STATE OF MISSOURI

PUBLIC SERVICE COMMISSION

TRANSCRIPT OF PROCEEDINGS

Public Hearing

May 24, 2005

Kansas City, Missouri

Volume II

In the Matter of a Proposed Experimental)
Regulatory Plan of Kansas City Power &) Case No.
Light Company)EO2005-0329

RONALD D. PRIDGIN, Presiding
DEPUTY CHIEF REGULATORY LAW JUDGE
STEVE GAW,
LINWARD "LIN" APPLING,
Commissioners

REPORTED BY: Jenny Eastabrooks - Cross Reporting

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EXHIBITS

Exhibits Marked for Identification:

(Exhibits retained by Judge Pridgin.)

PROCEEDINGS

JUDGE PRIDGIN: We are on the record. Good afternoon. The Missouri Public Commission has set this time for a local hearing in Case No. EO-2005-0329 in which Kansas City Power & Light Company seeks to implement an experimental regulatory plan. The Missouri Public Service Commission regulates the rates charged by investor owned utility companies in Missouri to ensure that those rates are just and reasonable. The Commission also regulates the quality of service and safety of the operations of those utilities.

The Commission is made up of five commissioners, two of whom are here today. They are appointed by the governor to fixed terms and confirmed by the senate. The commissioners employ a staff of engineers, accountants, attorneys, financial analysts and other specialists in the field of utility regulation. I am Ron Pridgin, I'm a regulatory law judge for the Missouri Public Service Commission and I will preside over today's hearing.

With me today to my right is Commissioner Steve Gaw, and to my left

Commissioner Lin Appling. This is an official hearing of the Missouri Public Service Commission. And the statements and testimony of witnesses will be recorded by the court reporter and must be given under oath. All of the commissioners will have a chance to read all of your remarks.

In addition to this hearing a trial type hearing will be held beginning on June 6th, 2005, starting at 8:30 in the morning at the Commission's offices at the Governor Office Building in Jefferson City, Missouri. That hearing is a public hearing and KCP&L will have the burden of showing that its plan is in the public interest. The parties will present their evidence for and against the plan at that time. The purpose of this hearing is to hear from you on the subject of the experimental regulatory plan. The Commission will not present witnesses and will not answer questions.

This is your chance to testify and, again, your remarks will be made a part of the official record of this case. I will call the name of each witness who has signed up to speak. I will call you in the order in which you signed up. When your name is called, please come forward

and sit in the witness chair. I will ask you to spell your name for the court reporter so she can put it in the record correctly. I will ask a few preliminary questions such as your name and address and you can then make your statement.

There may then be questions from the commissioners or from me, so please do not leave the witness chair until you are excused. This hearing is scheduled end properly at 2:00 p.m. or whenever everyone who wishes to testify has done so. To get as many of you on the record as possible we ask that you be brief. If a previous speaker has already made the points you want to make, you may simply state that you agree with what somebody else said. If there is a person who wishes to testify but for religious reasons cannot take an oath, please tell that to me so I will affirm your testimony instead.

Does anyone have any questions about the procedure of the hearing? Seeing none we will then begin the public hearing. I'm sorry, yes, sir.

AUDIENCE MEMBER: Has the sign-up form already gone around?

JUDGE PRIDGIN: We have them here and we

can get another one going for you, sir. Yes, sir.

AUDIENCE MEMBER: A question, I think the hearing has been announced for noon to 2:00 p.m.?

JUDGE PRIDGIN: Yes, sir.

AUDIENCE: If the testimony concludes by 1:00 or 1:30, does that mean that someone who arrives after that time anticipating to be able to testify during that noon to 2:00 p.m. period will not be able to testify?

JUDGE PRIDGIN: I guess it would be depend on exactly how soon we end. I mean, we do certainly have some witnesses, and I would expect this hearing to go until roughly 2:00 p.m., so I expect we'll be here. I don't think we're going anywhere. Thank you for asking. Any other questions? All right. This is Case Number EO-2005-0329 in the matter of a proposed experimental regulatory plan of Kansas City Power & Light Company. I will see which counsel are here to make entries of appearance. Anyone here on behalf of Kansas City Power & Light?

MR. ZOBRIST: Karl Zobrist, Sonnenschein, Nath & Rosenthal on behalf of KCP&L

Company.

JUDGE PRIDGIN: Mr. Zobrist, thank you. On behalf of the staff, please?

MR. DOTTHEIM: Steven Dottheim, Post Office Box 360, Jefferson City, Missouri, 65102, appearing on behalf of the staff of the Missouri Public Service Commission.

JUDGE PRIDGIN: Mr. Dottheim, thank you. On behalf of the Office of the Public Counsel, please?

MR. DANDINO: Thank you, Your Honor. My name is Michael Dandino, Office of the Public Counsel, Post Office Box 2230, Jefferson City, Missouri 65102. And I represent the Office of the Public Counsel and the public.

JUDGE PRIDGIN: Mr. Dandino, thank you. On behalf of Praxair Incorporated, Jackson County? On behalf of Missouri Industrial Energy Consumers? Ford Motor Company? Aquila? Are there any other counsel here that I've neglected? I don't see any familiar faces. All right. I will then move on to the first witness. If I mispronounce your name, I apologize in advance and Ill try to pronounce it correctly. I see as the first witness Craig Volland, if I'm pronouncing that

correctly?

MR. VOLLAND: Yes.

JUDGE PRIDGIN: If you would, please, come forward to the witness area. Mr. Volland, would you please raise your right hand to be sworn.

(Whereupon the oath was administered.)

JUDGE PRIDGIN: If you would, please, state your name for the record and spell your last name.

WITNESS VOLLAND: -- my name is Craig Volland, V as in Victor, O-L-L-A-N-D.

JUDGE PRIDGIN: And are you a customer of KCP&L?

WITNESS vOLLAND: No, but I represent a group who are customers.

JUDGE PRIDGIN: All right. Do you have a statement for the Commission, sir?

WITNESS VOLLAND: Yes, I do. Do I give this to him or who do I give it?

JUDGE PRIDGIN: If you have an exhibit, I can mark that.

WITNESS VOLLAND: Are you ready?

JUDGE PRIDGIN: Yes, sir.

WITNESS VOLLAND: As I said, I'm Craig Volland, I'm representing the Kansas Chapter of

the Sierra Club regarding this proceeding of KCP&L's proposed regulatory plan. I am speaking in opposition to Kansas City Power & Light's plan now before the Missouri Public Service Commission. The company proposes to add some 950 megawatts of new generating capacity in the next five years. The centerpiece of this plan is the 850 megawatt Iatan 2 coal-fired power plant whose massive cost is the primary basis for their request for a rate increase of up to 20 percent by 2010.

Environmental issues aside for the moment, we strongly challenge whether Kansas City Power & Light's selection of power generating options is consistent with the financial interest of the rate payers of Missouri and Kansas. Last year Westar, who services areas in Kansas, solicited and reviewed 17 bids from 13 wind power developers. On February a of this year they presented the attached cost comparison of power generating options to the Kansas State Senate Utility Committee. This shows wind power costing only 3 cents per kilowatt hour.

Actually this is conservative because Westar's web site gives a range of 2.5 to 3 cents per kilowatt hour. And I give instructions for

that web site. This compares to their estimate of 4.65 cents per kilowatt hour for a new coal-fired power plant. This is the best data the public has on this critical cost comparison since Kansas City Power & Light refuses to make public their own data in this regard. Note also that the cost of wind power is declining steadily while the cost of generating power from coal is going up.

By the time Iatan 2 starts up it is likely that wind power will be significantly cheaper than coal even without the benefit of the federal tax credit. In addition, wind farms can be constructed in one to two years in sets of 50 or 100 megawatts to match base load demand when and if it materializes. This compares to a construction period of four years or more for a coal-fired power plant. According to a recent GAO report, and you can see the attached wind power fax sheet, as long as wind remains below about 20 percent of utilities generating facility portfolio it can be considered equal to coal as a base load option.

To skeptics of wind power who claim that wind power is unreliable, I simply refer you KCP&L's Hawthorne's #5 coal fire boiler, which

blew up several years ago. I also invite you to spend some time in western Kansas to see for yourself the remarkable quality of the wind resource there. Finally the governor of Kansas signed the bill last week creating the Kansas Transmission Authority in recognition of the vast wind energy resources next door to Kansas City Power & Light service area just waiting to be tapped. According to Dr. Bruce Snead of the Kansas State University who advises the Kansas Chapter on energy efficiency issues, past energy efficiency programs and current market data support the conclusion that as much as 40 to 50 percent of the nation's anticipated load growth over the next two decades can be displaced through energy efficiency, pricing reforms and load management programs.

According to a recent report entitled "Natural Gas Prices in the Midwest" by the American Counsel for An Energy Efficiency Economy there is considerable research from leading states that a broad group of energy efficiency programs can save electricity at a cost of 3 cents per kilowatt hour, which of course, is much cheaper than building a new coal-fired power plant. Now

we have the bizarre situation where the mayor of Kansas City signs onto the U.S. Mayor's Plan of Protection Agreement which calls climate disruption an urgent threat to the environmental and economic health of our communities. At the same time Kansas City Power & Light is proposing to build a huge new coal-fired power plant that will spew out some 6 million tons of carbon dioxide per year. This is just a few weeks after dozens of U.S. state treasurers met with hundreds of major investors in New York to brainstorm ways to reduce the financial risk of climate change. That's Associated Press of May 10th, 2005?

I wonder how long it will be before we see insurance companies suing power companies like Kansas City Power & Light for putting them out of business from violent storms and flooding. Given the consensus about global warming it defies common sense for Kansas City Power & Light to be adding coal burning capacity at this time. At a minimum the coal option should be delayed six years to give energy conservation alternatives time to work, to reduce demand and to give Kansas City Power & Light engineers some confidence-building experience with the wind

power. Kansas City Power & Light built the number one boiler at their Montro complex in 1958, some 47 years ago.

