still defer the need for the plant by two and a half years. There's no reason you can't tell how much you're going to get and get that much, because it's fairly easy once you've designed the program to figure out how many kilowatts or megawatts you're going after.

So after five years you have this one-time rate increase of about 6 percent, and then all of a sudden everybody saves the $91 million, $105 million per year that otherwise would be required to pay for Iatan 2.

So on top of the personal savings to the individuals who participate in the programs, there is a broad system-wide benefit that outweighs the total cost substantially.

Q. And what about the conflict between KCP&L and its customers and the current regulatory treatment?

A. Well, KCP&L is very clear in its responses to us that they're satisfied with the mechanism that they've proposed in the stipulation. The mechanism they propose in the stipulation is very simply they get their cost back and they get a little carrying charge for it. That's not going to make the company whole for the avoided kilowatt hours that are produced by that program.

And regardless of whether they say they're content or they're not, their management is not going to look fondly on expanding the size of these programs. They're probably not going to be especially thrilled even though the programs are fairly trivial. They're somewhere around
2 to $3 million per year.

This is revenue erosion, plain and simple. A company, any utility company is really in the business of making money, and they perform at the behest of their one customer and that one customer is the regulatory agency that set their rates. You really have to be

careful that those rates are causing performance that you want, and it's not anybody's fault.

Actually, the conventional ratemaking mechanism worked very well for about 50 years. Wasn't until the Arab oil embargoes in the 1970s when we stopped building power plants at 5 to 7 percent per year, and the utilities found that their what was originally a 3 to 5-year lead time turned into a 30-year excess capacity situation that the conventional ratemaking stopped being quite so satisfactory.

And then over the course of that same period, this whole evolution of the demand side management energy efficiency programs, I use the term demand side management with caution, because the company also uses it to include load management programs. And the load management programs are highly cost effective, but they don't do anything for the environment typically. They just shift consumption from clean natural gas to dirty coal. So we don't oppose them, but we are not especially eager to see them go anywhere. The energy efficiency programs are something that have evolved, but they've become fairly mature at this point and it's time to take them very seriously as a potential capacity addition.

I'd like to just add one little bit of -- it's hard to measure efficiency on a societal basis. The

best indication of what we do with energy today is to look at the energy per unit of gross domestic product. This measure has fallen steadily by about 1.6 percent a year for the last 30 or 40 years. It takes us less than half the raw energy input today to produce a dollar of gross domestic product than it did in 1970, and that difference is mostly energy efficiency. It's -- you could argue about what exactly makes that happen, but it's mostly energy efficiency.

There's -- one argument is that we've exported a lot of our heavy industry and we're buying the finished products, so we've exported our energy consumption, but the fact is that the world energy per dollar of economic activity is very close to the United States figure, has been over the years, and so if we're exporting all that energy consumption, it's being made up for somewhere else.

So the simple interpretation of that set of numbers is that energy efficiency has added more energy capacity to the United States' ability to do business than all nuclear and fossil and renewable resources combined over the last 35 years. It's a pretty important concept to bear in mind. It's not something that we're just cooking up and buttering on the bread. This is the bread.

Q. I wanted to ask you about the economic

costs of future C02 emissions.

A. As an environmentalist, I'm keenly sensitive to this issue. It is, of course, a challenge to any company that makes its business using fossil fuels, and I think I touched on this earlier. The real liability to Kansas City Power & Light is in the monolithic strategy using more natural gas if Congress decides to regulate CO2 while at the same time, as every other utility in the country decides to do the same thing, it's going to be incredibly expensive.

If you have a program of gradually increasing energy efficiency, you have saved a great deal of CO2 over the course of a few years. We're looking in some states at utilities that are actually using energy efficiency to reduce their net emissions, and this is feasible. The only reason California didn't increase, didn't reduce its net emissions over the period is because they had a 50 percent population increase over the last 25 years at the same time as they were doing all this efficiency.

I believe Vermont is presently rolling back its net consumption with its efficiency programs. Utilities aren't the only way to do efficiencies. We have appliance standards, building codes, spontaneous evolution. Next year the most efficient air conditioner,

least efficient air conditioner you can buy will be 30 percent more efficient than the least efficient one you can buy today because of the ongoing improvement in technology, and that is captured by the existing appliance standards.

There are probably 18 to 20 technologies which are suitable for an efficiency standard today, which are not affected by federal regulations, and different states are piecemeal going after some of these or all of them. It looks like the whole west coast has gone with a package all of them. New England and some of the upper midwest states are doing some things like LED street traffic signs and fire/exit lighting and just places where the technology permits, a large number of savings that it really makes economic sense to simply cut the bad stuff off the bottom of the market.

All these programs work better together than they do in isolation, and so a utility efficiency program is probably not going to be the only solution to CO2 from the utility sector.

But if the program exists and the utility has taken a real serious look at the future and decides that it wants to be in the business of energy services as opposed to being in the business of cranking out kilowatt hours, they will be positioned both with an understanding

of the whole marketplace and with customer relationships that are encouraging more efficient use of the energy we do use.

This is the recommendation that I'm making. It's all part and parcel of a choice of what direction do we go in from here. And the risk that the company endures by building a new coal plant is especially sensitive in this time frame. We may find that people don't build any new coal plants. We may find that public concern is so great that people go out and install efficiency products on their own without any need to.

I would have two or three major technologies that could put the entire electric utility industry into a gradual net reduction of total electricity, if refrigerator efficiency were doubled or if the computer industry figured out how to make desk-top computers as efficient as laptop computers are right now.

There's probably half a dozen big technology areas where a large enough bite could be taken out of our nation's energy consumption to eliminate growth for five or ten years. I'm not going to predict what's going to happen, but there are a lot of converging forces that are making this happen, and everybody has to decide whether they want to be in or out of the picture.

Q. There were a few things that I wanted to

discuss concerning growth rate that might have some confidential information in them. Do you recall, Mr. Ford, whether there was anything you could say about the growth rate that didn't have it or should we ask to turn off the webcast at this point? Did you say something already about growth rate?

A. My notes on confidential materials are largely replicated by public information on the subject of growth rate. I would like at some point to underscore what I've said with evidence that the company provided to us as confidential.

Q. Then maybe this would be a good time to do that. So if anybody in the room has not signed a non-disclosure agreement or whatever --

JUDGE PRIDGIN: We're going to go in-camera and go off so he can get into confidential material, so if you'll bear with me just a second.

(REPORTER'S NOTE: At this point an in-camera session was held, which is contained in Volume 6, pages 355 through 364 of the transcript.)

JUDGE PRIDGIN: This looks to be a pretty convenient time to take a break. Let me -- before we do, let me kind of go through and see who would like to cross Mr. Helming. Who will cross for KCP&L? Mr. Fischer. Mr. Dottheim, will you have cross-examination?

MR. DOTTHEIM: Yes, I'll have it.

JUDGE PRIDGIN: Any other parties have cross-examination? Mr. Conrad? Anyone else?

Okay. Just so I kind of know what we're looking at. Very good. We will take a break. I see the clock on the back wall says 10:05. Let's resume at 10:20.

(A BREAK WAS TAKEN.)

JUDGE PRIDGIN: We'll go back on the record. Before I went off, I think I checked with counsel and the only attorneys who wanted to cross-examine this witness were Mr. Conrad, Mr. Dottheim and Mr. Fischer. Did I understand correctly?

All right. We'll go ahead and proceed with cross-examination. Mr. Conrad, when you're ready, sir.

CROSS-EXAMINATION BY MR. CONRAD:

Q. Yes, sir. You mentioned that you had looked at KCPL's study of their growth load.

A. Yes.

Q. What did you look at?

A. I mentioned the confidential Exhibit 19A.

There were, I believe, three or four interrogatories that went after that particular number.

Q. Did you look at growth in KW or KWH?

A. Primarily at KW because I can't evaluate the KWH needs without knowing more about the company than I have information at this point.

Q. And would you agree with me, based on your experience, that that usually is a measured peak?

A. Yes.

Q. Now, you mentioned that putting in more efficient refrigerators would be helpful --

A. Right.

Q. -- do you recall that testimony?

Would that reduce load at that peak?

A. Yes, it would.

Q. Would it also reduce load at other times?

A. Pretty much all the time around the clock, except that any heat source, any efficient device will reduce peak also because of air conditioning reductions. If your refrigerator is in an air conditioned house or air conditioned business, it will have a measurable effect on peak load.

Q. Because it runs 8,760 hours?

A. No. No. Refrigerator cycles are not, but when it runs during the high point of the day, it cycles

on and off and reduce -- if you have a high-efficiency refrigerator as compared to an inefficient refrigerator, that lowers the air conditioning load. All these things can be calculated out to the satisfaction of any question of peak or energy savings. They have been done to endless lengths. Department of Energy puts out studies on appliance performance regularly.

Q. Our DOE guy isn't right here, so -- but would the same thing be true on residential air conditioning?

A. Yes.

Q. So by putting in a more efficient residential air conditioner in the SCR ratings of 30 or something like that, I think --

A. 13 is what the new standard will be.

Q. Is what the new standard will be?

A. Right.

Q. That would also reduce peak, right?

A. Yes, it will.

Q. So I take it, then, that your view of a program that would encourage customers who could do so to curtail their loads at peak would be a favorable thing?

A. I have no opposition to it. As I tried to make it clear, as an environmentalist, we don't have a specific positive interest in the load management programs

that are paying customers to turn off -- industrial customers to turn off their systems at peak times because those usually result in makeup power at other times. So there's no environmental benefit, but they make a tremendous amount of economic sense to the company, so we don't oppose them either.

MR. CONRAD: Okay. Thank you. That's all.

JUDGE PRIDGIN: Mr. Conrad, thank you. Mr. Dottheim?

MR. DOTTHEIM: Yes, thank you.

CROSS-EXAMINATION BY MR. DOTTHEIM:

Q. Good morning, Mr. Ford.

A. Good morning.

Q. Mr. Ford, would you happen to have a copy of the Sierra Club and Concerned Citizens of Platte County's prehearing brief with you?

A. I don't have it with me.

Q. I've got a copy which I'll provide you with. That document, of course, is supposed to indicate what the witnesses of Sierra Club and Concerned Citizens of Platte County will testify to, and I wanted to ask you a few questions.

MR. DOTTHEIM: May I approach the witness?

JUDGE PRIDGIN: You may.

BY MR. DOTTHEIM:

Q. I'd first like to direct you to page 2 of that document, the last full sentence on that page, which indicates that you were the Sierra Club's manager for approximately 25 formal interventions before the Public Utilities Commission of Ohio between 1992 and 1996; is that correct?

A. Uh-huh. Yes.

Q. Did you have occasion to testify before the Ohio Public Utilities Commission in those 25 instances?

A. I gave testimony in one case. I've given testimony to the Public Utilities Commission many times in public hearings, sworn and unsworn testimony. I've been participating in meetings. They've had a series of what they called round-table discussions over the course of maybe 15 years, and I've been -- usually I'm the only environmentalist there. They know me.

Q. Mr. Ford, are you aware that Mr. Helming produced what I think he described as a financial analysis, a comparison of Iatan 2 to wind power?

A. I wouldn't be surprised. I have very little contact with Mr. Helming.

Q. You did not assist Mr. Helming --

A. No.

Q. -- in that analysis?

A. No.

Q. I'd like to direct you again to the Concerned Citizens/Sierra Club prehearing brief, page 3, the paragraph under B, where there's reference to Commission Rule 4 CSR 240-22.050, paren 2, close paren, paren, C, close paren. Do you see that?

A. Yes, I see that.

Q. That's the section of the Commission's rules on electric resource planning that you previously referred to?

A. Yes, it is.

Q. Do you know when Kansas City Power & Light made its first filing under Chapter 22?

A. Well, I don't know exactly when the company made filings. When we developed the interrogatory requests, we asked for the last three IRPs that the company had done, and one of the documents that was presented as an IRP was the 1994 KC plan. That would have been the first one based on the date in the statute, which is 1993.

Q. So you're not aware that that plan was filed with the Commission in a case that was docketed as Case No. EO-94-360?

A. I don't know anything about the number. I would have assumed it was docketed.

Q. Do you know whether the Sierra Club or

Concerned Citizens of Platte County intervened in that proceeding?

A. No, I don't.

Q. Do you know whether any party in that proceeding raised questions regarding KCPL's compliance with 4 CSR 240-22.050(2)(C)?

A. I wasn't involved in the hearings or whatever workshops might have existed around there. The copy of the KC plan 94 that I received was stamped confidential on every page, and there are some aspects of it that I can discuss if we need to go into it, but I'd have to notify the court with that.

Q. I think you've answered my question. Do you have any knowledge about Kansas City Power & Light's subsequent filings as a result of Chapter 22 of the electric resource planning rule?

A. I believe that the two subsequent forecast reports were delivered to me. They have very little in the way of information that helps me discern what the company's view on efficiency programs is, which is my primary interest, and indeed in response to our Data Request the company says that they have no existing efficiency programs at this time.

Q. Do you know whether Kansas City Power & Light was granted a waiver in Case No. EO-97-522 from a

complete filing under Chapter 22 in 1997?

A. It doesn't surprise me, but I didn't know that.

Q. Based on your testimony, are you aware of another Commission case, Case No. EO-99-365, involving Chapter 22 of the Commission's rules, the electric resource planning rules?

A. No, I'm not.

Q. You're not aware of various electrical corporations, electric utilities in Missouri filing in Case No. EO-99-365 for the rescinding of Chapter 22?

A. No, I have no personal knowledge of that.

Q. As a consequence, then, you're not aware of how Case No. EO-99-365 was resolved?

A. No.

Q. Do you have any knowledge of Case No. EO-99-544?

A. I don't believe so.

Q. So you're not aware whether the Commission in 1999 issued an Order in which it granted, among other utilities, Kansas City Power & Light a variance from filings in July 2000 and July 2003 under Chapter 22?

A. No, I'm not aware of that.

Q. As a consequence you're, I assume, then not aware of what procedure the Commission might have adopted

in lieu of compliance by Kansas City Power & Light under Chapter 22?

A. No, I don't have any personal knowledge of that.

Q. Do you have any quantification as to what you would consider to be the cost of the efficiency programs that you are advocating that Kansas City Power & Light should adopt in lieu of the construction of Iatan 2?

A. As I said in my testimony, if one presumes that the company needs to avoid 82 megawatts worth of new capacity on a yearly basis for the next five years, the rate impact of the efficiency program based on rate impacts of many other efficiency programs elsewhere could be in excess of $60 million. I figured $61 million, but this is all subject to real life experience. The program cost there would probably be closer to $30 million per year.

Q. And again, if I heard you correctly, you said $30 million per year?

A. Yes, I did. As I discussed, there are many savings as a result, too.

Q. Mr. Ford, do you happen to have a copy of Sierra Club and Concerned Citizens of Platte County's statement of positions on the issues?

A. I don't have it with me.

MR. DOTTHEIM: May I approach the witness?

JUDGE PRIDGIN: You may.

BY MR. DOTTHEIM:

Q. Mr. Ford, I'd like to direct you to Issue No. 15, which is on page 9.

A. Yes, I've got it.

Q. And if you would take a look at the position of the Sierra Club and the Concerned Citizens of Platte County, in particular I'd like to direct you to the last sentence of that sentence which reads, we are concerned that this will amount to placing the increased cost of Iatan 2 on the regulated ratepayers while allowing KCPL to sell power from older fully amortized plants at a more competitive price.

Did I read that correctly?

A. Yes, you did.

Q. And that is similar to testimony you gave --

A. Yes, it is.

Q. -- earlier this morning?

Do you know whether performance of that nature, conduct of that nature might result in an issue or an adjustment in a Kansas City Power & Light rate case?

A. I would expect that it would, if the rates -- if the ratemaking were done responsibly, and I

have no reason to believe otherwise, but that might not be as good to the benefit of the ratepayer as not making the expenditure in the first place.

Q. Do you know when Kansas City Power & Light's last rate increase in Missouri occurred?

A. No, I don't.

Q. Do you know whether Kansas City Power & Light has had any rate reductions in the last 15 years in Missouri?

A. No, I don't.

Q. Mr. Ford, earlier this morning you referred to a, I believe a Vermont report and other analysis studies, I believe some of which you provided or was provided by your counsel in response to Data Requests from Kansas City Power & Light?

A. Yes.

Q. The studies that you referred to this morning, did you participate in any of those studies?

A. They're not studies. They're reports. They're articles that were written by the principals in these companies. I make reference to them because I am attempting to demonstrate the broad and wide knowledge that exists about energy efficiency programs.

Q. Did you participate in any activity to which those reports refer? Specifically these were for --

A. Not in Vermont or California, no.

Q. This morning you made reference to Trigen. Do you know whether Trigen Energy Corporation has or presently operates in the state of Missouri?

A. I believe it does. I know it's a party to this case.

Q. Do you know where in Missouri --

A. No, I don't.

Q. -- that Trigen operates?

A. No, I don't. I don't know the nature of the plant they operate here.

MR. DOTTHEIM: If I could have a moment, please.

JUDGE PRIDGIN: Certainly.

MR. DOTTHEIM: Thank you, Mr. Ford.

JUDGE PRIDGIN: Mr. Dottheim, thank you. Mr. Fischer on behalf of KCP&L?

CROSS-EXAMINATION BY MR. FISCHER:

Q. Good morning, Mr. Ford. My name is Jim Fischer, and I represent Kansas City Power & Light in this particular proceeding. And I just have -- I need to have a conversation with you today about your testimony and your client's position on some of the issues here today. Is this the first time you've been to Jeff City?

A. Yes, it is.

Q. Well, welcome to our capital city. We've got some great streams and lakes, if you have time to spend over the weekend.

A. What I've seen out of the window is attractive.

Q. I'm not the best note taker, and since we didn't have prefiled testimony, I need to go over with you just before I start about a couple points you made, just to make sure my notes are right. They're going to be kind of random, but if you don't mind, I'll just go through these briefly.

A. Go right ahead.

Q. As I understood your testimony, one of the major recommendations and thoughts that you wanted to communicate to the Commission was that you believe that the utility should be given a financial incentive to encourage energy efficiency programs; is that right?

A. Yes, that's correct.

Q. And if I understood one of the comments that you made is that you believe that generally utilities are earning, I think you said 14 percent on equity, and that you should encourage efficiency programs that would be an incentive to continue energy efficiency and incent them to do that?

A. That's correct.

Q. So would you recommend that Kansas City Power & Light be given incentive to adopt energy efficiency programs and earn as much as 14 percent equity on them?

A. I do not know what Kansas City Power & Light's current earnings are or any of the history that is involved in their current rates, so I can't make a specific recommendation. I was trying to make a reference that would put it into context.

Q. But you think the company should be given a very reasonable return on equity to encourage that kind of activity?

A. What I said specifically was consider an award in the neighborhood of 50 to 150 basis points, a 1/2 to 1 1/2 percent return rate increase or reduction based on the performance of this desirable outcome.

Q. So that would be like an adder to the normal rate of return --

A. Yes.

Q. -- that would be designed --

A. Very specifically, my intention is that it be some fraction of the rate increase that would otherwise be incurred so that the customers come out ahead. You're talking about a 9 to 15 percent rate increase for the construction of this plant. There's -- even if you did

have to build an efficiency program that was as expensive as the very high end, the $61 million, you would still have room to add or subtract a percentage point or two of revenue to the company's total returns without exceeding the avoided rate increase that would otherwise occur.

Q. And based upon your review of the stipulation in this case, is it your understanding that KCPL is given an incentive in this case to earn on the efficiency programs that are incorporated into the stipulation?

A. No. In my understanding the stipulation in some of the responses to Data Requests that we got, the company is very clearly asking only for program cost recovery and interest on those dollars during the ten-year amortization period between when they start and when they finish collecting them for each year.

Q. And you'd be recommending, I guess, that we earn more than that in order to give us proper incentives?

A. I would recommend that as a principle that should be carefully addressed in meetings between the company and the Commission and interested parties in the course of the next year leading up to this 2006 rate case.

Q. Is it your understanding, though, that the company is earning some return on this? It's not like they're funding this out of the shareholders' pockets; is

that your understanding?

A. No, they're not funding it out of the shareholders' pocket, but they're losing revenue on lost recovery from the retail sales of electricity compared to what they're recovering with these program cost recovery. The carrying costs they're asking for is simply interest on the money they spend, and I don't know what your interest rates are, but they're guaranteed to be lower than the lost revenues portion of the kilowatt hours not sold. And not -- they do not compensate for money the company would otherwise earn to maintain the transmission system.

Q. One of the comments that you made caused me to believe that you thought Kansas City Power & Light was unusually dependent upon natural gas in its generation mix.

A. I believe that to be the case. They have 19 percent of their plants that are natural gas plants, but I don't know what the load shape of those plants is as a function of the whole. So I can't be sure that that's a critical issue.

Q. I'd like to show you Data Request No. 38 from the Sierra Club, and it does confirm your 19 percent. For the Commission, would you just read into the record the various percentages that Kansas City Power & Light has

regarding nuclear, coal and natural gas?

A. Nuclear -- this is SCCC Data Request No. 38, and nuclear is shown as 548 megawatts or 13.5 percent. Coal is 2243 megawatts or 55.3 percent. Natural gas is 808 megawatts, 19.9 percent, actually 20 percent, and fuel oil is 460 megawatts or 11.3 percent.

Q. Okay. And from your perspective that 20 percent natural gas would be heavily dependent on natural gas?

A. Well, I don't know if those are peaking plants. My understanding is that there are some peaking plants and some combined cycle plants. So to know what the utilization is -- my impression is that Kansas City Power & Light is an extreme summer peaking utility. Their winter peak is less than half of their summer peak in some recent years. And that is not outlandish, but it puts a lot of demand on peaking capacity because you don't need the plants 10 or 11 months out of the year.

Q. Do you have any knowledge of how that mix, Kansas City Power & Light's natural gas percentage would compare to other utilities in the state of Missouri?

A. No, I don't.

Q. You also had a comment that I wasn't clear about. Did you say that if KCPL adopted aggressive efficiency programs they wouldn't need a 12 percent

reserve?

A. They wouldn't need 12 percent of the kilowatts or the megawatts of capacity that is saved. If you have to build 400 megawatts -- let's take a round number. If you have to build 100 megawatts of capacity, you actually need 112 megawatts or you only get 88 megawatts of deliverable useful capacity because of the reserve margin requirement.

If you eliminate the need for that 100 megawatts, you don't have to do the extra because there is no reserve for margin requirement for saved kilowatt hours.

Q. But you're not suggesting that the company wouldn't need a 12 percent or whatever is the appropriate reserve margin over and above its credited capacity?

A. No. The regional regulatory body -- and I'm afraid I don't remember the name of it, but the company said that's where they get their 12 percent margin from, and that's the way it's done around the country. I don't dispute that, except to note that reserve margin assumptions have been falling due to wholesale competition and the increased ability of companies to make up for each other's shortfalls. 12 percent is a reasonable number in 2005 as far as I'm concerned.

Q. Another random note I had is that you're

not here to pick a number for the efficiency program, you're just here to talk about some of the general principles but not design an efficiency program for KCPL; is that correct?

A. Right.

Q. And I believe you also indicated you didn't come to specify what kind of program should be done; is that right?

A. No. I'd just like to call attention to the fact there are some very powerful programs that have been proven to be sufficiently effective to do the job that I claim can be done.

Q. Another note that I had was that you're not proposing that the company construct an IGCC right now.

A. No, I'm not. I do believe that IGCC or some other new technologies may be available in less than five years, and that there is an added benefit to delaying the need for a new coal capacity in light of these uncertainties.

Q. Didn't you testify in front of the Ohio Senate, I believe I read that the technologies, we just don't have enough experience with that technology to know just how efficient it will be?

A. There are approximately 50 IGCC plants in the world today, and 48 of them were built for purposes

other than utility electric generation. The two plants that are built for utility generation, I do not know much about them. I've heard conflicting details, and actually I've seen conflicting reports about how they perform.

It's very clear that IGCC can perform in a range of fuel efficiency from 38 to 50 percent. It's not clear whether somebody could set out today and build a plant and achieve either one of those ranges of efficiency in a plant that has utility scale availability. And I'm not prepared to advocate a technology that I can't point to a working example of.

Q. That came up yesterday. Do you know what the largest IGCC plant might be, IGCC?

A. No, I don't. I think that there are a couple that are over 200 megawatts.

Q. Nothing as large as 850 megawatts, though?

A. No, not yet.

Q. I believe you also made a comment that you can't just turn on overnight an 800 megawatt power plant, it's a rather unwieldy tool, I believe you called it?

A. Yes, that's right.

Q. And that recognizes it takes a long time to build one of those plants and you have to plan for that?

A. Absolutely.

Q. Okay. The other note I had is that you

indicated that there were 18 states that actively are promoting efficiency programs?

A. Yes. The 18 states that are doing it through -- I probably didn't adequately explain this. There are two funding mechanism approaches, system benefit charge, which is where the state requires a fee on electricity anywhere from several one-thousandths of one percent all the way up two or three or sometimes -- in Vermont's case it's 3.6 percent of retail revenues.

That's a system benefit charge that's got different names in different places, but the more conventional approach to compensating a utility, a regulated investor-owned utility is this approach of determining a per kilowatt hour basis of return and then incentive payment and compensating for lost revenues.

So between those 18 states with a system benefit charge, and another 5 states that have the recovery mechanism, there's 23 states I know of which are actively engaged in efficiency today.

Q. So I guess the remainder would not fall into that category that they're actively promoting efficiency, that they're less progressive --

A. The remainder of the states are not presently involved in efficiency. I've never seen a list of all the states that have ever done it. The oldest

utility efficiency program that I know of was started in the 1960s in Osage, Iowa. And as I said in my testimony, many of the earlier programs were done by publicly owned entities ranging from small munis all the way up to some of the biggest cooperatives in the country.

Q. So you'd agree that some states like Vermont have had a long history with these programs, but other states have had less of a history?

A. Right. It's been very spotty.

Q. Is it your understanding that as a part of the Stipulation & Agreement in this case, Kansas City Power & Light and the signatories are proposing that we embark on an efficiency program for the state of Missouri?

A. There are some concerns about that question that have to do with confidential information which I'd be happy to discuss if we --

Q. I don't want to get into the quantification of it, but I mean, we are wanting to do an efficiency program?

A. The point that I made in my testimony is that year five of the current proposal, the total efficiency spending for the stipulation is one-third of the number that the Vermont program started out at in the year 2000.

Q. But they've been at it 20 years, haven't

they?

A. Not in this particular program. They've had other programs. My understanding is that the earlier programs were one through a regional utility which no longer exists.

Q. Wouldn't you agree the state has to begin somewhere, and if you haven't had a long history, it's good to start the process and see how these programs work and try to find out what you can say and what you can't and how confident you can be that you're going to experience efficiency savings down the road?

A. I would agree with that, but the context is cognizant of the growth and the pending capacity additions.

Q. Is it also your understanding that KCPL's and the signatories' proposed program in this case was developed as part of a collaborative process where all the parties were given the opportunity to suggest ideas and come to consensus on what the level of funding should be?

A. I know that my clients don't feel that there was much of a consensus achieved.

Q. But there are a large number of entities in this room that have signed the Stipulation & Agreement that are endorsing that; is that right?

A. I agree with that. Most of those entities

have an interest in the proposed plant that is different from the regulated sharehol-- the regulated ratepayers of the Missouri and Kansas elements of Kansas City Power & Light.

Q. Is it your understanding that if the Commission adopts the Stipulation & Agreement and Kansas City Power & Light and other signatories participate in additional collaborative efforts to develop these programs, that at the level of funding we're talking about in the stipulation it will be the largest program in the state?

A. No, I have no idea what else is going on in this state.

Q. Okay. I've just got a few questions I'd like to visit with you about, about your clients particularly. It's my understanding that you're here representing both the Sierra Club and the Concerned Citizens of Platte County, Missouri; is that right?

A. That's right.

Q. Okay. And from the application to intervene, it appears that the Sierra Club is actually a non-for-profit organization based out of California?

A. Right.

Q. I think there was a headquarters listed in San Francisco?

A. That's where our national headquarters are, and legally under California law, the entire national organization is one entity.

Q. Okay. And you mentioned earlier that you're a member of the -- I think the National Energy Committee of the Sierra Club?

A. Yeah. It changes its name every three years, but I've been on it for 20.

Q. Okay. Did the energy committee or any other entity of the Sierra Club review your testimony or approve the concepts that you were going to be expressing today?

A. Absolutely approved the concepts. No, they did not review my testimony.

Q. Okay. I also understand you're appearing on behalf of Concerned Citizens, that's the term I'll use to shorthand that, the Concerned Citizens of Platte County?

A. Right.

Q. And according to the application to intervene, they are also a not-for-profit corporation incorporated under the laws of Missouri; is that your understanding?

A. It's my understanding. It might save a little time if I told you that my contact with Concerned

Citizens of Platte County has been minimal. I was invited to participate in this case by a Sierra Club member, and our attorney has had contact with Concerned Citizens, and that's my only exposure to this group.

Q. So that group would not have reviewed or approved necessarily your testimony?

A. No. No. The Sierra Club did locally.

Q. And could you tell me when you were first contacted by Sierra Club to participate in this proceeding?

A. It was probably early May.

Q. On. And when you were contacted, by whom were you contacted?

A. Wallace McMullen.

Q. Did Wallace tell you or ask you to do anything specifically in regard to the case?

A. He asked me to look at what the issues were, and he and I are both interested in diverting energy from new coal capacity to more efficient technologies and to carbon reduction strategies. I have a pretty clear idea what a case like this is going to be about. It's -- there's something like 30 or 40 of them going on in the country right now, and we network a lot with people who have virtually identical situations to deal with.

Q. Were you asked to focus principally on the

energy efficiency programs in the stipulation?

A. That's what I do, and I wouldn't have agreed to focus on other strategies because I wouldn't have been qualified to do much less.

Q. Did you respond to anything in writing, a request for proposal or anything that would identify the scope of your task in this case?

A. No. Wallace reviewed the draft comments as I was putting them together. We have -- we have not prepared formal written testimony, so what you hear is what you get.

Q. Okay. According to the application to intervene, the Concerned Citizens are composed of residents of Platte County that live in close proximity to the proposed Iatan 2 site; is that your understanding?

A. I understand that.

Q. Do you happen to know how many households are represented by the Concerned Citizens?

A. No, I don't.

Q. As you understand your clients' position, would it be correct to conclude that these residents are opposed to having a coal-fired plant built in their backyards, so to speak?

A. That's the understanding that I have, yes.

Q. And do you know if there -- that group has

an office in Missouri or --

A. No, I don't.

Q. Okay. Would you know who Don Swaggerty is?

A. Never heard the name.

MR. FISCHER: Okay. Your Honor, I'd like to have Mr. Ford's curriculum vitae marked as an exhibit.

JUDGE PRIDGIN: I believe we are at Exhibit 28.

(EXHIBIT NO. 28 WAS MARKED FOR IDENTIFICATION BY THE REPORTER.)

BY MR. FISCHER:

Q. Mr. Ford, do you recognize this exhibit?

A. Yes, I do.

Q. Is it your curriculum vitae that you provided to the company in discovery?

A. Yes.

MR. FISCHER: I'd move for admission of Exhibit 28.

JUDGE PRIDGIN: Any objection? Hearing none, Exhibit No. 28 is admitted into evidence.

(EXHIBIT NO. 28 WAS RECEIVED INTO EVIDENCE.)

JUDGE PRIDGIN: Mr. Fischer?

BY MR. FISCHER:

Q. Based on your curriculum vitae it seems

that you've been concerned principally with energy efficiency issues. I think you've already testified to that today.

A. Yes.

Q. That's the primary focus of your work at the Sierra Club?

A. Well, energy efficiency and climate change.

Q. And you've specifically reviewed the Stipulation & Agreement in this case?

A. Yes, I did.

Q. And so you're familiar with the provisions in Section 5 on the demand response, efficiency and affordability programs?

A. I have reviewed them. I don't recall them offhand.

Q. On page 46 of the stipulation, it states that the current estimated cost associated with demand response, efficiency and affordability programs for a five-year period is $52.8 million, split between Missouri, and then there's parentheses, 29 million, and Kansas, 23.8 million as detailed in Appendix C. Is that your understanding?

A. Yes. That's the combination of the efficiency, the low income and the load management programs, if I'm not mistaken.

Q. And the stipulation goes on to state that the initially budgeted expenditures for the five-year period for Missouri shall be 13.8 million for demand response programs, 2.5 million for affordability programs and 12.7 millions for efficiency programs. Is that your understanding of what is being --

A. That conforms to my understanding of the document. I don't remember the numbers.

MR. FISCHER: Your Honor, I believe earlier in the proceeding Ms. Henry asked that the pleadings in EW-2004-0596 be taken administrative notice of. I would like to ask the witness about the position statement that was filed in that case. I'm not sure if you need a copy of that or whether we should make it an exhibit. For convenience, I've got copies.

JUDGE PRIDGIN: I would appreciate that, yes. Thank you. I'll show that as Exhibit No. 29 for identification purposes.

(EXHIBIT NO. 29 WAS MARKED FOR IDENTIFICATION BY THE REPORTER.)

BY MR. FISCHER:

Q. On April 4th of 2005, your clients filed a pleading entitled Concerned Citizens of Platte County and Sierra Club's Response to Stipulation Filed by Kansas City Power & Light. And in this particular pleading, I believe

if you review it, I would ask you to review it and confirm for me that your clients are supporting the energy efficiency programs being proposed by the Stipulation & Agreement, particularly in the first paragraph where it says CCPC supports energy efficiency programs and would like to see a third party examine them for effectiveness and possible implementation?

A. Yes, I see that and I acknowledge this. It's consistent with my view that the programs that have been proposed are not unreasonable. They're just too small.

Q. Okay. So would it be correct for me to conclude from the position statement that your clients do support energy efficiency programs that are contained in the stipulation?

A. This is what the clients have said, yes.

Q. Okay. And are you familiar with the provisions in the stipulation on page 47 where it states that the Staff, Public Counsel, MDNR and any other interested signatory party will serve as an advisory group, and then there's a parentheses, customer programs advisory group or CPAG, to KCPL in the development, implementation, monitoring and evaluation of the demand response efficiency and affordability programs?

A. This is consistent with my recollection of

the documents.

Q. So would it be correct that you understand that there will be a customer programs advisory group that will be examining these programs for effectiveness and possible implementation as a part of this process?

A. Yes. I've been involved in many groups like this over the years, and typically what happens is the customers' advice is heeded with regard to program design, but not with regard to program expenditures.

Q. So if the Commission approves the stipulation, there will be a third party, this customer programs advisory group, that will be involved in the examination of the programs as is being suggested by your clients in their position statements?

A. I have no reason to doubt that.

Q. Okay. Great. And then if I go back to the pleading that's been marked 29, it states that CCPC does support the plan upgrades at Iatan and Lacine; is that correct?

A. That's on paragraph 1. I'm sorry.

Q. It's the second sentence on paragraph 1, CCPC does support the plan upgrades at Iatan and Lacine.

A. It should be Iatan 1, yes.

Q. Yeah, I took that to mean Iatan 1.

A. Right.

Q. So would it be correct to conclude that your clients are in favor of the environmental investments that are being made to upgrade Lacine and Iatan 1?

A. I have every reason to think so.

Q. Is it your understanding that the environmental upgrades at those plants will help improve the air quality in the Kansas City area?

A. They're essential to do so.

Q. And is it your understanding that KCPL will be investing $270 million in technologies to substantially reduce certain air emissions at those plants?

A. Right. When I talk about the rate impact for the construction of Iatan 2, I have subtracted the capital costs out as they were reported to me in various documents. And I don't memorize these numbers, but that 272 million sounds about right. It's 40 percent of the capital expenditures, and I can't tell what financing costs will be.

Q. With your review of the documents in this case, did you note that the Mid-America Regional Council is also supportive of this proposal?

A. I don't remember that offhand.

Q. And are you also aware that the early installation of the Lacine 1 selected catalytic reduction facility is designed to help attain the eight-hour ozone

standard in the Kansas City region?

A. I'm not specifically aware of that, but that is typical of what's going on around the country. And I established that there were some discussions of early compliance.

Q. Would you agree with me, just from an environmental standpoint, the proposed investments to upgrade the environmental controls of KCPL's existing plants is a good thing and should be encouraged by the Commission?

A. Absolutely.

Q. And it's my understanding that your clients are specifically recommending that part of the stipulation be approved?

A. I wouldn't speak on behalf of them. I'd say we're not concerned about it and not opposing it. Maybe they are recommending it.

Q. Well, the pleading in Exhibit No. 29 at one point indicates, as I mentioned, that the Concerned Citizens does support the plan upgrades at Iatan and Lacine. I believe if you look at page 2, the very last sentence -- well, I guess that goes to wind. I'm sorry.

A. I've worked with attorneys all my life, but the changing case numbers on the documentation in this matter are far beyond me, so if --

Q. It was an unusual process, I have to tell you, for sure.

MS. HENRY: Excuse me, Mr. Fischer. He's here as an energy expert. If you'd like a Concerned Citizens member to testify about the Concerned Citizens' views, we could get one in.

MR. FISCHER: Well, I understood he was representing both groups today, but I'll just ask him some questions about that.

MS. HENRY: He is representing both.

BY MR. FISCHER:

Q. Mr. Ford, did you happen to review the testimony of Chris Giles, the company's policy witness in this case?

A. Yes, I did.

Q. Do you have any reason to dispute his statement in his testimony that the total site emissions at Iatan will be less than they are today after the environmental upgrades of Iatan 1 and the construction of Iatan 2 is completed?

A. That is with regard to criteria pollutants which are regulated by federal law. That does not include C02, which is of grave concern to us.

Q. But you don't have any reason to believe that what he testified to on the effect of those

environmental upgrades will be correct, is correct?

A. The effect on the criteria pollutants as he describes it is true, but as I said, that's not quite the same thing as saying that there's less pollution coming from the site since CO2 is a pollutant.

Q. With regard to wind, I understood your testimony earlier today to be that you were not particularly a wind advocate?

A. That's right.

Q. But you did recognize that wind could be an important part of the portfolio of a utility?

A. Right. This part of the United States has a better than average wind resource in general, and wind is not the first choice for peaking capacity, but if what this company actually needs is base load capacity, wind is the cheapest generation form available today, unless you happen to have a river that you want to dam up and haven't already done so.

Q. The position statement of your clients indicates on paragraph 1 that CCPC supports the wind proposals and would like to see a commitment to increasing amounts of renewable energy each year; is that right?

A. That's right.

Q. And then I believe on the second page it indicates the Sierra Club specifically, Sierra Club

supports KCPL's investing in wind generation resources if properly -- done properly and in accordance with best practices, and would like to see a commitment to increasing amounts of renewable energy each year; is that right?

A. That's right.

Q. So would it be correct to conclude that your clients are supporting the development of wind generation by KCPL?

A. That's right. Remember that this document was prepared before I became involved in the case, and they may have phrased it a little different than if I'd been advising them at that time.

Q. Sure. I understand. I think what you said was you'd like to see a little more wind but not too much?

A. No. I'd like to see a careful fit to the company's load between the different resources that are out there, wind, efficiency, perhaps peaking capacity, but I am -- I'm not in a position to be able to design that program at this time.

Q. Sure. And did I understand, though, that you recognize there are concerns about capacity and availability factors for wind --

A. Yes.

Q. -- that you have to take into account?

A. Yes. The Regional Authority Planning Council said that wind is good for 7 percent. If you have 100 megawatts of wind, you have 7 megawatts of peaking capacity on a reliable basis. And I know wind advocates think it's a lot closer to 40 percent. I think the answer is somewhere in between, and it's very site-specific and it depends a lot on what the weather is like when your peak occurs. So I don't advocate wind as a peaking resource in particular. I just note there is a little bit of a peak benefit.

Q. Is it your understanding that as a part of the Stipulation & Agreement, the signatories are recommending that 100 megawatts of wind be installed in 2006?

A. Right. And the potential for another 100 in 2008.

Q. After additional study --

A. That's right.

Q. -- we look at Missouri sites?

Is it your understanding that that evaluation will be done as a collaborative effort as well by the signatories that are interested?

A. That's my understanding.

Q. You haven't included any kind of a cost/benefit analysis of adding additional wind beyond

that in your testimony; is that correct?

A. The company's analysis says the wind's cost effective. I see no reason why a larger amount of wind would be less cost effective than the smaller amount that's proposed.

Q. But you did recognize there's issues about availability and capacity factors and whether it fits into a mix of the utility's existing --

A. There are certainly those issues.

Q. You agree if we install 100 megawatts in 2006 and then the additional 100 in 2008, that that will represent an increasing amount of renewable energy over at least that time period?

A. I would say that for an $870-something million company, that's a rather timid first step, but it is a first step. I didn't come here to promote wind. I came here to promote efficiency, and that's my primary concern. If I get that message across, the rest of the messages will take care of themselves.

Q. Well, I appreciate your candor about your role and your focus here. I'm just trying to understand your clients' perspective on some of the issues.

Let's go back to your curriculum vitae. I just had a couple questions about that. At one point on page 2 you say, the subject of my avocation is one that

can be studied to some degree by selected reading, but my personal experience is to have watched the revolution of a concept into a firm and important reality over a quarter century.

My question was, when you talk about your avocation, are you talking about your interest in energy efficiency issues?

A. Yes, I am.

Q. Okay. Do you consider yourself to be an expert in the area of energy efficiency?

A. Yes.

Q. What about in the field of climate changes?

A. Climate change is an enormous subject, and I am some sort of an expert in it because most of the technical experts are very narrowly restricted to one area or another, whereas I have a less deep but very broad picture understanding of climate change. I've spent most of the last 15 years keeping abreast of everything in terms of both the knowledge of science and the evolving understanding of strategic solutions.

Q. Are you suggesting that you do consider yourself an expert?

A. Yes, I do.

Q. Okay. Mr. Ford, you sometimes participate in environmental bulletin boards or chat rooms?

A. We don't call them chat rooms, but yes. It's an e-mail listserv. There's half a dozen of them actually that I'm involved with on a regular basis.

MR. FISCHER: Okay. I'd like to have an exhibit marked.

JUDGE PRIDGIN: You may.

(EXHIBIT NO. 30 WAS MARKED FOR IDENTIFICATION BY THE REPORTER.)

JUDGE PRIDGIN: I believe this is Exhibit No. 30 for identification purposes.

BY MR. FISCHER:

Q. Mr. Ford, does this exhibit appear to be a copy of one of your postings on an environmental bulletin board?

A. Yes, it does. It's dated 1998. The list has evolved a little bit since then, but I believe I was on and this is one of my messages.

Q. Okay. Would you review this posting and confirm to me that in one of the messages you've indicated that, quote, I'm not a qualified expert, so my showing you things I research would be of little value to people who assert that this all relies on proof?

A. The discussion, the paragraph, the sentence immediately before has to do with satellite data, which at the time was a very hot topic because the anti-global

warming crowd was under the mistaken impression that they had disproven that climate change was occurring because they had some preliminary data that didn't show a large-scale warming in the upper troposphere.

I'm not an expert in those kind of things, so I was disputing the fellow and I told him I'd give him some references but I can't stand up and take them apart and put them back together for you.

Q. It was my understanding -- or I was going to ask you whether you were specifically talking about climate change and global warming in that context.

A. I was talking about a very specific limited area of climate science, yes.

Q. At least in that context you'd consider yourself not to be an expert in global change?

A. Not in the context of the interpretation of satellite data, no.

Q. Is it your understanding that this Commission has to base its orders on competent and substantial evidence or what laymen might refer to as proof?

A. Yes.

Q. On page 2 of your vitae, you also indicate that you don't have any academic credentials in these areas but have spent much of my adult life bridging

discussions between disciplines which are apparently lacking in the ability to communicate. It often has the effect of making complex problems simpler to understand. Is that correct?

A. That's correct, yes.

Q. And when you're talking about having no academic credentials in these areas, you're talking about energy efficiency and climate control?

A. Yes.

Q. So you haven't completed formal courses, I guess, in those areas?

A. They didn't have courses in those areas when I went to school.

Q. Okay. Do you consider yourself an expert in the field of electric load forecasting?

A. No.

Q. What about integrated resource planning?

A. I would hesitate to say I'm an expert. I am a very informed participant in some aspects of load planning analysis.

Q. Have you ever completed an electric load forecast for a public utility or a regulatory agency?

A. No.

Q. Or filed an integrated resource plan for an electric utility or regulatory agency?

A. No.

Q. And you're not a professional engineer; is that correct?

A. No.

Q. I didn't see any specific educational training or specific professional experience listed in your vitae; is that right?

A. That's right.

Q. And have you ever worked -- you said you're self-employed, but have you ever worked for an electric utility or a regulatory agency?

A. No.

Q. Is it your understanding that the Sierra Club and Concerned Citizens did participate in the workshops that were held in the context of EW-2004-0596?

A. If you put it that way, yes.

Q. And you didn't have the opportunity, I don't believe, to attend any of those workshops; is that right?

A. No. My exposure to the workshops has been through a number of written comments, articles and reports, including the company's analysis of those workshops. It's sporadic at best.

Q. It looks like that's the kind of workshop you did a lot of attending in Ohio; is that right?

A. That's right. Not that anyone in Ohio ever put the next power plant on the block and said, let's talk about this. We haven't needed a new power plant in Ohio for 30 years.

Q. Based on your experience, is the kind of collaborative process that's happened here where we talk about these things rather unusual?

A. No. It's actually fairly typical.

Q. Fairly typical. Okay.

A. I couldn't make a rule. It's been a long time since this country has needed much new base load capacity, and there are a lot of efforts made to bring people together and talk about the planning, because the basic understanding is the industry is less certain than it was 30 years ago about the need for this kind of thing. They need to have some things worked out.

Q. Okay. I don't want to belabor things too much, but I did have some additional questions regarding -- well, the stipulation indicates that KCPL provided to the Staff, the Public Counsel and other participants the following information: among other things, a description of KCPL's proposed efficiency, affordability and demand response programs, the ten-year generation load forecast, description of proposed distribution and transmission infrastructure programs, description of the environmental

investments considered by KCPL to be necessary for the future.

Is that your understanding of the kind of thing that was provided in that workshop?

A. I would rather read the list carefully and go over it, but I'm not going to disagree with anything you said.

Q. Okay. Have you interviewed any of the KCPL witnesses that participated in this proceeding regarding the resource plan that's being recommended in the stipulation?

A. No. I've read all the testimony that was filed.

Q. Okay. Have you talked to any of the Staff or Public Counsel experts --

A. No.

Q. -- or Missouri DNR that participated in that process?

A. No.

Q. Now, you signed a non-disclosure agreement on March 31st of 2005 in this proceeding; is that right?

A. Right.

Q. Prior to signing that non-disclosure agreement, did you review any of the proprietary or highly confidential information that was included and provided to

Sierra Club and Concerned Citizens?