You can be sure that if you approve Kansas City Power & Light's plan to build Iatan 2 we will be stuck with it for 50 years. You must really think hard before you give -- you approve Kansas City Power & Light's plan because your grandchildren will be baking along with mine. Kansas City Power & Light's proposal fails the logic test, it fails the economic test and it fails the public interest test. They should be sent back to the drawing board. Thank you.

JUDGE PRIDGIN: Mr. Volland, could you remain in your seat to see if we have any questions from the commissioners. And let me also identify what you handed me is what I perceive you just read from, and you wanted the Commission to consider that; is that correct, sir?

WITNESS VOLLAND: Yes, it's just comments by Craig Volland with attachments.

JUDGE VOLLAND: Yes, sir. I've got those and I'll label that as Exhibit No. 1, it's two pages that Mr. Volland just read as well as a chart and a Kansas wind power brochure from the

Sierra Club; is that correct?

WITNESS VOLLAND: Correct.

JUDGE PRIDGIN: All right. Thank you. Let me see if we have any questions from the commissioners. Commissioner Gaw?

COMMISSIONER GAW: No. I just want to say thank you for coming, sir, and we appreciate your input.

JUDGE PRIDGIN: Thank you. Commissioner Appling?

COMMISSIONER APPLING: No questions. Thank you.

JUDGE PRIDGIN: Mr. Volland, thank you for your time and your testimony, sir, we appreciate it.

WITNESS VOLLAND: Thank you.

JUDGE PRIDGIN: I see as the next witness Jill DeWitt. Did I pronounce your name correctly, ma'am?

WITNESS DEWITT: Yes.

JUDGE PRIDGIN: All right. Thank you.

WITNESS DEWITT: My name is Jill DeWitt.

JUDGE PRIDGIN: I'm sorry, if I could get you to raise your right hand to be sworn, please.

(Whereupon the oath was administered.)

JUDGE PRIDGIN: All right. Thank you. If you would please, state your name for the record and spell your last name.

WITNESS DEWITT: My name is Jill DeWitt, D-E, capital W, I-T-T.

JUDGE PRIDGIN: Are you a KCP&L customer?

WITNESS DEWITT: I am a KCP&L customer.

JUDGE PRIDGIN: And do you have a statement for the Commission?

WITNESS DEWITT: I do. My name is Jill DeWitt, I serve as conservation chair of Burroughs Audubon Society of Greater Kansas City. A 2000 in reverting and conservation organization in the Kansas City metropolitan area. I am an environmental representative to Mid-America Regional Counsel's air quality forum. Burroughs Audubon opposes the construction of an additional conventional coal-burning power plant north of the river. We respectfully request that the Public Service Commission and Office of the Public Counsel consider fully the health and environmental costs to residents as well as the additional pollution to our air, soil and water.

It is our understanding that current proposals would remove 7,000 gallons of water every minute from the Missouri River. Governor Matt Blunt has publicly stated that a six-year drought has lowered water levels endangering large traffic among other things, runoff and erosion reaching from an additional 60-acre landfill would challenge surrounding lands. An addition of 6 million tons of unregulated carbon dioxide every year is an irresponsible contribution to global warming and would saddle our region with additional cost increases when a carbon tax becomes national policy. Additional mercury in a region where every lake and stream is currently listed for mercury pollution puts every childbearing woman at risk in Missouri. One of six women has blood mercury levels sufficient to cause alarm as a result of neurological damage to the unborn. Our understanding is that coal-burning power plants as proposed by Kansas City Power & Light could be much cleaner.

Technologies which are 20 percent more expensive to build operate more efficiently, make use of at least 15 percent more of the energy released by burning coal and use 40 percent less

water. These technologies could cut half of coal's pollutants including sulfur dioxide and nitrogen oxides, major contributors to acid rain and smog. They can strip 95 percent of mercury in coal at a tenth the cost of scrubbing from smokestack exhaust gases. Construction of an additional coal-burning power plant in our region, which would only give us a portion of the power produced is a disturbing step backwards. The health and environmental costs to our community are too great. We urge the Public Service Commission to consider the economic costs to citizens, wildlife and tourism.

We request a delay on approval for construction of the proposed coal-burning power plant until such time that cleaner technologies will be economically feasible. Thank you for your consideration.

JUDGE PRIDGIN: Ms. DeWitt, thank you. And if you would, please keep your seat to see if we have any questions from the commissioners. Commissioner Gaw?

COMMISSIONER GAW: No. Thank you, ma'am.

JUDGE PRIDGIN: All right. Thank you. Commissioner Appling?

COMMISSIONER APPLING: Thank you, ma'am. I don't have anything.

JUDGE PRIDGIN: Thank you, ma'am, for your time and your testimony today. I see the next witness is John Spertus, I hope I'm pronouncing that correctly?

WITNESS SPERTUS: Yes, thank you.

JUDGE PRIDGIN: If you would please, raise your right hand to be sworn.

(Whereupon the oath was administered.)

JUDGE PRIDGIN: Thank you, sir. If you would, please state your name for the record and spell your last name.

WITNESS SPERTUS: My name is John Spertus, S-P-E-R-T-U-S.

JUDGE PRIDGIN: And are you a KCP&L customer?

WITNESS SPERTUS: Yes, I am.

JUDGE PRIDGIN: All right. Do you have a statement for the Commission, sir?

WITNESS SPERTUS: Yes, I do. Commissioners Gaw and Appling, thank you very much for your time. And I'm going to focus my effects on the Commission's obligation to regulate the safety of this new energy production. I'm a

cardiologist and a professor of medicine at the University Missouri of Kansas City. And I serve as director of cardiovascular education and outcomes research at the Mid-America Heart Institute of St. Luke's Hospital here in Kansas City. In January of last year the most prestigious scientific journal in cardiovascular disease published a seminal article on the health effects of air pollution and particularly emission particles that are smaller than 2.5 microns in size.

After surveying the entire world's literature they determined that after controlling for a broad range of potentially compounding factors that a significantly increased risk of ischemic heart disease and heart attack deaths is associated with increased exposure to those small 2.5 micron particles. As you may know ischemic heart disease is currently the leading cause of death for men and women in the United States. Among those people who do not smoke and have never smoked, and I might add made a very conscious decision to pursue a lifestyle that minimize their risk for cardiovascular death, being exposed to an average of 10 micrograms per cubic meter of

increased exposure to these 2.50 micron particles increase their risk of dying of a heart disease death and a cardiovascular death by 22 percent. In fact, if there was a 20 microgram per cubic meter increase, there would be a 49 percent increased risk of death and an 82 percent increased risk of death of there were a 30 microgram per cubic meter increase.

And what this is, is this the delta so if they invoke the newest, latest technology from the existing Iatan 1 and get us the minimal exposure possible, adding Iatan 1 for each 10 micrograms of increased average discharge of these small particles our community, our entire community would face a 22 percent increased risk, each individual of dying of a heart disease death. There is currently not attainment in the 1997 Clean Air Guidelines. And the American Heart Institute in this article suggests that there would be 23,000 less deaths in the United States each year if we were in attainment with these 1997 goals.

Furthermore, I need not tell you about the escalating health care costs in our society that they predicted there would be 42,000 less

admissions for cardiovascular disease each year if we were in attainment with the 1997 guidelines. They further said that there is no lower threshold of discharge of these particles that's safe. And then, in fact, they strongly advocated, and I have for your review that scientific statement, that we adopt even more stringent regulations on the discharge of these particles. I spend my life as a cardiologist trying to encourage my patients to adopt healthy lifestyles and to take medications to minimize their mortality risk from heart disease.

If I spend a long time and convince a patient at great expense to them to take a cholesterol lowering drug, this may decrease their risk of a heart disease death by 20 percent. This would be barely compensate the increased risk that they would experience if new plans raise the concentration of these 2.5 micron particles. In light of that you can imagine my distress hearing about this plan to expand and get other partners to participate in creation of a large coal-burning fire plant that would exceed our own local needs. And while I appreciate that Great Plains Energy is a model for the country when it comes to the

responsible generation of energy, the impact of generating additional energy beyond our community needs causes us great concerns.

Why should Kansas City bear the health consequences of generating energy for the profitable sale to others. While I love our country and the firmly believe in the market forces of our economy, the major concern that I have is that capitalism does not adequately weigh the effect of population health in the costs of doing business. These are real costs that our community bears that are not borne by Great Plains Energy in their bottom line of generating profitable energy. I am therefore appealing to you to consider these health issues and consequences when making your decisions about approving this proposed plan. Thank you very much.

JUDGE PRIDGIN: And was there a study that you wanted the Commission to review?

WITNESS SPERTUS: I did give you a scientific study that synthesizes the world's literature as of January of 2004.

JUDGE PRIDGIN: Could you just briefly describe what this is so we can just enter that

into the record correctly? What is it?

WITNESS SPERTUS: The American Heart Association is the leading lay organization advocating for research and improved quality of care for cardiovascular disease, which as I mentioned is the leading cause of death for men and women in the United States. They have a very strong scientific foundation for their advocacy efforts, and as part of that process periodically try and summarize the world's literature to guide the public policy and/or individual patient and physician practice. This is an example of a public -- of a scientific statement trying to synthesize a very complex and difficult literature into a series of insights that generate a biologically plausible mechanism for these air pollutants that cause cardiovascular disease, and then goes to talk about recommendations that physicians who in times where there is excess discharge in the air might recommend that elderly patients, diabetic patients not exercise, not go outside and expose themselves, and then summarize the conclusion about what this means for public policy.

JUDGE PRIDGIN: Can you tell me where

this was published?

WITNESS SPERTUS: Circulation, which is one of the primary -- the primary journal of the American Heart Association and it's the leading subspecialty journal in medicine for cardiovascular disease.

JUDGE PRIDGIN: And I see that is a June 1st, 2004 article, and I'm counting 16 pages; does that sound correct to you?

WITNESS SPERTUS: Yes.

JUDGE PRIDGIN: And I see some highlighting in here, is that something that you've done?

WITNESS SPERTUS: That's something I did, you can ignore that.

JUDGE PRIDGIN: All right. I'll show this as a 16-page article in the AHA Journal Circulation dated June 1st, 2004. I'll label that as Exhibit No. 2 and I will admit that into the record. Let me see if we have any questions. Commission Gaw, any questions?