A. No. It hadn't been delivered to me at that point.

Q. Is that the approximate date that you began your investigations?

A. No. There's a lot of non-confidential material that I was looking at.

Q. When did you really begin your investigation into this case?

A. Sometime in the beginning of May. I don't really have the date.

Q. Would it be correct to say that you didn't begin your investigation into the proprietary and confidential materials until May 31st of this year?

A. It would be correct to say that.

Q. And would you also agree with me that much of the relevant, important information in this proceeding, including KCPL's generation and load forecasting, integrated resource plans and analysis of various supply options, were designated as proprietary and highly confidential?

A. There was an utterly unpredictable pattern of confidential and unconfidential material that eventually resulted in my opinions being formed. I was really surprised at some of the things that were

non-confidential, and the sum total of this picture is that there's very little that was confidential that I rely upon, because it's all pretty much standard for utilities of this sort.

The environment that you're operating in is not that much different from other utilities around the country. You're dealing with a faltering load growth. You're dealing with uncertainty about fuels and environmental concerns and --

Q. I'm just asking whether you're basically -- after May 31st is when you looked at the important materials that are confidential.

A. My actual notes for this hearing today are two pages long of confidential notes, and there's not a single point in there that I need the confidential information for. All it does is reinforce points that I've made from non-confidential sources.

MR. FISCHER: I believe this exhibit has already been introduced, your Honor, so I won't ask that it be introduced again. I would like to show it to the witness. It is the Sierra Club and Concerned Citizens response to Kansas City Power & Light's first Data Request to Sierra Club and Concerned Citizens.

JUDGE PRIDGIN: You may approach.

MR. FISCHER: I don't recall what number

that was.

BY MR. FISCHER:

Q. Have you seen that response previously, Mr. Ford?

A. I believe I have.

Q. On page 3 of the response, it indicates that the information provided in these answers was provided by Ned Ford and Troy Helming; is that correct?

A. Yes.

Q. Do you recall the date when you provided that to Ms. Henry to be included in the response?

A. No.

Q. Ms. Henry sent me an e-mail with that attached on May 28th. Would it be correct to conclude that you provided Ms. Henry the information sometime before May 28?

A. Yes, it would.

Q. And that information that you provided included a summary of your opinions in this case?

A. That's right.

Q. The first opinion listed in that indicated that KCPL's plan to respond to projected need for new capacity is not the lowest cost plan; is that right?

A. That's right.

Q. Would it be correct to conclude that you

formed this opinion on or about May 28th, at which time you provided that information to Ms. Henry?

A. I've been working with cost comparisons between coal capacity and energy efficiency for over a quarter of a century. I didn't have to read anything about the case to know where I was going to come down on that issue.

Q. So you had that opinion that KCPL's plan to respond to projected need for new capacity is not the lowest cost plan, you had that opinion before you looked at anything in this case?

A. If you're proposing to build a new coal-fired power plant is what I'm comparing to an energy efficiency strategy, I know what the answer is before I look at the details of the case. Now, of course I have to look at the details of the case to make sure that there isn't something wrong with my conclusion.

Q. Please answer my question. You had that opinion about KCPL's plan before you looked at anything in this case?

A. I had that opinion about KCP&L's proposal based on the information that there was a coal-fired plant proposed and there was a small or no energy efficiency component.

Q. Which is all you needed to know to have

that opinion?

A. I knew there was an issue here.

Q. Now, your second opinion is that KCPL's plan to respond to projected need for new capacity is not the least economically risk plan; is that right?

A. Yes.

Q. Would your answer be the same, that you had that opinion before you had any need to look at the specific information in this case?

A. Yes.

Q. And your third opinion is KCPL's plan to respond to projected need for new capacity will result in substantially more pollution than other plans that would cost consumers less; is that right?

A. Yes.

Q. And if I ask you again, you had that opinion before you needed to look at any of the specifics of this case?

A. Coal is coal.

Q. And finally you say that your further opinion is that KCPL's plan to respond to projected need is not accurate. Would it be correct that -- is that right?

A. No, that's not. I didn't form that before I started looking at some of non-confidential materials.

I didn't know anything about KCPL until early May.

Q. It was early May. It's now June 23rd.

A. Right.

Q. So you've been looking at this for less than two months?

A. Right.

Q. And you don't consider yourself an electric load forecast expert; is that right?

A. That's right.

Q. Would it be correct to conclude that at the time you formed your opinions in this case, you'd not discussed KCPL's projected needs for capacity, the reason KCPL had chosen the specific resource plan included in the stipulation or the relative cost of one option or another with anyone at KCPL, including Chris Giles or John Grimwade?

A. No, I've never had any discussions with anyone at KCPL.

Q. Nor had you discussed these with Bob Schallenberg, Lisa Mantle, James Watkins, Ryan Kind or Russ Trippensee; is that right?

A. No.

Q. Are you familiar with those persons?

A. I believe I'm familiar with all those names. They've filed testimony or they've been parties to

the case in one way or the other.

Q. With the exception of your counsel or Wallace McMullen, who did you discuss the issues with in Missouri?

A. I relied upon the materials that were provided in terms of confidential and non-confidential matters related to this case going back to the --

Q. But you didn't need those materials to form your opinions?

A. I didn't need those materials to form the basic opinion upon which I advanced the rest of my argument. The materials were necessary to confirm the specific details of a recommendation of perhaps how large a program ought to be, what the timing is, whether there is a real concern about not being able to do efficiency in time. There's much more to it than just the basic conclusion that the three points raised here.

Q. Would you agree with me, though, that the listed opinions that you provided to Kansas City Power & Light in the answer to that Data Request are specific to KCPL, they're criticisms of KCPL and specific to the company?

A. I believe at the time that I made those criticisms, I had justification to make them.

Q. The articles and abstracts that you stated

were your work papers and supporting documentation for your opinions don't mention KCPL at all, do they? The abstracts that you provided -- let me ask you this question.

A. No. They reflect on the potential efficiency programs that could be developed. My effort was to demonstrate that this is not something that's being invented around the country. It's been done, and it's well established.

Q. In answer to the Data Request, though, you provide your work papers and underlying documentation; is that correct?

A. That's right.

Q. And those were articles like the Vermont article and abstracts involving energy efficiency around the country; is that right?

A. There was one on climate change, several on the state of efficiency in the country today.

Q. And would you agree with me that none of those articles or abstracts reference Kansas City Power & Light Company?

A. I don't believe they do.

Q. Would you agree with me that all of those articles were published prior to the time that the Stipulation & Agreement was filed in this case?

A. There might be one that was published after. I don't know. But yes, the other ones were published before.

Q. Would it be correct to conclude that none of your work papers and supporting documentation address the specific KCPL plan and its projected needs for capacity?

A. None of the documents that were provided to the company at that time could have, because I didn't know much about the company at that time.

Q. Mr. Ford, I understand that from your testimony that the Sierra Club is opposed to the construction of a coal-fired plant at Iatan. That's right, right?

A. That's right.

Q. Does the Sierra Club generally oppose the construction of new coal-fired capacity around the country?

A. It has been doing so for some time, yes.

Q. In your opinion, would the Sierra Club support the construction of a new nuclear unit in Missouri or elsewhere in the country?

A. No, but that wouldn't be a least cost solution either.

Q. Does the Sierra Club support the

construction of pump storage facilities, such as the Church Mountain pump storage facility that was recently considered by AmerenUE in Missouri?

A. What I know about pump storage is that it can be hideously expensive. But as far as environmental concerns go, it is interesting and it is clearly of relevance to the development of wind, because it can offset the load performance problems that wind has, and I understand it can do so cost effectively. I wouldn't comment on a project until I had some more details about it.

Q. So Sierra Club would support pump storage?

A. Sierra Club might support pump storage. It would depend on the details, the specifics.

Q. Do you know if Sierra Club in Missouri has opposed the construction of pump storage?

A. No, I don't.

MR. FISCHER: Ask that an exhibit be marked.

JUDGE PRIDGIN: I'm showing Exhibit No. 31 for identification purposes.

(EXHIBIT NO. 31 WAS MARKED FOR IDENTIFICATION BY THE REPORTER.)

BY MR. FISCHER:

Q. Mr. Ford, I'd like to show you an article

that came from the website of the Missouri chapter of the Sierra Club entitled, Sierra Club Celebrates Huge Victory at Church Mountain, by Wayne R. Miller. Are you familiar at all with this situation?

A. No, I'm not.

Q. Okay. Just reviewing this article briefly, would that indicate to you that the Missouri Chapter of Sierra Club is not in favor of Ameren's pump storage project at Church Mountain in Missouri?

A. I think the article's very clear. It's a scenic area. You don't put pump storage in a scenic area without paying some penalty, and the Sierra Club has a 105-year history of standing up for the protection of wild areas.

Q. Do you know where Church Mountain is located?

A. I have no idea.

Q. Does the Sierra Club support the construction of natural gas combustion turbines in Missouri?

A. I don't believe anybody's ever asked that question. We do support the construction of natural gas combined cycle and combustion turbines in other places.

Q. Do you know if -- okay. So they do support natural gas CTs to be built?

A. Yes.

Q. Are you familiar with the rather large price increases of natural gas in recent years?

A. Very much so.

Q. And I believe you were commenting about that earlier, weren't you?

A. Yes.

Q. Does Sierra Club support widespread reliance on natural gas as a source of energy for the production of electricity?

A. We're concerned about the over-reliance on natural gas. We have been supporting it because of its environmental benefits. You naturally can't support something that isn't available in larger supply as a reasonable alternative, and we don't -- I don't know anybody in the club who feels qualified to predict that there will be large supplies of natural gas going forward in the future.

Q. Earlier in your testimony, didn't you indicate that if we do continue to rely on natural gas, there's going to be a price impact on that alone and that the electricity industry is using as much as 30 percent of the natural gas? Didn't you indicate that?

A. Yes, I did.

Q. And that was a concern to you?

A. Yes.

Q. Okay. In your testimony in front of the Senate, you expressed -- the Ohio Senate that you provided, I think, to us and I think you provided the Senate on May 17 of 2005 --

A. Right.

Q. -- did you express the opinion that within the next ten years all proven natural gas in North America, including offshore Canada and Mexico, will either be contractually obligated or we will see a significant price induced reduction of consumption?

A. That's right.

Q. Did you also indicate in that testimony that natural gas wholesale prices have tripled since five years ago?

A. That's right.

Q. And have you checked the natural gas prices recently?

A. Not in the last two weeks, no.

Q. So you wouldn't be familiar with what the NYMEX is predicting for February of next winter?

A. I would not assume anyone's prediction was bound and delivered until it shows up.

Q. But $9 gas wouldn't surprise you, would it?

A. It wouldn't at all.

Q. In your Senate testimony in Ohio, you indicated that you recommended, among other things, that the state of Ohio should expand efficiency through the use of appliance standards, building codes and complementary programs to encourage advance building energy practices; is that right?

A. That's right.

Q. If I understood your testimony, that was one of the things earlier you suggested might be done by a state?

A. Well, I presented it to the Ohio Senate as an option that they might pursue, and I presented it here as a concern for the utility and its customers as an option that might occur anyhow and make Iatan 2 more risky. It depends on the context what purpose those observations have.

Q. Such programs would have to be implemented by governmental authorities probably at the federal and state level, wouldn't you agree?

A. Actually, many of the programs that we're interested in can also be implemented at the local level. It's certainly that context I was speaking to a government agency about things that they could do. So I was listing things that are appropriate for government entities to do.

Q. Mr. Ford, would you agree that the Sierra

Club is not for the faint of heart?

A. We'll take anyone.

Q. Would you agree that the Sierra Club is a vast organization with many internal conflicts?

A. You sound like a member.

Q. I'm just reading from one of your chat board postings.

A. Okay.

Q. Would you agree with that?

A. Yes, I would.

Q. I think that's on the exhibit I've already handed out. Maybe you can confirm that. Would you agree that everyone that's a part of the Sierra Club may not agree with the opinions you've expressed today in opposition to the proposed coal-fired plant at Iatan 2?

A. You can find people in the Sierra Club who will disagree with virtually anything. What is more important is what the collective organization does, and the collective organization supports the kind of solutions that I have advanced here very fully after many years of debate. I've traced club policy on coal-burning power plants back to the 1960s, but the fact of the matter is that the very second issue the Sierra Club ever took was a power plant case back in 1898 or something like that.

Q. There's lots of opinions, though, in your

organization; isn't that true?

A. Sure there are, and we have roughly Democratic processes to work them out. We are an old and established organization because we manage to represent something that people generally recognize, even if they can't pin it down at any one moment.

MR. FISCHER: I appreciate your patience today and your candid answers. I think there are a couple exhibits I have not asked to be admitted, and I'd ask they be admitted at this time.

And during the cross of Mr. Dottheim he also visited with you about Chapter 22 and some of the cases that were referenced. I'd like to ask the Commission to take official notice of three cases and some orders. I've got copies of them all related to Chapter 22 compliance and waivers, and I'd like to do that at this time, if I can hand those out.

JUDGE PRIDGIN: That's certainly fine and I've got -- Mr. Fischer, if you want to go ahead and get those copies, I have what's labeled as Exhibit 30 and 31, Mr. Fischer, that I believe you're offering. Is that correct, sir?

MR. FISCHER: That's correct.

JUDGE PRIDGIN: Any objection to those two exhibits? Hearing none, Exhibits 30 and 31 are admitted

into evidence.

(EXHIBIT NOS. 30 AND 31 WERE RECEIVED INTO EVIDENCE.)

MR. FISCHER: And, your Honor, I'd ask that the Commission take official notice of the Order Approving Joint Agreement dated July 18, 1997 in Case EO-97-522.

JUDGE PRIDGIN: The Commission will take official notice of that Order.

MR. FISCHER: And ask the Commission to take official notice of the Order Granting Joint Motion for Variance dated May 20th, 1999 in Case No. E0-99-44.

JUDGE PRIDGIN: The Commission will also take notice of that order in Case No. E0-99-44.

MR. FISCHER: And that's probably sufficient for this purpose.

JUDGE PRIDGIN: All right. Thank you. Any more questions for this witness?

MR. FISCHER: No. That's all I have. Thank you very much.

JUDGE PRIDGIN: Mr. Fischer, thank you.

This seems to be a good time to break for lunch. I'm showing almost 12 o'clock on the clock back there. Let's try to resume roughly 1:15, and I will warn the parties that we still have a long way to go and a short time to get there. Be prepared to perhaps stay

late, come back Monday or both.

(A BREAK WAS TAKEN.)

JUDGE PRIDGIN: Good afternoon. We're ready to go back on the record.

Before I recall Mr. Ford to the stand, just a couple of housekeeping things. Is counsel here for Department of Natural Resources? I don't see Ms. Valentine today.

MS. WOODS: She's been here.

JUDGE PRIDGIN: If somebody could relay to her, I'm assuming this hearing is going to go on 'til Monday, and we would likely want to have somebody from DNR available to answer questions from the Bench. I think the Commissioners would want to have a witness available.

MS. WOODS: We can arrange that.

JUDGE PRIDGIN: Thank you. And also perhaps the Department of Energy, Mr. Phillips, I don't know. The Commission may have questions either for you or for a witness about the stipulation.

MR. PHILLIPS: We would have to think about availability.

JUDGE PRIDGIN: I understand. I just wanted to give you as much warning as I could.

MR. PHILLIPS: We can always answer questions now, late this evening and then later this

evening.

JUDGE PRIDGIN: Okay.

COMMISSIONER GAW: In other words, you won't be here Monday?

MR. PHILLIPS: Monday may be problematic.

JUDGE PRIDGIN: Okay.

MR. PHILLIPS: And our answers will not change between now and later this evening or real late. The latest I've been here, Judge Pridgin, was we did have a hearing one time that went to 2 a.m., and we all got through that, so we're willing to stay.

MR. CONRAD: There's a goal to which we can all aspire.

JUDGE PRIDGIN: That's only 12 hours away or so.

COMMISSIONER APPLING: I really would like to see us set a new record.

JUDGE PRIDGIN: Mr. Phillips, thank you. I think that's all the housekeeping that I have.

COMMISSIONER GAW: Do you have a witness?

JUDGE PRIDGIN: Do you have a witness, Mr. Phillips?

MR. PHILLIPS: We have no witnesses, do not intend to call any. We have a few questions of Mr. Trippensee and perhaps Staff, Mr. Schallenberg, and

that would be it, and we would close after that.

COMMISSIONER GAW: Just checking to make sure you don't have anybody available that could be a witness.

MR. PHILLIPS: I think you would want someone with some expertise.

JUDGE PRIDGIN: All right. Thank you. Mr. Fischer?

MR. FISCHER: Yes, your Honor. Over the lunch hour Staff counsel pointed out to me that one of the Orders that I had distributed or at least asked official notice be taken of had an appendices which was not included.

JUDGE PRIDGIN: All right.

MR. FISCHER: And I've got a copy now that does have the appendices, and that's in the Order Extending Date for Commission Action in E0-99-365, and I'd like provide that to the Bench.

JUDGE PRIDGIN: Thank you. We'll certainly take official notice of that.

MR. FISCHER: And the other thing that Mr. Dottheim pointed out to me is that there was a subsequent Order of Clarification issued in the EO-99-522 docket, and I'd like to have the Commission take official notice of that as well.

JUDGE PRIDGIN: I'll do that as well. Thank you.

I'm sorry, Mr. Fischer. Are you distributing copies of that?

MR. FISCHER: Yes.

JUDGE PRIDGIN: Let me give you a minute to do that. Any other housekeeping matters before we recall the witness?

MR. ZOBRIST: Judge, I was just going to remind you that the exhibit that Mr. Fischer used that has an expert disclosure that he didn't have the exhibit number, it is Exhibit 10.

JUDGE PRIDGIN: Yes, sir, thank you. Seeing nothing else?

All right. Mr. Ford, if you would please come back to the stand. I'll remind you you're still under oath. See if we have any questions from the Bench for you. Commissioner Gaw?

QUESTIONS BY COMMISSIONER GAW:

Q. Mr. Ford, I didn't -- I don't recall whether anyone asked you what your education was.

A. I went through high school and had a college course that I took, that I finished and didn't continue.

Q. Okay. And you've been affiliated with the

Sierra Club for how long?

A. About 25 years.

Q. And are you an employee of the Sierra Club?

A. No, I've never been.

Q. What is it -- what is it that you do for a living?

A. I invest, stock market.

Q. Okay. Can you tell me, you were asked a little earlier about pump storage?

A. Yes.

Q. And there was a particular reference to a press release that was shown to you dealing with the Tomsauk Mountains. Do you recall that?

A. Yes.

Q. Did you have any time to read that any further than just glancing at that release?

A. I glanced through it. I think I understood what the release was saying.

Q. What would be -- what was your impression of the release itself --

A. Well, pump --

Q. -- with regard to what it was saying?

A. Pump storage is going to be attractive or unattractive based on the circumstances of the individual proposal. In this case, they were proposing to put a pump

storage lake in a scenic area that was considered to be of high natural beauty and value.

Q. And would that be something that normally the Sierra Club would be opposed to?

A. That's the very heart and soul of the Sierra Club.

Q. And what's the general purpose of the Sierra Club?

A. To preserve, protect and enjoy the natural places or scenic -- I'm sorry -- it's on our masthead, but I don't remember the exact wording.

Q. Not the exact wording, but generally what is it?

A. Preserve, protect and enjoy. The group was founded by John Murray in 1892 and he was personally deeply disturbed at the development that was occurring in the Sierras and had the not all that innovative idea that he could get public policymakers to appreciate what he was doing if he took them out there. So they took some very prestigious people out to the mountains and showed them Half Dome and the canyons and some of the beautiful areas and got an agreement that these areas were worth preserving. It was the starting point of the National Park System.

Q. And so it is one of the major objectives of

the Sierra Club to preserve some of the natural areas of beauty in the country; is that accurate?

A. Yes.

Q. So in regard to the opposition of the Sierra Club of Eastern Missouri to blowing off the top of one of the Ozark mountains, could it have something to do with the fact that the scenic area and its sightliness would be disturbed rather than whether it was particularly for pump storage?

A. You said that the way one of my fellow Sierra Club members would.

Q. I'm sorry I can't claim to be a member, but I'm just asking you whether or not that would be something that they would -- that would have been the reason for the opposition?

A. Yes, absolutely. One of the hot subjects right now in the club today is mountain top removal for coal mining.

Q. So in regard to pump storage itself, because I think you've already answered, just for my sake for clarification, it depends upon the particulars of the project that's being proposed, not something where you would just oppose it because it was pump storage?

A. Absolutely. And that's even true of coal plants. I can't imagine in 2005 the Sierra Club rallying

towards a coal plant proposal of any sort, but there are some that we would oppose more vigorously than others, and there could be tradeoffs. The local entity has a great deal of discretion as to where we stand on these energy issues. We're mounting an ever-increasing campaign about climate change, so coal is increasingly looked upon with disfavor.

But is -- the club is -- it's a single entity nationally, but we're not a top-down command-type organization.

Q. Earlier you said something that -- at least I thought you said something generally opposing coal plants, that the Sierra Club generally opposed new coal plants?

A. Yes.

Q. I'm trying to understand if you're telling me the same thing now. Is it possible that the Sierra Club might not oppose a particular coal plant that was using pulverized coal or --

A. Well, for instance, somebody's trying to build a coal plant on top of Mammoth Cave right now, and I think the people down there in Kentucky would be real happy to see a different coal plant that wasn't on top of an irreplaceable wonder. Those people aren't very fond of coal plants under any circumstances, so I wouldn't speak

for them, but I could see a deal being made under certain circumstances.

Q. In other words, if it were the lesser of two -- of two things that had to do with environmental change, there may be -- there may be a resolution that the Sierra Club would live with in certain cases?

A. Yes.

Q. I'm trying to follow what you're saying.

A. We might -- we might be less concerned about an experimental IGCC plant or a smaller coal plant than we are against a larger coal plant. We might be willing to negotiate a strong efficiency program in return for some kind of concession that the coal plant could proceed. I'm not in a position to make proposals like that, and I just don't want to rule out the possibility.

Q. I see. Can you give me what it is in particular, without getting very specific, about why the Sierra Club opposes coal plants as a general rule? Is it because of air pollution, water pollution, other kinds of pollution? Is it broader than that? Does it include the notion of global warming? Does it include other things? Help me to understand why Sierra Club takes that position that it does.

A. Well, we're very concerned about climate change. Under the current law, the Clean Air Act ensures

that a new coal plant is very clean, and as we've discussed this morning, this proposal is part of a larger proposal that would result in a reduction of the regulated emissions from the Iatan site when the two plants are put together, but that's not -- that comment is not applicable to CO2.

Were we faced with a situation where the alternative to Iatan 2 were more expensive but CO2 free, we probably wouldn't spend the time to fly me out here to talk to you about it because we know that your responsibilities are economic. We have a proposal that is less expensive, substantially less expensive and is also better in terms of CO2. So we're advancing it.

Q. Okay. Is CO2 the principal concern?

A. It's the only unregulated pollutant of concern. I have a personal take on mercury. Mercury isn't quite regulated yet.

Q. I was going to ask you about mercury. So if you want to give me your take on that, I would appreciate it.

A. Well, mercury is unlike SO and NOx where we have a body count and the people who die from air pollution related to cars and vehicles are -- outnumber the people who die from traffic accidents, from guns, from most other possibly controllable causes of death in this

country. It's a very serious problem.

We don't have a body count for mercury. It is well established that it's a serious neurotoxin and has a lot of other implications for reproduction. From my point of view, you're going to get big mercury reductions when you put scrubbers on power plants, and you're probably not going to get anybody to spend the money to do more than fine tune other mercury reductions.