COMMISSIONER GAW: Maybe just a few. Good afternoon, Dr. Spertus.

WITNESS SPERTUS: Thank you.

COMMISSIONER GAW: It's good to see you.

WITNESS SPERTUS: It's nice to meet you.

COMMISSIONER GAW: Can you give me just a little more -- you told us you're a cardiologist?

WITNESS SPERTUS: Correct.

COMMISSIONER GAW: Give me a little bit of your medical background, just a brief sketch.

WITNESS SPERTUS: I was trained at the University of California in San Francisco and then went to the University of Washington, Seattle where I spent seven years in training in internal medicine and cardiovascular disease. And I earned a Master's of Public Health degree from the University of Washington School in public health and community medicine. I came to Kansas City and have been employed first at Truman Medical Center and then Mid-American Heart Institute. And in this setting I'll be less modest than I normally would be, but I've emerged as one of the nation's leaders in outcomes research and quantifying the quality of cardiovascular care.

I designed the quality performance indicators that Medicare uses to judge the quality of care in the out-patient setting, and have been a very active proponent for improving the quality

of care on the in-patient side. I got -- I have no experience in this sort of position, as you can tell from my nervousness, but I felt it was extraordinarily hypocritical to be advocating for improved health and improved quality of care throughout the country and not to take a very strong interest in the health of my own community. And I am deeply concerned about the cardiovascular consequences of air pollution and I am deeply concerned that we aren't -- as Dr. (sic) Volland mentioned earlier that we will be living with this decision for 50 years. And there is no hint that we are going to reverse the event that's accumulated to date. And more likely as we get more and more sophisticated at understanding the impact on disease outcomes that we will find that even the 1997 Clean Air Act is far too liberal and we'll need to continue to ratchet it down.

Yet at that point the cows are out of the barn. There will not be the opportunity to stand the development of KCP&L's plan. And I think, you know, they are in general very responsible citizens. I view this to be an irresponsible decision on their part. I think that there -- I've been very swayed by the

testimony we've heard previously, but also even being at KCP&L's own educational forum when I tried to acquaint myself with the issues of the opportunity to increase efficiency, to take advantage of this abundant wind power that we have near us and not to saddle KCP&L with the -- just because it's economically more feasible to get other partners to build a larger coal plant than we need, does not -- that means that we will as our community and living in this area and our kids be subjected to those health effects.

And I'm very worried that while on the balance sheet it makes a lot of sense to build a bigger plant than we need to get additional partners that we need. What's not on that balance sheet is the fact that we are bearing the health consequences of the discharge from these pollutants and that's very worrisome to me and my family.

COMMISSIONER GAW: When you're talking about balance sheets and financial impacts you said that health is not on there. Can you translate that into cost or at least a beginning, does it translate into costs and who pays those costs?

WITNESS SPERTUS: The truth is that I cannot articulate that as clearly as I would like, but I would delineate some of the issues that one would consider when trying to come up with a calculation of what the costs would be. First of all, you have to figure out the excess burden of cardiovascular admissions and deaths in our community given that we are exposed to lots of coal plants in the midwest, of those 42,000 deaths that are -- 23,000 deaths and 42,000 admissions in the United States each year I imagine there is a disproportionate share in this area. Then the business community that hates the health insurance for our employed individuals would be paying higher premiums for the higher costs that the payers of health care are having to pay. Furthermore, the Medicaid system and the indigent care system within the Kansas City area has to pick up the shortfall where we have unemployed or underinsured patients who end up having health consequences.

All of this is focused on cardiovascular disease. And asthma, and asthma in kids in particular is a very significant concern and one that exceeds my domain of expertise, but would

also have to be factored in there as well as the time lost from work for mothers and fathers having to be with their kids during asthma exacerbations in the children's emergency room as well as the decreased productivity they would have to be if they're there at night and the next day weren't as effective. And I think the ripple effect that you can imagine is very substantial from this and, therefore, very complex and hard to model and quantify as accurately as I would like.

COMMISSIONER GAW: Are you saying that the cost, if you were looking at the bottom line cost on a 30 megawatt hour basis of coal, that it does not factor in some of the costs that are off the balance sheet as you said earlier?

WITNESS SPERTUS: Absolutely. There are remarks about the indirect causes that not be reflected in that that would obviously not be present in other sources of saving energy through greater efficiency or wind generation.

COMMISSION GAW: Earlier you said something about -- you gave us some numbers on percentages of increased risk and death if I understood you correctly, according to so much change in the particulate matter. Have you

translated any numbers for this particular project or is that something that you can do?

WITNESS SPERTUS: Sir, on March 13th, 2004 I sent a letter to Mr. Chesser of Great Plains Energy as well as to several members of the board who I thought would be receptive, asking -- sending a copy of my letter, and I read much of that letter to you. And what I didn't read was me -- the questions where I asked what he thought the anticipated output of the new power plants would be how it would affect the average exposure to this smaller 2.5 micron particles. He's never responded. I got one letter from Mr. West of the board who said he would be looking into this issue and appreciated my comments, otherwise Great Plains Energy has largely been silent.

They did ask a consultant from Boston to call me up and we talked for a little while. She sent me some literature on some study that she had done putting rats through diesel engine exhaust and not finding difference in rats. And I told her that I was much more concerned with humans than rats, and so I didn't know what the relevance of that was. And other than that I've had no interaction with Great Plains Energy despite I

think making a significant effort to acquire that information so I could give you a better answer.

COMMISSIONER GAW: So what in particular do you need to know to make that assessment?

WITNESS SPERTUS: Sir, what I would like to know is with all of the anticipated improvements in cleaning of the discharge from Iatan 1 that's up there now, what would be the incremental or the increased discharge of that second 850 megawatt plant. And from that I would be able to develop some pretty good estimates of the health burden to our region.

COMMISSIONER GAW: Give it to me again on what the starting point is and what the ending point is.

WITNESS SPERTUS: The starting point is that if all the anticipated clean air modifications were done, existing infrastructure that we have for generating energy, then imagine what the discharge would be if there were a new 850 megawatt plant. That difference is what I would need to be able to make calculations.

COMMISSIONER GAW: Okay. Do you know, have you been told about whether or not barring the building of this new plant, whether or not

those improvements on the first plant would be made; do you know?

WITNESS SPERTUS: Sir, my understanding and you would be far more knowledgable about this than I am, is that there is currently a moratorium on the 1997 Clean Air Act, but that there is a precipitated need to come into compliance, and the right to correct mechanism of doing that is not clear to me. And I am concerned that we are bundling so many things together that it's a little difficult to dissect what Great Plains Energy will have to do to meet the regulatory demands and, therefore, that shouldn't really be on the table. They've got to do that anyway. And the separate issue is do we in addition to that need an additional 850 megawatt plant and what would be the health impact of that additional plant.

COMMISSIONER GAW: Well, I appreciate the amount of time that you and others have put into this. I just wanted to say that. I would be hopeful that perhaps you'll get answers to some of your questions so that we'll have some answers on those things too.

WITNESS SPERTUS: Well, thank you very

much. I think your questions will be a strong impetus for me to get those answers. Thanks.

JUDGE PRIDGIN: Thank you. Commissioner Appling?

COMMISSIONER APPLING: I thank you, sir. I don't want my colleague to take up all the time. Doctor, how long have you been practicing in Kansas City?

WITNESS SPERTUS: Since 1996.

COMMISSIONER APPLING: 1996. Have you seen any changes in the cardiovascular disease? Can you quantify that for me as far as the Kansas City area is concerned, is there a significant increase?

WITNESS SPERTUS: Sir, we are actually very active in research and outcomes research at the Mid-American Heart Institute and at Truman Medical Center. And what I can tell you is that our research programs are continually to ramp up in scale, that nationally there is a substantial burden of cardiovascular disease that's about to explode into the growth of diabetes and obesity in America. And the number one cause of death for diabetic patients is cardiovascular disease. And so you have really a double whammy here. You have

the growing birth of our region and the diabetes that comes along with that coupled with the air exposure risk that I believe might be posed by -- that will be posed by expanding our coal generation. I can also tell you that we are actively studying not only whether people are alive or not, but how their quality of life, how the control of their cardiovascular symptoms are.

And there is tremendous room for improvement in Kansas City. You have tremendous despair using care with big differences across social economic strata and between blacks and whites in our community. There is more and in the worse quality of life, more physical limitation. And that trend is not reversent. And while we're going to do a great deal to try and figure out how to best improve some of these disparities that we're observing in the outcomes of patients recovering from a heart attack that it will compound the problem as the incidence of heart attacks grows over time, and that's what I'm very concerned about.

COMMISSIONER SPERTUS: John, I want to thank you for coming in and I find your testimony

very interesting. But I also want you to walk away today understanding that this is a delicate balance between the utilities and the public interest here not only in Kansas City but throughout this whole country. KCP&L kind of gets itself in a vicious circle here when you're talking about the price of fuel, alternative fuel, wind and also gas fire and coal fire. But I hear what you have to say. And thank you very much for coming in today.

WITNESS SPERTUS: Thank you very much and thank you very much for considering these health issues.

JUDGE PRIDGIN: Doctor, thank you for your time and your testimony, sir. I see the next witness Byron Combs. Would you raise your right hand to be sworn, sir.

(Whereupon the oath was administered.)

JUDGE PRIDGIN: Thank you, sir. If you would please, state your name for the record and spell your last name.

WITNESS COMBS: Byron Combs, C-O-M-B-S.

JUDGE PRIDGIN: And are you a KCP&L customer?

WITNESS COMBS: Yes, I am.

JUDGE PRIDGIN: All right. Do you have a statement for the Commission, sir?

WITNESS COMBS: Yes, I do.

JUDGE PRIDGIN: Wherever you're ready.

WITNESS COMBS: If I may, I've got -- part of my testimony contains some charts and graphs. Could I -- is it possible to hand these out to the commissioners?

JUDGE PRIDGIN: Absolutely, absolutely.

WITNESS COMBS: So they can refer to them during my testimony.

JUDGE PRIDGIN: And, Mr. Combs, I'm going to label what you've just handed me as Exhibit No. 3. And would you, please, briefly describe what you've just handed up here?

WITNESS COMBS: Yes. What I've handed you is a written out version of my testimony, which includes a table of KCP&L's usage -- or their sales, excuse me, of their sales to customers versus other utility companies. Then there is another on it, there is a graph that shows that on the second page.

JUDGE PRIDGIN: Is that a three-page document, sir?

WITNESS COMBS: Yes, it's a three-page

with a header page.

JUDGE PRIDGIN: With today's date on it?

WITNESS COMBS: Yes.

JUDGE PRIDGIN: All right. Thank you. I'll show this as Exhibit No. 3, and I will admit Exhibit No. 3. Mr. Combs, you continue, sir.

WITNESS COMBS: Okay. Thank you. I would like to thank the Commission for this opportunity to testify concerning Kansas City Power & Light's proposed power plant and the associated rate increase that they're seeking to pay for it. When Great Plains Energy first proposed building the new power plant several years ago their proposals which were unregulated -- for unregulated plants to market the sale of the electricity to other utility companies. That would have involved no rate increase for KCP&L customers themselves. However, over a year ago they changed their plans and are now proposing a regulated plan for their customers stating that their own service area customers will need the electricity.

Now KCP&L is seeking rate increases from residential and business customers to pay for the plant. KCP&L does sell electric power to other

utilities from their existing power plants. The U.S. Energy Information Administration, which is part of the Department of Energy and the Federal Regulatory Commission maintains records of all utility sales. This information is supplied to these government agencies by all private and public utilities.

It includes the amount of electricity sold in megawatt hours, sold by each utility company through its own customers as well as the amount being outsold to other utility markets. These data are available on the Department of Energy and Federal Energy Regulatory Commission web sites I researched the electric power sold by KCP&L from 1996 through 2003. 2003 is the last year that complete -- that I was able to find complete data, so that's why I cut my search off at 2003.

What I discovered was a little eye-opening for me. Briefly, in 1999 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 1.4 percent per year.

I've included the table next, which shows the figures that I've pulled from these government web sites and one thing of note on there is in the year 2000, 14,201,321 megawatt hours were sold to KCP&L customers. That year has been the highest sales to KCP&L's own customers to date. Every year it has been less than that and some years dropping and some years going back up a little bit, but 2000 was their highest sales. And on the table itself there I showed the precent in increase for every year for sales to KCP&L's customers.

And in the sales to other utilities copy -- column there I've showed the rate of increase per year for those. And then on the far right column it shows the percent of total sales that went to other utility companies. One thing I will say, on the 107 percent increase to other utility companies in the year 2001 they were probably rebounding from the loss of their Hawthorne plant. But I think it is significant that in 2002 they had a 39.7 percent increase and in 2003 a 16.3 percent increase, which like I say, in 2003 29.1

percent of their sales were going to other utility companies, which does not correspond to the figure the gentleman earlier gave us of about 15 percent.

I've also included for -- impartial data for the year 2004. I only had -- the only data that was available was the sales to KCP&L's own customers. And you might note that that figure drops from previous year also. And if I had included 2004 in the annualized increase, the annualized increase from 1999 would have dropped from 1.4 percent down to 1 percent. And then on the next page there is a graph that shows the sales to their own customers with the blue line and then the pinkish or redish line shows growth of sales to other utilities. And as you can see from that graph sales to KCP&L's own customers has been very flat for the past few years.

Like I said before, with the year 2000 being actually the highest sales. Now, this certainly does not correspond to KCP&L's own published and publicly stated projection of 2 to 3 percent growth per year, which has been their justification for a new coal burning power plant. At the same time, however, you can see the dramatic growth that has occurred to sales to

other utilities. And this is a rhetorical question, I know I'm not supposed to ask questions, are KCP&L customers being asked to pay for a new power plant so that the power can be sold to other utility companies?

Several months ago I was part of a group that made the presentation to the Public Service Commission, one concern the Commission had was that the utilities have enough reserve generating capacity to cover a peak load position and our conditions. According to the web sites of both Great Plains Energy and Kansas City Power & Light, their current capacity is about 4,100 megawatts. And they had an all-time peak load of 3,610 megawatts, which occurred on August 21st of 2003 between 3:00 p.m. and 4:00 p.m. when the temperature was 105 degrees. The Federal Energy Regulatory Commission web site contains data on each utility's sales to other utilities and is broken down to sales on an hourly basis.

So I decided to check that hour on August 21st between 3:00 and 4:00 p.m. and see how much -- see if or how much KCP&L sold to other utility companies. And they sold 528 megawatt hours to other utilities between 3:00 and 4:00

p.m. that day. That means that of that 3,610 megawatt peak only 382 megawatts were required to meet the needs of KCP&L customers. Thus, they already had 33 percent capacity above their all-time peak usage for their own customers, even without the addition of the promised 200 megawatts of wind power.

Should KCP&L customers be asked to pay for a new power plant when the only significant increase in sales is to other utility companies? I respectfully request that KCP&L provide their projection data and reasoning to the public. I also respectfully request that the Commission re-examine KCP&L's plan with respect to capacity requirements. Thank you.

JUDGE PRIDGIN: Mr. Combs, thank you. Let me see if we have any questions from the Commission. Mr. Gaw?

COMMISSIONER GAW: Is it Mr. Combs?

WITNESS COMBS: That's correct.

COMMISSIONER GAW: Mr. Combs, have you requested or attempted to see that data directly from KCP&L that you're saying the Commission should look at or examine --

WITNESS COMBS: You mean --

COMMISSIONER GAW: -- in regard to capacity requirements going into the future?

WITNESS COMBS: I personally have not requested the data from KCP&L although I know that others have through maybe the Sierra Club or the Concerned Citizens of Platte County and I have not received that.

COMMISSIONER GAW: So you have not had access to that yourself?

WITNESS COMBS: Correct.

COMMISSIONER GAW: And you don't know of anyone outside of the company or perhaps others, perhaps the commission staff or cocounsel or KCP&L who might have seen it?

WITNESS COMBS: No.

COMMISSIONER GAW: The figures that you have given us, you say that they came from, directly from the FERC; is that correct?

WITNESS COMBS: Federal Energy Regulatory Commission. And the particular figures in the table come from the energy information, U.S. Energy Information Administration of the Department of Energy. That's where I retrieved these figures from.

COMMISSIONER GAW: Is it on a web site

that you looked through?

WITNESS COMBS: Yeah. Others have asked me that and I've given them the web site and I can give it to you. It's not -- you don't get it laid out in a nice table like this.

COMMISSIONER GAW: Like you've done it for us.

WITNESS COMBS: I have done it for you. You would have to -- what they do is they have data there for each year and you have to download the data for that year and then you have to search within that data and find the data that concerns Kansas City Power & Light.

COMMISSIONER GAW: Have you presented this information to any of the parties in this case previous to today?

WITNESS COMBS: I have distributed it, the information to -- I don't believe directly to anybody who has testified today. However, I had distributed to some other people who are concerned about this also.

COMMISSIONER GAW: I guess who I am referring to mainly would be KCP&L itself?

WITNESS COMBS: No, not KCP&L.

COMMISSIONER GAW: Staff, the Commission

or the public counsel?

WITNESS COMBS: No, I haven't.

COMMISSIONER GAW: So there wouldn't have been any feedback of anyone?

WITNESS COMBS: No.

COMMISSIONER: Disputing the figures or agreeing with them one way or another?

WITNESS COMBS: No, sir. But the figures are out there on the government web sites and they are verifiable.

COMMISSIONER GAW: And I'm going to make a major assumption here that we have a presentation in this case that someone is going to give some feedback to us about those figures, so we'll see, okay?

WITNESS COMBS: Okay.

COMMISSIONER GAW: And, again, I thank you very much for this information. I appreciate the work that you put in on it. Thank you, Mr. Combs.

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

COMMISSIONER APPLING: No questions, Mr. Combs. Thank you for coming in.

WITNESS COMBS: Thank you.

JUDGE PRIDGIN: Mr. Combs, thank you for your time and your testimony, sir.

WITNESS COMBS: Thank you.

JUDGE PRIDGIN: The last witness I have listed is Dixie Brown. Would you, please, raise your right hand to be sworn.

(Whereupon the oath was administered.)

JUDGE PRIDGIN: Thank you, ma'am. If you would please, state your name for the record and spell your last name.

WITNESS BROWN: Dixie Brown, B-R-O-W-N.

JUDGE PRIDGIN: And are you a customer of KCP&L?

WITNESS BROWN: Yes, I am.

JUDGE PRIDGIN: All right. Do you have a statement for the Commission?

MS. BROWN: Yes, I do. I'm a retired school food service director so I have a great concern about long-term health beginning with children and especially on into their older age. I would like to see all of our school children live to be 80 years plus, and that's what I based my career on. I strongly agree with the cardiologist, the particulates, the fine particulates worry me great deal. I knew nothing

about them until a year and a few months ago when all of this conversation appeared in our local newspapers, and that was the first that I really understood about air quality and why the northland had less air quality.

I agree with the pricing reforms that the person stated here. I understand that years ago the more electricity a company used the less their rate was. And I think that should be reversed for companies, businesses and homeowners. I noticed in the latest billing I got from Kansas City Power & Light had this brochure in it explaining their request for the new plant and their reasons for wanting it.

And if I understand, that we're going to probably have a 20 percent rate hike and they said that's because they want to build this new plant because we don't want to risk outages or depend upon others to sell us power at a premium and we need to act now. And from my experience with dealing with budgets and so forth I see that this 20 percent rate increase is probably going to more than pay for any shortages we might have or we have to buy electricity as a premium. So I would rather go with keeping it the same and

cleaning all of these plants up, all the older plants, whether they're Kansas City Power & Light's or others and getting our air quality better. And I see that is a more cost-effective way than building this brand new plant that we have for 50 years.

I also just read yesterday in the New York Times about the Tampa, Florida Electric Polk Station, that's 10 percent more efficient as far as the use of coal. And I know this has been talked about by somebody else who testified. And that it also has a 40 percent less water usage. And I agree, we're here with a water shortage just ready to happen. And so I think -- and they're saying that they have suggested to the government to spend 4 billion dollars in the next ten years to speed acceptance of this new technology. And I think that's always worth waiting for.