I may not be fully up to date on the best pollution control technology, but as I work towards scrubbers and CO2 reduction, I feel like mercury gets caught up there and taken care of, so I don't really speak about it directly.

Q. Okay. So you don't know what the potential is for -- or would not be able to testify about the potential for mercury pollution as a result of this plant?

A. Well, I don't think mercury is regulated yet. There are some regulations that are being developed, as I understand it, and the specific amount for a new source will be very low compared to the existing plants, and whether that's a 60 percent reduction or a 90 percent reduction is what's up in the air right now.

Q. All right. I'll ask someone else about it.

A. I'd certainly find someone who would give you a more informed opinion about mercury, if you'd like.

Q. You mentioned the integrated gasification combined cycle plants, I think, several times in your testimony, and -- is that not true?

A. Yeah, I mentioned them.

Q. Are you aware of any plans -- I think you also -- you also suggested that there were currently no plants up and running that were of anywhere near the scale that is being proposed for the pulverized coal plant by KCPL?

A. Yeah, I don't believe there are.

Q. Do you know if there are any major utility companies in the United States that are proposing to build plants that are somewhere near or accumulatively over the 800 to 900 megawatt plant that's being proposed in Kan-- by KCP&L?

A. I don't know. What I know is that there are about 25 proposed IGCC plants. I do not know how big they are.

Q. Have you seen a press release from AEP -- do you know who AEP is?

A. Yes.

Q. Do they work in Ohio?

A. Right.

Q. Have you seen any press release from March of this year announcing AEP's intent to build up to

1200 megawatts of new generation using IGCC?

A. I didn't know they were making that specific announcement. I've heard them talk about that. There's also the Future Gen project, which is a DOE research program that people in Ohio are pitching for very fiercely.

Q. What is that?

A. It's an IGCC plant that's to be built as a consortium of different interests. It will be about 250 megawatts, and it will have add-on components so they can experiment with developing the technology. It will be largely paid for by DOE, and the one thing I know is that it's intended to use eastern coal and it's intended to be sited where they experiment with deep well injections of CO2. If they come up with deep well injections of CO2, then our concerns about coal are considerably lessened, possibly evaporate.

Q. That's a method of carbon sequestration?

A. Right.

Q. Putting the carbon deep underground?

A. And it's unfortunately not applicable to existing plants. An IGCC plant apparently allows a very pure segregated stream of CO2. It's not like they have to separate it out of the flue gas.

Q. Do IGCC plants also allow for a recovery of

other byproducts that are salable?

A. Those are the claims that I've heard. Most of the plants are run as chemical factories, I believe, because they allow very tight manipulation of the chemical output.

Q. Okay. I'll see if I can find someone else who maybe knows a little bit more. I think maybe one of the witnesses for KCPL has some background, and maybe we have somebody from DNR and maybe somebody from our Staff who can give me a little bit more assistance on that. I think I'll -- oh, I may have -- hold on just a second, Judge.

You had mentioned earlier about incentives. Have you seen incentives in any programs around the country that are given to consumers to implement certain conservation measures?

A. Well, that's how many of these programs work. They'll do a rebate when somebody goes and buys a refrigerator or an appliance or light bulbs. Light bulbs are actually kind of favored for rebate programs because they can just mail people coupons with their monthly bill. It becomes more attractive if you're willing to do a program on a sufficiently large scale where you just go in and work with the manufacturers and distributors, but rebate programs are part of demand-side management.

Q. Is there a program that's run by the Department of Energy that's called -- that's called Energy Star?

A. Yes.

Q. What is that?

A. I'm not sure how far Energy Star goes. It's a ranking of products and some building techniques which rate a given product or construction as being superior to the norm. One example which isn't really pertinent to this company's proposed programs is an Energy Star rated home today is about 30 percent more efficient than code minimum. The state of the art allows someone to build a home that's 80 or 90 percent more efficient.

So Energy Star has its limitations, too, but it's an important aspect of educating the public about where efficiency can be found and which products are more worthwhile than others.

Q. Do they have Energy Star buildings for industrial manufacturing?

A. Anybody who builds any sort of building can apply for an Energy Star rating.

Q. Would it be -- have you ever heard of any programs where the incentives given by the utility were combined in with the Energy Star program?

A. I'd rather say no. I'm sure it's been

done, but Energy Star isn't so much of an incentive to the construction as it is a signal to the buyer.

Q. What if it were more than that? Would it be possible to construct a plan where special rates were given in a tariff for industrial customers, let's say, that had facilities that qualified as Energy Star buildings?

A. Oh, absolutely.

Q. That would be perhaps a lower rate than what was paid for by other industrial --

A. Yeah. You'd have to figure out some way of benchmarking it to prove that you'd actually accomplished something. An important part of an efficiency program is the monitoring and evaluation. You have to develop each aspect of it so that you can prove that you accomplished what you set out to do. And there's a very wide different set of approaches to doing that.

Q. I suppose you wouldn't -- Energy Star is set up already, but I suppose you could do something that was -- that had a different level of standard than Energy Star?

A. Yeah.

Q. I'm using that as an example.

A. If it's necessary to provide rebates -- I mean, our experience is that most of the efficient

buildings pay for themselves. If you take the steps to make them meet the standard, you wind up with a combined mortgage payment and utility bill that's lower than you otherwise would have had.

Q. That sort of sounds like another program that I've heard of out there, well, one of them is -- its trademark name I think is Pays Program. Have you heard of that?

A. No.

Q. Have you ever heard of programs where the utility provides either as a conduit or actual financing itself for improvements to a home or perhaps a business with the idea that the combination of the new bill and the financing of the improvement is less than the old energy bill was?

A. Oh, I think that's the way all efficiency programs have to work.

Q. But you're not particularly familiar with the program that was originated somewhere up in the east called Pays Program?

A. No. I'm in Cincinnati, Ohio, and we've had programs that work with commercial and residential buildings in Ohio.

Q. That are similar?

A. Yeah, very similar. I've read about them

in other states, but I can't say that -- I know New England has a long and powerful history with these kind of programs. They've been doing industrial rebuilds since probably the 1970s.

Q. Is there a particular program in Ohio that you think works exceptionally well?

A. No. Ohio is not a good example for what we want to see happen.

Q. Do you have another example of one -- of that nature that you think works particularly well?

A. Well, I have a list of programs that were designed by the Vermont people for testimony that was given in an Ohio case that I would hold up as one example, but it wasn't my intention to come here and tell KCP&L how to design their programs, but to kind of establish some conceptual benchmarks like 3 cent per kilowatt hour.

And, you know, the real thing that matters is the bill savings, the difference between the capital cost of the program and the retail price of the electricity that's saved. You know, there are people who are more qualified than me to help with specific details of program design, and they should be done with the local community in mind.

Q. Okay. Your general recommendation in regard to the proposal is to develop plans that actually

lower the need of additional generation in the short term, is -- is your suggestion that your proposal is the least cost solution?

A. An efficiency program will be less expensive than anything else. You can add in a little bit of wind capacity or a little bit of combustion turbines. I don't know what the load shape details are for this company, so I don't know exactly whether they need peak or base load capacity. And I keep trying to make the point that efficiency can be tailored extremely closely to whatever load shape concerns there are.

Q. But you have not, as you've already testified, developed a particular plan that you would recommend in this case?

A. No, no. I put some parameters on it. I think that if you feel that the 2.2 percent growth rate is actually going to occur, you might need a program that costs about 60 million, $61 million a year. I think that's probably very high. I think the program can be done much less expensively and that the need will not be for 82 megawatts per year, but somewhere between there and the actual experience for the last five years, which is 35 megawatts per year

COMMISSIONER GAW: Thank you. Thank you, Judge.

JUDGE PRIDGIN: Commissioner Gaw, thank you. Commissioner Appling?

QUESTIONS BY COMMISSIONER APPLING:

Q. Mr. Ford, just one question. Sooner or later I'm going to have to cast my vote to either build this plant that KCPL is trying to put up. If we go forward with this plant, in your best estimation who's going to get hurt here?

A. I'm very concerned about the shareholders, because if the plant is built, there is case law that holds the shareholders of a regulated -- I'm sorry -- the ratepayers of a regulated utility responsible for expenditures that prove not to be in their best interest. That's sort of the contract that you get with regulation.

I don't know to what extent Missouri law differs with the old-fashioned regulated utility contract, but one of the people who cross-examined me was talking about whether I knew whether the company had ever experienced a rate reduction. I don't know that. I just know that it's illegal to reduce the rates to the point where the company isn't making money, and if they go out and do a huge capital investment like this, the ratepayers will be responsible for some fraction of it, regardless of what actually happens.

And this plant is a 15 percent increase in

rates, a 9 to 15 percent increase in rates. It serves customers who don't exist today, and the people who exist and are being served by the company don't need it. If there was some way to segregate new customers from old customers, that might be interesting to pursue, but I've never heard of that being done.

And the point that I've been trying to make most of all is that these programs, the efficiency programs, even the wind programs can be ramped up and applied very fast, and even if they're not fully successful, if you set a goal of 70 or 80 megawatts per year and you don't get it, you still have bought some extra time. And I believe that this company, with the proper mix of incentives, can indefinitely defer Iatan before they run into trouble with not having time enough to do something about it.

That's a game that's been played as long as people have been working on this kind of thing. The plant's too far away, we don't need to do anything about it, oops, now it's too close, we don't have time. And the efficiency programs never get used. That has to change somewhere along the line.

COMMISSIONER APPLING: Okay. Sir, thank you.

JUDGE PRIDGIN: Commissioner Appling, thank

you. I don't think I have any questions.

Mr. Ford, let me see if we have any recross, and I believe on cross-examination we only had questions from Praxair, Staff and KCP&L, if I remember correctly.

Do we have any recross?

Mr. Conrad does not. Mr. Dottheim?

RECROSS-EXAMINATION BY MR. DOTTHEIM:

Q. Mr. Ford, you've used the 3 cents per KWH number a number of times, I think most recently in a question from the Bench. Did you have any work papers associated with that calculation of yours?

A. It is certainly in the Vermont paper, but it's an industry standard. I've seen reports for the last 15 years that hover around that benchmark. Now, that's the program cost alone. That's not what the compensation should be. The compensation should be larger than that.

Q. How much larger? What should it be?

A. Well, I think a -- probably somewhere in the neighborhood of half of the cost of the retail price of the electricity saved. This depends a lot on whether you're going after trying to incentivize the company by giving them an overall rate of return adjustment or trying to treat them on a per kilowatt hour saved basis. And that's something the regulators have to decide in concert

with the company.

MR. DOTTHEIM: Thank you, Mr. Ford.

JUDGE PRIDGIN: Mr. Fischer?

RECROSS-EXAMINATION BY MR. FISCHER:

Q. Just briefly. Commissioner Gaw asked you about your employer, and I think you indicated you were self-employed. Have you had previous employers?

A. Many years ago I was a legal secretary. I've done consulting work in the last few years. It's on and off. I don't need to, so I don't.

Q. Mr. Ford, are you by chance related to the Ford family that was Ford Motor?

A. We like to say they're descended from our line, but the fact is, I've never found anybody who knew what Henry Ford's family tree was. So we know our Ford ancestors all the way back to the 1600s, but I've never figured out -- there should be a connection because there's just so many of us.

MR. FISCHER: Okay. Thank you very much.

JUDGE PRIDGIN: Mr. Fischer, thank you. Let me see if we have any redirect.

Ms. Henry?

MS. HENRY: I would just like to find out if the Commissioners would be interested in reviewing the Vermont report. I believe that it is hearsay, but it is

here if they would like to see some reports from other utilities' experiences. I've got them. I can have Mr. Ford read the titles and explain what they are about, if the Commission is interested in reviewing some of these studies done from other states.

JUDGE PRIDGIN: Well, I will leave it up to you, Ms. Henry, if that's something you want to introduce and see if counsel objects, and we'll go from there.

MS. HENRY: What's your feeling, Mr. Fischer?

MR. FISCHER: If you're offering, I'm not objecting.

MS. HENRY: Okay. Well, then I'll have him briefly, very briefly discuss the five papers that he provided to the other side and offer them into evidence.

MR. FISCHER: Your Honor, I wasn't by indicating no objection indicating I wanted more direct on testimony that could have been offered earlier on. I won't object if she wants to put it on the record, but I'd like to get on to try to get this done today.

MS. HENRY: You mean the titles of them, or what do you mean?

MR. FISCHER: If you want to just admit them into the record, we won't object.

MS. HENRY: Oh, just admit them. Okay.

But I didn't make 23 copies.

MR. FISCHER: Okay.

MS. HENRY: Okay. So I'll just have you number them; is that right?

JUDGE PRIDGIN: So we can mark those and identify them, admit them, and then if you can just briefly describe them, and then we'll just move on.

MS. HENRY: Okay. I'll have Mr. Ford briefly describe them.

JUDGE PRIDGIN: That's fine with me, pending objections from counsel.

MS. HENRY: It will be very brief.

THE WITNESS: The first one is Four Years Experience. It's a report from Efficiency Vermont, Blair Hamilton.

JUDGE PRIDGIN: And how many of these reports do you have, Ms. Henry?

MS. HENRY: Just five of them.

JUDGE PRIDGIN: Okay. Let me pull those. I guess it would be a little cleaner maybe if we label each one as a separate exhibit. I don't know how big they are.

MS. HENRY: Right. And, actually, Mr. Ford, if some of them don't deal with experience of other utilities, you can skip those.

THE WITNESS: All right. Okay.

JUDGE PRIDGIN: I'll label that as Exhibit No. 32.

(EXHIBIT NO. 32 WAS MARKED FOR IDENTIFICATION BY THE REPORTER.)

JUDGE PRIDGIN: Whenever you're ready, you can go through those one at a time.

THE WITNESS: Five Years In, Martin Kushler, April 2004.

MS. HENRY: And just briefly say what it is.

THE WITNESS: This is the report that discusses the 18 utilities that have system benefit charge programs presently, the 18 states that have them.

MS. HENRY: And what was the first report, just a brief description?

THE WITNESS: First is Efficiency Vermont. It's a detailed description of a very innovative approach to running efficiency programs indirectly without using utility. They have a private nonprofit corporation that manages all the efficiency implementation.

JUDGE PRIDGIN: I'm sorry. I think I missed -- I thought we were still on the first one. I want to be sure to label these separately.

MS. HENRY: He's done 32 and 33, and now

he's on 34.

THE WITNESS: 33 is the Martin Kushler, April 2004, Five Years In, which examines the 18 states.

JUDGE PRIDGIN: Okay. Thank you.

(EXHIBIT NO. 33 WAS MARKED FOR IDENTIFICATION BY THE REPORTER.)

THE WITNESS: This next one is a PowerPoint presentation from Arthur Rosenfeld, who's a Commissioner in the California Energy Commission. Particularly eager to call your attention to slides 10, 11 and 12. The rest of this is interesting, but it's not particularly pertinent.

MS. HENRY: And that would be No. 35; is that right?

THE REPORTER: 34.

MS. HENRY: Okay. That's 34. And are either of the other two related to other states?

THE WITNESS: I have three here, and two of them are not. And I'm trying to make sure about the third one.

(EXHIBIT NOS. 34 AND 35 WERE MARKED FOR IDENTIFICATION BY THE REPORTER.)

THE WITNESS: It's John A. Laitner, Energy Policy Models and Technology Characterization, 2004 Emerging Technology Summit. It's a PowerPoint

presentation.

MS. HENRY: Okay. Thank you. Is that all of them?

THE WITNESS: Yes, that's all.

MR. FISCHER: Your Honor, could I ask a couple of follow-up questions about those exhibits, just to clarify what they are?

JUDGE PRIDGIN: You may.

RECROSS-EXAMINATION BY MR. FISCHER:

Q. Mr. Ford, those are the underlying documents that you identified in your answer to Data Request that you were relying on for your testimony that we talked about during our cross-examination?

A. They are some of them, yes. You should have seen all of these before.

Q. And those were the exhibits or the documents that I asked about that didn't have any references to Kansas City Power & Light at all in them; is that correct?

A. That's correct.

MR. FISCHER: Thank you.

JUDGE PRIDGIN: Mr. Fischer, thank you, Ms. Henry, any more questions?

MS. HENRY: No.

JUDGE PRIDGIN: Did I understand that

you're offering those exhibits?

MS. HENRY: Yes, I am.

JUDGE PRIDGIN: All right. I think Exhibits 32 through 36 have been offered. Any objections?

MS. HENRY: I think it was 32 through 35.

JUDGE PRIDGIN: Excuse me, 32 through 35. Thank you, Ms. Henry.

MR. CONRAD: What was 35?

JUDGE PRIDGIN: Could you repeat what 35 is?

THE WITNESS: 35 would be John A. Laitner's Energy Policy Models and Technology Characterization.

JUDGE PRIDGIN: Mr. Dottheim?

MR. DOTTHEIM: I'm wondering if Exhibit 33 is the Martin Kuschler report.

JUDGE PRIDGIN: I believe that's correct.

MR. DOTTHEIM: When I look at Sierra Club/ Concerned Citizens first supplemental responses to KCPL's first Data Request, under 3C, I'm trying to determine which document it is. I don't see it characterized in that response.

THE WITNESS: I did not have this at the time of our first response. I believe we submitted it independently later.

MS. HENRY: I did a second response, yes.

MR. DOTTHEIM: Okay.

JUDGE PRIDGIN: I'm going to show Exhibits 32, 33, 34 and 35 are admitted.

(EXHIBIT NOS. 32, 33, 34 AND 35 WERE RECEIVED INTO EVIDENCE.)

MS. HENRY: How many people would like copies?

MR. PHILLIPS: I think you have to serve all the parties.

MR. CONRAD: It really isn't a question of how many of us would like them. I think I'm entitled to it.

MS. HENRY: You're entitled to it.

JUDGE PRIDGIN: Any further questions for this witness? Seeing none, Mr. Ford, thank you very much for your time and your testimony, sir.

THE WITNESS: Thank you.

(Witness excused.)

JUDGE PRIDGIN: What I'd like to do is try to get back on track of the original order of witnesses. Now, obviously if counsel has other ideas or other needs as far as getting people on who won't be available on Monday, et cetera, please let me know, but otherwise I would like to get back in the order of witnesses going back to KCP&L's witnesses.

And if I understand correctly, only Mr. Cline and Mr. Grimwade are going to be subject to cross-examination, is that correct, for KCP&L?

MS. HENRY: And Ms. Nathan.

MR. FISCHER: And Ms. Nathan. Sue Nathan is someone she had a question of.

JUDGE PRIDGIN: All right. I would like to go on if Mr. Cline is available.

MR. ZOBRIST: He is.

JUDGE PRIDGIN: Mr. Cline, if you would, please raise your right hand and be sworn.

(Witness sworn.)

JUDGE PRIDGIN: Thank you very much, sir. If you would please have a seat.

Mr. Zobrist, whenever you're ready.

MR. ZOBRIST: Thank you, Judge.

MICHAEL CLINE testified as follows:

DIRECT EXAMINATION BY MR. ZOBRIST:

Q. Please state your name.

A. Michael Cline, C-l-i-n-e.

Q. Mr. Cline, do you have a copy of the direct examination with the proprietary schedules that were filed in this case?

A. I do.

MR. ZOBRIST: Let me hand these to the

court reporter and ask that they be marked as -- I believe we're up to Exhibit 36.

(EXHIBIT NO. 36 WAS MARKED FOR IDENTIFICATION BY THE REPORTER.)

BY MR. ZOBRIST:

Q. Sir, are you the same Michael W. Cline that prepared and caused to be prepared Exhibit 36 and its confidential portion?

A. I am.

Q. And they have been identified as Exhibit 36, correct?

A. Yes.

Q. Okay. Mr. Cline, do you have any corrections to your testimony at this time?

A. I do.

Q. And I believe the first one is on page 8; is that correct?

A. That is correct.

Q. Could you please indicate the correction that should be made on page 8 of your testimony?

A. Certainly. At line 20, the -- what currently reads as 10 percent and then the number 10 percent in parentheses should be replaced with 9 percent and then the number thereafter. This is to conform with the actual financing application which KCP&L

filed on 23 June -- 22 June rather.

Q. This week, is that correct, sir?

A. Yes.

Q. Do you have one other correction to be made in your testimony?

A. There is one other correction, yes, on page 9, starting in the middle of line 5, we would strike all of the language beginning, finally the debt securities may include, through the end of the paragraph.

Q. And what is the reason for that correction?

A. Again, it's to conform with the financing application which KCP&L filed earlier this week. We did not include that type of security in the app.

Q. Any other corrections to your prefiled testimony?

A. No.

Q. If I asked you these questions, would you be giving the answers that are contained in Exhibit 36?

A. Yes, I would.

MR. ZOBRIST: I move the admission of Exhibit 36, your Honor.

JUDGE PRIDGIN: Any objections? Hearing none, Exhibit 36 is admitted into evidence.

(EXHIBIT NO. 36 WAS RECEIVED INTO EVIDENCE.)

MR. ZOBRIST: Thank you. Nothing further.

JUDGE PRIDGIN: Mr. Zobrist, thank you. Let me make this witness available for cross. And just to save time, I don't want to go through every single counsel. Let me see. I assume, Ms. Henry, you'll have questions?

MS. HENRY: Yes.

JUDGE PRIDGIN: Mr. Dottheim?

MR. DOTTHEIM: No questions.

JUDGE PRIDGIN: You don't have any questions. Any other attorneys who have questions for this witness? Okay. Seeing none. Ms. Henry?

CROSS-EXAMINATION BY MS. HENRY:

Q. Mr. Cline, I wanted to discuss the part attached to your testimony that's labeled MWC-6. It was -- the proprietary schedules were removed, and I believe this one is public. It's the Standard & Poor's report attached at the end of it.

A. The report dated April 1st, 2005?

Q. That's right. That's correct. On page 2 of that -- so it's Schedule MWC-6, page 2 of 3. On page 2 it says, while adoption of the agreement does not ensure rating stability, it does provide KCP&L with access to rate relief during implementation of the company's large capital program.

MR. ZOBRIST: Could you direct us to the line, please?

MS. HENRY: I'm looking for it. Hold on.

THE WITNESS: I believe it's in the middle of the first paragraph, the outlook section.

MS. HENRY: Yeah, in the outlook section. Seven lines down from where there's a large heading, outlook.

MR. ZOBRIST: Thank you.

BY MS. HENRY:

Q. Could you explain the phrase, access to rate relief, and what it means there?

A. I think it simply means that there is a well-structured and communicated mechanism, rate case mechanism in place as described in the Stipulation & Agreement.

Q. Does KCP&L assume that if this plan is adopted by the Commission after these hearings, that the rate increases talked about in -- the two to four rate increases talked about will be approved by the PSC in the coming years?

A. I'm sorry. Could you repeat the question?

Q. Does KCP&L assume that if this stipulation is adopted, that the rate increases that are discussed in the stipulation will be approved by the Public Service

Commission in the coming years?

A. I mean, there were -- there were levels of rate increases were provided in the data that we submitted to Standard & Poor's, yes.

Q. I'm getting at, will KCP&L use the PSC order approving this stipulation to show the PSC that the rates asked for are prudent and reasonable?

MR. ZOBRIST: Your Honor, I think that calls for this witness to render a legal conclusion about some future possibilities. I don't think that's within the scope of his direct testimony.

MS. HENRY: I thought it related to the access to rate relief sentence that he -- that is in his testimony.

JUDGE PRIDGIN: As I understand the question, I'll overrule, and I'll let him answer if he knows the answer. So far it appears he does not.

THE WITNESS: I do not.