We've got a great deal of government money in the school lunch program and we used it wisely, but it's a great help with the program. I also suggest that we develop rooftop solar cells so that we can generate our own electricity when the need for -- when we have this peak cooling need. I have a rooftop that would generate

probably all I needed on a very hot day in the summertime. And I'm willing to buy solar cells and install them and hook them up to the electricity supply to cooperate in order to lessen the environmental impact on our community. Thank you.

JUDGE PRIDGIN: Thank you, Ms. Brown, very much. Let me see if we have any questions from the Commission. Commissioner Gaw?

COMMISSIONER GAW: No. I just want to thank you very much for coming in, Ms. Brown, thank you.

WITNESS BROWN: You're welcome.

JUDGE PRIDGIN: Thank you. Commissioner Appling?

COMMISSIONER APPLING: Ms. Brown, thank you for coming in. I'm pleased with your comments and your concern about the future of young people. How are we going to educate our young school kids today about tomorrow in the environment and what it is that we should be doing in order to try to work in unison with the utilities, you know, to protect ourself to the best ability? How do we do that?

MS. BROWN: I think that there are many

teachers who are individually teaching this. And I know the Missouri Conservation Department and the Extension Department, our Missouri University has good people working on educating students. Our schools are asked to do so much that they may not be able to put it in as a regular curriculum. But young people are very interested in this. And I have grandchildren, eight, seven, five and two, and the younger grade school age are very interested in everything that can be done to help.

So the community as itself might be able to do it from community centers and churches and things like that.

COMMISSIONER APPLING: Thank you. It's just concerning for me, we're moving faster today than we ever have and we seem to be less -- have less time to wait on what we want. When we want light, we want it for other things. And we want to have light in -- it just puts all of us in a very particular situation when the utility companies have to make a profit itself and they also have to join us in trying to make sense out of the environment or we're all going to go down in smoke. Thank you.

WITNESS BROWN: Thank you.

JUDGE PRIDGIN: Ms. Brown, thank you. I have as my next witness Bruce Wiggens.

MR. OCHOA: He had to leave. He's given some testimony in writing.

JUDGE PRIDGIN: All right. Thank you. I will label this as Exhibit No. 4. It is a public comment sheet, it is one page from Mr. Wiggens. And let me read it into the record. It's pretty brief. "I'm opposed to the new coal-burning power plant and in favor of the proposals for energy conservation, improved pollution control at existing plants and alternative generating systems including especially wind. And I'm also in favor of KCP&L's being able to recover these costs in utility rates. The power plant is not in the public interest while the other items are.

"There are many reasons for this position. Testimony at this hearing by Mr. Volland, Ms. DeWitt and Dr. Spertus have listed many. Many of us see this as a religious issue to take care of God's creation." And that's the end of his statement. And if I neglected to do that for the record, I need to label that as Exhibit No. 4, a one-page public comment from Bruce

Wiggens. And I'll admit Exhibit No. 4 into the records.

I have one more witness who has sighed up to testify. Does anyone else wish to testify? I have Troy Helming who is signed up. And after Mr. Helming I'll call again to see if anybody else wishes to testify. Mr. Helming, did I pronounce your name correctly, sir?

WITNESS HELMING: You did, yes.

JUDGE PRIDGIN: All right. Thank you. If you would please, raise your right hand to be sworn.

(Whereupon the oath was administered.)

JUDGE PRIDGIN: Mr. Helming, thank you very much. Would you please state your name for the record and spell your last name.

WITNESS HELMING: Troy Helming, H-E-L-M-I-N-G.

JUDGE PRIDGIN: And are you a KCP&L customer?

WITNESS HELMING: I am at the moment although I'm taking my home off grid.

JUDGE PRIDGIN: All right. Any statement for the record, sir?

WITNESS HELMING: Yeah. I want to

attempt to try to keep my comments and remarks balanced. My dad is a die-hard Republican, my mom is a die-hard Democrat. So I'm going to try to balance the environmental and the economic issues as accurately as I can. I'm the author of this book, "Clean Power Revolution." I've been for six years a wind energy expert.

I've been quoted a number of times in publications here locally and have spoken all over the country. In fact, in other countries on wind energy. And the first thing I want to do is talk about the economics of coal versus wind. And I think it's important. My role here is primarily to educate the commissioners and the Missouri Public Service in terms of the real facts so we can look at an apples to apples comparison of what it would take to accomplish the same objectives that this coal plant would if we built enough wind farms.

So I have a model here and I would be happy to share the electronic version of the model if you wish. I don't anything printed that I can share today, but if anyone would like it, I would be happy to share it. I've assumed that install cost of the coal plant as 1 billion dollars.

That's conservative, I'm hearing costs as high as 1.8, 2 billion and so forth. That I believe includes approximately 200 to 250 million for the wind project.

And I do applaud Kansas City Power & Light for considering wind, although I wish it wasn't a condition of getting a coal plant improved, I wish they would embrace it on its own merit. I also applaud the efforts to encourage energy efficiency and conservation. But if we assume a cost of 1 billion dollars, and if we assume the coal plant is an 850 megawatt coal plant, starting at that assumption then to build an equivalent amount of wind projects to power 700,000 homes, which is approximately what the coal plant would power, and I am pretty sure we don't need all of that extra energy, but that's been discussed already and I agree with the previous comments, the cost to build -- it would require 1,600 megawatts of wind energy because wind is, although it's more available than coal meaning it's down for service less, it's available 99 percent versus maybe 80 to 85 percent for a modern coal plant.

It doesn't operate all the time. You

can't tell the wind when to blow. But you may not realize the wind is extremely predictable. And if the site is studied, you can actually forecast 20 years in advance every hour on the hour approximately how much energy is going to be produced at that site. It's very predictable. And so knowing that you can match up that output into the low curve of the utility and they can adjust them. That's what's done all over the country. But that's a lot of wind farms, that's 1,600 megawatts of new wind.

Well, the country adds about that much every year. And several of our surrounding states are adding 2- to 500 megawatts every year. Warren Buffet is financing the world's largest wind farm in Iowa this year, it's a 300 million dollar wind farm. There is a number of other surrounding states that are kicking our tail in terms of Missouri and Kansas adding wind energy. So it's not unrealistic to think we could add 1,600 megawatts of wind over the next three to five years.

Let's get to the cost. What would that cost? It about $1 per megawatt so that's 1.6 billion dollars. According to my model that's 600

million dollars more than the coal plant. It doesn't sound like that's a very smart investment. I'm actually concerned for the shareholders of Kansas City Power & Light. And I know there is a number of us in the room who are shareholders. And over the next 20 to 50 years carbon taxes are coming to the U.S.

They're already in Europe, they're already in Asia, they're coming here, it's inevitable. Kansas City Power & Light folks that I've spoken to have acknowledged that. People around Kansas City have acknowledged that it's coming. Well, let's just look at this, again, be conservative. If we build 1.6 billion dollars worth of wind projects, let's assume that the energy increase, the price of utility bills here in Kansas City of Kansas City Power & Light customers, let's assume they increased 2 percent per year on average.

Using that assumption, which I think is low and that assumes the carbon taxes don't ever arrive and assuming a rate increase of 17-1/2 percent in calendar year 2009, which was proposed at one time, and if the rate increase doesn't even begin until 2015, wind if you look at it, the

energy price per kilowatt hour of wind today is below 2 cents. A new coal plant according to Excel Energy, the 5th largest utility in America, they studied all of the different new forms of generation, new coal plants, new gas plants, nuclear and wind. Those are really the ones that are economically viable today. Nuclear is not on the table.

And they determined that wind energy would produce power between 1-1/2 and 3-1/2 cents a kilowatt hour. A new coal plant would be 3 to 4-1/2 cents. A new gas plant would be 3 to 5-1/2 cents per kilowatt hour. So wind is the least expensive form of new energy generation by far. But think about it for a moment. What's the fuel cost of operating a wind farm? That's a redundant question, it's obviously 0.

So over the period of the life of the wind project, and incidentally the GE wind turbines today have life expectancy of 50 years, okay. So we're talking about 50 years on a coal plant being stuck with that as well. If we assume that the rate of electricity increases with that much wind energy installed is only 1 percent, and there is evidence to show that when wind farms are

built in Texas that energy prices have actually dropped, because wind helps to stabilize energy prices. Then this model shows that over a 20-year period of time, not 50, 50 is too hard to get your arms around.

So let's just look at a 20-year period of time, we can all relate to that. The average increase in electric bills in Kansas City would be $48 per month if we don't do the wind. Or, in other words, if we do the wind and if we do build wind, we'll save $48 per month on average and that's more heavily weighed towards the last 10 years of the life of the project. So we would save the average Kansas City Power & Light customer about $580 per year in just sheer economics because of the operation of the wind project.

So now is it realistic to think that Kansas City Power & Light could add 1,600 megawatts of wind to their system? No. That represents half of their current generating capacity and that would be too much with today's grid. However, there are areas in Texas, there are areas in California, there are countries Europe like Denmark, Spain and Germany where 50

percent wind injected into the grid is working. Well, let's assume that's too much. Let's assume that we only want to put 20 percent of their system in wind, that would be 800 megawatts or about half of what we are proposing here.

That's far more in my opinion than what is necessary to serve the needs of the customers that Kansas City Power & Light has for the next 50 years assuming they continue their efforts to embrace energy efficiency. Let me just -- I won't read you quotes from my own book because that would probably not give me much credibility, but I'll read a couple of quotes from Les Brown, Plan B. He talks about in here, and I just want to point out that in the Midwest we're more heavily dependent upon coal than our western states. You know, there is a lot of natural gas and hydro out west. And we have a higher percentage of coal here in the midwest and in the northeast.

So we depend on coal and it is an abundant source of energy, it's just very dirty. I will quantify for you, you asked a question about the health costs, those have been quantified on a national scale and it's in my book here, I'll read you that. But before I get to the health

costs let me just say that the rest of the world is paying attention, they're getting away from carbon emissions. Prime Minister Tony Blair and Sweden's Prime Minister Goeran Persson are jointly urging the European Union to adopt a 60 percent goal of reducing carbon emissions. Now, those countries have already done so and kyoto has been endorsed by most of the world except for the U.S.

But the mayor of our own city and 131 other mayors across the nation have officially endorsed the kyoto protocol. In case you didn't know, that was published in the New York Times earlier this week. 132 mayors across the nation, bipartisan mayors have endorsed the kyoto protocol thumbing their nose effectively at the Bush Administration, because they understand that the leading cause of missed school days in the northeast is asthma. They understand the carbon taxes are coming, they understand that violent weather patterns are affecting insurance companies.

All right. Let me just say that the investments in energy efficiency are profitable. An example is U.S. based Interface. This is the largest carpet company in the world, they're

enormous, they're based in Georgia. They produce their greenhouse gassing machines by 64 percent from their peak and they've made money in the process. In fact, they've made a lot of money. So much so that in Canada, in Ontario the most populous province in Canada, the Ontario Clear Air Alliance has an initiative and Jack Gibbins the director of the alliance says of coal burning, quote, by the way there is five coal plants in Ontario and they're trying to shut all five of them down by using a combination of wind, hydrogen, solar and hydroelectric.

He says, quote, It's a 19th century fuel that has no place in 20th century Ontario, end quote. And I agree with that. There are clean coal technologies that are proposed, but the clean coal that we hear of, there is no such thing. It's a marketing spin developed by the coal industry to try to get all of us who may not know the facts to accept more coal. We don't need this coal plant, we need to embrace other technologies.

In terms of energy efficiency, one quote here, "In the United States 20 percent of all electricity is used for lighting." If all we did was replace the most commonly used light bulbs

in the homes in Kansas City from incandescent to compact fluorescent, we would cut our lighting needs in half. That would cut our electric consumption by 10 percent just doing that one simple thing. There is a lot more that we could do in terms of appliances and things, I won't get into that today.

And then finally one last quote here and then I will quantify the health costs for you, and maybe take any questions. And I'm just going to read this for you, I don't like it when people read, but I think it's a great section. "As wind electric generation expands the first step will be to back out our coal-fired power plants, closing them or using them as a backup for wind." And I'm a big proponent of that.

"Let's make our coal plants as efficient and as clean as possible and use them as a backup for wind. Modern coal plants can scale up fast enough so when the wind dies down" and again, it's predictable. You'll know 24 hours in advance within 3 to 5 percent whether or not the wind is going to be up or down. And you'll know -- at 2:00 o'clock in the afternoon tomorrow, you'll know if we have 620 megawatts or 220 megawatts,

you'll know that, you could scale up a full plan.

All right. "Coal fired power plants are the most climate disruptive energy source simply because coal is almost pure carbon. Coal burning is also the principle source of mercury deposits that contaminate fresh water lakes and streams. The prevalence of mercury contaminated fish has led 44 state governments in the U.S.," by the way that's up to 48 now, "to issue warnings on consumers to limit or avoid eating fish because of the affect of mercury on the central nervous system. The Centers for Disease Control and Prevention in Atlanta issued a warning in 2001 indicating that an estimated 375,000 babies born each year in the United States are at risk of impaired mental development and learning disabilities because of exposure to mercury."

One quick antidote, my nephew, Jackson, who is four years old, was born in Parkville, Missouri. He suffers from autism. Parkville has a 50 percent higher rate of autism than the national average. They get their city water from the Missouri River, which is the only river in all of America that has a 303D classification by the EPA. That's the worst classification they have

and it's primarily due to the menthol mercury content in the river, which feeds the city water supplies of many of our communities around here.

I can offer you studies that show that power plants are responsible for 41 million milligrams of mercury output per year in this country, which is a lumping two-thirds of all man made mercury going into our atmosphere, it's because of primarily the coal plants. I need to quantify some health for you and I've got an entire capture on this. The entire health costs to the U.S., by the way the book is called the Clean Power Revolution and it talks about wind and hydrogen can same our economy 20 trillion dollars between now and 2025. We can save the planet effectively and convert to clean power and save money at the same time. There is an economic reason to do it.

The health care costs to American children of environmental pollution is estimated to be 55 billion per year or 3 percent of the total U.S. health care costs. And that's according to the Mount Sinai School of Medicine in New York. That's 1.1 trillion dollars between now and 2025 assuming no annual increase in health

care costs. Now, that's just damage from lead, mercury, childhood cancer, developmental disorders, neurobehavioral disorders, etc.

There is additional costs here on asthma, skin cancer rates, which are at an all-time high, I can go on and on and on. But that one, let's just use that one as an example; 55 billion a year, 1.1 trillion over 20 years. If Kansas City has approximately 1 percent, a little less than 1 percent of the nation's population, what's 1 percent of 1.1 trillion? It's a really big number, it's a billion dollars if I did my math right. Yeah. So that's a huge -- no, excuse me, that's 10 billion, isn't it. 10 billion dollars -- no, 1 billion.

So that's a huge cost just to Kansas City alone in health care. A billion dollars costs. That's the cost of building this coal plant. So I want to just close my remarks by saying that, again, I applaud the interest in doing wind by Kansas City Power & Light. I believe that they should embrace wind much more aggressively and look at cleaning out their existing coal plants and using them as a backup to allow more wind to be entered into the system,

otherwise all of the rate payers of Kansas City Power & Light are going to burdened with additional costs, fuel costs over the next 50 years for the life of this project.

Those stats I gave you earlier from Excel Energy, those were from 2001. It's now 2005, we've seen all-time record highs in crude oil, natural gas and even coal prices jumped by 31 percent for Appalachian coal last year, 9 percent for Powder River basin coal in Wyoming and railway costs for delivering cost doubled last year. So now the numbers look even more attractive to sheer economics today for wind. Imagine how good the numbers are going to look 10 years from now if we move forward and embrace wind, and how bad they'll look if we build this coal plant. Thanks.

JUDGE PRIDGIN: Mr. Helming, thank you. Let me see if we have questions from the Commission. Commissioner Gaw?

COMMISSIONER GAW: Thank you, Judge. Is it Mr. Helming?

WITNESS HELMING: Yes, it is.

COMMISSIONER: Mr. Helming, I want to start where you left off. I think in the health care costs portion.

WITNESS HELMING: Okay.

COMMISSIONER GAW: Do you have any way of quantifying the particular increases or changes in the commission in building this plant and translating that into health care cost based upon an analysis similar to the one that you gave us?

WITNESS HELMING: I can do that. This model that I shared with you earlier, we actually pay utilities to do this as consulting services. And I would be happy to volunteer, you know, to do that type of analysis.

COMMISSIONER GAW: Does that take a lot of time to translate or do you even have enough information?

WITNESS HELMING: No, we have readily available information in our offices on the average particular output, mercury output and so forth for modern coal plants that we could probably bang that out within a week.

COMMISSIONER GAW: I'm not going to ask that you do it myself, but if you want to supply it, I would imagine it would be good to see it. Now, the question is, I don't know -- are you coming to the presentation on the stipulation that's -- it's not a presentation, it's a case I

guess. Are you going to be a witness at that?

WITNESS HELMING: I was planning on it.

COMMISSIONER GAW: So perhaps if you have that information?

WITNESS HELMING: I'll make a note of that.

COMMISSIONER GAW: Then it would be subject to other people asking questions, which I'm sure there would be people questions about it. Tell me a little bit about your training, your background and education.

WITNESS HELMING: All right. I've got a business degree from the University of Kansas. I started a telecommunications company that I owned for nine years, 35 employees here in town and I sold that. Got in the wind business in 1999. I have both an engineering and business background, you know, in terms of training. But I'm mostly a business guy. I hire engineers that work for me and have been an entrepreneur, a self-employed entrepreneur here in the area my whole life.

COMMISSIONER GAW: And you have a wind company, a wind business now?

WITNESS HELMING: Yes.

COMMISSIONER GAW: What's the name of it?

WITNESS HELMING: Krystal Energy Corporation is the parent company.

COMMISSIONER GAW: Okay.

WITNESS HELMING: And it's spelled with a K.

COMMISSIONER GAW: Thank you. Krystal Energy, and that's the holding company?

WITNESS HELMING: That's the holding company. And we have a residential division that sells wind and solar, residential wind and solar systems and that's called Krystal Planet Corporation and it's also with a K.

COMMISSIONER GAW: Do you sell those to individuals who want to have some sort of supplemental or perhaps cut themselves off the grid entirely?

WITNESS HELMING: Either or, correct. We have customers in 48 states and 17 countries.

COMMISSIONER GAW: I'm just curious, you said that you were thinking or planning on doing that yourself. What kind of setup would you have if you're -- let me ask you first, is this a residence that you would be doing this at?

WITNESS HELMING: Yes, it is. The residence I have, my home is about 5,600 square feet. It's a tile roof so we actually have to put the solar shingles, which look like composite shingles, we're putting them on the deck that we're building right now. And it will take the home off grid. We're also -- I have an electrolizer on order. I'm making hydrogen out of water. And I drive a natural gas powered vehicle today and that will be converted to run on hydrogen that I make out of water at my hose.

COMMISSIONER GAW: And the electrolysis process would run off of the solar energy?

WITNESS HELMING: Correct. Yeah, the electrolizer takes electricity in and water in and what it produces is hydrogen and oxygen.

COMMISSIONER GAW: And oxygen.

WITNESS HELMING: Yes.

COMMISSIONER GAW: What kind of efficiency do you get out of that process, do you know?

WITNESS HELMING: The electrolizer I'm buying runs 85 to 87 percent efficiency, and it's a 2 kilowatt unit.

THE COMMISSIONER: What does that mean

when you say "it's a 2 kilowatt unit"?

WITNESS HELMING: It can accept -- the power input is 2 kilowatts.

COMMISSIONER GAW: Okay.

WITNESS HELMING: That average home base load uses about 1-1/2 to 2 kilowatts.

COMMISSIONER GAW: I know this will vary, what kind of an average production then do you get, give me that again. How much average production do you get a day, 2 kilowatts; is that what you're telling me?