BY MS. HENRY:

Q. Okay. Turn to page 1 of this Standard & Poor's report --

MR. CONRAD: Judge, before we leave that point, maybe I'm misunderstanding, but what I'm looking at and I believe counsel was citing to was the Standard & Poor's report, not something authored by this witness, am

I --

MS. HENRY: No, but it's attached to his exhibit. He's filing it.

MR. CONRAD: I'm just asking the question. Am I correct?

JUDGE PRIDGIN: That's correct. She's referring to MWC-6, a schedule to Mr. Cline's direct testimony.

BY MS. HENRY:

Q. Would you like to explain why it's attached to your testimony?

A. This was the first report published by a rating agency immediately following the filing of the Stipulation & Agreement, so it evidenced Standard & Poor's acceptance of the S&A that had been filed earlier that week.

Q. On page 1, let me get the correct line, I'm going to -- it says, the plan incorporates the amount to file for annual rate cases for 2007 through 2009 without the risk of intervention by signatories to the agreement. I'll tell you the exact line. It's under rationale. It's in the third paragraph, the fifth line. No, wait. Yeah, that's right. Fifth, sixth and seventh lines.

Can you explain the significance of this ability to file for annual rate increases without the risk

of intervention by signatories?

A. I think what S&P meant there was that there would not be the ability for the signatories to challenge the -- I don't know what the right word is I'm looking for here -- the broad premise of the agreement.

Q. So the risk of intervention by the Sierra Club and Concerned Citizens does not concern S&P?

A. I can't speak to their view of --

Q. But the risk of intervention by Ford and Praxair apparently would concern S&P? What kind of deal did you give Ford and Praxair in order to have them sign this stipulation?

A. I can't address that.

Q. Did you make an offer to Sierra Club members or Concerned Citizens that their rates would not increase if they signed the stipulation?

A. I can't address that.

Q. On page 2 of your testimony -- I'm leaving the exhibit and going to your testimony, on lines 20, let's see --

COMMISSIONER CLAYTON: Judge, could I get some clarification? She asked a question about -- your response was that you couldn't address that. Does that mean you don't know the answer?

THE WITNESS: I don't know the answer.

Yes, I'm sorry.

COMMISSIONER CLAYTON: I thought you said you couldn't answer that, and I'm like, well, you can tell us.

BY MS. HENRY:

Q. On page 2, reading from lines 20 through 23, you said, investors need to have confidence in KCP&L's management and the regulatory process itself to feel comfortable making this capital available to KCP&L on attractive terms, particularly given the number of investment alternatives otherwise available to them.

What does that phrase mean, particularly given the number of investment alternatives otherwise available to them?

A. Investors have many ways that they can invest their money. I mean, there are any one of a number of other companies, industries, et cetera, that are alternatives. We're simply trying to put ourselves in the best possible light to attract capital.

Q. On page 3, in lines 6 through 10 of -- you said KCP&L's ability to refinance its debt efficiently, effectively and on favorable terms will be heavily dependent on bond holder and rating agencies, as with the regulatory plan, and let me -- continuing, and equity investor views of the regulatory plan will be a major

influence on the Great Plains Energy stock, NYSE ticker, GSP general price for the next several years.

Could you please explain these sentences?

A. Well, in order to refinance debt, that would require the company essentially to access the debt capital markets in order to repay debt that is maturing. And in order to access debt, the company needs to be able to favorably position its fundamentals, its fundamental story, and very clearly the regulatory plan and all of its provisions are a very important part of what we call the KCP&L story with investors, both fixed income and equity investors, and that's essentially the meaning of the second sentence there.

Q. Well, what will happen to KCP&L's ability to refinance its debt if this plan is not approved?

A. It would be -- would certainly be more difficult.

MS. HENRY: I have no further questions.

JUDGE PRIDGIN: Ms. Henry, thank you. Let me see if we have any questions from the Bench. Commissioner Gaw?

COMMISSIONER GAW: No.

JUDGE PRIDGIN: Commissioner Clayton?

COMMISSIONER CLAYTON: No questions.

JUDGE PRIDGIN: I have no questions.

Assuming we have no further questions, this witness can be excused. Mr. Cline, thank you very much.

(Witness excused.)

JUDGE PRIDGIN: I believe I see as the next witness Mr. Grimwade. Is he available?

MR. ZOBRIST: Yes, he is, your Honor.

JUDGE PRIDGIN: Please come forward to be sworn, sir.

(Witness sworn.)

JUDGE PRIDGIN: Thank you very much, sir. If you would please have a seat.

Mr. Zobrist, when you're ready, sir.

MR. ZOBRIST: Thank you, your Honor.

JOHN GRIMWADE testified as follows:

DIRECT EXAMINATION BY MR. ZOBRIST:

Q. Please state your name.

A. John Grimwade.

Q. Mr. Grimwade, did you prepare direct testimony in this case?

A. Yes, I did.

(EXHIBIT NO. 37 WAS MARKED FOR IDENTIFICATION BY THE REPORTER.)

BY MR. ZOBRIST:

Q. I've marked your direct testimony as Exhibit 37. Do you have a copy of your direct testimony

before you?

A. Yes, I do.

Q. And are you the same John Grimwade that prepared that direct testimony and caused it to be filed in this case?

A. I am.

Q. Did you have any corrections to your testimony, sir?

A. Yes, I have several minor changes. The first is my title has changed to senior director, construction. My responsibilities have expanded to include development and execution of strategic projects, including the wind project, the Iatan 2 project, and the environmental projects at Lacine 1 and Iatan 1.

Q. And so that would change the testimony on page 1, lines 8 through 10; is that correct?

A. Yes. I also have changes in several other sections of the document. There was a misapplication of one of the references. The first one appears on page 10, line 14.

Q. And that is the question concerning environmental regulation, and the response needs to be amended in what regard?

A. In this particular case, it refers to Appendix C of KCPL's response to MPSC Data Request

No. 1029, and that was misapplied. This reference actually referred to the responses that KCPL made to the workshop meeting that occurred on October 29th, 2004 in Case No. EW-2004-0596.

Q. And that document was distributed to participants at that time, correct?

A. To the workshop participants, yes.

Q. The next correction?

A. The next one -- and these are all pretty much the same. Page 12, line 9, regarding the wind generation, the same reference change also applies.

MS. HENRY: Where is that?

BY MR. ZOBRIST:

Q. It's on page 13, line 9.

A. Line 9.

Q. And lines 9 and 10 have that reference to DR No. 1029?

A. Right.

Q. And what should the change read, once again?

A. To participants in response to a workshop meeting that occurred on October 29th, 2004 Case No. EW-2004-0596.

Q. Then the next correction.

A. Occurs on page 13, line 15, I believe.

Q. That's the question. And the correction to your answer?

A. Would occur on page 15, 7 and 8, I believe.

Q. I think we're on page 14.

A. I'm sorry.

Q. Line 12 by my reckoning?

A. I jumped ahead.

Q. And again, that should read the same as the previous reference to the workshop, correct?

A. That's correct.

Q. Then I believe the next change is your answer to the question that began on page 14, line 16, and the correction is the next page, page 15, line 7 and 8?

A. That's correct.

Q. And again, is it the same correction?

A. The same correction, yes.

Q. And the final correction is in response to the question asked on page 17, line 8, the correction being in your answer on page 18, lines 9 and 10; is that true?

A. Yes, that's true.

Q. And it is the same correction to indicate the material was supplied at the workshop?

A. Yes, to clarify that that Data Request was actually a workshop information request.

Q. Any further corrections to your direct testimony?

A. No.

Q. If I asked you the questions contained herein, would you be giving the same answers?

A. I would.

MR. ZOBRIST: I move the admission of Exhibit 37, your Honor.

JUDGE PRIDGIN: Any objections? Hearing none, Exhibit No. 37 is admitted into evidence.

(EXHIBIT NO. 37 WAS RECEIVED INTO EVIDENCE.)

JUDGE PRIDGIN: Mr. Zobrist, thank you.

Ms. Henry, I assume you'll have questions. Any other counsel have questions for Mr. Grimwade?

Mr. Dottheim? Any others? Seeing no other volunteers, Mr. Dottheim, when you're ready.

CROSS-EXAMINATION BY MR. DOTTHEIM:

Q. Good afternoon, Mr. Grimwade.

A. Good afternoon.

Q. Mr. Grimwade, do you address in any document that you produced the SPP white paper on wind power?

A. I don't know if I specifically address the white paper. I don't recall.

Q. Do you address the accreditation factor of the Southwest Power Pool?

A. Yes, I do.

MR. DOTTHEIM: May I approach the witness?

JUDGE PRIDGIN: You may.

MR. DOTTHEIM: I'd like to have this document marked as Exhibit 38, and the document is Appendix E, Assessment of Renewable Wind Resources as Part of KCP&L's Supply Portfolio, Kansas City Power & Light Company Energy Resource Management, December 1, 2004. The document is designated as highly confidential.

MR. ZOBRIST: My understanding, Mr. Dottheim, is that that designation has been lifted.

MR. DOTTHEIM: Okay.

(EXHIBIT NO. 38 WAS MARKED FOR IDENTIFICATION BY THE REPORTER.)

BY MR. DOTTHEIM:

Q. Mr. Grimwade, could you direct me to where in this document, Exhibit 38, you address the accreditation factor for wind power of the Southwest Power Pool?

A. There's a reference on page E18 of this appendix, under the section entitled Accredited Capacity.

Q. Okay. Would you please read that paragraph?

A. Accredited capacity. Currently the Southwest Power Pool does not have any accreditation rules in place regarding wind generation facilities. The issue is currently under study within the Southwest Power Pool. Southwest Power Pool generation working group issued a white paper at the October 27th, 2004 board of directors/members committee meeting that addressed wind facility accreditation. Using the methodology outlined in the white paper, prospective sites under consideration by KCP&L could be accredited at approximately 7 percent for modeling purposes. The 7 percent accreditation factor was used.

Q. And could you identify this document as to when was it produced in response?

A. This was produced probably late November, early December of 2004 in response to those October 29th questions.

Q. When you say October 29th questions, was there a workshop on October --

A. Yes, there was.

Q. -- 29th, 2004 relating to the workshop docket Case EW-2004--

A. Yes.

Q. -- 0596?

MR. DOTTHEIM: Thank you, Mr. Grimwade. At

this time I'd like offer Exhibit 38.

JUDGE PRIDGIN: Any objections? Hearing none, Exhibit No. 38 is admitted into evidence.

(EXHIBIT NO. 38 WAS RECEIVED INTO EVIDENCE.)

JUDGE PRIDGIN: Any further questions, Mr. Dottheim?

MR. DOTTHEIM: No, your Honor. Thank you, Mr. Grimwade.

JUDGE PRIDGIN: Thank you. Ms. Nathan?

MR. ZOBRIST: Ms. Henry.

JUDGE PRIDGIN: Excuse me. Ms. Henry. I apologize.

MS. HENRY: Ms. Nathan's coming next.

JUDGE PRIDGIN: Yes, she is. I was reading ahead. You caught me.

CROSS-EXAMINATION BY MS. HENRY:

Q. I wanted to ask you about wind power. You stated that on page 4 of your testimony, that the balance of wind resources would provide mitigation against the potential mandated renewable generation, and you went on to talk about the federal government might impose legislation saying a utility has to meet a certain percentage of its energy portfolio. And you went on to say that wind will provide mitigation against the

potential greenhouse gases legislation. And on page 7 you said wind is recommended as early as 2006 to take advantage of production tax credits.

Could you explain the PTC for us, please?

A. Production tax credit currently, at least at a federal level, is granted under I believe Section 45, which allows recovery of approximately, I think it's 1.8 to 1.9 cents per kilowatt hour produced by wind facilities that would go into production by December 31st of 2005. There's discussions currently in this current energy bill and on other bills proposed to both the House and Senate at the federal level to renew that energy bill for either one to three years.

Q. So the reasons for wind -- for putting wind generation into your portfolio include compliance with fed-- including taking advantage of federal and state laws pertaining to renewables and federal laws pertaining to PTC and the federal law about the CO2 emissions; is that correct?

A. Well, the PTC is currently being debated as to its longevity. It's been a tool that's been used to provide some incentive to wind development in the United States that has had some positive effect at driving the cost of overall wind generation down. There's fairly strong debate right now at a federal level as to the

longevity of this PTC as to whether it will be around for more than one to three years in the future.

So looking out over this horizon at which the PTC may be a benefit to ratepayers, the sooner the better, I think is the philosophy there.

Q. I had a question about the stipulation. Are you familiar with the stipulation?

A. Parts of it, yes.

Q. Okay. Let me get my copy. I guess I'll ask you to read a paragraph of it, on page 24, to read the bottom paragraph O. And then I'll just ask you about certain factors of it.

A. O, resource plan monitoring. KCPL agrees to actively monitor the major factors and circumstances which influence the need for and economics of all elements of its resource plan.

MR. ZOBRIST: Judge, I'm going to interrupt the witness, and ask his apology, but this is about a two or three-page section.

MS. HENRY: Right. That's enough for him to read, and then I was going to ask about just a couple of these factors with the Roman numerals. You're right. He's read enough.

BY MS. HENRY:

Q. Okay. Some of the factors include -- I

just want to make sure you see them -- Roman Numeral II, a significant change in federal or state tax laws. So that would -- that's one of the factors that will influence the need for and economics of the elements of resource plan; is that correct?

A. That's correct.

Q. And let's see. Roman Numeral XII, significant change, would you like to read that?

A. A significant change in the cost and/or effectiveness of emission control technologies.

Q. And the next, the Roman numeral on the next page, XIII?

A. A significant change in federal or state environmental laws.

Q. So does this mean that if the PTC or greenhouse gas emissions or renewable mandate laws were changed, that KCP&L would drop its plans for the 2006 wind plant?

A. No, I don't believe that's what it says.

Q. But in light of in your testimony that you're putting in the wind plant to take advantage of all these federal laws and regulations and tax credits, what if they all disappeared?

A. The purpose for putting the wind in is multiple and it's not necessarily singly around production

tax credits or a contingency around carbon dioxide legislation.

Q. On page 4, though, if I refer you back to that, you said that it would provide mitigation -- page 4 of your testimony, provide mitigation against the potential mandate of renewable generation. You didn't say what -- why you were putting in wind. So why is KCP&L committed to a wind plant?

A. I think it's fairly well spelled out in the appendix that Mr. Dottheim just submitted into evidence. We did a fairly extensive analysis on wind. We looked at it from a revenue requirement perspective, which is a metric of ratepayer cost.

We did a number of sensitivities around that analysis that addressed wind availability or capacity factor, the cost of the wind site, the intensity of the wind, the issue that lies around carbon dioxide and the renewal of production tax credit.

And each one of those was a scenario that gave us a sense of the robustness of including wind in the resource plan in order to see how it mitigated against each of those prospective uncertainties.

The purpose of why wind went into the plan is that KCP&L anticipates, No. 1, that there will be more available and cheaper wind in the future. We believe that

it can provide a component of balance in our portfolio to address some of the uncertainty regarding these future environmental-wise, and it will allow us a chance to learn how to build and operate wind plants so that we can become more experienced down the road.

Q. So if all those federal and state laws are changed, then you're going to go ahead with this 2006 wind plant?

A. No. The agreement right now says that we will move forward with the 2006 wind plant as it's agreed to today.

Q. As it's agreed to with the existing federal and state laws?

A. Correct.

Q. So if they're changed you might not go ahead with it?

A. Well, the changes that are listed in the section of the stipulation basically only move to basic discussions among the parties as to the appropriateness of the -- of the plan.

Q. Right. But the wind plant is part of the plan, so it would have to be deemed appropriate.

A. Well, I think you're asking if I'm precluding a decision based on any one of these contingencies, and I'm saying we can't necessarily

preclude a decision. The decision would be made by a collaborative effort of those parties.

Q. Will the 2006 wind plant serve KCP&L customers?

A. Yes.

Q. If it will serve KCPL customers, then why can't you decrease the size of the coal plant? You're getting 100 megawatts of wind. You're building 100 megawatts of wind power. You're not getting 100 megawatts, but why can't you reduce the size of the coal plant?

A. Well, I think when we looked at the sensitivity around size of the coal plant with the effect of having wind and various components of wind in the resource plan, we found that it was more expensive for ratepayers to actually reduce the size of the coal plant. That is in the appendix that was just submitted into evidence. So it was a collaborative effort of the workshop participants in this case to include the 500 megawatts coal plant.

Q. So they need 431 megawatts, but you're building into the 500 megawatt coal plant, and then you're going to have more megawatts with the wind plant, then you're going to have more extra megawatts that aren't used because you'll be supplying some customers with the wind

plant. And what will you do with those extra megawatts from the coal plant that aren't used?

A. I think it's important to recognize that megawatts associated with reliability, which is what we need to do to maintain adequate reserve margins or capacity margins to keep the reliability levels where they are, is different than the amount of benefit that a coal plant provides to ratepayers in the amount of energy that it can provide in that energy mix.

So there are different reasons why coal plants are justified over just capacity and capacity reconciliation.

Q. If you build the second wind plant, will it serve KCP&L customers?

A. Yes.

Q. Then there'll be another 100 megawatts of energy available to the customers, so why can't you decrease the size of your coal plant again?

A. Again, the analysis that we ran that showed decreasing sizes of coal plant with increasing sizes of wind prove to be more expensive to ratepayers.

Q. Do you have an opinion about the amount of time that will be required to provide a better sense of the value of IGCC?

A. Yes. I don't know exactly when that

horizon will come, but we're following that technology as most people are following it and, you know, I regard it as something that may positively change the way we look at coal plants. But with the current level of technology and the amount of commercial products that are available -- and when I say commercial products, being able to go to a company that specializes in the design and manufacturing of these type of facilities, there are no companies today that can offer commercial terms and conditions and performance guarantees around this technology for the size that we're looking at. And, in fact, they can't even for the size of the demonstration plants that have been put online up to this point.

So from what I read, and I'm not an expert totally in this area, but from what I read, the developments right now are primarily in a concept of taking the technology as it exists in a number of these pilots and escalating it up to where it's somewhere closer to a utility's scale plan, which would probably be in the 600 megawatt range.

The projects that I know about today include the G.E. Bechtel joint venture on the development of a commercial utility grade power plant at which they estimated would probably be five to ten years out in terms of its commercial viability.

Q. And did KCP&L give any consideration to combined heat and power, and if so, what?

A. We looked at it, but it's something that we look at fairly regularly with customers in our region as to the application of that within their systems, is us potentially getting energy out to a customer. So it is a more specific customer-based option, as opposed to something that's generic that we can just plan to target. You really need a customer post that has the appropriate thermal conditions and electric conditions and heat requirements in order to make that technology work.

So looking out in the future, if it's an application that would work for us and give benefits to our customers, we'd certainly look at it. But it isn't something that we look to see as an opportunity that comes up every day.

Q. On page 7 of your testimony, line 3 stated that KCPL would need 41 megawatts of capacity in 2010 with no other changes and considering a 12 percent reserve margin. Do you agree that this -- or disagree if this need were met entirely with efficiency or demand reduction programs, the actual shortfall to be met would be 385 megawatts, because the reduction of demand eliminates the need for additional reserve margin? Do you agree or disagree with that?

A. No, I agree with the concept that if you add demand megawatts, then you don't have to provide reserve. But let me clarify, I guess, one misrepresentation. The term reserve margin is a different term than the term capacity margin. They equate to the same thing, but they have to do it with a mathematical formula for calculating how it was arrived at.

The 12 percent refers to a capacity margin, which is basically your capacity minus the peak divided by capacity. Reserve margin is capacity minus the peak divided by peak. It actually equates to something closer to 15 percent.

Q. And are you familiar with the SCC Data Request No. 4, what is KCP&L's energy and demand growth rate for the past five or ten years? Are you familiar with the growth rate for the last five or ten years, that chart that KCP&L provided to Sierra Club?

A. I'm familiar with the growth rate the last five to ten years.

Q. And that it was .81 percent for the -- excuse me -- .81 percent for the last five years or 2.2 percent for the last ten years?

A. Yes, something in that range.

Q. Would you agree that the 385 megawatt need projected is toward the high end of a very large range of

uncertainty?

A. No, I wouldn't. In fact, when you talk about range of uncertainty, there's a specific fairly wide range of uncertainty when it comes to load, but what we found is the means that we projected over the years that had fairly close to 2 percent or 1.5 to 2.5 percent range over that time. So we did have a period, it was a period that was experienced nationally around an economic recession that did have some effect on electricity usage in the Kansas City metropolitan area that is reflected in that prior five-year forecast that you referenced.

Q. Do you believe the reduction of growth for KCP&L during the last five years has a relationship to the broad economic impact in the United States of rising natural gas and oil prices?

A. To some degree, but most of the rising natural gas and oil prices that I've seen have been more the elasticity effects of that natural gas, have been more to the usage of natural gas through industrial users, fertilizer plants and that such. There's very little amounts of energy that are produced by natural gas in the midwest. So the elasticity of natural gas to electricity prices at least from the midwest sector would likely be critical.

Q. Are you familiar with the Missouri -- the

Missouri users -- the Missouri retails megawatt hours rates for the last five years? This was a response to Data Request No. 2014.

A. Not specifically, no.

Q. It showed that the Missouri rates, that users' rates had gone down by a percentage point. Not -- I'm not saying the exact number. I don't believe it's confidential.

But do you believe the Missouri jurisdictional customer -- since the Missouri customers reduced rates, that the Missouri customer would have a strong interest in avoiding a new capacity addition since their contribution to growth is substantially smaller than Kansas customers?

A. I'm not sure you can conclude that from that evidence.

Q. Which part can't you conclude?

A. Can you repeat your question, please?

Q. Okay. The Missouri users' rate of using electricity has gone down for the past five years. I don't believe response 2014 is confidential. Do I have that correct?

Okay. May I show this to the witness?

MR. ZOBRIST: Sure.

BY MS. HENRY:

Q. I'm going to show you what was response to a Data Request.

MR. ZOBRIST: Mr. Grimwade, you might get just a closer to the mic. Thank you.

BY MS. HENRY:

Q. According to that chart, what is the Missouri jurisdictional -- what has the Missouri ratepayers' electricity usage done for five years?

A. Please repeat.

Q. What has the Missouri customers' kilowatt hours done for the past years? What number is shown there? What has happened to it?

A. Are you asking what is the change in retail megawatt hour usage over that period?

A. Yes.

Q. From 1999 to 2004, this says it reduced by negative .55 percent.

Q. So would you believe that the Missouri customer has a strong interest in avoiding a new capacity addition given their contribution to growth is -- they haven't contributed to growth?

A. And again, I would not conclude that from this data.

Q. You wouldn't conclude they haven't contributed to growth?

A. Your question was, would they agree that we didn't need an additional base load plant?

Q. Oh, okay. And you don't agree with that part of it?

A. I don't agree that you conclude that.

Q. Okay. But the data does show that they haven't contributed to growth?

A. It's -- when you say growth, their total megawatt hour usage has not grown, but there are other areas that -- depending on time of use that could contribute to growth.

Q. On page 9, line 23 of your testimony, you describe the analysis of coal versus natural gas to be highly sensitive to natural gas prices, and mentioned that that pushes desirability of Iatan 2 earlier in time.

A. Yes, that was our finding.

Q. Could you explain why?

A. The amount of revenue requirements that basically our ratepayers would be exposed to is a function of the amount of natural gas that would be used by our generation plants to produce electricity, and embedded in the cost of wholesale power that we would be purchasing in order to provide electricity for our customers. So as the price of natural gas goes up, the costs associated with this type of generation and the wholesale price of

electricity in the marketplace is a function of natural gas and would go up as well.

Q. Does this suggest that reducing natural gas consumption by saving electricity would be valuable to the company?

A. It's really a function of when you would reduce electricity consumption, but in general, there are times when it would be beneficial, yes.