WITNESS HELMING: That's the input. The production of hydrogen is 1 kilogram per day, 1 to 2 kilograms per day of hydrogen. But that's an add on, most people would just simply consider putting a solar system in like a 3 to 4, maybe 5 kilowatt solar system. I'm actually putting in a 10 kilowatt solar system so I can run my house and run the electrolizer to make hydrogen fuel for my vehicle.

COMMISSIONER GAW: And then you are going to store the hydrogen?

WITNESS HELMING: Correct.

COMMISSIONER GAW: And then use it for purposes of your tractor?

WITNESS HELMING: No, my vehicle.

COMMISSIONER GAW: Your vehicle. And what else? Do you use it for storage for your house?

WITNESS HELMING: There is a fuel cell, yeah. There is a fuel cell in the home. I have 5 kilowatt plug power fuel cell in the home right now as well for backup when the sun is not shining.

COMMISSIONER GAW: How much extra energy capacity do you get over and above, on average over and above what you're actually using to supply the energy to your house in that hydrogen and solar?

WITNESS HELMING: You can design it any way you want. But in my system it will be a net 0. I'm not going to be adding any extra energy back into the electric grid. All the extra energy --

COMMISSIONER GAW: I mean, for purposes of storage, storing it. You're going to put the hydrogen in some sort of storage?

WITNESS HELMING: Correct.

COMMISSIONER GAW: And how much on an average on a daily basis would you be able to turn around and run your house on? Half a day's worth,

a quarter of a day's worth? I'm looking for the surplus that you expect in actual electricity and so forth.

WITNESS HELMING: Okay. I think I understand what you're saying.

COMMISSIONER HELMING: I'm not asking --

WITNESS HELMING: No, that's fine. Generally the fuel cell will need to operate about six to eight hours per night and not draw it down from the batteries. So, you know, I'm not sure if that answers it.

COMMISSIONER GAW: Will you exhaust, on average will you storage exhaust your storage overnight?

WITNESS HELMING: No, no, it will not.

COMMISSIONER GAW: And I'm looking for how much extra is left over then.

WITNESS HELMING: Oh, I see. On average this system will have between -- it holds 10 kilograms of hydrogen, the storage does. And on average it won't dip down below 5 or 6 kilograms. So if the grid went out with an ice storm, I would be able to run the house for about three or four weeks.

COMMISSIONER GAW: On one day's worth?

WITNESS HELMING: Because remember the load during the day is met by the solar power.

COMMISSIONER GAW: I'm with you. I'm just trying to make sure I'm following that part.

WITNESS HELMING: Yes. And you're continuing to produce extra hydrogen every day. I mean, that would be worst case scenario, about three or four weeks.

COMMISSIONER GAW: I'm not going to ask you how much all that costs. But how long will it take for that in years to pay off?

WITNESS HELMING: If I just did solar, the payback is generally four to six years. If I put a residential wind turbine, it is actually only two or three years, but I can't get zoning approval for a wind turbine in my suburb. With the turnkey hydrogen system, it's actually net 0 from day one, because the extra hydrogen that I make I can sell. If there is enough extra, I can sell the extra hydrogen to air gas price areas.

COMMISSIONER GAW: So do you have a place to market this?

WITNESS HELMING: Yes, I do.

COMMISSIONER GAW: Now, you say you have written a book on this subject. What's the name

of the book?

WITNESS HELMING: The Clean Power Revolution.

COMMISSIONER GAW: When was it published?

WITNESS HELMING: February of this year.

COMMISSIONER GAW: Is that the only writing that you've done that's been published?

WITNESS HELMING: It's the only book. I have a number of published articles that have been out there for the last several years. My first article was in Bank News magazine on how to finance a wind project, back in 2001 is when Bank News published it, which goes to about 16 states.

COMMISSIONER GAW: Now, one of the general criticisms sometimes that you hear of wind in regard to what you've already touched on, in regard to its utilization on the grid is its reliability. How do you deal with the reliability factor? And you've already testified that it's predictable, but the predictability of it does not solve the issue of what you do when the wind isn't blowing?

WITNESS HELMING: Correct.

COMMISSIONER GAW: So how do you deal

with that to take care of that issue of making some sort of a system as reliable as what you get from base load generation that runs all the time or can run most of the time?

WITNESS HELMING: Yeah, that's an excellent question. That's the biggest concern that all of our utility customers have. And the short answer is in almost every case we're not talking about integrating more than 5 or 10 or 20 percent of wind into their system. They have enough backup reserve power so that as long as we provide a real-time forecast of when the wind is not going to blow, they can scale up their gas peakers or their other generation to meet that demand.

Now, there are energy storage options and they're becoming quite economic today. Banadian batteries is a leading one. We have an alliance with a company that offers that type of assistance. So you can store the wind energy. You can also convert the wind energy into hydrogen like I'm doing in my home. And that's a form of stored energy.

So it's not as efficient as simply storing it in batteries nor is it as efficient or

necessary as simply turning on backup generation that operates only when wind is necessary.

COMMISSIONER GAW: Could you translate the storage systems that are available coupled with the wind costs into a cents per megawatt dollar?

WITNESS HELMING: Assuming a large wind you're looking at about 1.6 to 1.8 cents per kilowatt hour for just energy without any storage. If you add storage to it, you'll add about 1/2 of a cent to 8/10s of a cent per kilowatt hour. You still sub 3 cents.

COMMISSIONER GAW: Explain to me then why that's not what's being done, not just in this thing. Help me out, help me understand that because I have heard from many, many people over the last couple of years that, first of all, most people will start out with me saying you can't store electricity, which drives me crazy. I understand you can't store electricity, but you can store energy in some form. So help me out, help me understand why this -- if that's the cost of that energy, why isn't it being done on a brand new scale?

WITNESS HELMING: Well, it is.

COMMISSIONER GAW: I mean, I'm not even seeing it being discussed in a lot of forms.

WITNESS HELMING: Yeah, it is being done. First of all, wind energy is the fastest growing form of power in the world by far, it's running about 30 percent per year in the world and the fastest growing form of power in the U.S. In the U.S. there just isn't a need for storage, because wind today represents 0.8 percent of our total country's generation portfolio. You only need to start considering storage when you exceed 20 percent. So why spend the extra 1/2 cent a kilowatt hour, it's just not necessary.

But in countries and in areas where there is a lot of wind like west Texas and parts of California then either you beef up your transmission grid to provide energy flow, you know again, to predict the wind. In fact, I have a whole statewide in California, a statewide wind forecasting system now so all the utilities there are plugged into that. So if the wind is going to die down, they scale up their other generators. But large scale storage there is a lot of options. We actually flew a contingent representatives from the Caribbean, various countries in the Caribbean

are eagerly looking at powering their entire nations with wind and other forms of wind energy as well as storage.

They're islands, they have to import all their energy, so the price of crude is killing them right now. Well, you can do that and it is being done and the most common form today is using hydroelectric dams and reverse pumping. Bagnal was built to accommodate that, it could be done, they would have to retrofit it, but --

COMMISSIONER GAW: They have one down in Tomsaw (phonetic)?

WITNESS HELMING: Correct, correct. It's being done very commonly in Europe, Denmark has a lot of wind. And Norway and Sweden have a lot of hydro and they're doing that. They're actually at night during off peak hours, they're pumping the water back up so they can let it flow back through the dams as a form of energy storage. That's one way. There is compressed air, there is all different types of --

COMMISSIONER GAW: Compare that efficiency on storage to me to the hydrogen electrolysis system that you were talking about earlier.

WITNESS HELMING: Yeah. There is really not an economic reason to do the hydrogen unless you're going to use hydrogen as a fuel or to sell in the open market. The reverse hydroelectric, that's by far your most efficient form of energy source.

COMMISSIONER GAW: Can you tell me the figures off the top of your head or not?

WITNESS HELMING: It's so site specific.

COMMISSIONER GAW: Okay.

WITNESS HELMING: It would be less than 1/2 a cent a kilowatt hour in many cases. But you have to have scales, you have to make these large projects to do that. We have the ability to do that right here. And one other thing I'll just throw out there, the largest national gas field in the world is in western Kansas. It's the Hunid field, the biggest in the world and it's running dry.

They claim that it will be run -- be dry within the next seven to nine years. Well, incidentally in Great Britain and Scandinavia they are making hydrogen from a variety of sources and they are injecting it into old salt caverns and geologic formations. We could with the potential

for wind in this part of the world at night during off peak hours produce hydrogen from water. Could be ground water even, salt water that's not suitable for crops or for drinking and it has to be filtered, and anyway there is all kinds of options and it's all described in detail in the book.

And there is lots of studies out there on this. But we can inject that hydrogen into western Kansas, it would have the benefit of squeezing out more natural gas and we can then blend the hydrogen in with existing natural gas and stop importing natural gas into this country. Most people don't realize we don't just import oil, two years ago we started importing huge quantities of natural gas, because we're going down the exact same path. We've depleted our natural gas resources. It just really jerks my chain.

COMMISSIONER GAW: So go back for me a minute and tell me on this particular project that's being proposed, what would you do instead of the coal plant to create the reliability that would be at the same level as a coal plant would? What would you do?

WITNESS HELMING: Here's exactly what I would do.

COMMISSIONER GAW: What would KCP&L do?

WITNESS HELMING: Exactly what I would do is continue down the path of the energy efficiency, which I believe they were planning to invest 350 million, something like that, so conserve energy, reduce our load. Start with the 200 megawatt wind farm that they have agreed to do. Clean up the existing coal plants, meaning add the pollution control systems that are necessary for the existing coal plants and then add another 1- to 200 megawatts of wind every year for the next three to five years and use the coal as your backup. That's what I would do.

COMMISSIONER GAW: When you run a coal plant generally we want to try to run it as much as possible.

WITNESS HELMING: Right.

COMMISSIONER GAW: When you say use it as a backup, what do you mean?

WITNESS HELMING: If we add enough wind to the system and, again, it's predictable. And these would be at different sites so you would have diversity of generation coming from different

sites. So if the wind is not blowing over here, it's likely that it will over here. So you have some diversification. At that point with the energy efficiency if we're able to reduce our demand by 10 to 20 percent, we're not going to need to have all of the coal plants.

Maybe LaCygne is -- whichever one is the most efficient and can operate, you know, the scale on and off most efficiently may not need to operate, because you're going to have a lot of lower cost wind energy injected into the system. You won't have to import this coal, bring it in 100 train cars a day for the average coal plant down from Wyoming. That won't be as necessary and so you can use the coal plant, one of them for backup. The rest of them will have to base load and Wolf Creek will have to be base load.

You want -- the utilities need to recover all of their costs for these plants. So I'm not suggesting we just shut them down, that's not realistic. But as we add more wind they won't be as necessary and so gradually the least efficient plants, including gas peakers, the least efficient or -- gas peakers are very efficient, but the least efficient or most expensive plants

would be the first to not to be operated. And then in your summer peaking months you certainly would need to probably have all coal plants operating.

COMMISSIONER GAW: I think that's all the questions I have, Judge. Thank you very much, Mr. Helming.

WITNESS HELMING: Thank you.

JUDGE PRIDGIN: Thank you, Commissioner. Commissioner Appling?

COMMISSIONER APPLING: Mr. Helming, I want to thank you for coming in. I am a little concerned about wind and its reliability versus the cost. And the time that is on us we don't have five years to study and then talk about it. And I'm also concerned about the KCP&L and the other utilities in this state being able to continue to supply what they need to supply and that we don't jerk the rug out from under these guys, these companies' feet and that they can move in a direction that will help us all. So outside of the one that you have discussed today, is there another downside to wind that we haven't discussed here today?

I know that you have to have it at the

right location. When the wind is not blowing -- I've spent three years on Custody Hill at Fort Riley, Kansas and I tell you in July there is no wind up on that hill up there.

WITNESS HELMING: That's right.

COMMISSIONER APPLING: Nothing but hot air. But all that said, it's just a big joke about that. But anyway is there any downside that we should take away?

WITNESS HELMING: There are. There are three negatives to wind. And let me first say I agree with you that we need to make sure that our utilities have the opportunity to plan for their future needs. I think it's important to note that we don't need five years though. A wind project can go up within one to two years and the wind sites that have already been identified, there is over 20 sites in Kansas and about a half a dozen in Missouri that are adequate wind sites.

And some of them, by the way, blow really well during the summer months. In fact, one that I'm personally aware of has a capacity factor of above 60 percent -- or excuse me, above 50 percent in June, which is a pretty hot month. The three negatives for wind are one, it's not

reliable and you can't turn it on and off, we've already discussed that one. That can be handled, again, with forecasting, with real-time forecasting.

And we know today those 25 or so sites in Kansas or Missouri, we know today how much energy those sites will produce every hour for the next 20 to 30 years. So we know that already, there is no additional study that needs to be done. All these companies are waiting for, and my company is not one of them. I'm not in the business of building large scale wind projects. We do smaller projects for factories and things like that here in this part of the country and we're building projects in the Caribbean. So I have no interest here in Kansas City Power & Light moving forward with wind.

But if they decided to do that, that information can be provided to them and they'll know -- they can match it up with their load curve. The two other negatives to wind are the avian issue, birds, bats and butterflies. And aesthetics. Well, the avian issue is really not an issue anymore, modern-day wind turbines have tubular towers, they're enormous. Six of the

blades are about 400 feet in the air so they move relatively slowly, and because they're tubular towers there is no place for the birds to nest. And because the rotors are so large and move slowly the birds can easily get out of the way and because they're so tall very few bats, butterflies and birds even fly that high, it's just rafters.

Well, of the 25 sites that have been identified in Kansas and Missouri those are all sites that don't have environmental issues for the most part. I'm not a proponent of building in the Flint Hills, that's one area of controversy partly due to the avian issue and partly due to the aesthetics, there are some other issues as well. But the avian issue is really not an issue anymore. There is only one wind farm anywhere in the world and that's northern California in Altamont Press where there have been problems with bird strikes. And they built it on a rafter nesting ground in the early 1980s.

You can't build a wind farm today without doing an environmental assessment, which wasn't done on that project. Finally aesthetics, some people don't like the way they look. I think wind turbines look like graceful, dancing

ballerinas myself, but I'm obviously biased. If left in the eye of the beholder, I would tell you that there are thousands and thousands of farmers and ranchers and economic development councils that contact my former company, my current company and other companies that I know of asking us, in fact, begging us to come build wind projects in their counties. They want the things.

Now, Flint Hills, that's one area where there is controversy and there is some people who don't want wind farms built there. We don't need to build them there, there is plenty of other areas where we can. Those are the only three real negatives for wind. And because those negatives all have solutions, that's why wind power is by far the fastest growing power in the world. And all the states around us are kicking our tails, they're building a lot more wind and we're getting a black eye, we're not doing it, we're not embracing it. So you all have the power to encourage it.

COMMISSIONER APPLING: Next question, educate me on what you look for for the right site for a wind farm.

WITNESS HELMING: Okay. First of all,

you're looking for elevation. You want to have a site that has decent elevation. You obviously don't want to be in a valley. There is certain geographic characteristics or geologic characteristics of the land like you might want an upward sloping if the wind is coming from the south or southeast, which it generally does. And at least in Kansas you want to have an upward sloping, it's called a fetch, which is like the underside of a wing so the wing has to accelerate as it comes up the hill and put your turbine at the top of a hill.

You want to make sure there is no environmental issues. You want to make sure that you're nearby a large scale transmission line. Then you want to make sure that transmission line has adequate capacity. And you want to make sure that there are customers willing to buy the wind power nearby, because moving wind power for hundreds of miles is not realistic, it's not cost-effective.

So there is about 12 different criteria that are described in more detail here. I'm happy to -- I don't know what the legal rules are about giving a copy of a book or loaning or whatever,

I'm happy to. I have one with me, I'm happy to loan it to you all. And I have more that I can send you if you would like. But those are the main criteria that you look for.

COMMISSIONER APPLING: Thank you for coming in.

WITNESS HELMING: Okay, thanks.

JUDGE PRIDING: Mr. Helming, I don't believe I have any questions for you. Thank you very much, sir, for your time and for your testimony today. I see that we are quickly approaching 2:00 o'clock. Do we have any more witnesses? I have a couple of public comments that people have made. Does anybody else wish to testify? Let me --

COMMISSIONER GAW: There is a gentleman with his hand.

JUDGE PRIDGIN: I'm sorry, yes, sir. Mr. Ochoa, could you get this gentleman to sign this. Could you pronounce your name for me, please.

WITNESS KJELSHUS: Kjelshus.

JUDGE PRIDGIN: Mr. Kjelshus, would you raise your right hand to be sworn, please.

(Whereupon the oath was administered.)

JUDGE PRIDGIN: Thank you very much, sir. Would you please state your name for the record and spell your last name.

WITNESS KJELSHUS: Ben Kjelshus, spelled K-J-E-L-S-H-U-S.

JUDGE PRIDGIN: And are you a customer of KCP&L?

WITNESS KJELSHUS: Yes, I am.

JUDGE PRIDGIN: Do you have a statement for the Commission, sir?

WITNESS KJELSHUS: Yes, I do, sir.

JUDGE PRIDGIN: Thank you.

WITNESS KJELSHUS: Yes, I concur with the previous speakers with their wonderful, brilliant testimonies. My concern, however, is that based on the excellence of these hearings -- of their presentations I really question the justification that KCP&L has to make the kind of proposal that they have. When you consider the factor of efficiency, you consider the fact of alternative energy approaches. I wonder the justification of that proposal.

When one thinks of energy efficiency one thinks of energy efficient air conditioners, refrigerators, dryers. When one thinks of the

solar cells, when one thinks of wind energy one feels that, yes, indeed there are definite alternatives. When one thinks of the new business that can be generated, I think that it's very clear, at least to me, that there are wonderful opportunities out there rather than to go the route of coal generated plants, which have their many problems which have been suggested. Those are my comments.

JUDGE PRIDGIN: All right. Mr. Kjelshus, thank you very much, sir. Let me see if we have any questions. Commissioner Gaw?

COMMISSIONER GAW: No. Thank you, sir, very much for your time.

JUDGE PRIDGIN: Thank you. Commissioner Appling?

COMMISSIONER APPLING: No questions.

JUDGE PRIDGIN: All right, sir. Thank you very much for your time and your testimony. Does anyone else wish to testify? Let me read into the record a couple of public comments. The first one I want to label as Exhibit No. 5. It is a comment from Theresa Wiggens.

"I support the comments of Mr. Volland, Ms. DeWitt and Dr. Spertus. In addition I say

that we as people of faith concerned about all of life on the earth must take care of all of creation. The power plant and this rate increase, which will largely support it is not in the interest of the public either near the plant or anywhere on the earth where its emissions will be carried." And that's the end of end of her comments.

As Exhibit No. 6 I have a comment from Mark, and I believe it's Mouron, M-O-U-R-O-N. His comment is, "I am opposed also to the new coal-burning power plant proposed by KCP&L and wish instead to encourage efficiency and alternative generating systems. We must engage pollution control to protect our health and our earth. Negotiating for emission controls and wind energy is -- in order to build a coal-fired plant to sell outside our area is unacceptable." And that's the end of his statement.

Again, one last chance, does anybody else wish to testify? All right. Let's see if we have any closing remarks from the Commission. Commissioner Gaw?

COMMISSIONER GAW: I just want to thank everybody who came here today. It's always good

from my standpoint to see people participate in this process. It's important to us to hear from you. And I know a lot of you are here today probably when other things are also conflicting with your schedule, and I just want to thank you for taking the time to come out and help us become better informed. Thank you again. Thank you, Judge.

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

COMMISSIONER APPLING: No other comments. I think Commissioner Gaw has echoed our sentiments and thoughts. Thank you very much.

JUDGE PRIDGIN: All right. I certainly want to echo their comments and thank everyone, not just the people who testified, but everybody who showed up in interest of this project. We always appreciate hearing from the public. Thank you very much. That will conclude this local public hearing in Case No. EO-2005-0329. The time is 2:00 p.m. and we are off the record.