Q. Does this suggest that a strong end use efficiency program would be a valuable addition to the mix of resources proposed in the stipulation?

A. It suggests that we should look at that as a balanced set of options for looking at how we provide electricity service to our customers going forward, which is a fundamental part of our company's plan.

Q. And when you talked about distributed generation on page 16, can you distinguish that from combined heat and power? What did you mean there by distributed generation?

A. Well, I would say that distributed generation -- well, let's say that combined heat and power is a form of distributed generation. Distributed generation generally means generation at a customer level basis as opposed to a system high voltage level basis. So it could include just single peaking-type generation,

diesel, small combustion turbines, windmills, solar-type generation, or it could infer or could apply to combined heat and power cogeneration systems.

Q. Are you familiar with when KCP&L will file its next IRP?

A. I think that's a subject of the regulations that are being discussed right now at the state level. So I don't know specifically when that requirement would be.

Q. So it's not planning to file one in July of this year?

A. No.

MS. HENRY: Okay. Thank you. I have no further questions.

JUDGE PRIDGIN: Thank you. And this looks to be a natural time to take a break. I show the clock to be about 2:45 there in the back. Let's try to resume at about 3 o'clock.

(A BREAK WAS TAKEN.)

JUDGE PRIDGIN: We're ready to go back on the record. When we went off the record, I think we ended cross-examination from the parties, and I'll see if we have any questions from the Bench for Mr. Grimwade. Commissioner Gaw?

QUESTIONS BY COMMISSIONER GAW:

Q. Good afternoon, Mr. Grimwade.

A. Good afternoon.

Q. Let me -- I have a few questions, and I will probably be bouncing around a lot. I apologize for that ahead of time. You are in -- who's your security coordinator?

A. Southwest Power Pool.

Q. And how long have they filled in that capacity?

A. I don't know the answer, but it's been as long as I've been with the company.

Q. A long time?

A. It's been a long time.

Q. And now recently Southwest Power Pool, SPP for short, has been approved by FERC to become a regional transmission organization; is that correct?

A. Yes, they have.

Q. All right. And are you familiar with the 2004 state of the market report from the Southwest -- of the Southwest Power Pool that was prepared by Boston Pacific Company, Inc., the independent market monitor for SPP?

A. No, I'm not specifically familiar with that report.

Q. Would you have -- let me ask you this: If there -- if that report suggested, had within it

description of generation capacity by fuel type within the SPP region, would you be familiar with numbers in regard to generation capacity by fuel type?

A. In general I would, yes.

Q. I'm going to ask you if these -- and I wish I had an additional copy of this, but I don't have one, so I apologize for that as well.

There's a -- if there was a suggestion in that report that within SPP natural gas is the primary fuel for 55 percent or 30,551 megawatts of total generating capacity in SPP, would you think that would sound accurate?

A. Yes. Natural gas in the SPP is a fairly predominant incremental fuel source, which means most of the incremental megawatts that are occurring on peak times come -- actually some of the shorter times come from natural gas.

Q. And are you familiar with AEPW, or I think that's AEP West?

A. Yes, that's the central and southwest component of AEP.

Q. Where are they generally located?

A. Oklahoma and Texas primarily.

Q. All right. And OKGE, I think they go by something that sounds like those letters together, but do

you know what that is?

A. I believe it's Oklahoma Gas and Electric.

Q. And where are they located generally?

A. Primarily central Oklahoma, central eastern Oklahoma.

Q. If I said that -- if I -- would you be surprised if this report said that natural gas-fired capacity in SPP can be broken down so that 36 percent can be found in the AEPW control area and 17 percent in the OKGE control area, would that be surprising to you?

A. Referring to capacity or --

Q. Capacity. Capacity. Generation capacity.

A. It would not be surprising to me.

Q. All right. And then if it said coal is the second most prevalent fuel source for power generation in SPP, would that surprise you?

A. No, it wouldn't.

Q. And would it surprise you if it said that it represents about 36 percent or 20,330 megawatts of capacity in SPP? Would that surprise you?

A. No, it wouldn't.

Q. Would it surprise you if it said that load is less than 20,000 megawatts 33 percent of the time in SPP?

A. What did they refer to as the peak again,

30 --

Q. That load is less than 20,000 megawatts 33 percent of the time. I'll show this to you if you want to read it, because it's hard to do this this way, I know. Let me finish the sentence out. And approximately 15,000 megawatts of capacity operates in SPP during all hours of the year.

A. I tend to believe that, yes.

Q. Okay. And if it suggested that approximately 18 percent of the coal generation can be found in AEPW, would that sound correct to you?

A. Again, it sounds reasonable.

Q. And if it said that KCP&L and WERE each have 15 percent of the coal generation in their control areas, would that be a surprise?

A. I guess I don't have a feel for that. Predominantly, there's --

Q. If I drop out WERE?

A. That's Western Resources?

Q. Yeah.

A. It seems reasonable again, but --

Q. Okay. Would it -- is it accurate to say that when we're looking at where the -- where there are significant areas in SPP of base load capacity, one of those areas is the KCP&L zone?

A. Yes. It's -- the northern part of SPP has had a higher percentage of coal than the southern part of SPP generally.

Q. And the southern part of SPP is more gas oriented, and the northern is more coal oriented; would that be accurate?

A. Yes.

Q. Now, in regard to SPP itself -- and if I get into any HC material, just somebody signal me -- but tell me again how it breaks down in between base load generation and peaking facilities.

A. For Kansas City Power & Light?

Q. On capacity, yes.

A. I don't know if I have those specific numbers in front of me, but you know, I believe the numbers were somewhere around 50 percent of our capacity mix is in the form of coal, probably around 20 percent in the form of gas, probably 5 percent in the form -- maybe 10 percent in the form of oil. There's a component of nuclear that's probably somewhere in the 5 to 10 percent range.

Q. Nuclear would be considered base load as well, would it not?

A. Yes, it would.

Q. So based on a total load capacity to

non-base load capacity for KCP&L, what is your percentage of -- approximate percentage of base load capacity?

A. Again, without having the numbers, I'd guess it's probably close to 60 percent.

Q. And is that a figure that you would say is optimal for the native load that you have?

A. Well, I think it's a function of where you are in looking at natural gas and the other components of your portfolio. So as we've grown into the base load that was built back in the late '70s and early '80s with Iatan and Wolf Creek, Lacine 2, we've basically been able to live off of that existing base load for almost 20 years.

We're getting to a point where we are growing out of that as a company. We are growing out of it as a region, and we are moving fairly quickly to where the mix is changing or the optimal mix requirements are changing because of the function of the way natural gas price has moved over the last five years.

Q. And how does that impact what is optimal --

A. It would actually --

Q. -- change in natural gas prices?

A. It takes the amount of mix that you would have from either combustion turbines or combined cycles and it pushes to where the optimal capacity factors on

that gas-fired generation would go down and the amount of coal energy in your portfolio would go up.

Q. When you're dealing with a coal-fired plant, do you generally want to run that all of the time, except for maintenance, or a portion of the time or little of the time? Give me some idea what you're aiming for.

A. Yes. It's again a function of the other components of the portfolio, but typically coal units are optimal when they run 65 to 70 percent capacity factor and above.

Q. What does that mean, 65 to 70 percent capacity factor?

A. Well, technically it's the amount of energy that's produced off the plant as a function of what the plant's capable of producing.

Q. Okay. Now, is that a reflection of the -- of the amount of time that it's actually running or the percentage of energy it's generating relative to its capacity at a particular point in time?

A. It's typically --

Q. Or a mix of both?

A. It's a mix of both, yes.

Q. Break it down for me on days of the year, out of 365, that you would normally see your coal plants running.

A. Typically with outages, of course, and coal plants have outages that range anywhere between a week and seven or eight weeks, depending on what type of maintenance is being done, but the remainder of the hours per year a coal plant would typically operate, be operational the remaining of those hours of the year when it was available.

Q. And tell me -- I'm sorry. I think I jumped over what you said. How many days would that normally be a year?

A. That would be the 365 minus whatever normal maintenance outage days you would have and forced outage days that you have.

Q. All right. Normal maintenance, planned maintenance for your coal plants I'm sure would vary depending upon age and other factors, but do you have an average that you would say you could point to for planned outages for your coal plants in a year?

A. Sure. For non-major outage, a typical coal plant planned outage is around one to two weeks a year.

Q. Okay. When do you try to do those planned outages?

A. It's getting a little more tricky than it used to be. It used to be we tried to plan them in the spring and fall. Now, with the timing of other plants and

some of the volatility we're seeing in the spring and fall, it gets a little bit tighter to where it's really the end of February, March and April in the spring, and probably October, November in the fall, maybe into December a little bit.

Q. Okay. And then you also have outages that are unplanned, and is there an average that you would expect out of those unplanned outages?

A. Yeah. Typically our plants have I would guess equivalent forced outage rates of somewhere between 5 and 8 percent, which means they're either out or derated for a portion of the year.

Q. And that's not counting anything that might have occurred as a result of the one plant that you had a few years ago that was down for a considerable period of time because of an explosion, right?

A. Those would be independent of that, yes.

Q. Okay. Now, in regard to looking at how the natural gas prices are impacting the running of your coal plants, does it mean currently without the additional -- considering an addition of more coal plants, that you might run coal plants at a higher rate than you would otherwise because of natural gas prices, or is it really more of a function of whether or not it is -- it becomes easier to build a coal plant or cheaper to build a coal

plant earlier, even though the capacity or the energy need might not have been at the same -- at the same level?

Let me ask that again. That was too confusing.

Tell me how the impact of natural gas prices influences your decision to build a new coal plant. And be somewhat specific for me on how the prices impact that decision.

A. The way we translate natural gas is in the way we did our integrated resource plan. We used varying forecasts of natural gas that were based on primarily some projections that were made by the National Petroleum Council in a September 2003 report that they made to the secretary of the Department of Energy, Secretary Abrams. And in that report they provided some fundamental views of what they thought natural gas would look like going over time.

So when we ran the integrated resource plan analysis, we incorporated both a base and a high gas price forecast into that analysis. And then we looked for a low gas price analysis that we really couldn't support with the existing fundamentals, but we got it from a 2002 Energy Ventures analysis that we believed was at least a proxy for what natural gas could do on the low side, even though we couldn't support it with the current

fundamentals that we did the analysis of in 2004.

That analysis when you take natural gas and it affects how it translates into the revenue requirement analysis in several ways.

The first way is we project what we believe the natural gas price effect on the wholesale electricity market will be, and we run a fundamental, it's kind of a fundamental technical model that looks at a combination of a number of things in the eastern interconnect, including natural gas price, the coal price, the units that are constructed and the units that are available in that market.

And then we develop a forward price curve, and then we run that in our KCPL proprietary model to where we're looking at dispatching our existing fleet and what resources we might add to that fleet in order to get a sense of what the dispatch costs will look like.

And we run that over a period of time, over a 20-year horizon, and then we take that, along with capital costs associated with each of those resource alternatives, and we net present value back to current day dollars for net present day dollars revenue requirements.

So natural gas influences not only the market price that we're actually dispatching into and buying from and selling to, but it also influences the

costs of specific generation alternatives that we have in the portfolio that we're designing.

Q. And you would have similar ranges for the price of -- anticipated price of coal?

A. Yes, we would.

Q. Also transportation by -- of coal by rail?

A. Yes.

Q. That would be a factor that you would have to look at forecasts in plugging values in?

A. Yes, we have that.

Q. I'm sure there are a number of other things as well that would be variables, but those things would be for sure?

A. Yes, they would.

Q. So was there -- in looking at that, was there a break-over point on the price of natural gas where, if it were lower than a certain amount, that it would be more advisable not to build a coal plant but to look at some other kind of generation facility for anticipated growth?

A. Well, we didn't necessarily look at a bus bar-type thing where a specific dollar per million BTU cost for gas would create that flip point, but we did assess the three natural gas price expectations or forecasts that we ran. And what we found is with the base

forecast and the high forecast provided by the National Petroleum Council, the coal option was superior to the natural gas options or the other options that we looked at in the plan.

And I should note that I did a comparison the other day just to what Henry Hub's natural gas price forecast looks like over the next 18 months, and I think as someone alluded here earlier, the February forecast for '06 is approaching a $9 figure right now, which far exceeds the high natural gas forecast we used in the 2004 analysis.

Q. Of course, if prices were up higher than what you had in your model, that would translate into making coal even more preferable in comparison to a natural gas solution?

A. Yes, it would.

Q. If you were looking at, then, the total cost of things in your model, what if any -- what did you put in for cost resulting from additional environmental controls that might come into existence that are not currently in existence today, if anything?

A. Are you referring to environmental regulations and legislation or --

Q. Yes, that might cause you to -- or maybe rules, but those things that might cause you to have to

retrofit what you're building or might be building with plant that you were running through the model?

A. Right. We had basically ran several analyses around sensitivities of pending legislation, is how we kind of look at it, and we looked at how legislation was framed in the Clear Skies proposal. We looked at the Keene/Lieberman proposal. We looked at the Jeffers proposal, and we looked at I think Kioto in terms of the CO2 proposals.

Q. Okay.

A. Then we used various sources that were available, including the Energy Information Agency of the Department of Energy. The EPA offered some projections on emission allowance price forecasts, as well as the effect of what carbon and carbon dioxide reduction might have on the price of electricity. For each of those, we synthesized scenarios around those various forms of legislation to see what the net effect would have on our plan.

Q. What did you find in those various runs?

A. Well, in general, we -- we put a fairly high probability on at least compliance, increased compliance for sulphur dioxide, nitrogen oxides and fine particulate, primarily because of the timing of the Clean Air Interstate Rule that was proposed by the EPA last

year.

So we were acting a lot of this analysis in pretty much the time frame that we had proposed rulemaking already established. So we framed some scenarios as to what our specific PCPL compliance strategy might look like, which resulted in some of the options that have been provided in the comprehensive plan.

For the CO2 analysis, that was a little bit broader, and we looked at that from two different perspectives, one as just a pure CO2 effect that would have on -- if you set a cap for CO2 at some of the more stringent levels, how much coal-fired energy would have to be reduced in order to meet that cap. And then we made some fundamental assumptions as to what happens with the remaining dynamics of the market, including natural gas price, in order to accommodate that kind of change.

And we have basically a scenario that shows the effect of carbon dioxide, increased carbon dioxide would have a negative effect on the value of a coal plant built in 2010. But when you combine that with the assumption that natural gas prices would be responsive to the amount of demand that would have to take place in natural gas to make up for the loss of the coal-fired generation, that elastic effect on the price of natural gas would actually make the coal plant more economic and a

reasonable choice primarily because of its cost effectiveness and the efficiency of that alternative compared to the existing coal-fired generation that's there.

Just to have a point, I was looking through a document last week that just happened to be a summary on gasification technology from EPRI. They did make a comment in there that substantiated the assumption that we made, and if I may, I'll just read this. It talked about any legislation related to the reduction of CO2 emissions is very likely to exert upward pressure on natural gas demand and prices.

Q. So in other words, the idea would be that if you started putting upward -- putting more restraint on the amount of emissions, carbon dioxide emissions that were occurring, that would likely force more pressure to spin turbines with natural gas, which would cause more demand on natural gas, which would presumably increase the price of natural gas even further?

A. Yes.

Q. Am I following you?

A. I think that would be one dynamic. But I think the other dynamic that we would see is that you would see a reduction in the amount of coal-fired generation, but it would come predominantly from those

units that are old, like our Montrose plant, that are 60 years old or will be 60 years old at the time we put Iatan 2 online, that have relatively high heat rates as compared to new generation. So those will be the first ones that would typically drop out of dispatch.

Q. Is there a difference on the carbon emissions on the older plants?

A. Well, it's a function of heat rate, so the amount of BTUs per kilowatt hour you require produce a kilowatt hour.

Q. So in essence, there's less carbon emission per kilowatt hour?

A. Yes.

Q. Not that there's less carbon in that coal, but you're generating less per unit of energy?

A. You're using less coal.

Q. Now, what does that do? What -- I'm just curious. When you ran your model, did that also produce a per unit cost of electricity? When you were running your models about how to impact natural gas, I assume it was also producing this -- you could have calculated some assumption on how much you were -- your electric costs were per kilowatt hour?

A. Yeah, we -- I'm not sure we actually created that statistic --

Q. You could have?

A. -- in the model.

We generally looked at the net delta and revenue requirements.

Q. I don't know if I could stand knowing what that would be and sit in my chair, but you're telling me you did not run that specific -- the model for that specific result, so you don't know?

A. The model calculated the result, but no, I don't have that.

Q. So it did calculate the result?

A. Yeah. I could probably get that for you if you'd like to see it.

Q. I don't know if I can stand seeing it because I'm afraid of what it says, but I would like to see it.

A. I can give you some indication what the revenue requirement impact would be with that case.

Q. Would you do that?

A. Yes. I'm going back to an early IRP presentation that KCP&L made to the MPSC Staff and OPC, May 12th of 2004. If I'm looking at the 2000 scenario where a coal unit is built in 2010, the base without a carbon tax had a net present value revenue requirement of $10,235,000,000. With the carbon associated with one of

the less stringent carbon reduction legislations, the Clear Skies legislation, there was a net increase to $10,602,000,000, so somewhere in the order of $373 million.

Q. Okay. What about something that was more -- that actually had some significant carbon restrictions, more than just the minimum that you might see on emissions from Clear Skies?

A. I'm not sure I have that particular scenario, but we can get that for you.

Q. I'm assuming that some of them could be significantly more than that?

A. Yes, they could.

Q. Okay. If you could, that would be helpful to see. Give me an idea about -- I'm going to backtrack for just a moment -- an idea about what your base load percentage will be after this plant is constructed, if you can tell me what that would be.

A. I can't give you the exact number. I'm not sure where it is, but --

Q. Can you give me an estimate?

A. Well, we're adding 500 megawatts of coal to roughly probably something like 2,000 to 2,100 megawatts of coal.

Q. And we can figure out -- if everything else

stayed the same, of course, we know there's some wind coming on, so that wouldn't be the case, but if everything else remained the same, what's your total capacity now we were talking about if -- I want you to add the nuclear in. I'm looking for coal and nuclear as a percentage of your total capacity.

MR. ZOBRIST: I think we gave Mr. Ford a DR, and I'm not sure.

COMMISSIONER GAW: It has that?

MR. ZOBRIST: Yeah.

COMMISSIONER GAW: That would be great.

MR. ZOBRIST: I'll give it to Mr. Grimwade.

COMMISSIONER GAW: That would be great. Yeah, I'm just looking for the information.

THE WITNESS: Just to repeat the numbers on this Data Request, nuclear is 548 megawatts, which represents -- I believe this is a 2000-- this doesn't say, but I believe it's 2005 capacity. That represents 13.5 percent of our total. Coal is 2243 megawatts, representing 55.3 percent. Natural gas is 808 megawatts, representing 19.9 percent.

BY COMMISSIONER GAW:

Q. Let me ask you real quick, the natural gas component, are those all peaking or is some of that combined cycle?

A. The combined cycle, there is some combined cycle that's made up Hawthorn 9 plant, which is a repowering of the Hawthorn 6 combustion turbine, and the old Hawthorn 4 steam turbine.

Q. Now, do you know off the top of your head how many of that 808 is combined cycle?

A. It's roughly about 260 to 270 megawatts.

Q. That's fine. I interrupted you. Go ahead.

A. Fuel oil component is 460 megawatts, which represents 11.3 percent.

Q. Okay. No hydro, right?

A. No. We do have some purchase contracts that come and go off of that, as well as some sales contracts that are selling off of that.

Q. Sure. Now, so we'd be adding in that 500 base load on top of that, so our percentage -- is our percentage anticipated on base load to actually increase over and above that 68.8 percent?

A. Yes, it would.

Q. Okay. Now, is that figure, that percentage of base load something that is about average for utility companies, electric utility companies, below average, above average, would you say?

A. Well, I think it's probably somewhat average for midwest utilities.

Q. All right.

A. But it really is a function, again, of what load factor is and the timely use of electricity.

Q. I understand.

A. The type of units that you have and the size of units that you have.

Q. But you think that's a fairly average figure for the midwest?

A. Without looking at specific other -- we were a fairly close representation of what's in Mid-American or Ameren. I think we're fairly close on that.

Q. All right. If we were comparing you to some midwest, even Missouri utilities, that might be much higher percentage of base load, might it not?

A. Yes. There are some utilities in Missouri that are a much higher percentage of natural gas.

Q. But that higher percentage of natural gas in their portfolio makes them more subject to changes for natural gas?

A. Yes, it does.

Q. I'm going to go back with you again back to the discussion on environmental costs, and you mentioned the IGCC technology. Is there -- are you familiar with whether or not there is a point where environmental --

additional environmental requirements make IGCC technology -- put it on an equal footing on cost to a pulverized plant? Do you know?

A. I don't know of a specific point where that occurs, but the relative dynamics of that, if you look at various environmental costs associated with that --

Q. Yes.

A. -- the sulfur dioxide removal of the newer supercritical pulverized coal plant is fairly comparable to what you get out of IGCC, at least on paper.

Q. Did you say -- I'm sorry. Did you say NOx or sulfur?

A. This is sulfur dioxide. NOx is actually probably about equal.

Q. Okay.

A. There's been some work with putting selected catalytic reduction on IGCC that's proved to be a little more difficult. So the numbers that we're looking at for an Iatan 2 type facility are very comparable to what you'd see with an IGCC plant. I think the things that we're looking at in terms of the more promising aspects, if you look at the particulate and SO2 and NOx, there's not a whole lot of difference.

If you look at the heat rate effects of IGCC versus supercritical pulverized coal, the newer

technologies that we're looking at with supercritical, with higher pressures, higher temperatures, better metallurgy in the furnace, better metallurgy in the turbine, you're looking at heat rates that are comparable to the high 8000s to low 9,000s, so around 9,000 is what we're looking at for Iatan 2.

Q. Would you translate that for me? When you get into a heat rate that's 8 to 9,000, what does that mean?

A. It means that it takes 9,000 BTUs for every kilowatt hour that you would produce in that plant.

Q. And compare that to something that would be a more traditional coal plant that was not a supercritical plant.

A. The typical subcritical plants like Iatan 1 that were built probably back in the late 1970s have heat rates that are in the -- in the area of around 10,200 to 10,300 roughly BTUs per kilowatt hour. The older plants when you get back to something that is the vintage of a Montrose station that was built in the late '50s and early '60s, the size and temperature and pressure of that plant equate more to something that's in the low 11,000 BTUs per kilowatt hour.

So in comparison to an IGCC, and this is something that's probably important to point out, I think

it's widely misunderstood by people that look at and study IGCC technology, is that most of the IGCCs that are operating in pilot today are operating on petroleum coke, and there are some that are burning some lower-grade bituminous fuels, but there is a fairly -- at least in terms of some of the research data that we're looking at, a fairly significant increase in cost and decrease in efficiencies as you move to burning the Powder River Basin coals which are prevalent in this part of the country.

Q. Uh-huh.

A. So it would be likely if KCP&L were to progress where we built an IGCC plant in the future, we would look at Powder River Basin most likely as a fuel source. And to give you some comparison based on an EPRI report that we looked at here recently, this 2004 September gasification technology status report produced by EPRI, they used in comparison for Powder River Basin coal for IGCC something in the range 9,553 BTUs per kilowatt hour, with a cost component that's -- have to interpret that, but the cost multiplier is something in the 1.2 to 1.25 range for IGCC with Powder River Basin coal.

Q. What does that mean, the cost multiplier?

A. Whatever the base cost would be for this continuing analysis, which would probably be in the $1,400

per KW range to $1,600 per KW range, you take that and multiply that by the cost multiplier, come up with what the equivalent would be if you were to build this to design for Powder River Basin coal.

Q. Okay. As a pulverized coal plant?

A. As an IGCC.

Q. Okay. Now, what I'm trying to do is to get a grasp of making that comparison of that number to what you would get on a pulverized coal plant.

A. The typical numbers for Powder River Basin PC or pulverized coal supercritical plants range anywhere between 11 or 1200 BTUs per kilowatt hour up to probably 14 or $1,500 per kilowatt hour. It really is a function of the site conditions, whether you're building adjacent to an existing plant, the -- you know, the amount of activity in the marketplace and the demand for equipment.

Q. Okay. So if you were looking -- if you were doing an IGCC plant at 900 megawatts -- and I realize there are all sorts of issues about doing a plant of that size, but give me an idea about the cost comparisons, if you can do that fairly easily.

A. Working just from what I think is -- I believe it's somewhere in the $1,600 range, but for IGCC it's highly dependent on a lot of other things that you're

looking at, in terms of reliability today requires multiple gasifiers in order to have the same availability as what you would have for a typical pulverized coal plant.

Q. And what's our figure for the plant that you propose?

A. Right now, with our contingency number is around 1,430, somewhere in that range.

Q. Okay. And if I were to look at the advantages of the IGCC, then, what would they be, carbon --

A. I think there's --

Q. -- and maybe mercury?

A. There's some probably potential for mercury, although when you get into some of the technologies that we're looking at with supercritical pulverized coal, the research that's being done right now, and I think somebody mentioned earlier with the selected catalytic reduction, the placement of a baghouse prior or after that selected catalytic reduction that some oxidation occurs, so the mercury in the catalyst is removed in the baghouse.

Then there's some additional removal in a wet scrubber with what we're proposing, and there's a lot of technology right now around certain either absorbents

that you would put into the gas stream to -- a carbon injection to remove mercury, or some of the more promising ones are probably more related to certain salts like chlorides and bromides that you actually inject into the combustion zone, which would oxidize the mercury that point and result in fairly high captures in that equipment that we're looking at installing.

The potential right now, the assumption is at that we have a fairly good belief that we're going to get at least 70 percent removal. The assumption is, with certain enhancements, that we may actually be able to get 90 or 90-plus removal of mercury, which is comparable with what they're talking about --

Q. With IGCC?

A. -- with IGCC.

So I think the promising things that we see is, I think Mr. Ford referred to some sequestration efforts that are going on right now with primarily the Future Gen, which is touted as a zero emissions power plant. And the primary attribute of that effort is to look at sequestration of CO2 to where you can actually minimize or mitigate the amount of CO2 that's produced by burning coal.

Q. Is there any geographic capacity that you're aware of at the Iatan site that would provide for

that at some point in the future?

A. Provide for the Future Gen project?

Q. Yes.

A. There's geographic capacity, yes.

Q. Below where Iatan is located?

A. In terms of the site and site parameters, yeah. I should mention that I am on the task force which is part of the effort in Kansas to look at Future Gen as a state. There is discussion in Missouri that we're talking about forming a task force to look at it as a Missouri effort as well.

Q. Okay. Now, just a little more on IGCC. I asked, I think it was Mr. Ford earlier about AEP announcing that it intended to build up to a 1200 megawatt -- up to 1200 megawatts of new generation with IGCC technology. Are you familiar with that?

A. I'm familiar with the discussions and the press releases and some of their strategy, yes.

Q. Can you give me a little information about what you know what their plans are and, if you know, why they've stated they want to go that way?

A. I think -- I'm not sure exactly why they stated it. I think they believe that there's some potential for IGCC, as do we. I think there's some potential for IGCC. What I understand, they've agreed to

under the concept of IGCC, and they've recently issued a press release -- I say recently, probably within the last month and a half -- to work with General Electric and Bechtel in their joint venture to develop a specific cost structure and feasibility of that.

So I think the process is to understand the cost and understand what the design and logistics of that design would be, and then make a decision as to whether they would move forward or not. Some issues about AEP compared to KCPL --

Q. Yes, go ahead.

A. They've got capacity. And I don't know the exact number, but it's probably something in the order of 30 megawatts.

Q. They're a much bigger company?

A. Compared to our 4000 megawatts, so for them to undertake a project of this type with I'm assuming their regulatory approvals as well, to do this, which is my understanding is that they'll agree to move forward if they have consensus from the regulators to do that, but it's a much different risk proposal for AEP to undertake that type of project than it is for a company like KCPL, with the size and type of units that we have in our fleet.

Q. You're suggesting that it's much riskier for KCPL because of the relative size of the project to

your total generation assets?

A. That is correct.

Q. Would it make any difference that -- as to the coal that might be utilized by AEP in that project compared to what you would be utilizing from the Powder River? I'm not clear about their coal source, but it appears that they're operating out of Ohio and Kentucky.

A. Yeah. And I would say that's probably one of the attributes that makes AEP, potentially Synergy, maybe Southern Companies as good candidates for working with these consortiums to develop this technology. They are looking at lower grades of eastern bituminous fuel that has higher sulfur, has less applicable value in a pulverized coal plant and it has some fairly high interest among the states of Ohio, West Virginia, Kentucky to look at -- and I believe Indiana and Illinois as well, as to looking at that to basically revive their state mining of that fuel and have more applicability for that for local economies. So there's a cumulative interest in seeing this technology evolve in those states.

Q. In looking forward here, I understand that KCPL has made a decision that pulverized coal supercritical plant is the most prudent selection at this point in time in moving forward, over and above an IGCC plant. That would be correct, correct?

A. For those specific technologies, yes, we believe a PC supercritical is better technology than IGCC at its current level of development.

Q. If there were changes in regard to the carbon issues prior to 2010 from -- out of Congress, would that impact what you believe to be true in regard to a pulverized coal plant as compared to an IGCC plant?

A. Yes, I would still say it's true, and probably for several reasons. One is --

Q. Go ahead.

A. -- if you look at the --

Q. Because I suspect that someone will be looking back on this one of these days, and I'd like to make sure that we have examined these issues to the best of our ability. So give me your take on it, and of course, we'll be asking that of Staff a little later, and maybe DNR as well, so -- well, maybe next week.

A. I think there's several significant reasons why that would -- why the case would be that the pulverized coal -- the supercritical pulverized coal would still be the preferred choice. The first would be that it's unlikely that any form of carbon legislation or carbon reductions would eliminate coal as a viable resource for some portion of our national energy mix. And the more efficient, the more newer plants that are

designed to burn cleaner but less coal, produce less carbon, are going to be the ones we'll prefer to have in our portfolio.

We probably will make different decisions regarding the older type of plants that exist, like Montrose and the 60-year-old type of plants that aren't very effective.

The other reason I think is that if you look at the timeline for having an effective sequestration strategy in place, just look at the Future Gen timeline of when they expect that, if this proves to be something that works, the timeline is probably somewhere in the 2015 to 2020 time frame of seeing a viable application of sequestration technology. That's not to say it couldn't come sooner, but that's kind of a timeline.

So assuming that this plant is it built and is operating more efficiently, more effectively than the other plants in the system, if we were to get that type of carbon legislation proposed, it would be the Montrose plant and some of the others that would likely be retired and removed with new options for new assets.

Q. Let me move on a little bit here. What is the rating that SPP gives -- and this may have been asked and answered -- for wind in regard to capacity, do you know?

A. It's a function of the site and site conditions, but we're using right now, based on the white paper rules that they've given, a number of around 7 percent, so 100 megawatt plant would have a 7 percent accredited capacity.

Q. And is that for purposes of determining its value as a designated network resource for purposes of transmission construction as well? Is that -- would that be accurate or not?

A. Well, I think the rules around network service and what constitutes the amount of capacity from a transmission perspective would be both a function of the capacity, accredited capacity, as well as the expected energy flow on those transmission lines.

Q. So what does that mean?

A. It isn't solely a function of the accredited capacity.

Q. Okay. But the accredited capacity in SPP would average 7 percent?

A. For wind generation.

Q. For wind?

A. Yes.

Q. What is a figure for coal?

A. Coal is based on what your capability of the specific unit is, so you would have to test every

three years and prove its capability.

Q. Is there an average for coal?

A. It's generally whatever the design capacity of the unit is.

Q. But overall, have you ever seen an average figure for coal plants in the SPP region?

A. Well, no, because they vary.

Q. They vary too much?

A. You have a lot of 700 megawatts, 800 megawatt units, and you have some 100 and 200 megawatt units, so they're all depending on what the size of the units are.

Q. Okay. I understand, but you gave me a percentage figure for wind.

A. To put it on a apples to apples --

Q. That's what I'm looking for.

A. -- it's a hundred percent of what the unit would be capable of.

Q. That's what I was asking. I'm sorry I didn't ask it clearly enough. And would that be true of -- what is less than 100 percent -- what other plants are less than 100 percent generating units?

A. Typically most units that are solely for the production of electricity, like combined cycles, combustion turbines would be 100 percent of their rated

capacity.

Q. Okay.

A. The only difference would be something that you would have some variability say is if you combined heat and power to where you could make a thermal versus electrical decision and target that to a time of day. So you could influence that on that type of unit. Most of the other units would be 100 percent.

Q. What about hydro?

A. Hydro would be the other exception, yes.

Q. Do you know what that percentage is generally?

A. Well, it would be a function of whether it's run a river or a storage type.

Q. Okay. How about storage?

A. Storage would be probably closer to 100 percent with factors associated with the capability to store over a period of time.

Q. And something on the river would vary fairly significantly?

A. It would probably have something closer to wind.

Q. Yeah. I believe this week on the energy bill in the Senate there was some amendment based on regard to renewables. Do you know about that?

A. Yes, I do.

Q. Do you know what that figure was? And of course, it's not law and it's a long ways from becoming that, but give me -- what is it that you --

A. Well, the amendment that I'm familiar with was the one that Senator Bingham proposed and was adopted was something in the order of a renewable portfolio standard set at the federal level of something like 10 percent. And the year -- I'm not sure exactly when that would be, but it would probably start in the 2008 to 2010 time frame.

Q. Where is KCP&L today on percentage, if you had to comply with that amendment?

A. We are --

Q. Where were you, where are you?

A. At this point we don't have any -- any renewable energy, and with the proposed 100 megawatt and 200 megawatt potential, that would get us up to about 5 percent.

Q. So there would still be a ways to go if that passed?

A. We'd have to probably get to something in the 400 to 500 megawatt range. Most likely would be wind, renewable technologies, but it could be biomass.

Q. Does Kansas have an RPS state standard?

A. They don't, no. They proposed legislation that has not passed.

Q. All right. Can you -- are you the one I should ask about the efficiency programs in this stipulation?

A. I believe Sue Nathan would be the better choice.

Q. I'll just wait for that, then. How big of a factor is the production tax credit? I know you've been asked this generally, but how big of a factor is it in regard to the decision on moving forward with the wind generation beyond the first 100 megawatts?

A. It's a factor of -- you know, again, from a pure economic standpoint, it is the factor between whether it's a lower cost resource or a higher cost resource.

Q. Do you know how much -- approximately how much it's worth per megawatt?

A. Well, on -- it's a tax credit, but it basically equates to roughly 1.8 to 1.9 cents per kilowatt hour.

Q. Okay.

A. But there are tax ways that you need to adjust that to see how it affects cost per kilowatt hour, but that's what the number is that you would apply to your financials.

Q. Okay. So have you translated that into capacity amount instead of an energy amount? Have you translated what it would be worth for 100 megawatts of capacity of wind? Do you see what I'm asking?

A. In terms of millions of dollars?

Q. Yeah, or is it just around about?

A. We have, but I don't have that number with me right now. We can get that for you if you'd like.

Q. That would be great, and if it's HC, then whatever it needs to be filed as.

There's been some discussion about this load growth issue, and I need some clarification, because I've seen several suggestions in regard to what the actual load growth has been for KCP&L. And I'm not clear at this stage about what the actual load growth has been. Can you shed some light on that for me?

A. I can try.

Q. And I want you to help explain to me, at the -- I've got this in front of me. There was testimony earlier, on page 38 of the transcript of the -- I think it is Volume 2 of the public hearing, if someone has a copy of that, beginning on line 20, I'll read this to you, just to try to get some response more than anything else.

Briefly in 1999, the gentleman is saying, 13.8 percent of KCP&L's total sales were to other utility

companies. In 2003, that had risen to 29.1 percent of total sales, and from 1990 to 2003 sales to other utilities increased at an annualized rate of 28.3 percent per year. From 1999 to 2003, sales to KCP&L's own customers only increased their rate of -- their rate of 1.4 percent per year. And then he goes on with some additional figures.

Give me some idea about what your actual growth rates have been, and help me to understand whether it is totally wrong or if it's not giving me the proper picture.

A. Well, first of all, I think there's a misrepresentation on the -- at least trying to tie the amount of need for our native load customers versus what we've been able to sell on the wholesale marketplace. What's gone on in the wholesale marketplace is a function of a number of things, including the price of natural gas in making some of our excess energy that we have more available to sell in the wholesale marketplace, which ultimately the way the stipulation is structured that would blow back above the line to ratepayers in future rate cases.

I think some of the numbers that have been thrown around haven't necessarily taken into account a few things. One is a normalization of weather on our peak

load, which is one factor we take into account.

The other is when you calculate average growth rate, depending on what years you select, you can actually influence that number. And if you look at over the last five years, which is some of these numbers that have been kicked around, we've had last year the coldest summer on record and in probably 20 years, and I don't know the exact year but it probably dates back to 1983 or '84, something in that time frame, to find an equivalent period where the summer was that cool.

That combined with what I was referring to earlier, some of the recession effects, make the last three years not really a relevant comparison to what, say, the last 12 to 15 years would have been. But just based on some of the data that I have, you know, suggests that since 1984 to 2001 we had a 2.25 percent growth rate in actual peak megawatts. From 1990 to 2000, we had 2.21 percent actual growth rate in peak megawatts. From 1994 to 2004, we had a 2.23 percent growth in actual megawatts.

So I think when you take it and look at the trends over time, and then you compare it to -- you know, we do our own forecast and we use our own climetric and use modeling to do that, but we also look at outside sources. You know, if you look at what the Energy

Information Agency is looking at nationally and they've got in there a 2005 energy outlook, which is available on the Internet, they show a national growth rate of something in the order of 1.9 percent.

And typically when you look at their assessment, they have a little bit higher growth rate for the SPP region. And I'm not sure exactly what drives that, but it's typically in the 2.1 to 2.3 percent range.

Q. What was the assumption that was made in the modeling that was done on growth?

A. We used various growth analysis that had a base assumption, and then we had a high growth rate and low growth rate assumption model.

Q. What was the -- did you say average or base growth rate that was used?

A. I'm not sure I know that number specifically, but I think it would probably be consistent with that, you know, 1.9 to 2.3 percent range that I was talking about.

Q. Okay. Do you know what the low figure was that you utilized?

A. I'll find it, if you give me one second.

Q. Sure.

A. Well, I don't have it in front of me specifically.

Q. Maybe you can get that for me, too?

A. I can get that.

Q. Do you know what the percentage of off-system sales was to total sales in '04? And if that's HC, I'll have you give that at a different time.

A. No, I don't believe it would be. It's publicly available information through the FERC Form 1 EIA data or through FERC.

Q. Okay.

A. And I don't know the exact percentage, but I can give what I think is probably a ballpark.

Q. Okay.

A. It's probably in the low 20 percentage range.

Q. Okay. Is this figure for '03 that was mentioned in the gentleman's testimony at the public hearing of 29.1 percent an error, do you know, for '03?

A. Well, if it's based on public information, I wouldn't say it's an error. It may be out of context in what you're calling a sale.

Q. And I don't know --

A. What purchases are coming in to balance those sales and those kind of things.

Q. Is there any way you can clarify that for me?

A. We could reconcile it. I don't have that today.

Q. But you could do that for me?

A. Yes.

Q. Good. The reason I'm asking this question, obviously, is because it paints a picture that there is very -- that appears to be a fairly stagnant or low percentage of growth rate on native load but a very fairly high growth rate on off-system sales. And I need you to reconcile that for me and help me to understand whether or not that's an accurate picture or not.

A. Without necessarily getting it, we will do that.

Q. Sure.

A. But you don't really have to get into the details of the numbers to look at what's happened over the last few years with regards to the power market, and --

Q. Yes.

A. -- we've seen a fairly significant move in the price of natural gas, which if you look at what our traditional reach in terms of coal-fired megawatts would be, excess coal-fired megawatts from Kansas City Power & Light's area, it goes further, if you will. You can overcome transmission costs to get to higher priced gas incremental regions with higher gas prices. So as we've

seen higher gas prices, we've seen a more -- a broader regional utilization of our asset base.

Q. And more opportunities for you to sell your base load energy, right, because the prices of natural gas incentivizes, encourages, creates opportunities for you to sell your base load generation --

A. Correct.

Q. -- on the market?

A. And it decreases the utilization of that asset base.

Q. So what I need to understand is whether or not -- whether or not this additional capacity that we're talking about building is really about serving native load or about the potential for making more profit on off-system sales, and not necessarily saying that that is a reason not to do it. I'm just -- I need to understand that fundamental issue, and then I need to understand how that fits in to the picture for the ratepayers. That's what I'm looking for.

A. Right. And that's a very good question, and I think the issue that is misunderstood is that we're building this plant to satisfy wholesale needs, and ultimately the analysis that we've done has been almost primarily around revenue requirements, which is a function of ratepayer cost. So as we've looked at this resource,

the coal-fired resource and the wind resource and the energy efficiency resources, they've all been in the context of how they translate to the revenue requirements that our customers pay.

So there is some off-system sales that you get through the introduction of a coal plant, and I think as Mr. Ford stated, they're a little lumpier investments than you'd have if you had 10 megawatts of a smaller efficiency program. That lumpiness is the timing and the effect of how that lumpiness translates to the revenue requirements is a function of whether you can sell off-system in the early years as you grow into that.

But if you look at the structure of how this Stipulation & Agreement is defined and the nature of our ratemaking process as it exists today, off-system sales, either firm or non-firm, translate in an above-the-line reduction in expenses to the cost of service that gets translated to our ratepayers.

Q. Okay. And if you could do that for me, that would be helpful.

Then help me to recall, are there significant transmission upgrades that need to occur if this plant goes in?

A. I wouldn't say significant. What we've defined right now in terms of the interconnection

requirements for this plant is -- the most significant of those is transmission line that's required between our Nashua substation and the Iatan substation, which I think is something on the order of $20 million line. Then there's some other upgrades that are needing to be made to various substations and transformers throughout the system in order to accommodate that new generation on our grid.

The second component of that translates to or is a function of the network service that you need to carry the energy to the respective control areas of companies of the Loma plant, and we're in the process of having that study done by SPP, as well as we're establishing what the partner base of that plant is going to be, and then we plan to submit an aggregated study to the SPP that would include all the partners and all the partners' flows to determine what the optimum upgrade of transmission requirements would be.

Q. Okay. There is an announcement in regard to Associated Electric building a generation unit, I believe, in the western part of Carroll County, maybe almost in Ray. Are you familiar with that?

A. I'm familiar at least with what I've read in their press releases and talking to them.

Q. Do you know how big that unit is supposed to be?

A. I think they are still looking at that, but last I heard, it was probably in the 600 to 650 megawatt range.

Q. Does the construction of that plant have any impact in regard to your decision to move forward with the coal plant at all?

A. No, not at all.

Q. It doesn't have any impact on the off-system sales ability that you would have with the new plant, with the other plant also going in?

A. It may have some impact. One of the sensitivities we ran in the IRP analysis that we did is we did an analysis that had a lot of coal, additional coal going in to the degree of every announced plant that was out there, plus we added some. And the net effect of that resulted in an increase of revenue requirement to our customers, which would be directly a function of the loss of benefit of margin that they would get on off-system sales. But it still indicated that building the coal plant was the right resource decision for our ratepayers.

Q. Do you know how much difference that plant made to the revenue requirement?

A. I believe it was something around $100 million, of a total over a $10.2 billion base.

Q. So that was just that plant by itself?

A. Just that piece with all of the other plants.

Q. With all of them, that's what I wanted to make clear. You weren't --

A. We didn't --

Q. When you said 100 million, you were talking about all of the plants that you figured in, not just the AECI plant?

A. We have not modeled AEC specifically.

Q. By itself?

A. Correct.

Q. Okay. How many other plants did you include in that model?

A. We put in the ones that we know are getting built right now, which is the --

Q. Can you tell me what those are without causing a problem on the record with it being public information?

A. I don't believe there's any information, public information with regard to the Council Bluffs 4 plant, the Nebraska City 3 plant that Nebraska, Omaha Public Power District is building. We included the Sunflower plant.

Q. Where is that plant?

A. That's in, I believe, Holcomb, Kansas,

which is out in the western part of the state.

Q. Okay. Thank you. What else?

A. We looked at, I think, a plant getting built in Oklahoma by OG&E. I believe we looked at an LS Power plant, which is an IPP plant, south of here. I'm not sure exactly the location. Probably others that I just don't recall, but --

Q. Okay. And if all of those plants go up, there's a $100 million impact on the revenue requirement for KCP&L?

A. Correct.

Q. Okay. The infrastructure requirement contained in this SIP calls for environmental upgrades to Iatan 1 and is it Lacine?

A. Lacine.

Q. Lacine. Thank you. As well as state-of-the-art environmental facilities on the new Iatan 2 facility; all of that's correct?

A. That's what's being proposed in the five-year plan.

Q. Okay.

A. We do have a ten-year plan that does accommodate or anticipate upgrades on our plants in our system.

Q. Okay. Will there be any improvements made

to the Montrose units, Hawthorn units or Lacine 2?

A. The Hawthorn plant, as you recall, we rebuilt that in the 1999/2000/2001 time frame.

Q. Okay.

A. And with that we installed what's called best available control technology, and it meets something comparable to current environmental requirements.

The Lacine 2 plant is one right now anticipated for retrofit in the 2011-2012 time frame, so it falls out of this five-year regulatory plan, but it does fall in what we expect to do to comply with the Clean Air Interstate Rule and the mercury rule, and potentially the BART rule that was just passed here recently, or just proposed recently, which is the best achievable -- best achievable reduction technology, I believe, something like that.

Q. Okay.

A. The Montrose station is an interesting one, and there hasn't been a decision as to what to do with that. In the ten-year plan we look at various alternatives of compliance with scrubbers, baghouses and SCRs. We also recognize that that plant will be close to 60 years old at the time we're looking at that compliance. The amount of money that's required to comply is right now estimated to be something in the 350 million plus or minus

type of number.

And if you look at that compared to some of the alternatives that we may have, and that's one of the things that an IGCC plant may be more applicable to, it may be something that if we see improvement in energy efficiency programs, that we're going to look at it. It may be something different with that plant than compliance. There may be wind technology that would be a better use for that.

So that's a decision that we don't necessarily have to make today, and it's something that we would like to study and do it collaboratively with the interested parties in this workshop environment to kind of look at it over the next couple years.

Q. Okay. I think you've already dealt with the subject, but I'll ask you very quickly, but would you agree that the allowable emissions for fossil fuel generating facilities, the laws and regulations in that regard are somewhat -- are uncertain today looking into the future?

A. They're -- they are uncertain. I would say they're probably less certain than they were a year to year and a half ago.

Q. Less certain or less uncertain?

A. Less uncertain. I'm sorry. Thank you.

The Clean Air Interstate Rule has provided, I guess, some clarity for us. It makes it easier for us to plan for the future. And we recognize that technologies like scrubbers and baghouses are becoming more viable and it's something that we should be able to adopt in our existing units, at least the ones that we're planning on adopting that technology outside of Montrose.

So that's helped clarify an awful lot of our decision-making in the future, and we think the EPA has established a fair position. The mercury rule is one that we think right now is a little bit less certain because of some of the opposition litigation associated with the way that it was promulgated. And of course, the CO2 is one that's, you know, a constant uncertainty.

Q. Okay. With this uncertainty that exists, as succinctly as you can, tell me why this is a time to commit to a specific course of action in regard to building the Iatan 2 plant.

A. Well, in terms of sulfur dioxide and hydrogen dioxides and particulate, there's absolutely no uncertainty as to what we're going to be faced with in terms of a new coal plant. In terms of the uncertainty related to mercury, we'll be permitted under new source performance standards for mercury in the new plant and won't have any uncertainty there.

In terms of carbon dioxide, while we recognize that that may be -- a regulation will be passed in the future, it's one that will probably affect other units other than this particular unit, and we'll regard decisions on plants like Montrose and additional wind as options or alternatives to that type of legislation.

Q. Okay. So you think that to the extent that you can anticipate several of these factors, you believe you have already dealt with and you know what's going to happen and you have anticipated that with the construction proposal?

A. Regarding?

Q. Regarding things like mercury and sulfur and NOx as well, did you say?

A. NOx and particulate. And when I say addressing, we are working collaboratively right now with the EPA and with the Missouri Department of Natural Resources on those specific permits required for Iatan 2.

Q. Okay. But there are still some things that you don't know about and can't possibly know about today in regard to carbon in particular?

A. We don't know what the outcomes are going to be, but we can plan and run scenarios around those uncertainties to look at the robustness of the plan we've offered.

Q. Okay. Can you compare -- there's been a lot of discussion and there have been some press releases in regard to how the total emissions from Iatan will be lower after the plant is built than they were with Iatan 1 alone before anything is done to Iatan 1.

Can you tell me what the emissions change will be if we compare the Iatan 1 plant with the improvements to what we will have with Iatan 1 with the improvements and Iatan 2?

A. On an Iatan site basis?

Q. Yes.

A. Yes, I believe I can.

Q. That would be great. And I think I'm getting very close to being done, believe it or not.

A. I don't have that specific. I do have it back at my -- on my computer.

Q. But you could get it for me?

A. I can get it for you.

Q. That would be great. That's fine. I hope that you remember all of these things that I -- that we talked about you getting for me.

A. Just for the record, just to go over what that is, with the two plants, we're looking at something in the order of probably 90 to 95 percent removal of sulfur dioxide in Iatan 1, probably something a little

higher than that in Iatan 2. So we're making significant reductions in the Iatan 1 plant that will accommodate the additional emissions that we're going to have out of Iatan 2 plant for sulfur, similar type of percentages for the nitrogen oxides.

For the particulate, we're going with a fabric baghouse, which is designed to remove the much finer particulates that you would see in the PM particulate size range of 2.5 microns, which electric precipitators, while they're fairly efficient at removing something like 99 percent of the ash, they don't get down to as fine a percentage. With the baghouses we're looking at we'll actually be able to achieve much higher levels.

So these three in particular will have significant reductions. With the technology we're adding to address those pollutants, they'll also have an effect on mercury reductions, so we'll see some significant reductions in mercury on a total site basis. And I think the one that Mr. Ford talked about, which is carbon dioxide, which I'll point out isn't designated as a pollutant today by the EPA, would have higher emissions because of the fact that there is no removal technology right now.

Q. What I'm looking for, too, I understand the frame of this and it's not -- I'm not saying it's unfair

to compare before and after in the Iatan site. I am looking for, however, what would -- what the emissions difference would be with Iatan 1 put into, having the retrofits that are anticipated, and that site emission compared to the retrofits on Iatan 1 and Iatan 2 at the site as well.

The other -- oh, by the way, the ash that comes off of this, will it be -- will it be able to be utilized for some of the purposes that ash -- some ash can be utilized for building roads and things. Will it -- or will it be -- will it have materials in it that will preclude that usage?

A. That was -- well, it will be salable. The reason why we --

Q. Thank you. That's a better way of saying it.

A. The reason why we went with a wet scrubber, one of the reasons is the ability to collect the ash prior to the scrubber after the SCR allows us to take that ash, and that ash has a fairly high demand from Portland Concrete as a substitute for Portland Cement in the concrete business. So we'll be able to collect that and won't have to landfill in this application.

Q. Okay. And back to the AECI plant very briefly. How far is that plant away from this plant? Do

you have any idea, miles?

A. I don't specifically. It's probably something -- it's close to our east district, which is Brunswick, probably north of Boonville. So I'm not sure what that equates to in miles. Maybe 125 miles, 150 miles maybe.

Q. Does it have any impact with both of those plants going into that area in regard to air, the attainment standards, do you know?

A. In terms of attainment with regard to Kansas City attainment, I would expect it to have fairly low impact just due to the prevailing wind direction.

Q. Because it would be to the best of Kansas City, the AECI plant?

A. Correct.

Q. Okay.

A. But the way that the environmental process is set up, the permit that they will go through will look at essentially the modeling and monitoring of the ambient air within the region that they're putting that plant up, and that will take into account sources like Iatan 2 in that process.

Q. So I assume DNR would be suggesting something to us if there was a big issue with that. I guess they'll be saying something to me if there is. I

would assume they would have already done that in the stip.

One last real quick, hopefully very brief topic. The sulfa credits, the stip calls for, I believe, a greater sale of those credits, am I correct about that, in the near term, or is that incorrect?

A. The stip does address sale of emission allowances in the near term, yes.

Q. Is it anticipated that there will be more sales of those credits than what might have otherwise occurred by KCP&L or is -- am I misunderstanding that?

A. This is approaching confidential information. We can't answer that.

Just in general, the stipulation allows for the sale of some emission allowances early on. Those emission allowances will be sold and gone and they'll be put into basically a regulatory account that would help affect the amount of cash that would appear on our balance sheet, in essence. And somebody like Mike Cline can probably get into this in a lot more detail.

But the thinking is, is that you would have that cash basically help through high construction cash flow periods of the regulatory plan, and then those dollars would be essentially given back to or dispensed back to ratepayers after the 2010 time frame through some

type of process that would have to be established.

Q. Was there an analysis done as to the risk of those sales being done early as opposed to saving those credits and what -- and if you can't talk about it in open session, we can do that some at another time or something. But to the extent that you can give me some idea about what kind of study and analysis was done, that would be helpful.

A. In general I can. There was an analysis done with sensitivities around allowance price, timing of the sales and the amount of the sales. And the concept was -- and this was something we worked fairly closely with Staff and with the Office of Public Counsel, Ryan Kind on -- is to ensure that we didn't necessarily put a burden on ratepayers in creating a deficiency of allowances where we would actually need allowances and be exposed to high price in the marketplace. So we ran sensitivities around how much would be appropriate to sell in the near term to create this regulatory asset and the relative exposure that that would create for ratepayers downstream.

And the various scenarios that we ran went through the workshop discussions, and we converged on the one that ended up in the Stipulation & Agreement.

Q. What kind of risk factor did you find in

that regard?

A. Without getting into specific numbers, I think it was regarded to be fairly minimal risk to ratepayers in terms of their exposure, and that may be something that Mr. Trippensee would like to comment on.

Q. Yeah. I think that would be fine. When we get to that point, that would be helpful for me to hear.

COMMISSIONER GAW: And Judge, I appreciate everyone's patience on this. I'll stop for the time being, turn it over to somebody else.

JUDGE PRIDGIN: Commissioner Gaw, thank you. Commissioner Appling?

COMMISSIONER APPLING: I think my colleague has covered everything very well.

JUDGE PRIDGIN: Thank you. I have no further questions for this witness, and don't want to break your hearts, but this is our last witness of the day. And I will offer some recross opportunities. Mr. Fischer?

MR. FISCHER: Yes, your Honor. Given the time of the evening, I want to raise just a scheduling concern with the parties.

JUDGE PRIDGIN: Yes, sir.

MR. FISCHER: We very much have an interest in accommodating all the interests of the parties and the

Commission, getting the information that you need and that we want. We also have an interest in getting the case submitted as soon as possible.

I have a concern that there might be a party or two that might be of interest to the Commission that might not be available on Monday, and if that's the case, I would ask that we consider trying to resolve those issues tonight and perhaps ask any questions. I think DOE may have a need to be gone on Monday, and I wondered if we could --

COMMISSIONER GAW: I don't have any questions of DOE if they don't have a witness.

MR. FISCHER: I don't know if there's anyone else. That's just a concern I have. We certainly are available on Monday, and I think probably Staff and Public Counsel are. If there are other people that might not be, I'd like to know that.

MR. PHILLIPS: We have a question of Mr. Trippensee, maybe a couple. If we could ask him a couple of questions, I think that's all we would have.

JUDGE PRIDGIN: All right. Mr. Dottheim?

MR. DOTTHEIM: Yes. The Staff has with one of its potential witnesses, Warren Wood, an availability problem on Monday. He will be available here early Monday morning until about 11:30.

Also, too, Commissioner Gaw, your questions of Mr. Grimwade regarding the local public hearing in Kansas City, the testimony of Mr. Byron Comb, Mr. Wood is prepared to address that. In fact, since it was specified that the Prehearing Brief should indicate what the witnesses would testify to, the Staff has a paragraph or two in the -- in its Prehearing Brief filed on June 15th on pages 2 and 3 indicating what Mr. Woods would testify to in general respecting Mr. Comb's testimony and his Exhibit 3.

Also, earlier this afternoon I was advised that Anita Randolph, the Director of the Department of Natural Resources Energy Center, had directed one of their staff from pollution control to come over to the hearing room this afternoon. Now, that individual I think is still here. In fact, I see that Ms. Randolph is here herself. But it's my understanding that they don't have counsel with them, and that in itself may present a difficulty.

Now, Ms. Randolph may want to address that, and of course, Commissioner, you may have your own concerns about, and the RLJ, about proceeding forward without counsel for DNR.

COMMISSIONER GAW: I would feel uncomfortable if they didn't have counsel.

MR. DOTTHEIM: I don't know. Maybe there could be an indication if the individual from DNR is available on Monday. There has been an indication that the person from DNR is available on Monday.

MR. FISCHER: Your Honor, just from my perspective, it sounds like we may have just the need to get a couple witnesses on so DOE can ask their questions and then we can come back.

JUDGE PRIDGIN: Mr. Grimwade's available Monday, I mean, if we have any more recross or redirect?

MR. FISCHER: Mr. Grimwade is available. So is Sue Nathan from Kansas City Power & Light.

JUDGE PRIDGIN: So what I'm hearing is we need to get Mr. Trippensee on to allow DOE to ask some questions.

MR. PHILLIPS: If the Commission would be willing to do that, that would be fine. I would also, at the closure of that, I would be happy to answer any questions of the Commissioners, but I'm not here as a witness.

COMMISSIONER GAW: If you had somebody that could be a witness, I might have some questions, but barring that, I don't.

MR. PHILLIPS: I think you've heard enough from the lawyers the last few days. But I would like to

make a statement at the end of cross-examining Mr. Trippensee on our position relative to the stipulation, which would be our final statement for you. If you also want any kind of post-hearing pleadings, we'd be happy to do that. Mr. Campbell can be here, but he cannot answer any questions or ask any questions, but he can at least monitor the process.

JUDGE PRIDGIN: All right. It sounds to me the best way to go is to kind of change directions, then, and have Mr. Grimwade be available Monday in case we have any recross from the parties, redirect. And then Mr. Dandino, if you're ready, if you want to put Mr. Trippensee on. Again, this is only for the purposes of DOE to cross-examine. Other parties, of course, will have the chance to cross-examine Monday.

Mr. Grimwade, thank you very much for your testimony and for your patience.

(EXHIBIT NO. 39 WAS MARKED FOR IDENTIFICATION BY THE REPORTER.)

(Witness sworn.)

JUDGE PRIDGIN: Thank you very much. If you'll have a seat, sir. Mr. Dandino, whenever you're ready.

RUSSELL TRIPPENSEE testified as follows:

DIRECT EXAMINATION BY MR. DANDINO:

Q. Please state your name and position.

A. My name is Russell Trippensee. I'm the Chief Utility Accountant for the Missouri Office of Public Counsel.

Q. Are you the same Russell Trippensee that prepared and caused to be filed in this case direct testimony which has been marked as Exhibit 39?

A. Yes, I am.

Q. Do you have any corrections to that testimony?

A. Not to my knowledge.

Q. Are the answers in Exhibit 39 true, correct and accurate to the best of your information, knowledge and belief?

A. Yes, they are.

Q. If I asked the questions that are contained in Exhibit 39, would your answers be the same?

A. Yes, they would.

MR. DANDINO: Your Honor, at this point I'd offer Exhibit No. 39, the direct testimony of Russell Trippensee, and tender him for cross-examination.

JUDGE PRIDGIN: Mr. Dandino, thank you. Any objection? Hearing none, Exhibit No. 39 is admitted.

(EXHIBIT NO. 39 WAS RECEIVED INTO EVIDENCE.)

JUDGE PRIDGIN: And I will allow Mr. Phillips to cross-examine, and the other parties will have a chance to cross-examine Mr. Trippensee Monday.

MR. PHILLIPS: Thank you.

CROSS-EXAMINATION BY MR. PHILLIPS:

Q. Mr. Trippensee, in regard to your direct testimony, let me turn your attention to page 11 of your testimony. Do you have that?

A. Yes, I do, sir.

Q. And your testimony is lined, so if you would look at the answer starting at line 2 through line 7, and that is where you're talking about $1 of earnings relative to $1.62 of revenue. And I appreciate what you say there. Could you explain just a little bit more on how you have get that differential of $1.62 via $1 and how that then is a benefit to the ratepayer?

A. The $1, the purpose of rate of return regulation is to allow the company to obtain earnings. There's a couple of sure things in this country, and one of them is taxes. So for a company to retain $1, they have to collect something more than $1 from the ratepayers.

The $1.62 is simply a mathematical calculation of the current federal and state -- federal tax rate along with the state tax rate in Missouri. And

basically it's approximately 38, 39 percent effective tax rate, in that neighborhood. If you take the 38 or 39 percent, 40 percent for round numbers times $1.62, you're going to get about 62 cents of taxes, and then that leaves the dollar for the stockholders or for earnings calculation.

The benefit to the ratepayer from -- that I'm referring to is in the amortization as it's structured here, it is designed to be utilized in the income tax calculation as tax depreciation, be recognized. As such, it would reduce the taxable income and, therefore, not be subject to what we refer to in ratemaking as grossing up a dollar to accommodate the tax, potential tax liability.

I would point out that this is not a guarantee that this will occur. It will be a function of the investments of the company, their taxes, depreciation at that time, which we will look at in each and every rate case.

Q. So the first instance where this would be trued up and you would find the actual amount herein would be in the next rate case, which is scheduled for January of 2006; is that right?

A. January of 2006? I think it's to be filed in February, but somewhere sometime in there. I think the

effective date is January -- it anticipates effective tariffs as of January 1st, 2007.

Q. Okay. On your next page, page 12, you talk about the 125 basis points number related to AFUDC.

A. That's probably a change I would like to make, but as soon as Kansas issues an Order, I definitely will make that.

Q. Let me just for the record clarify that I think it's been represented, and perhaps Mr. Giles might have testified to this, and I think Steve Dottheim may have mentioned this, but in Kansas there's a provision for a 250 basis points AFUDC number; is that correct?

A. That's correct. There's also another term in Kansas. There's a delay before that kicks in, I believe it's January -- for all expenditures as of January 1st, 2007 through the end of the project. That additional language, I think the way the stipulation, we'd have to look, incorporate that also.

But since most of the expenditures are going to be post January 1st, 2007, our initial analysis indicates that would be a better situation for Missouri customers, and that's basically the spirit of the portion of the Stipulation & Agreement that talks about adopting provisions in Kansas.

Q. So you would see, then, for the next rate

case in Missouri jurisdiction that the AFUDC number utilized there would be 250 basis points as opposed to 125?

A. That would be my belief. I mean, the spirit is we will take anything that benefits Missouri customers in Kansas. We're going to reject some of the things that they have incorporated in Kansas, such as back to the additional amortization, Kansas is calling it contributions in aid of construction, and in looking at the transcript in the Kansas proceedings, they specifically said it would be taxable, and that is something we wish to avoid in Missouri.

The original KCPL proposal talked about increased earnings to provide this dollar cash flow, and that is something that was basically a non-starter from the Public Counsel's position, because 62 cents on this amount of money is going to be a significant amount that would just simply flow from ratepayers to the federal treasuries, and while it might help DOE and other things, it won't be helping Missouri.

Q. I wish we got our money that way, but we don't.

Were you involved in the ER-94-199 negotiations and Stipulation and Order that came out of that? I asked Mr. Giles some questions about the

amortization adjustment that flowed out of that docket. Do you recall that?

A. I recall the docket. I do not believe I was involved in the negotiations. I definitely did not file testimony in the case.

Q. And how about in ER-99-343? Similar amortization was adopted in that.

A. I believe I was involved in negotiations in that case. The 94 case, I don't think it went where there was actually testimony filed. I think there may have been an earnings -- my sitting here memory kicking in a little bit this late on a Friday afternoon after two days of sitting here in the cold, I think there was a Staff earnings investigation, and we were involved in discussing that, and my position was the same at that point in time. I would have had some input into the office's position.

Q. And have you compared that amortization and the amount of that amortization compared to what's being proposed in this docket?

A. As far as just the -- the amortization being proposed in this docket is not a dollar specific. I think there's 17 million put in the stipulation as expected, 17 million that will be adjusted up and down. The critical component of the Stipulation & Agreement is Appendix F, pages 1, 2 and 3 of Appendix F, which sets out

the process that that amortization will be determined.

If it is 17 million, it will be higher than the current I believe three and a half that's in that -- originally in that '94 case.

Q. I asked Mr. Giles some questions about that illustration, and the illustration I believe he said was based on a 2003 surveillance report.

A. Yes.

Q. And consequently a number that would flow out of the next case would turn on audit, surveillance or whatever that would take place subsequent to that calculation; is that correct?

A. Well, I think what is anticipated is the Commission will have to -- we often call them scenarios. They will issue, tell the parties what the basic revenue requirement is out of the case. We will then have to run that data through this and inform the Commission of what the amortization amount would be to meet the Stipulation & Agreement. So it will come out of the Commission case, it will be prudent expenditures and investments and the cash flow generated from those, and that will be run through the model.

The use of the 2003 surveillance data was simply so that we had numeric data to check how this process would work. It's really just a numeric test. It

doesn't have a lot of relevance. I believe the 17 million that's in the Stipulation & Agreement flows more from the modeling that was done by the parties in the -- in this case, in looking at the revenue requirements that Mr. Grimwade talked about and Mr. Cline referred to earlier I believe also.

Q. Okay. Assuming the Commission were to approve the Stipulation & Agreement in this docket, in the next rate case, which would take place January or February or whenever Kansas City Power & Light would file it, if we were to intervene and if you were to participate, which I assume you would, and Staff would participate, which I assume they would, then we would all have an opportunity to take that number and that formula and apply it in the rate case?

A. That would be correct.

MR. PHILLIPS: Thank you. That's all I have of this witness, and that's all the questions we have of any of the filed testimony. I would be happy to answer questions from the Commission relating to whatever we can do to help you.

I would be happy also to just advise you, if you were to have a closing argument Monday or Tuesday or whenever, what we would say in that closing argument. On the basis of what we have gone through and reviewed and

listened and the competent and substantial evidence, we would submit that we do not oppose the Commission approving the Stipulation & Agreement as proposed in this case.

If there are any questions, I'll be happy to try to answer them.

JUDGE PRIDGIN: Mr. Phillips, thank you. Let me see if we have any questions from the Bench for Department of Energy. Mr. Chairman?

CHAIRMAN DAVIS: No questions.

JUDGE PRIDGIN: Commissioner Gaw?

COMMISSIONER GAW: Is that the same thing as supporting it?

MR. PHILLIPS: I think if we looked in Law's dictionary we might be able to differentiate between one and the other. I'm prepared to say that we do not oppose it.

COMMISSIONER GAW: But not that you necessarily support it?

MR. PHILLIPS: I did not say that.

COMMISSIONER GAW: Real quickly, since you're representing the Department of Energy, does the Department of Energy have any issues in regard to the number of coal plants that are being constructed in the U.S. at the present time and any position in regard to

whether or not that is a good thing, whether there are enough, too many, not enough being constructed?

MR. PHILLIPS: Let me just say that we are here in a capacity different from a capacity in which I could answer that question.

COMMISSIONER GAW: That's why I was hoping you had a witness so I could ask them that question.

MR. PHILLIPS: We are here pursuant to a federal law which provides that we as customers of utilities have a right to intervene before state agencies in a customer capacity. The actual holder of that authority is two agencies. One agency is the General Services Administration. The second agency is the Department of Defense.

The facility that we're representing today is technically under the auspices of the General Services Administration. The General Services Administration has issued an Order of Delegation to the Department of Energy to represent the Department of Energy's interests before this Commission on behalf of the DOE, National Nuclear Security Administration facility, which we call our Kansas City plant, which years ago we all knew as the Bendicks facility at 95th and whatever that street out there is in southern Kansas City, and that's what I'm here for today.

We also can represent the policy interests

of the Department of Energy, but that is an authority held by the Secretary of Energy, and if I were here in that respect, our position would be substantially different than it is and we would probably be advocating something you may or may not want to hear.

So anyway, I don't have the authority to do that. I could tell you this, Commissioner: All those -- all those reports that have been referred to, and many, many more, if you would like them, you can make a request and my office will end up processing it, and we would be happy to provide you with any and all those reports, but I really don't think we need to burden the record any more than it is with any more paper.

COMMISSIONER GAW: Yes. That's why I was looking for a witness.

MR. PHILLIPS: Yes. I'm sorry. I can't help you with that.

COMMISSIONER GAW: Your background at this Commission has served you well. I can see that.

MR. PHILLIPS: Well, it certainly has helped, not only in this jurisdiction but in many others as well.

COMMISSIONER GAW: I would love to know what the Department of Energy's and the Secretary's position is in regard to my question, but I see that I'm

not going to get that answer. So I'll leave that alone.

MR. PHILLIPS: Thank you. I appreciate it.

JUDGE PRIDGIN: Commissioner Gaw, thank you. Commissioner Appling, any questions?

COMMISSIONER APPLING: Mr. Phillips, it was really nice to meet you, and thank you for coming back here. You've explained in about five minutes why it's so tough to get things done in this country. Appreciate it, and have a safe trip.

MR. PHILLIPS: Thank you. It's always a pleasure to appear here, and especially to see some of the staff members that I worked with over the years and the Public Counsel and, yes, Kansas City Power & Light and the other intervenors that appeared here as well. So it's been a pleasure. Thank you.

JUDGE PRIDGIN: Mr. Phillips, thank you. And I think what we can do now, Mr. Trippensee, you're excused. You'll be recalled Monday.

As a matter of housekeeping, we will resume Monday morning at 8:30. I will go over with counsel any requirements they have to accommodate witnesses. I understand we'll probably need to take Mr. Wood pretty early, and I would be inclined to take him first and then put Mr. Grimwade back on if the parties want any kind of recross, redirect, and then we will proceed, go back to

the list of issues, procedural schedule that the parties gave to me before the hearing.

Is there anything else from counsel before we go off the record? All right. Hearing nothing, we will go off the record. Thank you very much. You're all invited back 8:30 Monday morning.

WHEREUPON, the hearing of this case was recessed until June 27, 2005.

I N D E X

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